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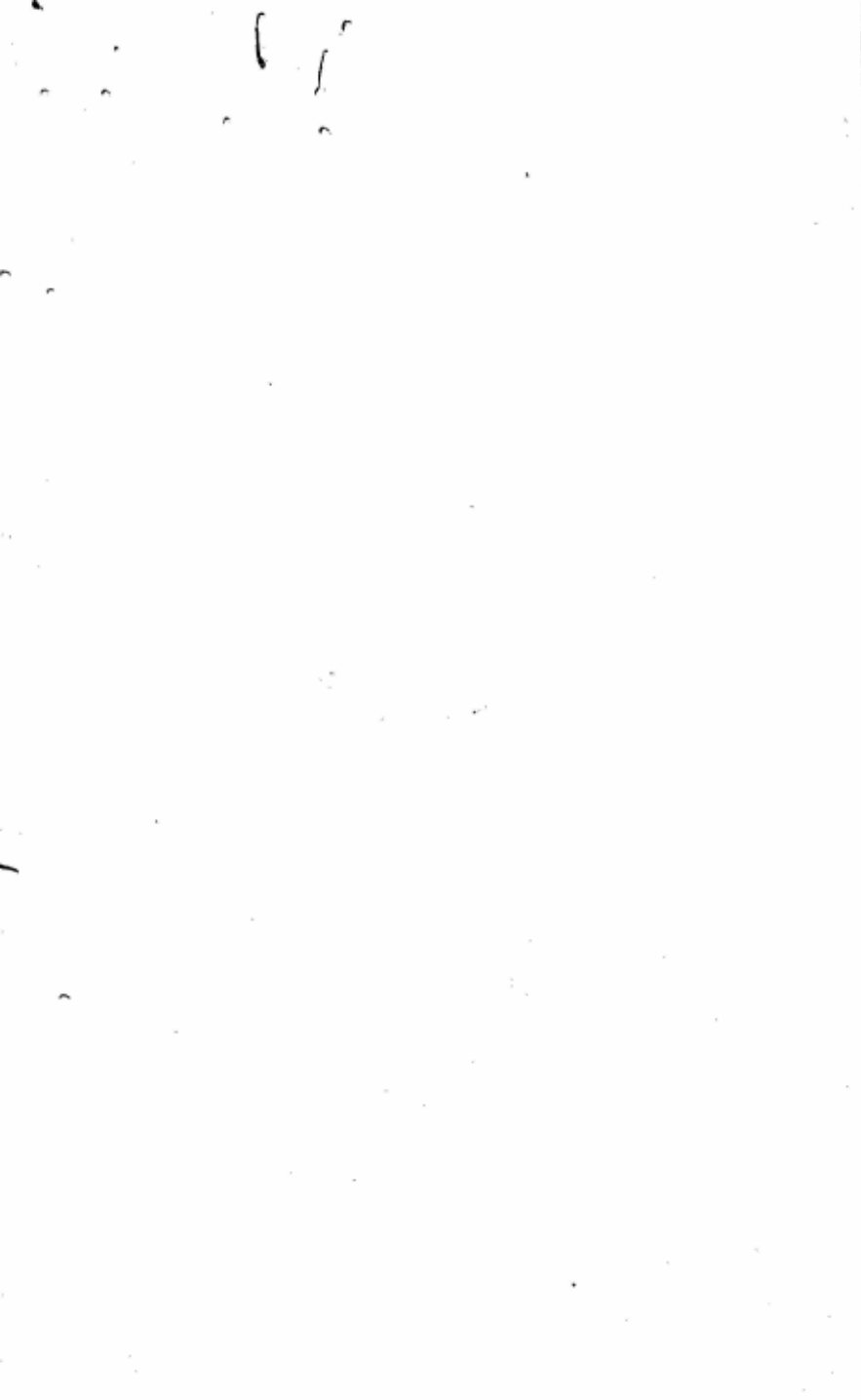
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JOURNAL

OF THE

CHINA BRANCH

OF THE

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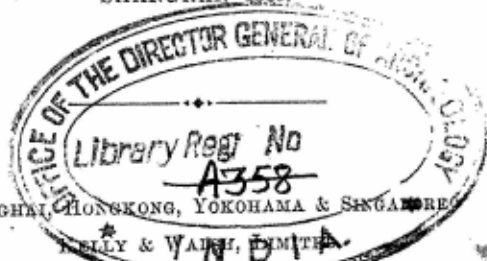
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碑

德

功

帝

皇

清

穴

大清皇帝功德碑

大清崇德元年冬十有二月

克溫仁聖皇帝以壞和負我赫怒以武臨之直搗而東京敢有抗者時我皇君棲于南漢票票若履春冰而待白日殆旬東南諸道兵相繼關潰西北帥逼境峽內不能進一步城中食且盡當此之時以大兵薄城如霜風之卷秋擇  
燼之燎鴻毛而

皇帝以不殺為武惟 布德是先乃 降勅諭之曰朕全爾否爾有若英武諸將 皇命相傳求道於是我寡君集武臣諸臣謂曰子托和好于 大邦十年于茲未由予憎蒙自運 天討斃姓魚肉罪在予一人  
皇帝猶不忍屠戮之 諭之曰子豈敢不欽承以上全我宗社下保我生靈乎大臣協贊之遂遣數十騎詣軍前請罪

皇帝乃 優之以禮 拊之以恩一見而 推心腹 錫爵之恩過及從臣禮罷即還我寡君于都城吾兵之南下者振旅而 撫民勸農遠近之鳩鳥散者咸復厥居罪非大幸歟小邦之獲罪亡國久矣己未之役都元  
帥姜弘立助兵明朝兵敗被擒

太祖武皇帝只留弘立等數人餘悉放回 恩莫大焉而小邦迷不知悟丁卯歲令

皇帝命將東征本國君臣避入海島遣使請成

皇帝允之視為兄弟國強去復克弘立亦失茲以往 禮遇不替郊臺跡不辜浮議扇動構成亂梯小邦申飭遠臣言涉不遜而其文為從臣所得

皇帝猶寬貸之不即加兵乃先 降明旨諭期刑丁卯夏復不順若提耳面命而終未克為則小邦羣臣之罪益無所逃矣

皇帝既以大兵圍南漢而又 命偏師先陷江都宮嬪王子暨卿士家小俱被俘獲

皇帝戒諸將不得搜害 令後官內侍看護既而 天霽恩與小邦君臣及其被獲眷屬復歸於舊霜雪變為陽春枯旱轉為時雨區宇既亡而復存宗社已絕而還續環求主數千里咸固於 生成澤此實豈簡策所能觀也  
於戲朕漢水上游三田渡之南即

皇帝駐蹕之所也壇場在焉我寡君受命水部就壇而增而高之又伐石以碑之無諸永久以彰夫

皇帝之功之德直與造化而同流也豈特小邦世之而永賴抑亦 大朝之仁聲武韻無遠不服者未始不基於茲也顧奉天地之靈日月不足以彷彿其萬 謹載其大略銘曰

天降霜露載肅載育惟 帝則之並布 威德

皇帝東征十萬其師殷之轟如虎如貔西蕃窮髮暨天北落軌之前靡厥靈赫

皇帝孔仁誕降恩皇行昭覆殷且溫始迷不知貽伊戚 帝有明命如寐之覺我后祇服相率而歸匪惟恒 威惟 德之依

皇帝豐澤洽漉儼載已載發及來以矛何以 錫之駿馬輕裘都人士女乃歌乃謳我后言旋

皇帝之賜

皇帝班師消氛于東摧鋒於西稽首合祝飲苴豆地維新杜骨再同安養後春有石巖大江之頭萬載三碑

皇帝之休

崇德四年壬午初分立

嘉善大夫禮曹叅判兼同知義禁府事臣 呂爾徵奉 教篆

資憲大夫漢城判 尹臣 吳峻奉 教書

資憲大夫書判書兼弘文館直學藝文館直學知制誥事臣 李亨興奉 教撰

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# 元陽子真空直指

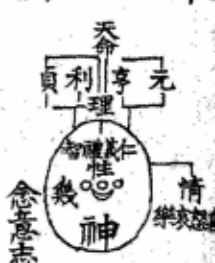
三點星相似  
橫鉤月不差  
人念分自此  
禍福總由他



朱子曰惟心無對  
謂天下最平者  
奇異惟此一語  
人人認得未必  
認得自古以來  
經賢傳子言萬  
總只說此一字  
有對得此一字者

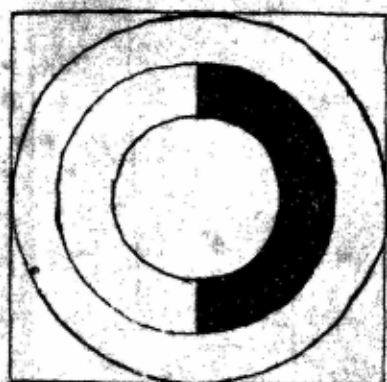
先儒云道是個活物乃人身有氣之最靈者身行  
一日不過百里此則頃刻千萬里身經一日不過十二  
時此則頃刻千萬年移身滯於形道箇通於神也

本心圖



又云這箇是要緊的物乃人身至重至重必不可失者因  
身而存則人生這箇不存則人死或這箇不存而人仍  
生者不過假借軀殼而已其非生也

曰神明之舍  
曰天君  
曰真宰  
曰方寸  
曰靈臺  
曰虛靈之府  
曰隱微之地



無極太極人極

心漸蔽之圖



未生之初欲其動  
初生之時欲其化  
初化之時欲其心  
初心之時欲其理  
初理之時欲其氣  
初氣之時欲其神  
初神之時欲其性  
初性之時欲其命

心復明之圖



臨既久  
初既久  
初既久  
初既久  
初既久  
初既久  
初既久  
初既久

道本無言道自明 只在當人一念心  
未立三才定子午 南針穿透祖師機  
要修仙道修人道 人道不修枉勞心  
貪嗔癡呆是六道 喜怒哀樂是四生  
天堂地獄心變化 披毛帶角也是心  
一切萬法盡由心 四大六根聽令行  
口頭三昧人人有 真實三昧個個暗  
不解道中真儒禮 如隔千山萬里程  
三教經文真妙訣 多少看經不思經  
大學中庸明真性 多少明人不明心  
明人看經心開悟 迷人看見返亂心  
真心是佛佛是性 真心是法法是經  
性是本來真面目 本是真箇真法身  
衣服潔淨何用洗 天下太平何用兵  
古來三教不離心 仙家一字值千金  
抬手提起正一念 嚇退魔王百萬兵  
要想生老病死苦 有勇要做末用人  
活人要做死人樣 閉口無言壯呆癡  
一念不生真出路 登時凍冰變水晶  
道由心學人之為 何必苦苦向外尋  
修行不如修心好 煉丹不如煉性真  
自然現出大千界 由如十五月光生  
一能生萬萬化一 一者乃是無極根  
有人參得這一字 纔能報得無極恩  
勸君學道莫貪求 萬事無心道合頭  
心心即佛佛心心 佛佛心心即佛心  
若得心空苦便無 有何生死有何拘  
十就還原歸古里 入聖超凡最上乘

父母未生先有我 鴻濛未判性當先  
無極太極即人極 人心我心即天心  
財色名利陰司路 執着人我是病根  
曲徑斜行真地獄 無名噴高是畜生  
成仙作佛由心轉 地獄餓鬼也是心  
心是天下之主宰 心是人間禍福根  
提起舌頭如了道 開口如同了道人  
真主人公都拋散 閉死真性用血心  
道德清淨明指破 金剛心經說得明  
三教聖人恩德大 各留經卷度後人  
唵佛唵經心唵佛 修身修道道修心  
真心便是靈光性 真心便是主人公  
堂前無草休掃地 境上無塵莫用功  
人若無病何用藥 心若虛空何用經  
身空跳得銅關過 心死攻得鐵壁通  
達摩東土為初祖 直指神光一盞燈  
肚饑喫飯寒着衣 不問南北與東西  
一塵不染家鄉路 萬緣頓息復本真  
一念有生一念死 一念無生出凡塵  
求人不如求己好 求道不如求心真  
有心煉到無心處 空空洞洞渺冥冥  
諸佛諸祖從此出 萬物皆從此法生  
不是無極神通大 天地萬物何處生  
盤有南針定子午 人參正訣作仙真  
無心始體無心道 體得無心道也休  
心佛悟來無一物 將軍止渴望梅林  
一朝脫下胎州襖 作個逍遙大丈夫  
板存杭城瑪瑙經房流通





## A COREAN MONUMENT TO MANCHU CLEMENCY.

By W. R. CARLES.

(Read before the Society 22nd October 1888.)

The monument which is the subject of this paper, has been mentioned in most books which have treated of Corea or the rise of the Manchu dynasty, and the occasion which it commemorates is referred to at some length in the *Sheng-wu-chi*.<sup>1</sup>

In 1619 A.D., when the Manchus were beginning to prove what formidable enemies they were of the Ming Emperor, the survivors of a Corean army of 20,000 men, who had been fighting in conjunction with the Ming forces against the Manchus in Liao Tung, surrendered with their General Kiang Hung-li to Norhachu. The greater portion of the Coreans were set free and returned to their country, Hung-li with a few others being alone detained.

On Norhachu's death, in 1627 A.D., the Coreans failed to send a mission of condolence, an omission which provoked an invasion, before which the king and his court fled helplessly to Kang-hoa, the large island-fortress at the mouth of the Han. Submission to the invading army averted harsh treatment, and the Manchus retired, leaving however a garrison at the mouth of the Yalu, on the northern frontier.

In 1637 Corea was once more subjected to a Manchu invasion, provoked on this occasion by non-observance of the

<sup>1</sup> A translation of the portion of the *Sheng-wu-chi* which treats of this appeared in the *Chinese Times* of September 8th, 1888. See also *Corea: Its History, Manners and Customs*; by the Rev. JOHN ROSS, pp. 285-6.

stipulations of the treaty of 1627, and more especially it would appear by the use of terms in correspondence which failed to recognise the superiority of the "Ta-ch'ing" nation. The terms of peace that were exacted by the Manchus when Corea was completely at their feet, were very lenient, and aimed chiefly at the recognition of the "Ta-ch'ing" Empire, which had been proclaimed the previous year.

Such is a brief summary of the events referred to in the inscription on the monument. The monument itself is a solid piece of stone 15 feet high, 5 feet broad and 15 inches thick, fixed on the back of a stone tortoise, itself 12 feet long and 3½ ft. high. On the reverse of the monument is an inscription in Manchu.

The copy of the inscription which follows was made by a Corean, whose only difficulties were due to the height of the monument, the characters themselves being wonderfully clear. For the translation I am indebted to the collaboration of my friend Mr. M. F. A. FRASER, of H.B.M. Consular Service in China.

---

[*Translation.*]

A TABLET TO THE VALOUR AND CLEMENCY OF THE  
TA T'SING EMPEROR.

In the 12th moon of the winter of the 1st year of the Ta-T'sing reign Ts'ung Teh [A.D. 1636], the Emperor K'wan Wên Yen Shêng grew incensed because we had violated the peace, and drew nigh with a warlike array, who drove their way straight towards the East, and none dared to withstand them. At that time I, your Prince, staying in Nan Han,<sup>2</sup> trembled like him who walks on spring ice, and waited for the dawn

---

<sup>2</sup> Nan Han, a fortress in the mountains to the South of the Han River.

nigh 50 days. In that time my soldiers in the Eastern and Southern Provinces were beaten in succession, and the army of the North and West cowered among the hills, and could not advance a step. In the city the food was all exhausted, and at this moment with the great host he took the city, as easily as the frosty wind curls up the autumn leaves, or the furnace-flames consume the feathers of the wild goose.

But the Emperor warred not only that he might destroy us, but placed first the manifestation of his goodness, and issued an edict which said: "Come, and I will preserve you; refuse and I will slay you, like Ying and Ma the Generals." Messengers carrying the Emperor's commands filled the roads in endless line. At that time I, your Prince, assembled my Generals and statesmen, and thus spake:—

"I have received the gift of friendship from the Great Country for ten years, but, misguided and blinded, I have called down the swift visitation of Heaven upon us, and the fault of me alone has brought tribulation on the myriads. Since the Emperor still cannot bear to destroy us, but has issued an Edict like this, how should I dare not to reverentially receive and obey it, so that, above, my ancestral line may be preserved, and, below, the lives of my people may be protected?"

My Ministers all agreed with and applauded these words, and with some score of horsemen I proceeded to the army and acknowledged my offence. But the Emperor treated me with high honor, and encouraged me with gracious condescension. As soon as he saw me he opened his heart to me, and conferred favors, which he even extended to the Ministers who attended me. When the ceremonies were ended, he sent me, your Prince, back to the Capital, and called in his troops in the South to go Westwards

again. He comforted the people and exhorted them to agriculture, and, scattered far and near like starlings as they had been, they all returned to their homes. Was not this a great and unexpected blessing?

Our small country had offended the superior nation long ago by its deeds of the year 己未 [1619], when Kiang Hung-li, the generalissimo, assisted the Ming dynasty. His army was defeated, and he was captured. But the Emperor T'ai Tsu Wu only detained Hung-li and a few others, and set free all the rest. Was not this the extreme of favor? But our small country was misguided and had no understanding, and in the year 丁卯 [1627] the present Emperor ordered an Eastern campaign against her. Our country's King and Ministers fled to an Island of the Sea, and sent envoys to sue for peace. The Emperor granted their prayer, and regarding us as brothers, he restored to us all our border-lands, and Hung-li was released.

Since that time, we have ever been treated with honor, and caps and umbrellas have crossed on the road. But unfortunately floating talk fanned commotion, and built up a ladder of disturbance and confusion. Our little country rebuked its high officers on the frontier; words of insubmission were employed; and the despatches came into the possession of the servants of the Emperor. The Emperor still treated us liberally, and did not at once send troops, but first issued a clear ultimatum, proclaiming to us the date of war. Carefully did he repeat his instructions again and again, as though he had taken us by the ear and commanded us face-to-face; but finally there was no escape. Thus the punishment of the King and Ministers of our small country became still more inevitable, and the Emperor with a great army surrounded Nan Han, and commanded a wing

of it first to capture the River Capital, where the King's concubines and his sons, his Ministers and Officers and their families were all made prisoner.

The Emperor forbade his Generals to molest or injure the captives, and ordered his palace-guards to watch and protect them,—truly an act of great grace! The small country's King and Ministers, with their families who had been taken prisoner, returned to their old homes. Frost and snow changed to sunny spring, arid drought turned to timely rain. The land had been lost and was restored again; the dynastic line had been severed and was continued. The Eastern Country with its thousands of *li* was all enveloped in the blessings of his favor. In the records of antiquity such a thing has rarely been seen. Oh, how grand was this!

To the South of the San Tien Ferry,<sup>3</sup> on the upper waters of the Han, is the place where the Emperor pitched his camp. This was the site of the altar, and I, your Prince, therefore commanded the Board of Works to increase the altar and heighten it, and place a stone monument here to continue through all time, to spread the knowledge of the Emperor's prowess and good works, which will flow on as long as nature lasts. It is not only our small country which will for ages rely on him, but the Great Dynasty's benevolent fame and martial glory will bring all to his feet from the remotest regions; and all this is founded on these deeds of his. Comparisons with the greatness of sky and earth, pictures of the brightness of sun and moon, fail to figure him in a ten-thousandth degree. This reverent inscription conveys but a vague and imperfect record.

Heaven sends down the frost and it sends down the dew. It can be severe and it can be beneficent. The Emperor,

---

<sup>3</sup> About 10 miles to the East of Seoul.



like Heaven, spreads terror and spreads kindness. The Emperor invaded the Eastern Country with ten myriads of men. The roar of his army was like the roar of the tiger and the leopard.

The Si-fan,<sup>4</sup> K'ung-fah, and the tribes of the North,

Carrying their spears, galloped in the vanguard, an imposing display of power!

The Emperor, in his vast humanity, spoke to us with gracious words; full and complete were they, severe and yet indulgent.

At first we had been misled and ignorant, and so had brought down sorrow on ourselves;

But when the Emperor clearly expressed his decree, we awoke as from sleep.

I, the King, have submitted and returned with my followers,

Not only fearing his power, but also relying on his virtues.

The Emperor honored us with magnificent kindness, with a face both happy and benign, and the spear and halberd were put aside.

<sup>4</sup> The presence of the Si-fan in the Manchu army which invaded Corea, seems to me very remarkable. I have not been able to identify the K'ung-fa nor to find any reference to such a nation or country except in the following extract from the *P'ei-yeñ Yun-fu*.

池莊窮是蠕受晉  
也子髮故蠕正書  
窮之魏者朔摯  
註髮野祖勾虞  
窮之逐宗奴北傳  
髮北之揚之史  
不有無威裔蠕窮  
毛溟人耀根蠕髮  
之地海之武本傳反  
地者鄉武本傳反  
天之尊景承

What gifts did he give us? Fleet horses and light furs of sable.

The young men and women of the Capital then chanted songs and ballads.

The return of our King was the gift of the Emperor.

The Emperor removed his army, and gave life to our children.

He reunited us from our dispersion, and exhorted us to the works of agriculture.

He built up our city wall as of old, he raised again our splendid altar.

The dry bones had flesh again; spring returned to the wintry roots of grass.

The stone stands majestic at the head of the Great River.

San Han<sup>5</sup> for 10,000 years will enjoy the protection of the Emperor.

Erected in the Year of Ts'ung Teh, IV, 12, 8 [1639].

Composed, by Royal Command, by Li King-shih, *Tsz-hien Ta-fu*,<sup>6</sup> President of the Board of Civil Office, Literary Recorder, State Literary Composer, Chancellor of the Royal Academy.

Written, by Royal Command, by the hand of Wu Ts'ün, *Tsz-hien Ta-fu*,<sup>6</sup> Governor of Seoul.

Heading in Seal Characters written, by Royal Command, by the hand of Lü Êrh-chêng, *Kia-shan Ta-fu*,<sup>6</sup> Vice-President of the Board of Ceremonies, Deputy Assistant Commissioner of the Court of Judicial Enquiry.

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<sup>5</sup> Reference is made to the capital and its environs, including the northern and southern fortresses.

<sup>6</sup> *Tsz-hien Ta-fu*, *Kai-shan Ta-fu*: Titles of honor conferred as a reward for merit or service.



November 12th, 1888.

*P.S.*—I am indebted to Mr. COLIN M. FORD, H.B.M. Acting Consul-General in Corea, for rubbings of the inscriptions on the monument, which have reached me within the last week. The rubbing of the Corean inscription shows the existence of the following errata in the copy which has been photo-lithographed :—

In column 5, 48 characters from the top, for					read	
				武臣		文武
"	"	11, 17	"	"	亦矣茲	" 亦還目茲
"	"	12, 17	"	"	諭師期	" 諭以師期
"	"	14, 58	"	"	宗社	" 宗祀
"	"	17, 17	"	"	特小邦	" 特我小邦



# A GUIDE TO TRUE VACUITY.<sup>1</sup>

By YUEN-YANG-TSZE.<sup>2</sup>

Translated by G. E. MOULE, D.D.

Read in abstract before the Society 22nd October 1888.

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This Tract is a broadsheet some 24 inches by 13. One-third of its width on the right (A) is occupied with diagrams and illustrative letter-press in small type. The other two-thirds (B) are covered with a metrical rhapsody in 55 couplets in which rhyme seems not to be aimed at, at least in any regular method.

## A.

The upper and lower halves of this part of the sheet contain each two diagrams.

(a.) That to the right, upper half, represents the character *sin*, heart, under the guise of a crescent moon, shaded, horizontal, with three stars above it, white. The legend is as follows:—

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<sup>1</sup> *Vacuity*: The unreality of all phenomena. See EITEL'S *Handbook* s.v. *Sūnya*. In our tract it has rather the subjective sense of *indifference* to the phenomena.

<sup>2</sup> *Yuen-yang*: Unimpaired, or great, masculine force. *Yuen-chên* is a Taoist synonym for 玉 (Yu), the jade-stone, the physical embodiment of the masculine or positive principle. See MAYERS, s.v. *Yuan-chên*. The words are, no doubt, the title of a famous Taoist master, whom I cannot identify. The well-known Lü Tsu had Ch'un-yang (純陽) for his title. He (Lü) is one of the four assessors of the deity Yu-hwang Shang-ti.

(above diagram) (A a;)

Three star-points all alike; <sup>3</sup>

Crescent (*lit.* sickle) moon exactly horizontal;

From this are men and animals <sup>4</sup> distinguished;

Out of that spring all woe and bliss.

(below diagram)

Chutsze says: "*Now the heart has no fellow;*" <sup>5</sup> which is to say, that in all the world that which is remarkable for a constant choice of the marvellous and strange is just this word (heart). Though everybody recognizes this, it is not certain that they truly recognize it. From ancient times the aggregate of the thousand *dicta* and the myriad discourses of holy canon and sage narration speak solely of this one word. There is none that can be fellow to this one word!

The diagram to the left, upper half, is called

#### A DIAGRAM OF THE ORIGINAL HEART.

It consists of an oval outline having at the centre *sin* heart, written as *crescent moon and three stars all unshaded*. Above *sin*, within the oval, are in horizontal line CHARITY, RECTITUDE, PROPRIETY, KNOWLEDGE; just below these four words is NATURE; <sup>6</sup> below which, at the left of *sin*, is 幾 *ki*,

<sup>3</sup> Construction difficult because, I think, loose and inaccurate.

<sup>4</sup> *Kin*: Birds; said here to stand for non-intelligent animals. But cf. *Job*, 35, 11.

<sup>5</sup> For this *dictum* of Chu-hi, see his Works, sect. 44 性理三 on the Heart; where it follows the words 心之理是太極心之動靜是陰陽.

<sup>6</sup> "Nature" below "Heaven's ordinance" implies a reference to the Chung Yung (Fixed Mean) cap. i. "Heaven's ordinance is called Nature." "Law" (*ti*) is sometimes interchanged with *nature* and (notably) with *heaven*, in Chu-hi. It has been rendered *Fate*.

apparently in the sense of GERM; while at the base of the oval is 神 (*shān*) SPIRIT OR DIVINITY.<sup>7</sup>

Above the oval in vertical line are<sup>8</sup> HEAVEN'S ORDINANCE, below which, horizontal, are the mystic characters<sup>8</sup> *Yuen, Heng, Li, Ching*: GREATNESS, FACILITY, PROSPERITY, STABILITY. Below this line is<sup>6</sup> 理 (*Li*) LAW, as in the phrase "natural law." NATURE (within oval) is connected by a horizontal line to the right with 情 PASSION, having below it, horizontal, JOY, ANGER, PITY, DELIGHT. GERM is similarly linked, to the left, with THOUGHT, MEANING, PURPOSE, in vertical line.

Underneath the oval in two sets, of four vertical columns each, are titles of the heart, the word 曰 (*one*) styles (*it*) being repeated with each. (Upper set of titles) HEAVENLY PRINCE, TRUE RULER, SQUARE INCH,<sup>9</sup> SPIRIT STAGE.<sup>10</sup> (Lower set) ABODE OF SHANMING, HOARD OF SECRETS, PALACE OF MERE SPIRIT, REGION OF OCCULT AND MINUTE.

To the right and left of the Diagram are the following:—

(*Right*) An ancient scholar says: "Taou (the Way) is a living thing; 'tis that which is most subtle in the human body with its form and its matter. The body travelling all day goes not beyond a hundred *li*; but this, in one moment, goes a thousand myriads. The body, in spending a day

<sup>7</sup> The reference is perhaps to the Commentator on Mencius (*Hia Mäng*, sect. vii, cap. 46, called 盡心) who says 心者人之神明, where, from what follows, *Shān-ming* seems to mean intelligence; though elsewhere (*Analects, Lun-yü*, Book x), the commentator seems to use it in the sense of animal spirits.

<sup>8</sup> *Yuen Heng*, etc., the four qualities of *Kien*, the positive element. *Yü-king* sub initio.

<sup>9</sup> I cannot find the *locus classicus* of this quaint epithet.

<sup>10</sup> The reference seems to be to Wan Wang's famous tower or stage; the subject of the Ode so called (*She King*, iii, i, 8) quoted by Mencius. My teacher, however, holds that here *Ling* has a more personal sense.

exceeds not twelve hours; but this, in one moment, a thousand myriad years. For the body is hampered by form. The Way is interpenetrated with spirit (or divinity)."

(Left) He says again: "This is an all-important thing; 'tis for the human body most honourable, most momentous, and quite indispensable. For when this is retained, man lives; when not retained, man dies. Perhaps though this be not retained man may still live; then it is no more than just retaining the shell and husk; in reality it is not life."

(A b.) The lower half of the right-hand division of our Tract contains, *first*, a Square enclosing three concentric circles. The band formed by the innermost circle and the next is half white, half black, to represent, perhaps, the daily and nightly aspect of the terrestrial universe; perhaps the more abstract notions of *Yin*, *Yang*, the negative and positive principles in nature. To the right, vertical, are NO LIMIT, VAST LIMIT, MAN'S LIMIT.

Whatever *Wu-kih* and *T'ae-kih* are in Chinese philosophy, here the NO LIMIT, represented by the outer white band, appears to mean the vague, colourless, nameless Origin of all; the VAST LIMIT, this power or principle acting in the mundane universe; and the MAN'S LIMIT, the same in human nature,—microcosm.

*Secondly* we find, below the square and circles, two sets each consisting of seven oval hearts, each heart enclosing the crescent and three stars. The set to the right commences with a white heart, whose successors are darkened by a rising tide of darkness, till the seventh is all black. This is the DIAGRAM OF HEART'S GRADUAL OBSCURATION.<sup>13</sup> The set on the left begins with a black heart, whose successors are brightened by a deepening irradiation of light, till the seventh is all white. This is the DIAGRAM OF HEART'S RECOVERED ILLUMINATION. Below, in vertical columns, two to each heart, is the explanation, thus: First set;—

- 1.—Original heart of new-born infant formless (without bias).
- 2.—Original heart, through excitement and motion of desire, for the first time obscured.<sup>12</sup>
- 3.—Original heart, through experience of allurements and material influence, increasingly obscured.<sup>13</sup>
- 4.—Original heart, with principle and desire in mutual conflict,<sup>11</sup> one half obscured.<sup>13</sup>
- 5.—Original heart, the passions unruly, more and more inflamed, predominantly obscured.<sup>13</sup>
- 6.—Original heart, the breath of night<sup>12</sup> nowise retained, exceedingly obscured.<sup>13</sup>
- 7.—Original heart, (the differentiating) particle all lost, totally obscured.<sup>13</sup>

Second set :—

- 1.—Original heart, after prolonged immersion (in evil) utterly lost.
- 2.—Original heart, by washing away filth and scraping off dirt, beginning its recovery.
- 3.—Original heart, correcting its trespasses and going over to virtue, gradually recovering.
- 4.—Original heart, making efforts to retain (the good) letting go and losing (evil) one half recovered.<sup>14</sup>

<sup>11</sup> "Mutual conflict," cf. *Galatians*, 5, 17.

<sup>12</sup> "The breath of night," cf. Mencius (vi, l. viii, 2, LEGGE'S Ed.) who speaks of nightly reflection repairing the waste of innate goodness under the inroads of passion during the day.

<sup>13</sup> For the word and idea "obscured" see *Ta-hioh*, comment. on 明德. For "particle" 幾希 see Mencius, iv, ii, 19 (Dr. LEGGE.) "That whereby man differs from birds and beasts is very little, the people throw it away, the great man retains it?"

<sup>14</sup> Perhaps 存 and 亡 are the principles of conservation (i.e., of true nature) and perdition respectively; and we ought to render: "by clinging to conservation, and giving up perdition," i.e., what tends to self-perdition.

- 5.—Original heart, by victory over self and expulsion of individuality,<sup>15</sup> greatly recovered.
- 6.—Original heart, by exclusion of vice and retention of sincerity, exceedingly recovered.
- 7.—Original heart, when lust is clean gone and principle unmixed, wholly recovered.<sup>16</sup>

## B.

We come now to the metrical rhapsody in fifty-five couplets, two couplets in each column. I number the columns from right to left. The evidently mystical word 道 *taou* seems best rendered by the English *way*, in the sense in which it is found in the Acts of the Apostles, as a rendering of *ἡ ὁδός*.

- (I).—The Way originally was unspoken, it manifested itself.

It dwelt solely in the heart, as man meditated.

Before my parents had offspring, I<sup>17</sup> pre-existed,

Before chaos was divided, nature<sup>18</sup> was beforehand.

- (II).—Before the three prime factors<sup>19</sup> were established it fixed the meridian.<sup>20</sup>

The south needle pierced (the meridian's extremes)  
the contrivance of the first master.<sup>21</sup>

<sup>15</sup> The preference for self, self-assertion, contrasted with impassibility.

<sup>16</sup> It may be better to translate both sets of phrases in another order; thus, *e.g.*, 1. "Utter loss of original heart after prolonged immersion."  
7. "Complete recovery of original heart when, etc.," and so with the former set.

<sup>17</sup> Throughout, the meaning of individuality seems connected with 我. It is not the mere first person of the pronoun.

<sup>18</sup> "Nature" as the "ordinance of Heaven," who is therefore not the material heaven.

<sup>19</sup> Heaven, Earth, Man.

<sup>20</sup> 子午 north and south, or midnight and noon.

<sup>21</sup> Does this mean that the meridian pre-existed, though first defined by the needle when discovered?

The infinite,<sup>22</sup> the vast limit, is just the human limit;  
The human heart, my heart, is just the heart of heaven.

(III.)—Would you cultivate the way of the Genii, cultivate the way of humanity.<sup>23</sup>

If you cultivate not the way of humanity, in vain you weary the heart.

Wealth, beauty, honours, and gain are the road to Hades;  
Insisting on *meum* and *tuum* is the root of sickness.

(IV.)—Covetousness, wrath, stupidity and silliness are the Six Ways;<sup>24</sup>

Joy, anger, pity, delight are the Four modes<sup>25</sup> of birth.  
Perverse and crooked walking is the true Earth-dungeon;<sup>24</sup>

Anger and pride are the state of brutes.<sup>24</sup>

(v.)—The Heavenly Hall, the Earth-dungeon, are developed of the heart;

To be clad in hair and wear horns that too is the heart.  
To become *genii*, or be made *buddhas*, comes round from the heart;

Earth-dungeon,<sup>24</sup> famished ghosts, these too are the heart.

<sup>22</sup> See above on the Diagram of Square and Circles.

<sup>23</sup> Cf. *Hia Lun* xi, 11, 未能事人焉能事鬼. "Religion is human duty."

<sup>24</sup> The "Six ways" of metempsychosis. See MAYERS, s.v. "Six Ways," and EITEL s.v. *Gâtî*. They are, 天 *Déva*, deities, 人 *Manuchya*, men, 素羅 *Asura*, titans, 餓鬼 *Prêta*, famished ghosts, 畜生 *Tirisan*, brutes, 地獄 *Naraka*, hell.

<sup>25</sup> The *Four modes*, viz., 胎生 Uteral, 卵生 Oval, 溼生 Spontaneous, 化生 by metamorphosis, e.g., the moth from the cocoon. See EITEL, s.v. *Tchâtur yôni*.

<sup>26</sup> 無名 for 無名火 the nameless fire = anger. See WILLIAMS, *Dict.* s.v. 名. 瞋高 said to be Buddhist for chant, also a cant phrase for pride. A Buddhist monk told me that 無名瞋高 was repeating the service whilst one's thoughts strayed after worldly objects.



(VI.)—All the myriad laws spring wholly from the heart;  
The four great things, the six roots,<sup>28</sup> obey (its)  
orders and act.

The Heart is ruler of this nether world;<sup>27</sup>  
The Heart is the root of woe and weal among men.

(VII.)—The (true fire of the) Samâdhi (three dark places),<sup>29</sup>  
everyone has at his tongue's end.

As to the truth about the Samâdhi (three dark  
places), each one is purblind;

They wag their tongues as if they had traversed the  
whole way;

They open their mouths like those who have traversed  
the way.

(VIII.)—Not to expound, in the Way, the true decorum of  
the School,<sup>30</sup>

Is like being separated by a thousand mountains and  
a road of a myriad *li* (from one's object);

'Tis to cast away and shatter the true lord<sup>31</sup> and  
master;

'Tis to stifle nature with might and main.

(IX.)—The canonical texts of the three Religions are truly  
mysteries;<sup>32</sup>

<sup>27</sup> *The four great*, sc. Buddhist Elements:—Earth, Water, Fire, Air.  
(MAYERS).

<sup>28</sup> *The six roots* of sensation, sc. sight, hearing, smelling, taste, touch  
and mental perception; answering to the six entrances, and six modes of  
environment. See MAYERS' Categories of six.

<sup>29</sup> See WILLIAMS, s.v. 昧. I cannot identify the three dark places.  
My teacher says they are the seats of the lower passions, and are as the  
black furnace of the true fire. But see EITEL, s.v. Samâdhi (三昧),  
which shews that the line should have been rendered:—"Samâdhi (tranquility  
or self-control) every one has on his life." "The true fire of San-mei," is  
apparently "Agni samâdhi." 三昧 is obviously a transliteration, and not  
to be construed on Chinese principles of grammar.

<sup>30</sup> Confucianism.

<sup>31</sup> True lord=the heart.

<sup>32</sup> "Mysteries," i.e., with an occult meaning.

How many con over the canon, without<sup>33</sup> meditating it as rule.

The Virtue<sup>34</sup> of the Way clearly points to, and opens out, purity;

The Diamond and Heart Canons<sup>34</sup> speak (of it) clearly;

(x.)—The Great Learning and Fixed Mean<sup>34</sup> clear up true Nature;

How many men of light and leading throw no light on the heart!<sup>35</sup>

The saints of the three Religions were great in kind virtue;

Each bequeathed canonical scrolls to save posterity.

(xi.)—When men of light read the Canon the heart opens with intelligence;

When the erring read the Canon, on the contrary they confuse the heart.<sup>36</sup>

Recite Buddha ('s name), recite the Canon; in the heart recite Buddha.

Cultivate the person, cultivate the Way; in the Way cultivate the heart.<sup>37</sup>

(xii.)—The true heart is Buddha, Buddha is nature;

The true heart is the Law, the Law is the Canon;

The true heart, in short, is spirit-illuminated nature;

The true heart, in short, is our lord and master.<sup>38</sup>

<sup>33</sup> Cf. *Shang-lun*, II, xv, 學而不思則罔.

<sup>34</sup> The *Tao-tê* of the Taoists, and well-known canonical texts of Buddhism and Confucianism.

<sup>35</sup> Qu. render "How many enlighten others, not (their own) hearts."

<sup>36</sup> Cf. 2 *Peter*, 3, 16.

<sup>37</sup> Qu. Do these lines mean, "In whatever religion, keep the heart with all diligence, as all in all?"

<sup>38</sup> Cf. *Taiho*, Commentary, 心者身之所主也.

- (XIII.)—Nature is the original true physiognomy ;  
 It is originally the body of true vacuity, and true law.<sup>39</sup>  
 When there is no litter in the hall you need not  
 sweep the floor ;  
 When there's no dust in the place, do not take trouble.
- (XIV.)—When clothes are neat and clean, what need of  
 washing ?  
 With the empire at peace, what need of troops ?  
 If people had no illnesses, what need would there be  
 of drugs ?  
 The heart if it be empty and vacant, what need has it  
 of the Canonical Books ?<sup>40</sup>
- (XV.)—Of old, the three Religions strayed not from the  
 heart ;  
 For the sect of the genii,<sup>41</sup> that word was worth a  
 thousand gold pieces.  
 The body vacuous,<sup>41</sup> you may overleap the brazen  
 barrier.  
 The heart dead, you may batter through the iron wall.
- (XVI.)—Lift the hand, make a beginning, one correct  
 meditation ;<sup>42</sup>

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<sup>39</sup> Cf. as above on 明德 明德者人之所得乎天而虛靈  
 不昧 但爲氣稟所拘人欲所蔽 In the metre the influence of  
 氣 and 欲 is annihilated. Then the man is perfectly himself again and  
 needs no law. Cf. 1 Timothy, 1, 9.

<sup>40</sup> "Sect of the genii" = Taoism.

<sup>41</sup> "The body vacuous," *qu.* whether by the same process as the mind,  
 sc. by indifference to one's "environment?" I cannot find the *locus classicus*  
 for brazen barrier or iron wall. But EITEL gives s.v. *Tohakraavāla*,  
 鐵圍山, the iron curtain-mountain which girds the universe.

<sup>42</sup> 正念 Correct meditation or memory, one of the 八正門 which lead  
 to Nirvana. See EITEL, s.v. *Mārga*.

Drive back<sup>43</sup> with a shout the hundred myriad  
troops of King Mara!

Dharma<sup>44</sup> of the eastern land was the very first of  
Patriarchs;

Straight pointed he to the spirit light, the one lamp.

(XVII.)—Would you think of birth, age, illness, death and  
misery,<sup>45</sup>

Your valiant man then would become an unprofit-  
able person.

Hungry, eat rice; and cold, put on clothes;

But ask not whether south or north, east or west.

(XVIII.)—Would you as living after the manner of the dead,  
Close the mouth, say nothing, act the part of an  
idiot,

And let no grain of dust cling to you of the home-  
ward road,<sup>46</sup>

Suddenly would the myriad complications<sup>46</sup> cease,  
and original truth be restored.

(XIX.)—To generate no one thought<sup>47</sup> is the true escape;  
At once mere ice is changed to rock crystal.<sup>48</sup>

To generate one thought, the one thought is death;

To generate no thought is escape from the mundane  
dust.

<sup>43</sup> 赫 Misprint for 嚇, to scare with the voice. *Māra* see EITEL, s.v. He is the murderer, hinderer of good, destroyer of good; the personification of lust; god of love, sin, death, arch enemy of goodness.

<sup>44</sup> See EITEL, s.v. *Bodhidharma*; MAYERS, s.v. Six Patriarchs. He was an Indian missionary of royal descent who, reaching China in A.D. 520 or 526, settled and died at Loyang, the Eastern Capital.

<sup>45</sup> Characteristics of physical unrest.

<sup>46</sup> The perfectionist must be indifferent to home, as well as all other mundane ties.

<sup>47</sup> Perhaps rather "To meditate on non-birth," i.e., on the cessation of the series of phenomenal migrations. And so below. Does 不生—無生.

<sup>48</sup> One of the *Sapta vatna*. See EITEL, s.v. No. 2.

(xx.)—The Way is learnt from the heart, wrought out by man ;

Why must you painfully seek it abroad ?

To seek (of) others is not so good as to seek (of) thyself ;

To seek the Way is not so true as to seek the heart.<sup>49</sup>

(xxi.)—To cultivate conduct is not so good as to cultivate the heart ;

To refine the elixir<sup>50</sup> is less true than to refine one's nature.

When you have gotten heart refine to the point of no-heart ;

Empty, cavernous, vague, without light.

(xxii.)—So consequently will develop the great thousand worlds,<sup>51</sup>

Just like the bright-born moon of the 15th day.

All Buddhas, all patriarchs, from this emerge ;

All things wholly from this are evolved.

(xxiii.)—Unit can produce myriad, myriad transform to unity ;

Unity is in fact the root of the Infinite (Wu-kih).

Were not the spiritual sympathy<sup>52</sup> of the Infinite vast,

Where were heaven, earth and all things procreated ?

<sup>49</sup> A difficult stanza, for me. Does it amount to an exhortation to recluse meditation, rather than learning of other men or books ?

<sup>50</sup> "Elixir" the *tan* or *Kin-tan* of alchemy, supposed to be evolved in the crucible from a mineral basis said to be cinnabar. See MAYERS, s.v., who says that the Taoist philosophers, whilst studying the material alchemy, adapted its phrases to mental and moral science, distinguishing the 內丹 or mental process of sublimation from 外丹 or material elixir.

<sup>51</sup> This appears to mean that the duly sublimated heart will be able to conceive of all the infinite contents of the universe material and intellectual. "This," in lines 3 and 4, I take to be "sublimated heart."

<sup>52</sup> Rendered "Spiritual penetration." EITEL, s.v. *Riddhi Vikridita*.

(XXIV.)—Whoever can meditate this one word (heart),  
He and only he can requite the kindness of the  
Infinite.<sup>53</sup>

On the dial is the polar-needle fixing meridian ;  
The man who meditateth the right formula<sup>54</sup> be-  
comes one of the true genii.

(XXV.)—Noble sirs, I exhort you study the Way, and leave  
off coveting and craving.

In the myriad affairs the Way of no-heart is  
suitable.

The condition of no-heart, and it only, sympathizes  
with the Way of no-heart.

Sympathize with no-heart, then the Way, too, is  
dispensed with.<sup>55</sup>

(XXVI.)—Each heart is Buddha, Buddha is the heart of heart.<sup>56</sup>  
Each Buddha is the heart's heart, namely the heart  
of Buddha.

Get to comprehend heart and Buddha, no thing  
exists.

(Like) the general<sup>57</sup> who slaked (his troops') thirst  
with the hopes of an apricot orchard.

(XXVII.)—If you win heart's vacuity, misery straightway is  
no more ;

What life and death is there, what constraint ?<sup>58</sup>

<sup>53</sup> *Wu-ki*, the Infinite, here and above, seems taken sometimes as a numerical idea, sometimes as a personal Divinity.

<sup>54</sup> The tendency as inevitable as that of the needle; "formula,"=the heart.

<sup>55</sup> See above Note 39.

<sup>56</sup> I cannot pretend to vouch for the correctness of my rendering of this and the following two lines.

<sup>57</sup> *Wu-ti*, founder of Later Wei dynasty A.D. 389-394. See MAYERS, s.v. 梅. The allusion seems meant to illustrate the power of subjective impressions.

<sup>58</sup> 拘 See Note 39.

One morning put off the dress <sup>59</sup> of your nativity,  
You are at once a fine gentleman of liberty and  
leisure.

(xxviii.)—By daily approaches, come back to your origin,  
return to your native place.

Enter sainthood, soar above the world, the most  
exalted degree.

[*Colophon.*—"Type kept at the Agate Religious  
Bookshop, Hang-chow, for general circula-  
tion."]

<sup>59</sup> 胎州襖 "Vest of natal region," cf. 2 *Corinth.* v. 2, 3, 4, where  
embodiment is spoken of as clothing.

(*Final Note.*)—The Tract, though its catchword, after Heart, is Way, can  
hardly be called Taoist in a strict sense. It is Taoist, no doubt, in its  
commendation of impassibility, but in that sense, Buddhist also.

To the translator it has been an interesting study as a sample of, so to  
speak, applied religious eclecticism, where the materials were the three creeds  
of the School, the Way, and Sākya as current in China. Without, however,  
the help of an intelligent professor of one or other of the latter creeds, he  
has found it impossible to satisfy himself that his translation is accurate;  
in some places it is doubtless not so.

He cannot identify the author, who, however, was probably a professed  
Taoist.

There are the following apparent misprints in the sheet:—Col. iv, for 經  
read 徑; Col. xvi, for 赫 read 嚇; Col. xviii, for ㊦壯 read 裝; and  
Col. xxviii, for 十就 prob. read 日就.

## CHANGCHOW, THE CAPITAL OF FUHKIEN IN MONGOL TIMES.

By GEO. PHILLIPS, F.R.G.S., H.B.M. CONSUL, FUCHAU.

(Read before the Society 19th November 1888.)

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It is doubtless fresh in the memory of many interested in the archæology of Fuhkien, that I have always strongly advocated the identity of Changchow with the city of Zaitun in the middle ages, while, on the other hand, Colonel YULE has always urged its identity with Chinchew, on the ground that Rashiduddin in enumerating the Sings, or great provincial governments of the Empire, has the following: "FUCHŮ.—This is a city of Manzi. The Sing was formerly located at Zaitún, but afterwards established here, where it still remains. Zaitún is a great shipping-port, and the commandant there is Boháuddin Kandári." Colonel YULE proceeds to say that "PAUTHIER's Chinese extracts show us that the seat of the Sing was in 1281 at T'swanchau, but was then transferred to Fuchau. In 1282 it was removed back to T'swanchau, and in 1283 recalled to Fuchau. That is to say, what the Persian writer tells us of Fújŭ and Zayton, the Chinese annalists tell us of Fuchau and T'swanchau. Therefore Fujū and Zayton were respectively Fuchau and T'swanchau."<sup>1</sup>

This statement of RASHID has puzzled me for many years, for I was sure, with the very many strong and weighty arguments that Dr. DOUGLAS and I had brought forward in favor of Changchow being Zaitun, that it admitted of rational explanation. It was not, however, till I unearthed

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<sup>1</sup> YULE's *Marco Polo*, 2nd Ed., Vol. 2, p. 221.



in a second-hand Chinese bookshop in this city, a copy of the *History of Fuhkien*, published in 1492, that I arrived at anything like a solution of the problem, and which would seem to upset the statement made in the *Encyclopædia Britannica*,<sup>2</sup> that Changchow had never been the capital of Fuhkien. This *History of Fuhkien* contains a quotation from *The Supplementary Record of the Three Hills*,<sup>3</sup> a book revised in 1328, and considered by the author of the *History of Fuhkien* as a trustworthy authority, on account of its having been compiled while the Mongol dynasty was still in existence. The quotation alluded to reads as follows: "It will be seen in the annals of the Yuan dynasty, that in the fifteenth year of Chih Yuan, there was added to the Sing, at Kanchow, the post of criminal judge, and that in the seventeenth year of Chih Yuan, the seat of the Sing was removed to Chinchew, and that in the twentieth year of Chih Yuan, the post of criminal judge was altered to that of Taotai Superintendent of the Fuhkien seaboard, which, with the seat of the provincial capital, then at Chinchew, was removed to Fuchau. The post of Commissioner of Public Order of Fuhkien was abolished, and the seat of the provincial capital was again established at Changchow."<sup>4</sup> Not content to rely solely on this book, I searched through an abridgement of the *Mongol Dynasty*, published in 1693, and came across the same fact in the

<sup>2</sup> *Encyclopædia Britannica*, Vol. 5, p. 673, article "Chin-chew."

<sup>3</sup> 三山續志

吉	辛	弘	序	擇	於	復	罷	州	建	改	於	十	置	州	元	元	<sup>4</sup>
亥	治		抄	漳	立	福	行	閩	接	泉	七	提	行	十	史		
冬	四		入	州	行	建	省	海	察	州	年	刑	中	五	本		
十	年		閩		中	宣	入	道	司	二	徙	按	書	年	紀		
一	歲		通		書	慰	福	併	爲	十	行	察	省	屬	謂		
月	次		志		省	司	州	泉	福	年	省	司	增	賴	至		

following words:—"In the twentieth year, third month, twenty-sixth day of Chih Yuan the post of Commissioner of Public Order in Fuhkien was abolished, and the seat of the provincial government was again established at Changchow,"<sup>5</sup> or in other words, Changchow for the second time became the official capital of Fuhkien. None of the histories that I had by me, gave me any clue as to the time when Changchow had first been the capital, but in the *Fuhkien Gazetteer* I found that it had been so for a short time in the seventeenth year of Chih Yuan, and was so in the eighth month of that year, when it was besieged and taken by the Chinese patriot Chen Tiao-yen who had succeeded in raising the standard of rebellion in that province. It remained in his possession till the eleventh month of the same year, when it was retaken by the Mongol General Ta-li-chih.<sup>6</sup> Rebellion against the Mongols would appear at this time to have been very frequent, and was to them a matter of great anxiety, for they were compelled to keep up large garrisons in Fuhkien. This fact recalls MARCO POLO's statement, who, when speaking of Fujou, a city of Fuhkien, says, "a large garrison is maintained there by the Kaan, to keep the kingdom in peace and subjection, for this city is one which is apt to revolt on very slight provocation."<sup>7</sup>

The following, taken from the *Fuhkien Gazetteer*, will show that at other times during the occupation of the

復十萬陳元卷擇<sup>6</sup>  
漳一陌吊十百抄  
州月漳眼七二福  
塔州擁年十建  
里行衆八八通  
赤省五月至志

漳司省月至四康即擇<sup>6</sup>  
州復福二元月熙續抄  
立建十二序四弘元  
行道六十十簡史  
省宣壬年十五錄類  
於慰午三年編

<sup>7</sup> YULE'S *Marco Polo*, Vol. 2., p. 213.

province by the Mongols, it was the seat of high civil and military authority.

Towards the close of the Mongol dynasty Changchow was for some time the seat of a Fên-sing, or Departmental Governor,<sup>8</sup> whose quarters were situated in the western part of the city, most probably on the site where the present Brigadier-general has his Yamen. Changchow appears to have been first made the seat of a Fên-sing in the twenty-second year of Chih Chêng [1363]. Prior to that, in the eighth year of the same reign [1349] it was the seat of a high military officer called a Fên-yuan-shuai-fen-fu and Suen-wei-szu-fu, Commissioner of Public Order. Somewhat earlier, the military commandant had the title of Sin-chün-wan-hu-fu, *i.e.*, the Chief of the New Camp of Ten Thousand Men. This Wan-hu-fu<sup>9</sup> is most probably the Wan-shi, the chief of ten thousand soldiers mentioned by RASHID. When Changchow was retaken from the Mongols by the Generals of the coming Ming dynasty, the chief authority of the city bore the title of Departmental Governor of Fuhkien and Kiangsi. Chinchew was the seat of the Fên-sing<sup>10</sup> in the eighteenth year of Chih-chêng, after which it was removed to Changchow. It will thus appear that owing to the disturbed state of the province, both at the beginning and towards the end of the Mongol dynasty, the seat of the provincial government was never established at one place for any great length of time.

It is perhaps worthy of remark that the last Mongol Governor of Changchow, Lo-liang, gained for himself the respect and obedience of foreigners resorting to Changchow.<sup>11</sup> I adduce this fact to shew that Changchow was a port visited

<sup>8</sup> 至正二十二年漳州行中書分省 見八閩通志

<sup>9</sup> 新軍萬戶府

<sup>10</sup> 分省

<sup>11</sup> 羅良傳海外番夷仰良化亦浮驛聽命

by foreigners for trade in Mongol times. I have already shewn it had an officer appointed to collect duties from the shipping frequenting that port.<sup>12</sup> I only regret I have been unable to obtain a copy of a book called *Kai-yuen-szu-chih*,<sup>13</sup> which gives the history of the Temples of Changchow, for from the extracts I have seen from this book, I feel pretty sure we should get at the history of the Franciscan churches, one of which was kept up by the bounty of the Emperor.

With the extracts I have now given, I think I have historically shewn that the claim of Changchow to be the mediæval Zaitun, is as strong as the historical proof brought forward by Colonel YULE in favor of Chinchew, for both our arguments are founded on the same theory, that the cities we each bring forward to be Zaitun did alternate with Fuchau as the capital city of the province.

Independent of this historical evidence, I consider that there are other claims, equally strong, to be brought forward in favor of Changchow being Zaitun, which no one as yet has been able to adduce in favor of Chinchew. I will refer only to two, viz. :—The finding of various Christian remains, such as crosses and images of the Virgin at Changchow, in the early part of the seventeenth century, indicating that city as the probable site of the Franciscan establishment; and the manufacture of damasks of velvet, as well as those of satin, (Kimkha and Atlas) mentioned by IBN BATUTA which are called from the name of the city "Zaitunia," and were considered to be superior to the stuffs of Khansá and Khanbalik.

With regard to the first of these, we learn from the history of the Franciscan missions that two churches were built in Zaitun, one in the city and the other in a forest not far from

<sup>12</sup> See Vol. 21, p. 42, of this Journal.

<sup>13</sup> 開元寺志.

the town. MARTINI makes mention of relics being found in the city of Changchow, and also of a missal which he tried in vain to purchase from its owner, who gave as a reason for not parting with it, that it had been in his family for several generations. According to the history of the Spanish Dominicans in China, ruins of churches were used in rebuilding the city walls, many of the stones having crosses cut on them.

Another singular discovery relating to these missions, is one mentioned by Father VITTORIO RICCI, which would seem to point distinctly to the remains of the Franciscan church built by ANDRÉ DE PÉROUSE outside the city of Zaitun:—

“The heathen of Changchow,” says RICCI, “found buried in a neighbouring hill called Saysou another cross of a most beautiful form cut out of a single block of stone, which I had the pleasure of placing in my church in that city. The heathen were alike ignorant of the time when it was made and how it came to be buried there.”<sup>14</sup>

Let us now turn our attention to the second statement of the manufacture of Kimkha and Atlas in the city of Zaitun. Changchow in the middle ages was the seat of a great silk manufacture, and the production of its looms, such as gauzes, satins, and velvets, were said to exceed in beauty those of Soochow and Hangchow.<sup>15</sup> According to the *Fuhkien Gazetteer*, silk goods under the name of Kinki, and porcelain, were, at the end of the Sung dynasty, ordered to be taken abroad and to be bartered against foreign wares, treasure having been

<sup>14</sup> *History of the Spanish Dominican Missions in China*. Madrid, 1871, Vol. 2, pp. 316-318.

紀卷漳不本取也漳漳鄉謂漳<sup>15</sup>  
 遺四州讓機諸而之緞也善土  
 上十府他所浙絲物漳漳蠶古  
 五志郡織西則產絨紗之所

prohibited to leave the country.<sup>16</sup> In this Kinki<sup>17</sup> I think we may recognize the Kimkha of IBN BATUTA. I incline to this fact, as the characters Kinki are pronounced in the Amoy and Changchow dialects Khimkhi and Kimkhia. Anxious to learn if the manufacture of these silk goods still existed in Changchow, I communicated with the Rev. Dr. TALMAGE of Amoy, who, through the Rev. Mr. Ross of the London Mission, gave me the information that Kinki<sup>18</sup> was formerly somewhat extensively manufactured at Changchow, although at present it was only made by one shop in that city. IBN BATUTA tells us that the King of China had sent to the Sultan, five hundred pieces of Kamkha, of which one hundred were made in the city of Zaitun. This form of present appears to have been continued by the Emperors of the Ming dynasty, for we learn that the Emperor Yunglo gave to the Envoy of the Sultan of Quilon, presents of Kinki and Shalo, that is to say, brocaded silks and gauzes.<sup>19</sup>

Since writing the above, I found in the January number of this Journal (page 111) that Dr. HIRTH suggests that the characters Kinhua,<sup>20</sup> meaning literally gold flower in the sense of silk embroidery, possibly represent the mediæval Khimka. I incline rather to my own suggestion. In the<sup>21</sup> *Pei-wén-yun-fu* these characters Kien-ki are frequently met in combination, meaning a silk texture such as brocade or tapestry. Curtains made of this

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<sup>16</sup> 嘉定十二年臣僚言以金銀博買洩之遠夷  
爲可惜命有司止以綿帛錦綺瓷漆之屬博易

<sup>17</sup> 錦綺. In the middle ages Nansheng, in the Ping-Ho magistracy, on the road to Ting-chow, was the seat of a porcelain manufactory, 瓷器  
出南勝窯者殊勝他邑

<sup>18</sup> 錦綺

<sup>19</sup> 永樂五年小葛蘭遣使入貢賜其王錦綺紗羅

<sup>20</sup> 金花

<sup>21</sup> 佩文韻府

texture are mentioned in Chinese books, as early as the commencement of the Christian era.

There are many other arguments which might be brought forward in favor of Changchow, but I will content myself with those I have mentioned. In concluding this paper, I rise from my task, with the satisfaction of having shewn that RASHID's statement regarding Zaitun being the capital of Fuhkien, admits of clear explanation, without casting doubts on his historical accuracy. I have been careful to give the Chinese text of the extracts from the books I have quoted, so that others, interested in this question, and knowing Chinese, may examine the authorities for themselves. In full justice to Colonel YULE, it must be admitted that he has no means of ascertaining any Chinese fact, except through the translations of sinologues such as KLAPROTH and PAUTHIER, MAYERS, WYLIE and BRETSCHNEIDER, who, curiously enough, never came across the historical fact I have now brought forward, and which, except for the adventitious circumstances already mentioned, would not yet have seen the light.

I trust that this paper, which has brought into prominence the city of Changchow as one of the capitals of Fuhkien in Mongol times, will be the means of further establishing its merits to be considered the site of the mediæval Zaitun.

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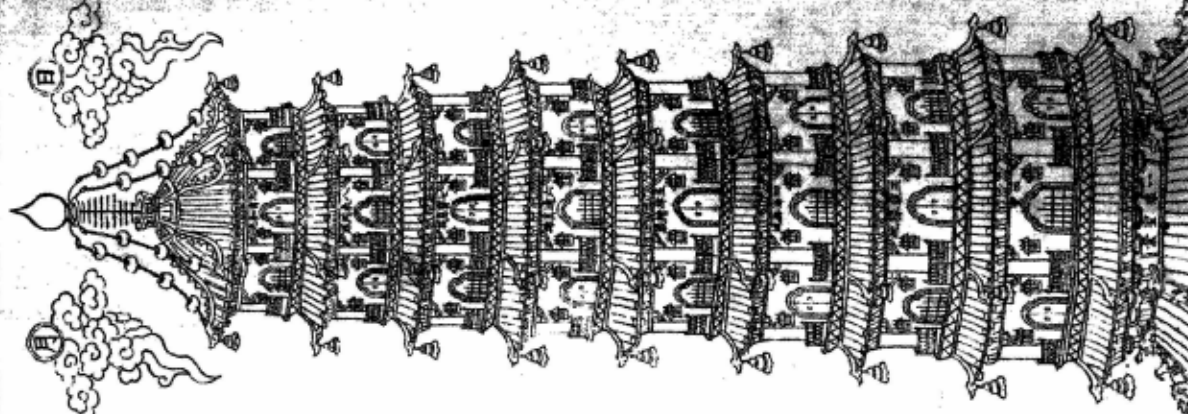
名山勝地大塔祥存敬誠佛教開悟心智示曰  
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君謂悟是認自己自心之心覺者誰自所知知者何我  
仁是透徹信此一點自心之妙具性本何誰自本來  
面目公醒悟麼此泰泰看書云虛空不昧此言其原何  
物有悉認得麼知自知麼有昧無昧自知影乎公莫違  
忙已愚失自心之本也信為聖佛耶是光五彩佛  
身舍利遺傳東土使人求福知悟根源舍利是光五  
色人見明光朝後代性相同塔藏萬固聖德無窮  
為佛報恩第一塔也是舍利  
寶光真不惡謬第一義諦即  
無量法身之身真不昧也即  
吾等入平本有個箇不無故曰  
有凡有聖迷悟不同然其本  
體之明何分善惡悟之不隔  
然毫之相方知佛恩感化無  
窮之意故曰報恩寺塔佛藏舍利塔高衛吳量滿  
地至今舍利不昧古有育王塔進入萬四千之塔而  
漢晉兩朝興廢有時也頃曰古佛靈山無遠近心  
心不隔兩分明凡人信得自身莊悟登靈山塔下修  
身成七寶琉璃塔坐蓮池滿界香仙佛菩薩先悟醒  
極早回光已出身古往今來有迷悟迷人難化轉回  
心善惡兩字人心作貴賤從來命裡成報若能奈遠來  
人是上非只是空悟濟報恩心地好光明圓滿舍那身  
取十方諸佛度凡人無奈凡人心未明指覺本來圓一跟有朝放悟法種聲  
風和浪靜把佛作兩山頭聽鳥音古寺長鐘催曉日琉璃塔瑞放光明



佛  
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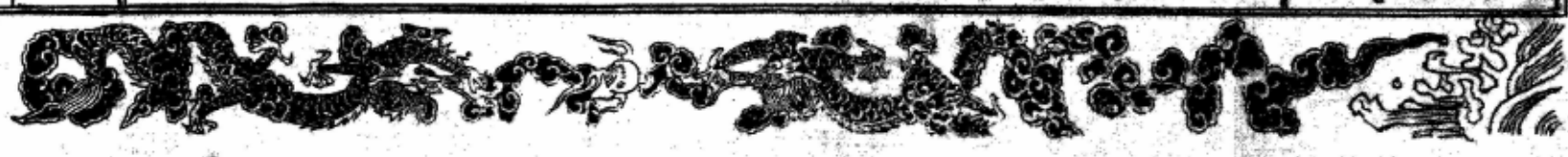
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古誌金陵聚賢門外浮圖一基古來一剎內有阿育王塔由來已久孫吳大帝赤烏三年始建寺院重修阿育王塔名建  
初寺後孫皓毀棄廟宇荒涼而晉太康時有梵僧劉曜河大師得舍利子於長干里野於寺內晉簡文帝改建初於其處  
路曰長干寺重修阿育王塔高三層以舍利子貯於塔內後大齊高宗顯慶五年於南齊故園天禧寺宋太祖乾德年改  
為慈恩旌忠寺元順帝時火燬殆至大明永樂十年北選目報高皇帝后深恩於六月十五日午時起工至宣德六年八  
月初一日完工共十九年勅工部特新建立慈恩大內國式造九級五色琉璃寶塔一座曰第一塔以揚先皇太后之德  
其餘僅高三十二丈九尺四寸九分而頂以黃金風波綢緞之以存久遠其色不晦上九寶龍頭掛鐵索八條垂鈴七十  
二個二下八角華蓋八十四個通共銀數一百五十二個而九寶外面燈計一百二十八盞下八方殿內及塔旁有琉璃  
燈十二盞通共點油計六十四斤上照三十三天中照人間善惡永除人災頂上銅鍋兩口重九百斤天盤一個計重  
百五十斤其塔基通共神道高五丈六尺六寸五分而塔身高九丈九尺九寸九分以九數之而塔身中  
有八十四兩燈頂上琉璃九個方圓六丈三尺小圓方圓二丈四尺計重三千六百斤頂上琉璃燈一輪通水珠一  
燈大珠一粒通風珠一粒通塵珠一粒黃金一盤重四十兩茶葉一盤白銀一千兩明鏡一面重一百斤寶石珠一粒水  
銀錢一千串黃銀二足地氈一都阿彌陀佛經一部釋迦佛經一部接引佛經一部俱備懸在內又  
御書不二法門赤馬寶苑匾額奉令於嘉慶五年五月十五日寅時當神聖運塔至塔頂到三方九層頂而  
神力威嚴 佛法無邊故不能通身損壞 共捐中奏請敬修項修理於嘉慶七年二月初六日開工六月初二日告  
竣而此塔煥然重新矣

藏  
藏





此藥乃本堂主人... 凡患此症者... 功效如神...

此藥乃本堂主人... 凡患此症者... 功效如神...



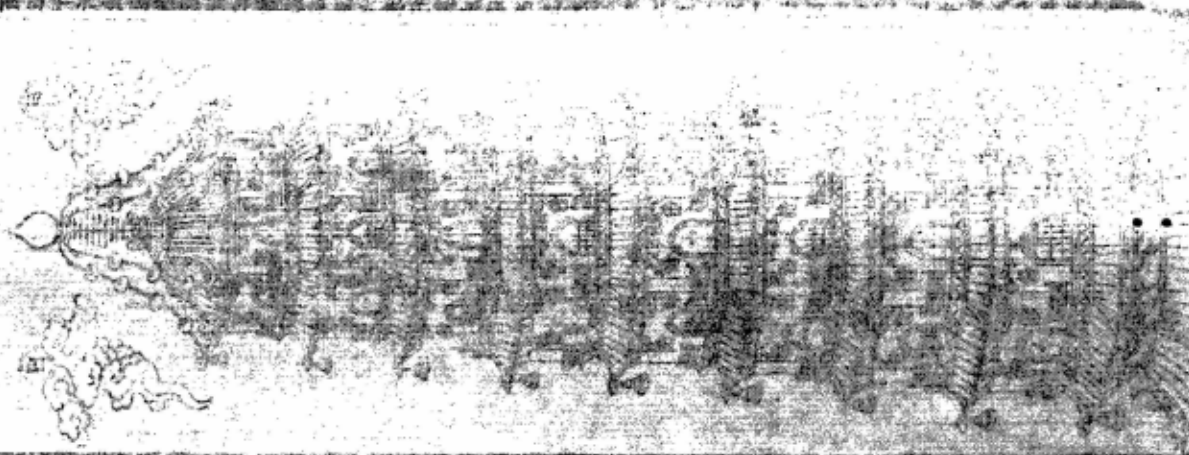
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金名藥考志恩牌南

此藥乃本堂主人... 凡患此症者... 功效如神...



此藥乃本堂主人... 凡患此症者... 功效如神...



## THE PORCELAIN PAGODA OF NANKING.

*Translation of the Historical portion<sup>1</sup> of a Pictorial sheet  
engraved and published by the Buddhist High Priest  
in charge of the Pao-ên Temple.*

By H. E. HOBSON.

(Read before the Society 19th November 1888.)

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In the historical records it is set forth that outside the Chu-pao gate of Chin-ling [Nanking] there existed an old Buddhist monastery within whose grounds there was originally a foundation on which the pagoda of A-yo-ching was built. During the third year of Chih Wu [A.D. 240], the Emperor Sun of Wu founded a temple and repaired the A-yo-ching pagoda. He styled the temple *Chien Ching*, and during Sun-hao's raid against monastic buildings in general it became ruined and desolate. During the reign of Tai-Kang of the Chin Dynasty [A.D. 280-289] there lived a celebrated Buddhist priest named Lin Sha Wu who procured a sacred relic from Chang Kao-li (?) and placed it in the temple as then existing. The Emperor Chien Wên [A.D. 371-2] of the same dynasty altered the style *Chien Ching* to *Chang Kao*, and bestowed the original title on another temple in Chi Ching. He also removed the sacred relic from the temple to the adjacent pagoda, which he repaired and improved by adding three stories to it.

In the Tang dynasty the Emperor Kao Chung [A.D. 650-683] when directing the general renovation of temples, etc., altered the name to *Tien Wei*; and during the Sung dynasty, in Chienteh's reign [A.D. 963-7], another change was made, it being

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<sup>1</sup> Lower half of accompanying sheet.

now styled the *Che-tu Ching Chung*, or Temple of the Emperor Tai-tsu. The pagoda was destroyed by fire during the reign of Shun of the Yuen dynasty [A.D. 1333-1367].

During the Ming dynasty, when in the 10th year of his reign [A.D. 1412], the Emperor Yung-lo removed his court to the north, he ordered the Vice-President of the Board of Works, Huang-li-tai, to have it rebuilt of encaustic bricks, such as were employed at the Imperial palace, the structure to be of nine stories, and 329 feet  $4\frac{2}{10}$  inches high. This he did by way of requiting the great favours he had received from the deceased Empress, and as a tribute to her gracious memory. The work as ordered was begun at noon of the 15th day of the 6th moon of the year above named and was completed nineteen years afterwards on the 7th day of the 8th moon of the 6th year of Hsun-têh [A.D. 1431].

The pinnacle was formed of Ting-po copper, a variety which has all the appearance of gold, and is free from tarnish and the usual deterioration caused by exposure to climatic influences. From the pinnacle eight iron chains were pendant, and from them hung 72 bells, while from the eight corners, and attached to the first story, were 80 more bells; in other words 152 bells in all. On the outside of the eight stories were 128 lamps, and inside the whole nine stories, including the octangular hall on the basement floor, were 12 lamps more. The nightly consumption of oil equalled 64 catties, and the rays of the lamps, which penetrated to the 33rd degree of heaven, served at once as a light to the people and as a charm against calamities both small and great. Crowning the pagoda was a brazen gourd weighing 900 catties, having for a base a salver of 450 catties in weight.

The boundaries of the temple-grounds were:—East, the worshipping-hall of Zu-tung-hai; North, the rice-hong and

\*garden of the Kuo family; West, the Lu-ping bridge; and South, the river, the enclosure measuring 9·13 *li*, from which an idea as to its extent and importance can be formed.

As rebuilt and adorned by the Emperor Yung-lo, the pagoda was expected to continue new and beautiful for ages, thus forming a monument of the Emperor's idea as to requiting the favours of heaven. The temple was styled the *Pao-ên Shih*, or 'Temple of Requited Favours,' and the pagoda the *Yi-yih-ta*, or 'The Pagoda,' and an Imperial tablet graced its main entrance. The cost of building equalled Taels 2,485,484. Encircling the pinnacle were nine iron hoops, the largest being 63 feet in circumference, the smallest 24, their united weight amounting to 3,600 catties. As charms the following articles were deposited in the pagoda: one flood-preventing carbuncle, one fire-preventing pearl, one tempest-preventing pearl, one dust-preventing pearl, one bar of gold valued at Taels 40, one picul of tea, Taels 1,000 in silver, one picul of Yung-hwang medicine, one precious stone, 1,000 strings of cash of Yung-lo's reign, two pieces of yellow satin, and four Buddhist books containing the prayers to Amida Buddha, the prayers to Sacyamone Buddha and the welcoming prayer to Buddha.

One of the emperors of the present (Ming) dynasty penned inscriptions for the pagoda, the first to the effect that 'Buddha is all-powerful,' and the second stating that 'This is the abode of the Spiritual Buddha, erected by Chih Wu,' and these were reverently deposited in the temple adjoining. On the 15th day of the 5th moon of the 5th year of Chia Ching's reign [A.D. 1526] a portion of the pagoda, extending from the pinnacle to the first story, was destroyed by the god of thunder whilst in hot pursuit of

an insect monster; the reason why the whole edifice was not destroyed being attributable to the protecting influence of Buddha added to the majestic severity of the gods.

The then governor of the province forthwith memorialized as to the damage sustained, and besought Imperial orders as to the necessary repairs, the result being that the injuries sustained were made good, the time occupied extending from the 6th day of the 2nd moon of the 7th year of Chia Ching [A.D. 1528] to the 2nd of the 6th moon of the same year, and the structure once more attained its pristine beauty.

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#### TRANSLATION OF THE DEVOTIONAL PORTION. <sup>2</sup>

By W. A. P. MARTIN, D.D., LL.D.

(Read on the same evening.)

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This great pagoda, built on the finest site of a famous mountain, being happily preserved, and displaying a sincere reverence for the teachings of Buddha, which open our intelligence, proclamation is made as follows:—

At the south gate of Kingling (Nanking) where <sup>3</sup> precious things are collected; when the wind moves, the bells send forth wonderful tones,<sup>4</sup> ever rejoicing in the rebuilding of Asaka's tower; the renovation of Buddha's idea, and the manifestation of imperial reverence.

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<sup>2</sup> Upper half of accompanying sheet.

<sup>3</sup> The name of a place taken in its first meaning.

<sup>4</sup> Or, in the reign of Yunglo, the characters being taken in a double sense.

Do you with the whole heart repeat the praises of Amida Buddha, with reverence and understanding, asking yourself, "what in reality was I in the beginning?" This phrase, do you think you understand?

It is to know whence came the inward consciousness of one's own heart, and what it is to say, I know what I know, and whether my goodness is thorough.

Truly this is my heart's most marvellous point.<sup>5</sup> Its nature what and whence? Its original aspect have you realized? This to compare with other books, is called "having the pure spirit unobscured."<sup>6</sup> What this says it originally was, do you fully apprehend? To be obscured or unobscured, is not that the shadow of self-knowledge?

You must not resist and in your haste foolishly let go your heart's original. Is not this (original) really the Buddha of the West? His rainbow glories and the relics of his body have been transmitted to this eastern land, so that men may seek happiness, and know the fountain of understanding.

The relics and their rainbow light, all men can plainly see. Earlier and later dynasties may differ; but the tower and its stores firmly abide, the same through all ages. The Emperor's merit is infinite in building this most noted pagoda, to repay the grace of Buddha.

The relic's precious light is true beyond a doubt.

The first right principle is the boundless presence of Buddha's person. To know this is truly to be "unobscured."

It is what we men originally possess, and no one is without it.

<sup>5</sup> The symbol of the dual powers or mundane egg, is here introduced into the text as the original of human nature.

<sup>6</sup> A phrase from Chufutse's commentary on the 大學 *Tao*.

Therefore it is said, the wise differ from the common herd, in being free from error; yet in our original perceptions, what difference is there between the good and evil?

You must have no obstacle to your knowledge before you can understand the grace of Buddha, and his boundless renovating purpose.

Therefore this is called, "The Tower of the Temple of Gratitude," "The Tower of Buddha's Hidden Relics."

The tower is sublime in height; through its good luck, its relics, even till now, have not lost their light.

Of old, Asoka's faith erected 84,000 pagodas; but the princes of Han and Tsin sometimes built and sometimes destroyed.

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#### A HYMN OF PRAISE.

1. The spiritual mountain of our ancient Buddha is neither far nor near;  
When heart is not divided from heart.  
All ye who are grounded in faith,  
Awake and ascend the spiritual mountain, and gain merit in this pagoda.
2. His body formed a crystal tower, containing seven precious things.  
He was torn from his mother's side and sat in a lotus-flower, filling the world with fragrance.  
Genii Buddhas and Bodisativas had previously awaked.  
The reflection of their early light took shape in his person.
3. Of old, some are spell-bound and some awake;  
The spell-bound are hard to renew and convert.  
Good and evil originate in the human heart;  
But high and low are always the work of fate.

4. If you penetrate the original of man, right and wrong are empty names;  
If you awake to a sense of gratitude your heart is good,  
And you get the full-orbed light of a better life.
  5. The Buddhas of all lands are ready to save the world,  
But men's hearts do not receive the light.  
If only a touch of spiritual consciousness awakes,  
It is like the ringing of a morning bell.
  6. May harmonious winds and gentle waves propel your boat!  
On the hill-tops of either shore you hear the voice of birds.  
The matin-bells of the ancient cloister anticipate the morning sun,  
Which causes this crystal pagoda to gleam with auspicious light.
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## TRANSLATOR'S NOTE.

This inscription is marked by an utter want of logical sequence, which is ill concealed by a style of studied obscurity. It contains not a few points in regard to which the translator is still in doubt, after making use of all the aids within his reach. In the rendering of these, he may have lost something of the meaning, but he feels a comfortable assurance that the version now offered contains at least as much sense as the original.

After writing a first draft, he consulted two learned natives—one of them an official in the Tsungli Yamen, with the degree of *ts'inshe*, and a reputation for acquaintance with the Buddhist classics. Both professed their inability to fix the punctuation with any degree of certainty; and the latter pronounced the whole composition as little better than nonsense. It is not free, he



says, from gross errors in the use of characters. In the doubtful passages above referred to, both accept the punctuation proposed by me, as the only one that yields a tolerable sense. The principal points occur in a few lines, which I here append according to my own reading.

PEKING,

20th October 1888.

悟	自	妙	信	者	者	自	句	確	彌	一
麼	本	此	何	誰	已	君	我	陀	佛	心
	來	●	我	自	自	謂	本	佛	恭	存
	面	其	仁	所	心	悟	來	悟	悟	念
	目	性	是	知	之	麼	誰	心	心	南
	公	本	透	日	心	是	也	乎	無	阿
	醒	何	麼	知	覺	認	此			
		誰								



## NOTES AND QUERIES.

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### FORMATION OF HANG- CHOW BAY.

In the discussion following the reading of the paper on the Bore of the Tsien-tang River, the theory was advanced that the first appearance of the Bore was due to erosion, whereby the outfall of the Tsien-tang came at the apex of the funnel presented by the Hangchow Bay, while formerly the course of the river was much farther to the South. A course as far to the South as the hills will permit would leave the mouth of the river still at the apex of the cone, and fronting more directly to the open bay; so that this change alone will not account for the beginning of the Bore in history. Looking at the geological formation of the adjoining country, it is to be observed that the high land runs East and West along the North coast of Chekiang, then bends nearly at right angles near Hangchow, running thence North to the Great Lake (太湖) and around to Langshan; this was the coast-line. The present land of Kiangsu has since then been formed by alluvial deposit, and more especially the broad peninsula (on which Shanghai stands) terminated by Yangtze Cape and bounded on the North-east by the Yangtze River and on the South-east by Hangchow Bay. The former islets, present hills, near Haining, Chisan and Ohapu, defined the northern shore of the bay near its head, and the violent scour of the flood and ebb keeps that shore unchanged; but farther North, at and near Yangtze Cape, we have purely alluvial conditions, and here we find one lip of the wide open mouth stretching out year by year to catch a greater breadth and therefore greater volume of the flood current. Taking the statement of Commander MOORE that the flood current impinges

on this shore from the Pacific Ocean in a direction *somewhat North of West*, and glancing at the chart, we see that the Southern shore of the bay is almost parallel to the current and can therefore deflect none of its waters; while the Northern shore is so inclined as to deflect to the South all of the current caught South of the tip of Yangtze Cape.

It may be suggested then that prior to A.D. 900 the shore from Chapu northwards was at such an angle as to deflect to the North, instead of to the South (*i.e.*, into the Yangtze instead of into the Tsien-tang), the tidal current impinging on it; that just before that date the shore reached a direction about at right angles to the tidal current; that when it advanced beyond the right-angle direction, the Bore was born; and that this point was reached between A.D. 850 and 910. It may further be suggested as probable that as Yangtze Cape advances, the Bore will increase in height and power.

M.

13th December 1888.

AN ALLEGED OLD  
IMPORT OF PORCELAIN  
IN EUROPE.

I have just gone through that famous collection of pottery in Dresden, and since there is hardly a writer on ceramic matters who does not, by way of introduction to the historical part of his work,<sup>1</sup> refer to a certain white porcelain plate, set with precious stones, and said to be exhibited in the Dresden collection and described in the official catalogue as "imported by a Crusader returning to Germany, and manufactured in the province of Fukien," my very first inquiry was naturally directed towards this curious object. I fully expected a piece of porcelain very different from what we see among the produce of King-te-chên factories; but my hopes to learn were not realised. The celebrated plate looks like an ordinary piece of white (*not* ivory white) crockery, indeed like one which may have been made at any

<sup>1</sup> Cf. BUSHELL, "Chinese Porcelain before the Present Dynasty," in *Journal of the Peking Oriental Society*, Vol. I, p. 74.

time during recent centuries, and which could at no time have laid any claim whatever to superiority of workmanship. When I took occasion to speak about it to the present custodian, the successor in office to Dr. GRAESSE, whose name is well known to collectors of crockery as that of the author of the "Guide de l'amateur," I could not refrain from expressing my doubts. These, to my further surprise, were confirmed, since I was told that there seemed to be a mistake in the matter. I learned accidentally that the collection contained another piece, a small blue and white dish, also set with precious stones. I asked leave to compare the two pieces, and discovered that the metal in which the precious stones of either piece were mounted was exactly alike and that the pattern shown in the metal (gold, brass, or Japan copper?) mounting was identical. The second (blue and white) piece, however, contained the characters 大明嘉靖 (*ta-ming Chia-ching*) as a mark, which shows to a certainty that its origin cannot be looked for in a period earlier than the period referred to, viz., the Ming Emperor Kia-king, whose reign extended from A.D. 1522 to 1567. The similarity in the mounting of the two pieces is so striking that one cannot help entertaining the gravest doubts as to the identity of the plain white plate now exhibited with the one imported by the Crusader, since the return to Germany from any of the Crusades known in history in so late a period as the year 1522 seems to be out of the question. If the importation into Saxony of a piece of porcelain during the 12th or 13th century is at all more than a legend, it would appear that at some time or other the genuine article has disappeared. There is, however, a possibility that the plain white piece—which, by the way, bears the character 福 (*fu*, "luck") as a mark in a square enclosure—was imported without the precious stones and that these were added in a later period, since the work is so done as to suggest the fastening of the stones *after* the burning of the vessel. But, even making such an allowance, I feel more sceptical on this than on any other piece of alleged antiquity I have seen.

F. HIRTH.

Dresden, 1st November, 1888.

## PROCEEDINGS.

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MINUTES of PROCEEDINGS at a GENERAL MEETING held at the Society's Library, Museum Road, Shanghai, on Monday, 22nd October, 1888, at 9 p.m.

Dr. R. A. JAMIESON occupied the Chair. There were about twenty persons present.

The formal business having been disposed of, the Hon. Sec. (Mr. H. B. Morse) read the following list of new members elected since the last meeting :—Lieut. D. A. Mills, R.E., the Rev. Chas. Spurgeon Medhurst, Messrs. Karl Schmidt, Geo. Phillips, J. C. Hall, Carl Bock, John Macgregor, J. M. T. Valdez, R. J. Abbott, and J. W. Jamieson.

The PRESIDENT then announced a paper by Mr. W. R. Carles on a Corean Monument to Manchu Valour and Clemency.

Mr. CARLES then read a short paper, introducing a translation of an inscription in Chinese on a monument which stands about 10 miles outside Seoul, the capital of Corea. The scarcity of monuments in Corea attached, he said, additional interest to this, which was erected in 1639 A.D. by Corea, to bear witness to the lenient treatment which she had received at the hands of the Manchus after different invasions which had placed her at the feet of the new power.

Apart from the record of facts given by the inscription, of which only the Chinese version had been generally known hitherto, the inscription was interesting in its recognition of the Manchu or Taching Empire, which had been proclaimed in 1636 A.D., and in its allusion to Si-fan accompanying the Manchus in their invasion of Corea.

Mr. CARLES added that the importance attached by the Manchus to the recognition of their Empire, at a time when they had no hold on China proper, seemed to him to suggest that originally the Manchus

would have been content with the possession of the outlying parts of China, and that it was only the force of subsequent events which led to the extinction of the Ta Ming Empire, but for which events the two Empires of Ta Ching and Ta Ming, divided, roughly speaking, from each other by the Great Wall, might have existed together.

The PRESIDENT in thanking Mr. Carles for his paper, which would be a most valuable addition to the stores of information already accumulated in the Society's Transactions, desired to draw attention to the poetical vein which ran through the entire composition, and especially the latter portion, which had the ring of a psalm. It was interesting too to notice that the Manchu conqueror had taken advantage of his triumphant position to press civilization on the Coreans, by encouraging and enforcing the practice of agriculture. There might perhaps be two opinions as to the delicacy with which the Korean King was treated in the matter of personal humiliation. No doubt his eloquent eulogy was quite the reverse of spontaneous. He was forced to grovel and to make believe that he keenly enjoyed the process. But such things had of course to be regarded from an Oriental point of view.

Mr. CARLES mentioned that he had omitted to state that the latter part of the inscription was in fact a psalm.

The PRESIDENT next called upon Mr. Morse to read the Council's Report upon the proposed Trade and Commerce Museum.<sup>1</sup> They were aware that the Honorary Secretary had endeavoured to stir up the community to the importance of having a museum in which Chinese products should be brought together in a convenient form. The Report which the Hon. Sec. would read set forth at length the reasons which had moved the Council of the Society to take action, and would also tell the meeting what they had done in the matter. He need hardly say that it was a matter of great public interest, and especially to the mercantile community, that a museum should be established in which all the products of China, a great

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<sup>1</sup> Appendix, page 49.

part of which were unknown to us, should be brought together. The development of the trade of the country in which we live is of vital importance not only to China herself but to us whose motives are not perhaps untinged by a certain refined selfishness. He thought it only right to mention that although the Hon. Sec. had appreciatively mentioned the action taken by the Council and by the late President, Mr. Geo. Jamieson, all the hard work,—and there had been a great deal of hard work,—fell upon Mr. Morse's own shoulders, and whatever success was reached in the practical shape in which the plan was laid before the public, was due almost altogether to Mr. Morse's exertions. He then invited the meeting to express its approval or disapproval of the scheme, but no discussion was elicited. The Report appears on page 49.

The PRESIDENT proceeded to give a summary of an annotated translation by the Rt. Rev. Bishop Moule of a Taoist Tract which had been published anonymously in Hangchow and widely circulated, entitled "A True Guide to Vacuity." He illustrated his summary and running commentary by several extracts, showing that the author's design was rather the edification of those who were already believers in certain religious doctrines than the conversion of unbelievers. The work was an attempt to harmonise crude metaphysical and theological conceptions with dogmatic religious teaching. In other words, the author sought to shew that there was an intellectual basis for a religion which in its inception was either practical or emotional or both. Such efforts were worthy of our interest and sympathy. They were the counterpart of what was daily going on among the seriously-minded of ourselves, seekers after truth, intolerant of any doctrine which was purely authoritative. It was much to be regretted that the bishop had restricted himself in his notes to explanations of the text. Few could be more competent than he to draw a parallel full of interest and of valuable suggestion between this rough essay and the elaborate systems of western theologians.

A discussion followed in which Mr. KINGSMILL pointed out that a somewhat similar document, printed in a Buddhist Monastery, had

been read before the Society three years ago. He thought the tracts were important, however, as showing that there was sufficient energy left in the two religions to cause them to publish such documents.

Gen. MESNY, with reference to Mr. Carles' paper, said that the Ta Ching dynasty was established long before the Ta Ming, not, however, in China, but in Manchuria, at Moukden. The Ta Ching had previously compelled the Coreans to pay them tribute instead of sending it to China, and it was upon the invitation of the Ming that they afterwards entered China, to assist the reigning dynasty in suppressing a rebellion. If his memory served him aright, there were at least three Manchu Kings who reigned over Manchuria, before the conquest of China.

Mr. KINGSMILL pointed out the fact that the Manchus were prevented from directly attacking China so long as Wu San-kwei held Shanhai kwan. When the rebel Li pounced on Peking and the last monarch of the Mings hung himself from a tree in the palace grounds, Wu, conceiving his allegiance had no longer any object, and thirsting for revenge, called on the Manchus to aid him in punishing the insurgent. Once past the barrier, the Manchu leader did not see the policy of going back, and Wu and his army too late found they had to accept the new position of affairs.

The importance of holding Shanhai kwan is still preserved as a vivid tradition by the rulers of the State.

A conversation followed on the proposed Museum. General Mesny was in favour of having it under the control of the Municipal Council, having regard to the failure of the previous museum started by the Society and Sir Walter Medhurst.

Dr. WILLIAMSON expressed his preference for an Exhibition, somewhat on the plan of that at Glasgow, and other large cities at home, a mere museum, in his opinion, being too quiet an affair to attract the attention which he desired to see displayed in the undertaking. He thought that if they could start with an exhibition it could be afterward turned into a permanent museum,



but he would like to see a good commencement made and one which would attract widespread interest.

Mr. KINGSMILL said the museum upstairs was not the one referred to by General Mesny, who had in his mind the Polytechnic, which unfortunately fell into the hands of a few self-opinionated men, and consequently was relegated to a remote corner of the settlement. He had been greatly interested in it himself at first, but on getting wind of what was going on, he quickly "made tracks" out of it. He did not approve of the idea of an Exhibition, as it would be hopeless to expect to get a guarantee of a quarter of a million in Shanghai, as was done before the great Exhibitions at home started.

The PRESIDENT, referring to General Mesny's remark, that the proposed Museum would be better administered by the Municipal Council than by the Society, said the Society had no desire to run the Museum after it was started. They merely wished to formulate a plan, and their functions would terminate after that plan was placed before a general meeting called to discuss the subject. It would be for the meeting then to say how the Museum could be best administered. The Council of the Society intended to lay their scheme before a public meeting, but whether it would be accepted or not, he did not know.

The HON. SECRETARY said that reference to the future organisation of the Trade Museum had been intentionally omitted from the Report, as that would lie with the general committee appointed at a general meeting of the Community, and did not properly fall within the province of the Society.

A number of fossils from the neighbourhood of the Kaiping coal mines were then shewn by Mr. Kingsmill, who explained that they were very interesting, as affording a contradiction of the theory he had often seen advanced that the coal-fields of that region were of a later formation than those of America and England. The fossils unmistakably belonged to the true carboniferous age.

The meeting then adjourned.

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*MINUTES of a GENERAL MEETING held at the Society's Library on  
Monday, 19th November 1888, at 9 p.m.*

Dr. R. A. JAMIESON, V.-P., occupied the Chair.

The CHAIRMAN in opening the meeting stated that the bill of fare, if he might describe it as such, for the evening consisted of a paper on "Changchow, the Capital of Fuhkien in Mongol Times," by Geo. Phillips, Esq., and an account of "The Porcelain Tower at Nanking" from a Ming scroll, contributed by H. E. Hobson, Esq., with translations by the contributor and Dr. W. A. P. Martin. While coming down to the meeting, the thought had struck him that just as at banquets of gourmets the feast is preceded by little dishes, unconsidered trifles which act as appetisers while they are not of sufficient importance to be separately enumerated, so it would be a good idea if, before the serious business of each evening was commenced, members of the Society and others present were invited to mention anything that had come under their notice in their reading or otherwise, that might be interesting to the Society, but not sufficiently important to form the subject of a paper. This plan is adopted by the medical societies, and, he believed, by all the scientific societies in Germany. The Chairman calls upon the members present to mention anything of less apparent importance than the items in the order of the day; discussion follows, and facts and opinions are elicited which often greatly exceed in interest the questions set down for consideration. He thought they could not do better than follow this example, and he therefore invited those present to bring forward for consideration and extemporaneous discussion any matter within the Society's scope, which had lately interested themselves.

Mr. CARLES stated that since he read his paper at the last meeting, Her Majesty's Consul-General at Söul had met some persons who had taken a rubbing of both sides of the monument, Chinese on the one side and Manchu on the reverse, a copy of

which had been kindly forwarded to him, therefore he would be able to make any corrections necessary.

A very interesting paper on "The Porcelain Tower at Nanking" was then read by the Secretary, who stated that the scroll had been found by Mr. Hobson in a second-hand book shop in London, and was labelled "The Last Will and Testament of the Emperor of China," or something to that effect. The paper consisted of a description of the construction of the tower, and a translation of the characters on the scroll. In conclusion the Hon. Secretary stated that the description of it as just read was given upwards of 400 years ago, and he thought it would be a very useful supplement to the paper if someone could furnish a description of it 40 or 50 years ago.

Mr. FRYER thought that a work on the Province written by a former Viceroy, which he had seen, and which comprised some 30 or 40 volumes, would give the desired information. No response having been made to the Secretary's invitation, the CHAIRMAN said that as the unanimity of silence proved that there was nobody present who could give personal reminiscences of the tower as it was 30 or 40 years ago, he would call upon the Secretary to read the other paper, "Changchow, the Capital of Fuhkien in Mongol Times." This being read, the CHAIRMAN announced that, for the next meeting, a paper had been promised by Captain Moore, of H.B.M.'s Surveying vessel "Rambler," upon the Bore in the Tsing-tang River (Hang-chow Bay) which he had recently observed with great minuteness. Captain Moore was a carefully trained observer, and he was sure the paper would prove very interesting.

Mr. MORSE stated that the bore, which was well worth seeing, was to be best seen at Haining, two days' sail from here in a house-boat.

The meeting then adjourned.

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## APPENDIX.

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### REPORT OF THE COUNCIL ON THE PROPOSED TRADE AND COMMERCE MUSEUM.

The necessity for establishing at Shanghai a Museum exhibiting the resources of China was brought to the notice of the Council early in the year, and was first formally discussed at a Council meeting held in April last. The question was considered in its fourfold aspect, as it affected (a) strangers, (b) scientific men, (c) traders, and (d) the general community.

Strangers visit Shanghai in search of what is new and interesting; Europeans visit it to study the characteristic aspects of a civilisation which, older than theirs, presents so many points of divergence from all that they have been accustomed to regard as the axioms of civilisation; while Chinese flock here from all parts of the Empire to gaze with wondering eyes on the novel views shown in an orderly community of Europeans living in their midst. The European sees the people and something of their mode of life, and has means of information regarding their mode of thought; the Chinese see the members of the foreign community and something of their mode of life, and may see the working of a steam-ship, a steam-dredger or an electric light; but both European and Chinese will search in vain for any exhibition of the products of this country. The lover of zoology will indeed find a fairly complete collection of the birds and animals peculiar to China, as complete as the good-will of the community has been able to make it; and that this limited collection, appealing to an extremely limited class, is duly appreciated, may be seen from the fact that on an average about 300 to 400 visitors, Chinese and foreign, enter its doors every month, shewing that the beneficence of contributors and the untiring zeal of the several Curators have not been wasted labour. Outside the Natural History Museum, however, Shanghai offers nothing to the stranger; and the museum of natural products which the traveller finds in every capital from London to Tokio, he will not find in Shanghai, the commercial capital of China.

Scientific men have made some study of the natural resources of China, and the generation of Fortune, Hanbury and Richthofen finds worthy successors in the present day. Each writer must, however, begin *de novo*; none can safely start from the point where his predecessor left off, for his predecessor has left no permanent record of the sources of his information. A Museum of the products of the

country, now non-existent in this part of the world, would, if it existed, furnish a standard of comparison and reference. The scientist resident in western countries may, it is true, find partial collections which may or may not meet his requirements, in London, in Washington, in Berlin, in Paris and in Vienna; but at best those collections are inelastic and do not admit of being completed by constant additions; they have moreover the serious defect that the failure of one link in a long chain of research can only be remedied at the expense of months of correspondence. No such defects could exist in a Museum of Chinese products in China; the several series could always be kept complete, and as new discoveries were made, specimens exemplifying them would be added to the Museum; moreover an obscure point could be illustrated and a missing specimen supplied in the shortest possible time. For these reasons the establishment at Shanghai of a Museum of Chinese products will undoubtedly prove an inestimable gain to science.

The advantage to the merchant of the Trade Museum needs no argument; while the traveller gratifies his curiosity and the interest he takes in the country he is visiting; while the scientist avails of the Museum to prosecute his researches, and gives to the world the benefit of his labours; the trader finds in the Museum the means of directly benefitting himself. He there discovers articles hitherto buried in the internal trade of a country, which may to his own advantage be made to enter into its foreign trade; commodities produced and exported elsewhere are found to be produced also there; and, on the other hand, articles which he, as he thinks, has discovered, and which he proposes to introduce to home markets, the museum catalogue informs him are also produced elsewhere, and that under so much more favourable circumstances that his venture could only result in loss. The Museum thus fills a double function; it indicates what he may venture, and points out what to avoid. The collective wisdom of the world is seldom, under existing conditions, at fault; and the unanimity with which European nations have decided to organise trade museums, is a sufficient argument for the establishment of such a Museum at Shanghai.

The community prospers as the commerce of the place prospers. China will benefit from the increase of her foreign trade; and a further development of the trade of Shanghai will bring increased prosperity to all classes resident in Shanghai.

These reasons appeared to the Council to point to the advisability of organising a Trade and Commerce Museum at Shanghai, and the critical state of the China trade indicated the present as the time best suited for moving in the matter. The China Branch of the Royal Asiatic Society is made up of all classes of the

community, and represents, as no other body represents, the whole community. The Council therefore considered the question at two meetings held in April last, and decided as follows:—

- 1<sup>o</sup>. To move in the matter of the Trade Museum up to the point of organising;
- 2<sup>o</sup>. To ascertain if there existed any active demand for the Museum;
- 3<sup>o</sup>. Should such a demand be found to exist, to call a public meeting and then hand over the question to be dealt with by the community at large;
- 4<sup>o</sup>. Should there be no such demand, to drop the matter;
- 5<sup>o</sup>. To limit the Museum to exhibits of Chinese origin, with such incidental illustration by foreign products as might be found necessary;
- 6<sup>o</sup>. To appoint a sub-committee to make application to the Inspector-General of Customs for his aid and support.

The sub-committee met and considered the terms of a letter to the Inspector-General of Customs, to which in due time a reply was received, to the effect that if the support looked for elsewhere proved that the Museum would be really valued by the public, he would be ready to supplement the public's doings. A letter, promising assistance, was also received from M. Goebel, Consul-General for Belgium, and appears as an Addendum to this Report. Encouraged by this and by other promises, the Council decided to proceed and to ascertain whether the Trade Museum was generally considered as a desirable institution to be established in Shanghai.

In order to raise the question and draw attention to the project, letters were written to the newspapers, one (dated 15th October) being also sent out as a circular; these letters are appended. Inquiries are now being made as to the support the projected Museum is likely to find; should it be ascertained beyond doubt that it is favourably regarded, steps will be taken to call a public meeting for full discussion of the question; should the project be coldly received, the matter will be dropped.

In the consideration of this question the Council has suffered a great loss in the departure of the President of the Society, Mr. Geo. Jamieson, who was one of the first to move in the project and felt a strong interest in it, but who was obliged to leave Shanghai soon after it was first mooted.

The Council trusts that its action in this matter will receive the approval of the Society.

H. B. MORSE,

*Hon. Secretary.*

Shanghai, 22nd October, 1888.

41008

*Letter from the Hon. Secretary to the Editor of the North-China  
Daily News.*

The admirable article on Museums in your issue of the 12th instant calls attention to a want which has long been felt in Shanghai, and to the necessity for some storehouse of the commodities of this rich country, to which the scientific man and the trader may turn for information on matters affecting their several pursuits. Your article exposes this need in clear terms, and it is to be hoped that its words may go home to the minds of those most interested, —the mercantile communities of China. In speaking thus, however, you have but anticipated the intentions of the China Branch of the Royal Asiatic Society, the Council of which took into consideration some months ago this question of a Trade and Commerce Museum, first discussing the matter at a meeting held in April of this year. The intervening time has been spent in considering ways and means, and in preparing for a more vigorous handling of the project; and now that the Press is disposed to ventilate the matter, we are prepared to come before the public.

The time seems to have come when this Settlement, the mart for two-thirds of China, should be provided with such a Museum as has been considered by the Asiatic Society; a collection, suitably housed and classified, of all products, raw and manufactured, which enter or might enter into the trade of the country. Such a Museum should contain agricultural products in all stages of preparation; farming implements; specimens of minerals from all the Eighteen Provinces; models of metallurgical apparatus; samples of the thousands of substances used as medicines by the Chinese; vegetable fibres and products; textile fabrics; porcelain, metal and other wares; and numerous other things, of which not one-tenth is known to those most interested, those who are anxiously searching at their own cost and by their own unaided efforts for new articles of trade.

The Society has been assured of the most valuable co-operation in obtaining samples of raw materials; and the Museum may reasonably hope to open its doors with as extensive a collection of such samples as the valuable and interesting collections made by the Imperial Maritime Customs and sent to Vienna in 1873, to Philadelphia in 1876, and to Paris in 1878. Other specimens and models will be obtained by purchase or donation, and it is intended to make as complete an exhibit as can be obtained of the present and potential resources of China.

When funds allow of extension it is also proposed to add to the Museum a collection of foreign products suitable for Chinese

consumption; but at the outset no more can be attempted in this direction than, perhaps, to show to the Chinese what their competitors in Japan, in India and in Europe are producing in the way of teas and silks.

The work of collecting the exhibits will entail no great expense; but funds must be provided for erecting a suitable building, and for classifying, describing and cataloguing the thousands of specimens. It is unreasonable to suppose that there will be any serious difficulty in procuring funds for so useful a public purpose from such generous and public-spirited communities as those of China.

This is the age of concerted efforts in trade, as the first half of the century was that of individual enterprise; it is no longer A. B. & Co. against C. D. & Co.; it is the united merchants of the China ports against the united merchants of Japan, of Indo-China, of the Straits, of India, and of the whole world; and of late years the Trade and Commerce Museum has come to be recognised as the instrument best adapted to aid the developer of new industries and the searcher for new articles of commerce. Scarce one trading town of any importance in Europe (Great Britain excluded) is now without such a Museum, as a rule organised and supported from Government sources. Great Britain and the United States are much behind in this respect, but the same need has been felt, and individual effort, unaided by Government, has opened Trade Museums in several trade centres. Even Saigon, limited to rice for its chief staple, is having a palace built by the French Colonial Government for its exhibit of the resources of the country. What Saigon has had done for it by a paternal Government, that self-supporting and self-respecting Shanghai will do for itself, with such aid as its sister ports may give.

The Asiatic Society has no interest in this question beyond the interest which its members, as members also of the community, take in what concerns the welfare of the community. The Trade Museum primarily affects three classes, viz.:—the Chinese mercantile body, the Chinese officials, and the foreign mercantile body. They will derive the chief benefit from such an exhibit as it is now proposed to make; and if they show, by substantial support, that they want it, the Asiatic Society will provide for the task of collecting, arranging and preserving it.

H. B. MORSE,  
*Hon. Secretary,*  
*C.B.R. Asiatic Society.*

15th September 1888.



*Letter from the Belgian Consul-General to the Hon. Secretary.*

Shanghai, le 19 Septembre 1888.

MONSIEUR,

J'ai lu avec le plus vif intérêt, dans le *N.-C. Daily News* d'hier, votre lettre relative à la création d'un Musée commercial à Shanghai.

Si vous le voulez bien, je suis prêt à m'associer à l'initiative de la China Branch of the Royal Asiatic Society et non pas seulement en mon nom personnel, comme ayant participé à la création de plusieurs Musées commerciaux en Belgique, mais encore en ma qualité de représentant d'un pays dont le gouvernement avait jadis formé le projet d'instituer pour son propre compte un Musée d'échantillons à Shanghai.

Votre programme préliminaire comprenant l'exposition des articles manufacturés importés en Chine, je ne doute pas que le gouvernement belge se montre disposé à encourager une entreprise répondant ainsi, dans une certaine mesure, au but qu'il s'était lui-même proposé.

Quant aux nombreux articles que la Chine livre au commerce universel et dont les Musées commerciaux de Bruxelles, de Liège et d'Anvers ont le plus grand intérêt à posséder des collections complètes, il sera très-aisé, en prenant les choses au début, d'en former d'emblée quatre collections au lieu d'une seule.

Agréez, Monsieur, les assurances de ma considération la plus distinguée.

M. GOEBEL,

*Consul-général de Belgique.*

H. B. MORSE, Esq.,

*Hon. Sec. C.B.R. Asiatic Society.*

*Letter from the Hon. Secretary to the Editor of the North-China Daily News.*

Of late years the attention of the commercial nations of the world has been directed to the necessity of organising their commercial energies, and securing by this organisation that supremacy in matters of trade which, in warfare, disciplined bodies of troops exert over unorganised mobs. The first step taken in that direction was the formation of Societies of Commercial Geography; of these no less than 39 in nine countries have been formed, and a steady stream of commercial knowledge is now poured upon the world, but more especially upon those communities which have had energy and foresight to establish these Societies in their midst. The

Society of Commercial Geography, being merely a disseminator of theoretic information, was found, however, to be of little use by itself, and demanded the Commercial Museum as the graphic illustration of its precepts. Without the collections of the Museum, the information given is somewhat in the air and lacks the vividness and reality which come from having an object, and knowledge on that object, side by side. The Commercial Museum followed then soon after, and the institution has made vast strides within but few years; there are now no less than seventy-three such institutions organised in eleven countries of Europe; Germany alone having twenty-eight, and France eighteen.

In this age of steam and telegraph, individual enterprise and foresight are much less important factors in commerce than well-organised combination. If demand exceeds supply to-day in London, the demand can be met in a fortnight from America, in a month from India, in two months from China or Australia; a suddenly-discovered scarcity sends telegrams flying in all parts of the world, and no individual has more than a few days, perhaps a few hours, start over the whole commercial world. The prices of the main staples of the world's trade are settled outside China, and no effort of the China merchants can seriously affect them. Of the world's product of tea, China's great staple, China contributes less than half, and of silk not a third; while outside these chief items, China shares to but an insignificant extent in the world's commerce, her exports (tea and silk excluded) amounting in 1885 to 13 million taels, while the imports into Great Britain, France, Germany and the United States alone amounted in the same year to 3,500 million taels. We thus see how small a share China holds in determining the conditions of the world's market.

There is however one field in which the China merchant may display his enterprise and may exert a strong influence on the world's trade: this is found in the resuscitation of decayed industries and the development of new branches of trade. Practically, the other three quarters of the globe are producers of raw material for utilisation in the workshops of Europe; the fleets of the world visit the producing countries to bring away the means wherewith to pay for the products of the manufacturing countries; and it is for the producing countries to find the means of making these payments. China has heretofore paid for her imports mainly in tea and silk. We are told that China tea is losing its hold on the market, and there are ominous murmurs regarding the quality of China silk; how then are the cottons imported to be paid for? We may be certain that they must be paid for in one form or another; and if tea cannot do it, then other products must be found to answer the purpose, or not only will exports to foreign

countries fall off, but foreign imports will suffer serious curtailment also.

There is no doubt that China is one of the richest countries in the world, not rich in the sense that, for example, Great Britain is rich—the people are poor and great fortunes are rare—but rich in the products of the country, products which the world wants and for which it will pay. Here we have fertile fields, and mineral deposits declared by experts to be equal to any in the world; but how much have they been developed for foreign trade? Some few commodities, a mere gleanings of the rich harvest, now enter into foreign trade, and scarce one that has not taken immense strides; we may instance Straw Braid, of which the export through Shanghai amounted in 1867 to 945 piculs, and in 1887 to 150,953 piculs; Camels' Wool in 1867 to 825 piculs, in 1887 to 14,739 piculs; Cowhides in 1867 to 146 piculs, in 1887 to 65,437 piculs. How many articles there are, the value of which is known to but a few, which should go like these, to swell the export trade of China.

New articles of export must then be found; but how is this to be done? It is clearly impossible for each merchant himself to enter on the search over so wide a field; by his own unaided efforts he will catch but a few flying straws of the trade that passes him by; the true and only effective method is to spread out before the merchant an exhibition of the resources of China, in such shape that all information desired is readily obtained. At present there is no public collection anywhere in China to which the merchant can of right refer for information about actual or potential staples of trade. The foreign communities are as much exterior to China, so far as intimate knowledge of the resources of the Empire is concerned, as if their members were on the other side of the globe. In a certain sense they are farther removed from the means of acquiring information than is the public of London, Berlin or Washington; for in these capitals collections are to be found from which much of the knowledge now unattainable here may be gained. Yet, obviously, it is in China, and by persons already in touch with Chinese traders, that such information is needed; and that information is best to be gained from a properly-classified collection of all Chinese products. Such a collection is that now proposed by the China Branch of the Royal Asiatic Society—a collection, suitably housed and classified, of all products, raw and manufactured, which enter or might enter into the trade of the country. Such a Museum should contain agricultural products in all stages of preparation; farming implements; specimens of minerals from all the Eighteen Provinces; models of metallurgical apparatus; samples of the thousands of substances used by the Chinese as medicines; vegetable fibres and products; textile fabrics; tools and

utensils; porcelain, metal and other wares; and numerous other products of which not one-tenth is known to those most interested, those who are anxiously searching at their own cost and by their own unaided efforts for new articles of trade. Specimens and models will be obtained by purchase or donation, and it is intended to make as complete an exhibit as can be obtained of the present and potential resources of China.

The Inspector-General of Customs has been asked to give his aid and support, and in reply the Council of the C.B.R. Asiatic Society has been assured that if the support looked for elsewhere proves that the Museum will be really valued by the public, he will be ready to supplement the public's doings. Those who have seen the Customs Examiners' collections of samples and the collections of raw products sent by China to the various International Exhibitions, are in a position to judge how invaluable this aid will be.

The main purpose of the Museum will not be fulfilled without scientific classification and an adequate descriptive catalogue: this will be a work involving some labour and expense, but it is considered essential that it should be done in a thorough way. Further, some attempt will be made to illustrate the Chinese products by contrasting them with the competing products of other countries; thus by the side of China tea will be shown tea from India, Japan, Ceylon and Java; silk will be illustrated by samples from Japan, Italy and France; Straw Braid will be compared with the competing makes; and other products will be treated in a similar way.

As regards the organisation of the Museum it is proposed that the building and contents should vest in the Council for the time being of the China Branch of the Royal Asiatic Society as trustees for the general public; that a skilled custodian shall be maintained and a descriptive catalogue compiled; that the management shall be in the hands of a Committee, partly Chinese and partly foreign, on which official, mercantile and scientific representatives shall sit; and that the advantages of the Museum shall be placed gratuitously at the service of the public of all nationalities.

It is estimated that a sum of Tls. 20,000 to Tls. 25,000 will be needed for building and installation, distributed somewhat as follows:—

Cost of land, say	...	...	...	Tls. 5,000
" erecting building	...	...	...	" 10,000
" specimens and installation	...	...	...	" 7,000
" classifying and cataloguing...	...	...	...	" 3,000
Total	...	...	...	<u>Tls. 25,000</u>

The sources whence it is expected that the necessary funds will be derived are the mercantile communities at Shanghai and the ports; the ratepayers in Shanghai; the local native authorities; and the Chinese Guilds; all these being directly interested in the extension of trade with foreign countries and in the commercial prosperity of the Settlement.

The Council of the C.B.R. Asiatic Society has moved up to this point in the project sketched above, but can take no further action without the authority and support of the community. It is now for the community to declare whether they want the Trade Museum as an agent in the organisation of their commerce. If wanted, the Asiatic Society is willing, should such appear to be the general desire, to undertake the organisation and installation of the Museum, and for that purpose is anxious to obtain a general expression of opinion on the scheme. If sufficient sympathy is shown with the scheme, it is proposed to request the Chamber of Commerce to call a general public meeting for full consideration of the project in all its aspects, to decide on the desirability of organising the Museum, to appoint a general committee, and to arrange for procuring the necessary funds.

H. B. MORSE,

*Hon. Secretary,*

*C.B.R. Asiatic Society.*

15th October 1888.

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NOTE.—Weights and measures mentioned in the papers contained in this fascicule are approximately as follow :—

*Tan* is a measure of rice or grain, meaning two baskets such as a coolie can carry on a bamboo pole. Each basket weighs 70 or 80 catties, also called a picul or load.

*Tou* or *Tou* (of grain) =  $\frac{1}{10}$  of a Tan.

*Sheng* (of grain) =  $\frac{1}{10}$  of a Tou.

*Picul* (official) = 100 catties = 133 $\frac{1}{2}$  lbs.

*Picul* (of grain) = 140 catties or more.

*Mow* (of land) = about  $\frac{1}{3}$  of an English acre (at Shanghai taken as being 3,600 English square feet).

1,000 cash = \$1 = 3s. @ 3s. 2d.

*Tael* (of silver) = 4s. 2d. @ 4s. 6d. (being somewhat over once and a third the weight of a silver dollar).

# TENURE OF LAND IN CHINA AND THE CONDITION OF THE RURAL POPULATION.

BY GEORGE JAMIESON,

*President of the Society.*

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The Papers which follow have been written in response to an invitation, which was addressed by the Society to various persons, missionaries and others, whose work brought them into contact with the agricultural population. The object is sufficiently explained in the circular itself, which was in the following terms:—

*The Council of the C. B. Royal Asiatic Society request the favour of a short paper from you embodying as far as possible information on the following points:—*

- 1.—*What is the average size of the agricultural holdings or Farms in the part of the Country best known to you?*
- 2.—*What proportion of these holdings are owned by the Cultivators and what proportion held on Lease? Are hired hands employed and at what wages?*
- 3.—*In the case of Leases how is the Landlord paid? In silver or in kind and how much per mow? Or if in kind what proportion of the crop? What amount of land is owned by large proprietors, e.g. are there many or any who own 1,000 mow or 10,000 mow?*



- 4.—*What is the average annual production per mow—say of rice (paddy) or barley—by weight, and what is the local selling price?*
- 5.—*What is the average amount of the land tax and how is it collected? Is it paid direct to the District Yamens?*

*The object is to get as wide a view as possible of the social and economical condition of the rural population, and any facts bearing on this point, outside the range of these questions, will be of great value. Information should as far as possible be at first hand, and selected instances might be given where obtainable showing the size of a particular holding, the total produce, the outlay for rent and taxes, the balance left to the cultivator, and the number of people actually maintained thereon.*

*The Council would be glad to receive the paper as soon as convenient. Papers sent in will be read at one of the open meetings of the Society or printed in the Journal at the discretion of the Council.*

By way of introduction to those papers which describe the actual condition of the rural population as observed by the writers on the spot, the following remarks are offered on the tenure of land generally as described in the legal codes and other authorities.

#### GENERAL.

From time immemorial all the arable soil of China has been parcelled out among the general mass of cultivators, and is held by them direct from the State, subject only to the imposts of the Government. The only exception to this general rule is a tenure which prevails in the metropolitan province and in certain parts of Manchuria, where large tracts of land are

held by Manchu chiefs and others as mesne lords under grants from the Crown. Subject to this, all the land in China proper is held by the peasantry in minute subdivision, under Deeds issued and controlled by the local authorities.

Whether the absolute ownership of the land may more properly be described as vesting in the people or in the Crown is a question of an academic rather than of a practical nature. The answer to that would depend, as in similar cases in Oriental countries, on the degree of interference which the Government reserves to itself in dealing with the land, and the greater or less latitude it allows its subjects in the disposition of their holdings. To some extent also it would depend on the amount which the Government exacts as land tax relatively to the gross produce; if large enough to be called a fair rent or a full rent there would be little or nothing left for the cultivator to call his own, and the land would properly be said to belong to the Government, the cultivator being a mere tenant.

In China the authorities generally hold that theoretically the land belongs to the Crown, on the general principle embodied in the maxim that all under the sun belongs to the Emperor, and all the people are his servants. On the one hand, the Crown or Government is the nominal owner of all waste lands, and is the final reversioner of all arable lands which for any reason become tenantless, as from failure of heirs, or from being abandoned on account of famine, civil war and so on. Original grants of such land may be had from the local representatives of the Government by the first comer on his undertaking to bring it under cultivation and pay the usual taxes. Titles so obtained are good against all the world. On the other hand, land once in private hands may be dealt with at pleasure. It can be freely sold, mortgaged or leased without interference on the part of the Government, and the same

terms are used to express the sale and purchase of land as those expressing the sale and purchase of ordinary personal chattels. The land tax is in general moderately light, amounting on an average to  $\frac{1}{20}$  or  $\frac{1}{30}$  of the gross produce. It is not on the better soils anything like a full rent, and owners who do not farm their own lands can always let them at a rent which leaves something considerable over after paying the Government demands.

It may therefore be said that the private owner of land has as absolute a property in it as he can have under any government. So long as the dues are paid he may do with it as he pleases. Interference there is occasionally. The Government officials do not hesitate to annex private land when it is required for public works, and usually without compensation. But these isolated cases are probably due more to the despotic nature of the Government than to any theory that the Crown is supreme landlord and can resume its grant at will. And though the Crown or Government is deemed nominal owner of all waste lands, it never attempts to exercise any rights of private ownership over them, but stands rather as a trustee for the general public. They are on quite a different footing from the private domains of the Crown, such as the Imperial Palaces and pleasure grounds, the Imperial hunting-parks, etc., all of which are jealously guarded from trespass under severe penalties. The beds of navigable rivers to high-water mark, the public highways and all lands used for official purposes are Government property and are also carefully protected against encroachment.

Land tax is paid directly to the officers of the Government. There are no middlemen corresponding to the Zemindar class in India, or hereditary rent receivers, or farmers-general of taxes. Certain enactments appear on the statute book making it penal for "wealthy land-owners"

to make themselves responsible for the taxes of their poorer neighbours, from which I infer that at some time there must have been an attempt to introduce some system of intermediaries, but whether for good or evil the Government have managed to steer clear of it. The method pursued, as we shall presently see, is vicious enough in practice, and results in enormous loss to the Government, but the theory is sound, and it only requires to be honestly carried out to yield the best results.

## TWO KINDS OF TENURE—(1) MILITARY, (2) COMMON.

### I.—*Military.*

Before going on to describe the ordinary tenure, I shall first notice the exception I have referred to as applying to certain lands in the northern provinces, adjacent to the Court, which are held by grantees of the Crown on what may be called a strictly military tenure.

After the conquest of China by the present Manchu Dynasty (1644) the Conqueror made large grants of the confiscated lands in Chihli and elsewhere to his followers. The Princes of the Blood, the victorious generals, and some at least of the Banners in their corporate capacity, were thus endowed. The grants were to the first takers and their heirs without power of alienation. No rent was reserved to the Crown, and the condition, implied if not expressed, was the military service which the grantees were in any case bound to render their sovereign when required. In a few cases the old population was cleared out entirely to make room for the new-comers, that is, for the serfs, camp-followers and free peasantry, if any, who had followed in the wake of the conquering army; but in most cases the old population was left undisturbed. The new owners, whose military service probably required their presence elsewhere, do not appear in

any case to have settled down on their properties. They occupied, in fact, and still continue to occupy, so far as they exist at all, the position of mere rent-receivers, the collection of the rents and the management of the estates being delegated to agents known as *chwang t'ou*, who are recognized for that purpose as *quasi* Government officials.

The condition of the peasantry was not probably materially altered at first by these changes, except that instead of paying taxes to the Government they now paid rent to the new landlords. But apparently the rents have been raised from time to time till the cultivators have been reduced to a state of abject poverty. Their deplorable condition and the impossibility of collecting the rents have been the subject of various memorials from the Viceroy of Chihli in recent years. In one of these, published only the other day (*vide* "North China Herald," August 18, 1888), he says the rent on some of these lands is as much as Taels 0.80 per mow, which would be about 20s. an English acre,—more than five times, he says, what the land tax on the ordinary tenure lands would be, and adds that 30 or 40 per cent of it is uncollectable.

The rule against alienation has, however, been relaxed within recent years (*vide* Mr. PARKER's paper in the Journal of this Society, Vol. 22, p. 18). Manchus are now at liberty to sell their land to Chinamen, and a good deal has thus changed hands. Land so sold falls under the common tenure, so that it is probable that in no long time the distinctive form of military tenure will disappear altogether.

In passing I may notice a sort of *quasi* military tenure which still exists, in name at least, in many parts of China. The lands under this tenure are known as *tun*, or military colonies. They were granted originally to certain clans or families—disbanded soldiers—either Manchus or Chinese, in consideration of their performing certain specified duties, *e.g.*

guarding a frontier or (and more generally) furnishing annually so many boats and men for the grain transport service between the Yangtze provinces and Peking. In return for these services they had the privilege of cultivating certain areas, not indeed free of land tax altogether, but at a less rate than what the common people paid. The land was declared to be inalienable outside the families affected to the particular service, otherwise it in no respect differed from the common tenure. The grain transport service has long fallen into complete disorder, and the distinction between lands of this class and those of the ordinary tenure has practically disappeared.

## II.—*The Common Tenure.*

The common tenure applies to ninety-nine hundredths of the land in China. The incidents or conditions attaching to this tenure are three:—

- 1.—Payment of Land Tax.
- 2.—Supplying of Statute labour (*Corvée*) as demanded by the authorities.
- 3.—Payment of a fee or fine on alienation.

We shall discuss each of these in order.

### 1.—*The Land Tax.*

At the beginning of the present dynasty a poll tax (*ting yin*) was levied on all adult males, but by a series of decrees during the reign of K'ang Hi (1662-1723) it was incorporated with the land tax, which was thenceforth and still is called by the generic name of *Ti-ting-yin*—Land and Poll Tax. About the same time the amount of the combined tax was fixed once and for all. A Decree of the year 1711 declared that the land tax should be levied in all time coming according to the Rolls of that year, and that no extra levy should

be demanded in respect to any increase of population. The effect of this Decree, which has been much discussed, would appear to be no more than this, that in respect to all those lands then under cultivation, and therefore then paying taxes, the rate should not be increased merely because the population increased. It did not amount to a pledge on the part of the Government to ask no more from each province or from each district than such province or district was then paying. It probably did pledge to the individual land-owner that his land tax once fixed should not be raised—a promise, however, that has been but imperfectly observed. For the time it was intended as a land settlement, but only affecting lands then under cultivation. No tax was payable on waste lands. It is doubtful indeed if waste lands that have never been under cultivation are capable of being privately owned at all. At all events no tax could legally be demanded on such waste. It was only as new lands were taken up and brought under cultivation that they became, as they still become, liable to be assessed for taxation according to the custom of the province. The gross amount of the land tax therefore varies with the prosperity of the country, but for any particular locality, when it has once been fixed, it cannot constitutionally be raised.

This, however, has not prevented the local officials from tacking on from time to time small extras under various designations, such as allowance for difference of scale, transport fee, collector's fee, and so on, so that although the nominal amount as stated in the title deeds remains constant, the land-owner has to pay perhaps half as much again. But on the whole the land tax is now well determined, and is less liable to interference on the part either of the Imperial or local officials than any other form of taxation in the Empire.

For the purposes of tax-collection, as indeed for all other Government purposes, the territorial unit is the *hsien* or

district, presided over by the District Magistrate, an officer appointed by the Imperial Government for a short term of years and always removable. He is at the same time tax-collector, judge, and general administrator. As tax-collector, however, he is not required to give in any accounts of his receipts. Each district is assessed in the Government Revenue books at a fixed sum. That sum the Magistrate has to furnish and no more. Whether he collects it or no, he is held liable for it to the Government. As a matter of fact, in all ordinary years every district yields a surplus more or less. This is the private perquisite of the Magistrate, subject, however, to the necessity of making the customary, but none the less imperious, presents to his official superiors, and also of defraying many of the ordinary expenses of his administration, for which no provision is made by Government.

If any serious calamity should overtake his district, such as to destroy the crops or throw land out of cultivation, the Magistrate is bound to report the facts, and a remission of the taxes, temporary or permanent, according to the circumstances, is obtained. There are numerous regulations in the statute book intended to secure that the people shall get the full benefit of any such remission. Conversely, when a district has become prosperous and new lands are brought under cultivation, the Magistrate is bound under various penalties to report the improvement so that the Government may reap the benefit. The customary procedure in either case is to send special survey officers from the Chief Revenue Office of the province, who inspect the ground and fix the remission, or the new taxes, as the case may be.

The total yield of the land tax is beyond the scope of this paper, but I have elsewhere ("Revenue of China," China Mail Office, Hongkong) attempted to form an estimate of what is returned by the various provinces, and the total



cannot be put at more than thirty to thirty-five million Taels, or about eight million pounds sterling. This estimate is confirmed by a native authority, as translated by Mr. PARKER in the Paper above referred to (*vide* Journal of this Society, Vol. XXII, p. 13.)

### 2.—*The Corvée or Statute Labour*

to be rendered on requisition by the authorities.

This liability is largely insisted upon in the text-books as an incident attaching to the ownership of all land, but in modern times the practice has in most provinces fallen into desuetude, and a few words will suffice under this head. The services are nowhere defined, but they may be described as the furnishing on occasion of so many carts or animals or boats for Government transport purposes, the supplying labour for digging out canals, repairing city walls and so forth. The heavy burdens which this liability and certain abuses in connection therewith entailed upon the people were brought to the attention of the Government by CHANG CHIH-TUNG some years ago when he was Governor of Shansi, and the abolition of the whole system was advocated, unsuccessfully however.

### 3.—*Payment of a Fee on Alienation.*

Under this head a short account will be given of—

- (a.)—Transfers of Land by Sale.
- (b.)—Transfers by Mortgage.
- (c.)—Succession and Inheritance.
- (d.)—Acquisition of Waste Lands.

#### (A.)—*Transfers by Sale.*

The invariable method of transferring land is by Deed-poll made by the seller and subscribed by him and the

Middlemen. It usually recites that the seller being in want of money, and having first offered the land to his kinsmen, who decline to buy, he has arranged through the Middlemen to sell it to so-and-so for such-and-such a price. It then goes on to say that the purchase-money having been paid in full, the Vendor sells out-and-out the land situated so-and-so (describing boundaries) to the Purchaser, who is thenceforth to be the sole Proprietor, and may at his discretion pull down the buildings or erect others without interference from the Vendor, etc., etc. Occasionally there are further covenants, such as in an English Deed would be termed Covenants for title and for quiet enjoyment. The names of the Vendor and Middlemen are written in full by the Copyist, but underneath each subscribes his own private mark or affixes his seal, though the latter is objectionable as likely to give rise to questions of identity. The Purchaser does not sign. The signatures of the Middlemen, who are usually friends or neighbours of the parties, are not understood as guaranteeing the Title, but they do guarantee that the seller is what he represents himself to be, and that the transaction is done in good faith. Their employment, if not absolutely necessary to make a valid sale, is at least extremely desirable, and no prudent purchaser would take a transfer unless so guaranteed. Their presence also ensures the publicity of the transaction, and is a sort of notice to all the world, which enables objections to be raised in time, if any objection there be. As many as eight or ten are sometimes employed, never less than two. They sometimes receive a small *douceur* by way of commission on the sale, or more commonly are entertained at a feast, the expenses of which are not unfrequently provided for in the Deed of Sale.

Another indispensable party to the transaction is the village Tipao or Headman, whose seal must be attached to the

Deed of Sale before it can be registered at the office of the District Magistrate, which is the next step in the transaction. The onus of registration is thrown on the Purchaser and by law the land is liable to confiscation if this is neglected. If the Deed is in order, registration is obtained as of course upon payment of a fee, which is nominally 3 per cent on the amount of the purchase-money, but which in reality amounts to between 5 and 6 per cent including the usual extras for meltage, yamen fees, etc. To avoid this heavy tax it is common, perhaps universal, for the price to be understated in the Deed of Sale. Thus Tls. 3,000 being the real price the sale will purport to be made in consideration of Tls. 1,500, or the Seller will execute two Deeds, in one of which he purports to convey the ground for say Tls. 1,400, and in the other for Tls. 1,600, both in identical terms. One of these only goes to the Magistrate to be stamped, the other is retained by the Purchaser as a receipt for his money.

When the Deed is received back from the Magistrate's office it has gummed on to it what is called a "tail" or annex, being a sort of official endorsement of the transaction, setting out the names of the seller and purchaser, the Hundred and tything in which the land is situated, the amount paid as transfer fee, and the amount of annual land tax for which the new proprietor is liable. The Deed thus returned bearing the impression in red of the Magistrate's seal in several places is popularly known as a "Red Deed," and is the highest form of Title obtainable. In some places persistent evasion of registration has given a currency to unstamped Deeds known as "White Deeds," but they are always to be looked on with suspicion.

The acquisition of land by Foreigners at the open Ports is effected in the same way as that above described with this difference, that the native vendor does not "sell" the land

but leases it in perpetuity, and that registration is effected through the Consulate of the purchaser, and no fee is charged by the Chinese authorities.

(B.)—*Transfers by way of Mortgage.*

A form of transfer which in former times was much in vogue and which is still practised, is a kind of mortgage known as *tien*. The effect of it is that the land changes hands in consideration of a sum of money paid down, but the original owner is entitled at any time, on repayment of the money, to get back his land. No interest is payable on the one hand and no account of rents and profits is required on the other. The use of the land is simply exchanged for the use of the money, but, contrary to the usual terms of a mortgage, it is the land that is lent and not the money, which latter cannot be demanded back. Unless the old owner of the land comes forward to redeem, the new occupant becomes absolute owner. This right of redemption, indefinite in point of time, naturally gave rise to much inconvenience, and it was no doubt to obviate this that a law was passed in the 17th year of Kien-lung, which enacted that the right of redemption must be exercised within 30 years, unless a specified time was mentioned in the Deed itself.

This form of transfer would appear to have been the original and, perhaps in early times, the sole form. The final alienation of land, especially of old family land, though not absolutely forbidden, was considered so improbable that the presumption was always against it. The land indeed was not in theory deemed to be strictly the personal property of the occupant or owner for the time being, but rather the heritage of the family or tribe generally of which the occupant

was a member. Subject to his life-interest, they all had a more or less qualified interest in the reversion, and on his death it was bound to come to some one or other of them with further reversionary rights over. The theory, however, was not carried so far as to forbid the actual occupant from dealing with it all. If very hard pressed he might raise money on his land, but in doing so he was bound as far as possible to have regard to the family rights, either by reserving the right of redemption or by giving his kinsmen the first option of purchase. The commercial spirit of modern times has modified this theory largely in favour of free trade in land and of individual as against family ownership, but many traces of it remain, and it still influences the action of the authorities. To this is due the recital which, as I have said, is still found in modern Deeds of Sale, but which is usually a pure fiction, namely, that the kinsmen of the seller had been first invited to buy the land and had refused. To this also is due the setting aside of Deeds of Sale, of which there are numerous instances on record, when the sale was made under pressure of circumstances and for a small consideration. For instance, during a recent famine in Shantung, certain speculators who had bought up land at a cheap rate were compelled on the return of the original owners to yield them up their old lands on a bare refund of the purchase-money, the terms of the Deeds notwithstanding. One consequence of this well-meant action was that during the subsequent and more severe famine of 1876, owners could not sell their land at all, even to save themselves from starvation. Capitalists, knowing or fearing that such sales would again be declared invalid, declined to risk their money.

Transfers of this kind require to be registered, and a fee is payable as on an out-and-out sale. The transferee becomes liable for the taxes and other duties.

A mortgage of land as security for money lent and to be repaid at a short date stands on a different footing. The property does not change hands and the transaction does not require registration, no fee being payable. The old Title Deeds must be deposited along with a Mortgage Deed or Memorandum embodying the terms of the loan, and in event of failure to redeem at the proper time, the authorities will decree a sale or foreclosure. A creditor, however, holding such a security could not realize it without the assistance of the authorities, and in event of there being other creditors it is doubtful if he could make it available at all for his own exclusive benefit. On the other hand, if the sum realized by the sale—assuming that the mortgagee has got his decree of sale—is insufficient to liquidate the debt, it is doubtful if he can sue the mortgagor for the balance. At least, if this is relied upon, it ought to be very clearly expressed in the Deed of Mortgage. The land and the money will be counted as equivalents,—if he has taken the one he cannot claim for the other. There is an inveterate tendency in Chinese law to compromise anything that has the appearance of a hard case. “Let each bear half the loss” always commends itself to the Chinese mind as a most equitable and just way of settling all differences.

(c.)—*Transfer by Succession and Inheritance.*

The universal rule all over China with regard to succession is that on a man's death all his property, real and personal, is equally divided among all his male children, whether born of the proper wife or of a concubine. If there are no male children he may adopt a son from among his agnatic relations in a certain well-defined order, or failing his doing so in his lifetime his relations, in a sort of family council,

will adopt one for him, and such adopted son will succeed to the whole. It is only on a complete failure of male heirs, natural or adopted, that daughters will succeed to the property.

This succession vests by operation of law and requires no ratification from the authorities, nor is any fine or succession duty payable. The actual division is, of course, a matter of arrangement. The parent may make it in his lifetime, or he may leave instructions for it by a sort of will (a true will, that is; an unfettered power of bequest is unknown); or the sons may agree among themselves as to their respective shares; or, lastly, they may agree to live in common and refrain from dividing at all. So long as there is a mother and unmarried sisters to be provided for, this last method is generally adopted. It is also adopted as of necessity on very small properties, for there comes a point beyond which subdivision is no longer possible. Hence comes the difficulty so often experienced of getting a transfer of small pieces of ground. On the occasion of a sale a score or more of brothers and cousins may turn up, all of whom are equally interested in the land, and the consent of all of whom is required to give a valid title. On a division the eldest son is entitled to claim an extra or double share in order to defray the cost of the family sacrifices. In wealthy families a piece of land is usually dedicated for this purpose.

(D.)—*Acquisition of Waste Lands.*

All unoccupied lands, whether originally waste or formerly cultivated but abandoned through famine, civil war or otherwise, are deemed to be public property and vest in the State. But such land may be turned into private property by the simple expedient of taking possession and bringing it

under cultivation. The first comer is at liberty to make application to the District Magistrate, and unless upon proclamation the old owners are ready to come forward and undertake the cultivation, the applicant will after a certain delay get a Title Deed which is good against all the world. No payment by way of purchase can be demanded, but the new owner must actually bring his allotment under cultivation, else he can be ousted by another who does. Mere speculators who took up lands with a view to reselling at a profit would receive no support. The land is for the benefit of the community at large, and an owner who does nothing is liable to be displaced in favour of one who will turn it to some account. Even mere squatters, who have once been allowed to get a foothold upon a piece of waste ground, are dealt with very tenderly. An owner, though he can show the best possible title, has the greatest difficulty in getting them removed.

No land tax is payable upon such newly-improved lands till after a lapse of 6 or 10 years, according as they are alluvial or hilly. After that period they are surveyed and the rate of land tax is determined, having reference to the nature of the soil and the custom prevailing in the neighbourhood. For this purpose three classes are recognized, depending on the quality of the land—best, medium, and poor—and the tax is fixed accordingly. On best rice-lands the tax averages four or five shillings per English acre, while on poor lands it goes down to sixpence or even less.

The waste and hilly ground adjoining villages appears in many cases to be subject to rights of common, which the villagers enjoy for the purpose of cutting wood and undergrowth for fuel. Pasture is of no value in Central China, where no cattle are reared, but there is a constant demand in the towns and villages for firewood, and the cutting



and bringing to market of this article affords employment, especially in winter, for a considerable section of the country-people. Generally speaking, anyone can cut wood on waste ground anywhere. There are no Imperial forests or public conservators or lords of the manor to hamper the free liberty of the subject in this respect. But certain villages have by custom appropriated to themselves the exclusive right of cutting the growth on waste lands in the neighbourhood—a right which by reason of propinquity of situation and facility of access has a certain commercial value.

New land formed by accretion of alluvial deposit is also deemed Government property. The general rule in agricultural districts is that where land has been washed away in one part and thrown up in another, the proprietor who has lost, may, so to speak, follow his land and claim to be indemnified out of the new formation to the extent of his loss; otherwise the officials may allot such new lands at their discretion, and in cases where the land is valuable they may, it seems, according to a regulation of the Board of Revenue, offer it for sale to the highest bidder. A riparian proprietor does not seem to be entitled to annex, as of course, new land which may thus have grown up attached to his own. He must at least get the new land measured and added to his Title Deed and pay the additional land tax. Similarly a proprietor whose land has been washed away may apply for a survey and get an abatement of his land tax.

### *Leases to Tenants.*

It is impossible to say with any sort of exactness what proportion of the whole soil of China is tilled by peasant owners, but probably it cannot be put at less than one-half. The other moiety is owned in great measure by retired

officials and their families, the class known as the Literati and gentry. Except that these can boast of a certain rank in the literary aristocracy, which constitutes the noblesse of China, they are in no way distinguished from the ordinary peasantry around them. There is no class of hereditary nobles in China. The few persons on whom titles of nobility are conferred are not numerous enough to make their presence felt. Such titles are never associated with territorial possessions, and, moreover, they are invariably for a limited number of lives or even for one life only. The general rule is that hereditary rank descends to the heir in a degree below that of his immediate ancestor, so that in a few generations at most the descendants of a noble become merged in the general body of the community. *Pari passu* with this the wealth which an ancestor may have acquired becomes dispersed in an equally short time by the levelling rule above stated, which requires all a man's possessions to be equally divided at his death among his male children; or if by chance the family have held together and refrained from dividing for some generations, the numbers will, through the universal custom of early marriages, have so increased that individually they are not much better off than their neighbours.

Considerable tracts of land are owned by such families, and it is the invariable rule in these cases to lease the land to small farmers. In the central and populous parts of China these holdings are exceedingly small, often less than an English acre, seldom larger than three or four acres. The tenancies are almost always at will from year to year on parol agreement, or rather according to the usual custom of the locality. The rent is paid in kind, being a fixed proportion of the principal crop, rice or wheat, as the case may be. On the best lands it is a half, but diminishing with the poorness of the soil. Most lands yield one or more subsidiary crops in

the course of the year besides the principal crop, but these all belong to the tenant, rent being taken only on the principal crop. It is the custom to thresh out the crop immediately on its being harvested, and the landlord's share is handed over at once to his agent, who takes good care to be on the spot to receive it. Rent is thus seldom or never in arrear, and evictions are very rare. In bad years the landlord suffers *pari passu* with the tenant. There is a curious enactment in the statute book to the effect that in case of a remission of land tax the landlord (who alone is responsible for the tax) ought to allow the tenant to benefit to the extent of  $\frac{1}{10}$  of the remission; also the landlord is "exhorted" in times of agricultural distress to abate a little on his strict legal claims. In either case, however, the concession is to be left to his generosity; there is to be no legal compulsion about it, and if he wishes to insist on his strict rights he may.

The Government tax is paid, as stated, by the landlord, and there are no other taxes or rates of any sort to be paid by the tenant. The houses and all the implements of husbandry are the property of the tenant. In event of removal he would have the right to take everything with him, houses included. The latter, being invariably frame-houses with mud walls, are capable of being removed without much injury. For the most part, however, the cultivators live in small villages, or in groups of five or ten houses which are rented or owned quite independently of the landlord of the farm.

On the frontier provinces, where the soil is poorer and the population more sparse, the size of the holdings is in general much larger than in the central provinces, and the people would seem as a rule to be better off. But as population increases there seems everywhere to be a strong tendency for holdings to become reduced to the minimum size that will support a single family. The more fertile the soil the smaller

the farms and the more minute the subdivision. How marvellously fertile the soil is under favourable circumstances will be seen from the following papers, notably from the statement of Miss FIELDE—which is quite borne out by the others—that one *mow* will support one individual. On this basis a square mile is capable of supporting a population of 3,840 persons.

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From REV. JOHN ROSS,  
Scotch Presbyterian Mission, Manchuria.

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The land measure of Manchuria is the *tien* rather than the *mow*. This measure is not of invariable extent, as it is in some places ten but usually six *mow*. And as six *mow* make a near approach to the English acre, I shall use this latter term in the following remarks.

The smallest quantity of land on which an ordinary family of six or seven people can make a living is three acres. With five, such a family can live in comfort. Farms of from ten to thirty acres are very common in Southern Manchuria, or the province of *F'engtien*, embracing Liaotung and Liaosi, but far the larger number are under ten. But in the northern portion of the same province, on the borders of Kirin and Manchuria, farms of double that size are the rule, the peasant owner being correspondingly more comfortable. It may be mentioned that witnesses, competent from varied experience to make comparison with other parts of China, state that the peasants in Manchuria are more comfortable as to housing, clothing and feeding than in any of the eighteen provinces. This may be, I think, at least partly accounted for by the fact that when any district, or even farm, in Southern Manchuria becomes congested, some of the young people, or possibly

the whole family, after selling out, hive off to the ownerless but rich plains in Northern Kirin or beyond the northern bank of the Songari.

The great majority of the farms in Manchuria are owned by the cultivators. I have never heard of a lease, the only approach to it that I know of being a mortgage, or loan of money, to the owner for a period of three or more years, the land being utilized by the lender till redeemed.

When a farm exceeds five acres, one man cannot do justice to it. If but little more, labour is hired in spring and autumn; but each five acres must have a man to work it properly. A man hired by the year lives with the farmer and receives the equivalent of from \$15 to \$20 per annum as wages. The average of these two sums is a common wage.

Land is rented from year to year, either landlord or tenant being at liberty to throw up the bargain. Land sells at about \$150 per acre. When rental is paid in money it stands at about \$7.50, or 5 per cent on the value. The more common form of rental is however in kind, varying through  $\frac{1}{3}$ ,  $\frac{2}{5}$ ,  $\frac{3}{7}$  of the produce, according to the nature of the soil, and not improbably according to the exigencies of the parties to the agreement.

There are many proprietors of 100 acres, and not a few of 200; but, though they are to be found, proprietors of more than 500 acres are rare. A man owning 100 acres is regarded as a man of wealth. It will sometimes be found that the nominal owner of a very large property is not a man of wealth, as those dependent on the land are numerous, consisting of what we should consider many families under one patriarchal head. I know of several such families possessing several hundred acres, but as the family numbers little under two hundred individuals, living in large blocks

of houses, with a common gate and a single kitchen, it will be understood that the family is not necessarily a wealthy one. Though not wealthy, such patriarchal families are held in great esteem. When a family small in numbers owns a large farm it is usual to let the farm in small lots of from five to thirty acres on the terms mentioned above.

The chief crops of Manchuria are tall millet and pulse. Of the former an acre will produce about 3,500 lbs. The value of this product depends largely on the distance from the sea-board of the place of production. I think a fair average is about \$22 or \$23 per acre.

The land tax is within a fraction of 1s. sterling or \$0.30 per English acre, Manchus paying 6*d.* or 7*d.* It should however be noted that land is classified into three divisions,—*Upper*, *Middle* and *Lower*. The first is the standard, six *mow* of which are taxed as one acre. Twelve *mow* of the second are taxed as one acre, and eighteen of the third.

There is a Tax Receiver apart from the District Magistrate, and not nominated by him, but the Magistrate has to report to his superiors the sum collected in his district. His authority is also brought to bear upon defaulters. There are village communities who elect their Headman, who, though he does not collect the taxes, is called upon by the Magistrate to prosecute defaulters and make good any shortcoming. His duties are therefore different from the Headman in the Russian village community.

The transfer of land is perfectly free in the case of Chinese on the payment of a percentage to the Government when the official stamp is affixed to the Deed of Sale; but land gifted by the founders of the present dynasty to Manchus is entailed and cannot therefore be sold. This is not advantageous to the owner, for if he cannot cultivate he must rent out or mortgage at a third of the intrinsic value.

The owner of a Distillery or one or more Pawnshops, which are really Banks, is held in higher esteem than the land-owner, as the capital required for such a business is much larger than men care to invest in land.

9th April, 1888.

From REV. TIMOTHY RICHARD.

The statements are made in regard two places, viz. :—

- 1.—The prefecture of Lai-chow-fu (萊州府), in Shantung province.
- 2.—The country or district of Wu-ch'ing (武清縣), near Peking, in Chihli province.

The *mow* is reckoned at 240 square *pu*, or 6.6 per English acre. My authorities are two teachers from the above places respectively.

	SHANTUNG.	CHIHLI.
	Lai-chow.	Wu-ch'ing.
1.—The average size of farms ...	30 mow	80 mow
2.—Percentage cultivating their own farms... ..	60 %	70 %
3.—Percentage cultivating landlord's	40 „	30 „
4.—Percentage employing labourers	50 „	15 „
5.—Annual wages of labourers, including food ... ..	Tls. 6	Tls. 7
6.—Annual wages of labourers, not including food ... ..	„ 13	—

	SHANTUNG.	CHIHLI.
	Lai-chow.	Wu-ch'ing.
7.—Daily wages, including food ...	3 Cand.	5 Cand.
8.—Daily wages, without food ...	6 „	—
9.—Daily wages during harvest, including food ...	1 Mace.	1 Mace.
10.—Percentage of tenants cultivating by the year ...	2 %	50 %
11.—Percentage cultivating for several years ...	98 „	—
12.—The longest term of cultivating others' land ...	30 years.	For ever.
13.—The average number of years' renting ...	3 years.	5 years.
14.—The percentage paying rent in money ...	25 %	45 %
15.—Percentage paying in kind ...	75 „	55 „
16.—Rent per mow, 1st class land	Tls. 2.66	Tls. 0.60
2nd „	„ 2.00	„ 0.50
3rd „	„ 1.50	„ 0.30
17.—Percentage of grain (when rent in kind) to landlord:		
Land when, 1st class...	50 %	50 %
„ 2nd „ ...	40 „	40 „
„ 3rd „ ...	30 „	30 „
18.—The largest land-owner owns...	100,000 inow.	100,000 mow.
19.—Percentage of land-owners having 100 mow ...	30 %	60 %
20.—Percentage of land-owners having, 10,000 mow ...	Over 10 „	10 „



	SHANTUNG.	CHIHLI.
	Lai-chow.	Wu-ch'ing.
21.—Number of persons possessing 100,000 mow ... ..	One or two	One or two
22.—The price of a mow of land,		
1st class... ..	Tls. 150.00	Tls. 10.00
2nd „ ... ..	„ 40.00	„ 5.00
3rd „ ... ..	„ 10.00	„ 3.00
23.—Annual quantity of grain produced per mow, 1st class... ..	663 catties	400 catties
2nd „ ... ..	400 „	150 „
3rd „ ... ..	250 „	100 „
24.—Value of grain per mow sold at home, 1st class... ..	Tls. 5.40	Tls. 3.00
2nd „ ... ..	„ 3.40	„ 1.50
3rd „ ... ..	„ 1.00	„ 1.00
25.—Value of 100 catties of grain, highest price, Best ... ..	Tls. 1.60	—
2nd ... ..	„ 1.30	—
3rd ... ..	„ 1.00	—
26.—Value of 100 catties of grain, lowest price, Best ... ..	Tls. 0.80	—
2nd ... ..	„ 0.60	—
3rd ... ..	„ 0.40	—
27.—Average price of 100 catties of millet... ..	Tls. 1.00	—
28.—Average price of 100 catties of maize... ..	Tls. 0.80	—
29.—Land Tax (no distinction of kind) per mow ... ..	Tls. 0.048	Tls. 0.0099

	SHANTUNG.	CHIHLI.
	Lai-chow.	Wu-ch'ing.
30.—Extra expenses in addition to land tax ... ..	13 %	5 %
31.—Salt tax, when not using Government salt, per mow ... ..	Tls. 0.048	Gov. salt.
32.—Number of mow necessary to support one individual ...	5	10

*N.B.*—Land around Peking is largely owned by the Princes. Such land pays no taxes to the Government. The cultivators are *serfs*, and when the once rich Manchus become poor, they fall on their *serfs* for support. Such land can also pass from hand to hand at about half the price of ordinary land.

Princes have tax collectors gathering their taxes or rents for them. But the taxes are invariably paid in person at the Yamens by the *free* subjects of the Government.

The answers are often only rough guesses; in others, the actual facts. Many questions were put in order to have them correct one another.

*Peking, November 28th, 1888.*

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From REV. C. SPURGEON MEDHURST,  
English Baptist Mission, T'sing-Cheu-fu, Shantung.

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It will, perhaps, be most convenient if I first more minutely describe the agricultural prospects in one county, and make it the standard of comparison for the others.

For this purpose I will select I Tu Hsien (益都縣), in the Department of T'sing Cheu Fu (青州府). The position of agriculture in this county, with its population of about 250,000, about 1,000 villages and 40 market-towns, may be gauged by the proverbs current among the people: 一人一地扭筋拔力—*He who has an acre of land, must tax his sinews and exert his strength*; 一人一畝田耙耙結結過一年—*He who only owns an acre of ground, will have a hard time*. There are no very large land-proprietors in I Tu Hsien. As far as I can ascertain, there are only some eight or ten farmers in the county owning as much as five or six hundred mow, and perhaps one or two possessing a thousand mow. (In I Tu 720 kung reckon to the mow, or acre). The size of the average holding is about ten mow. There is in this county about one mow for each person. About ten per cent of the land is held on lease, the landlord always being paid in kind, the rent varying, according to circumstances, from half the harvest to a single tan of grain per mow. The annual wages of the farm-labourer is about 20,000 Cash (\$9 or \$10); if hired by the month he receives between two and three thousand Cash monthly; and if working under a daily contract, from two to three hundred Cash per diem. In either case his food is always supplied in addition to his wages.

In this county the average produce of the land per mow is, say 400 catties of grain, its price in the market averaging 60 Cash (2 or 3 cents) per catty. The land tax is about 1,000 Cash (39 cents) per mow=7s. per English acre. It is sometimes paid in grain, but is generally collected in cash by the local *tifang*, who hands in the silver to the Yamen. If the ratepayer choose to pay the tax before the end of the second moon, he may pay it at the Yamen direct without the intervention of the *tifang*, in which case he

obtains a slight reduction. Thus the owner of land receives about 23,000 Cash (\$11 or \$12) for himself per annum from each mow he possesses, after paying his land tax. This estimate however supposes that the farmer cultivates his own fields, and makes no allowance for hired labour.

In the hill districts of I Tu (say five per cent of the total acreage of the county) cotton and fruit are largely grown. From 150 to 200 catties of *mien hua*, or cotton, may be gathered from a mow of land, which sells for about 200 Cash (7 or 8 cents) per catty, the pod being likewise exchanged for bean oil, at the rate of ten ounces of the pod for one of oil. Although, however, the commercial value of an acre of cotton is greater than that of an acre of corn, the people prefer the land to grow grain; not simply because less labour is required, but because, for the most part, they do not sell but consume their own harvests. And if they cultivate cotton they must go to the market to buy the grain upon which they live.

So much for I Tu Hsien.

In the adjoining counties of Lin Ch'ü (臨朐), and Lin Chih (臨淄), the average farm consists of 50 or 60 mow. The largest proprietor owns 700 mow of land, which has to support fifty or sixty persons. The land in these two counties is slightly more productive than in I Tu (益都).

Ten per cent of the farmers of these counties cultivate tobacco, which pays them well. One mow of land will yield about 1,000 catties of the leaf, which generally sells for about six cents a catty. The land tax is similar to the tax in I Tu (益都), so that a farmer who can cultivate his fields without employing hired labour, will receive about \$60 annually from each mow he owns which grows tobacco. He has, however, to spend about \$10 per mow for manure.

In Lin Ch'ü Hsien (臨朐縣), one family in three grows the mulberry and rears the silkworm; and land put to this

use yields on the average about \$21 per mow. The yield from tobacco is, however, less certain than the sums obtainable from the silkworm, owing to the large leaf of the former being peculiarly subject to injury from hail-storms.

About seven per cent of the population in Lin Ch'ü (臨朐) own orchards. From these they obtain about half the sum per mow that those who rear the silkworm receive, and on the average each mow of orchard-land supports two persons.

Throughout the county of Lin Ch'ü (臨朐), there is only an average of six or seven fên (about two-thirds of a mow) for each person.

In Shou Kuang Hsien (壽光縣), to the N.E., the average holding is about three mow. There are a large number of farmers owning from one to two hundred mow each, which farms are for the most part partially leased or sublet, the harvests being equally divided between tenant and landlord. The largest land-owner in the county possesses over 2,000 mow. His household consists of about 30 persons. The yield of the soil, and the land tax, are both slightly in excess of I Tu (益都), but the farm-labourer's wages are about the same.

Ch'ang Shan Hsien (長山縣), in the Tsi Nan (濟南) prefecture, is a poor county, from an agricultural standpoint, and is too thickly populated to be self-supporting. A large portion of the people engage in business, and grain is dear, being imported from other places. The land is poor and costly. There are no farmers who own more than a few acres each. The land tax is Tls. 0.164 per mow=4s. 2d. per English acre, and is paid in silver direct to the Yamen.

The condition of the rural population of the neighbouring county of Chou P'ing (鄒平) is very similar. The annual tax is more than Tls. 0.20 per mow. Only about half the people are agriculturists.

To the North is Chih Ch'uan Hsien (淄川縣), where the farms are likewise all small. Not more than eight per cent of the farmers have holdings of one or two hundred acres. This county, like its neighbour Po Shan (博山), is a great coal-field, and the people invest their money largely in the mines. The land on the average yields about 300 catties of grain per mow, which fetches a slightly higher price in the market than in I Tu (益都). The land tax too is higher per mow than in I Tu (益都), although the mow is smaller. From 240 to 360 kung reckon to the mow in Chih Ch'uan (淄川).

I have selected for description those counties in which I have travelled most, and with which I am most familiar. I am sorry that I have been unable to obtain at first hand any reliable information regarding the annual produce of any particular holding, and the balance left to the cultivator and his family, after meeting all the necessary expenses. But the general facts I have given concerning the state of agriculture in the counties I have mentioned, fairly represent, so far as I am aware, the general condition and agricultural prospects of Central Shantung.

The admirable custom of equally dividing the land among the surviving sons on the father's death, accounts for the smallness of the average farm, and the very few large holdings which are to be met with.

*May, 1888.*

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From REV. B. BAGNALL,  
China Inland Mission, Ping Yang Fu, Shansi.

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1.—What is the average size of holdings, etc.?—From 20 to 30 mow is the average, 50 to 100 mow is considered large.

2.—What proportion of these holdings are owned by cultivators and what proportion on lease, etc.?—There is a very small proportion who have not *some* land of their own, and the greatest number of cultivators are what might be called small farmers.

Some rent land to cultivate in addition to their own, while a few cultivate some and let some to others.

Many of the larger land-owners let out most of their land.

Hired hands are frequently employed, and receive from 20,000 to 30,000 full cash per annum.

During harvest, labourers come from other parts, and are employed to gather opium, and cut corn. This, however, is not generally encouraged by the Officials.

3.—In case of Leases, etc.?—Some pay in money and some in kind. If in money, not more than 1,000 cash per mow. If in kind, wheat from 2-4 *tou*, other crops 3-4 *tou* per mow.

The large owners about here seldom have more than 500 mow. Farther south in the province there are larger land-owners; and also north, on the Tai-Yuan plain, there are some who own 1,000 and more, but these generally have it in different places, not all in one piece.

About three years since, while travelling in the north of the province outside the barrier, I found there were land-owners who held much larger quantities and worked it by employing labourers by the job. These men seemed to me to be the poorest people I ever met, except perhaps the Si-Ch'wan boat-coolies,—I mean people who were not professional beggars.

4.—What is the average annual production, etc.?—Level land near the "Fen" river or other streams, or what is called "moist land," yields two tan per mow (a tan=160 catties). Dry land (higher) yields one to one and a half tan

per mow. The local selling price is about 3,000 cash per tan=£3 nearly.

Wheat and barley are the principal crops, but a good deal of rice is grown, where water is conveniently laid on, on the low land. Land used for rice can only yield one crop in a year, but land that grows wheat also yields a crop of beans or millet after the wheat is cut in June.

5.—What is the average amount of the land tax, and how is it collected, etc.?—The land tax is collected in cash or silver, and is brought by agriculturists to the yamens. It amounts to about 300 cash per mow.

Shansi has not yet entirely recovered itself since the great famine in 1877. There are in some districts villages containing from one to twenty families where formerly several tens resided in their own homesteads.

Central Shansi abounds with magnificent brick structures, and square towers built for protection against the T'ai-P'ing rebels, who however did not go farther north than P'ing-Yang. These are falling to decay, while the remnants of the owners' families occupy a few rooms.

Among the mountains one not unfrequently comes across the ruins of a whole hamlet.

The best parts of this region have been repeopled from Shantung and Chihli.

I would add, that while the lower orders here are unmistakably poor, yet there is a degree of comfort about the people on the whole. Shansi is also renowned for rich people. They are a travelling, trading and business-like people, and seem to have certain trades almost entirely in their own hands. In Peking, and the east and south of Chihli, nearly all the cash, grain and pawn shops are kept by Shansi firms; and as regards pawn-shops, it is the same in the northern parts of Shantung and Honan.



I ought to add in their favour that Shansi folk are the most friendly, quiet and orderly people that I have met in the country, although I have been in thirteen of the eighteen provinces.

In the central and northern part of Shansi, the poppy is most extensively cultivated, but from the experience of a recent trip in the south, I am happy to say there is a far less quantity grown, and a much less quantity used. In many parts of the province, nearly every one seems to be a smoker, and in every city, especially on the T'ai-Yuan plain, one frequently meets with complete wrecks of what were once wealthy families, and the ruins of what were a few years since almost mansions.

*July 2nd, 1888.*

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From REV. GEO. ANDREW,

Kwei Yang Fu, Kwei Chou.

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What I have here written refers to a place called Ho-Kuan, some 50 li north of this city. At the present time the land tax is not being paid, owing to the officials demanding for each tan of grain, 2 tan 5 sen of rice and 112 cash (instead of the 40 to 42 cash previously paid). For this reason the farmers refuse to pay the tax.

1.—What is the average size of the agricultural holdings or Farms in the part of the country best known to me?—The farms are not reckoned by measurements of land, but by their power of production. The average production of the farms is 20 to 30 tan of grain=8 to 12 tan of rice.

2.—What proportion of these holdings is owned by the Cultivators and what proportion is held on Lease? Are

hired hands employed and at what wages?—I think most of the land is cultivated by the proprietors. Hired hands are employed by the year at 1,000 to 1,200 cash per month, and one hat, one pair of shoes, one pair of stockings, and two or three garments once a year. The hired man eats the same kind of food as his master.

3.—In the case of Leases how is the Landlord paid? In silver or in kind, and how much per mow? Or if in kind what proportion of the crop? What amount of land is owned by large proprietors, *e.g.*, are there many or any who own 1,000 mow or 10,000 mow?—In the case of leases, the Landlord is paid in kind. He receives half the produce of the land, and pays the taxes. A few families who live in this city own large farms, but they are very few, and I do not know of any proprietors of very large tracts of land in this district.

4.—What is the average annual production per mow—say of rice (paddy) or barley—by weight, and what is the local selling price?—One tan of rice weighs about 250 catties, and the selling price ranges from 2,200 cash to 2,800 cash per tan.

5.—What is the average amount of the land tax and how is it collected? Is it paid direct to the District Yamên?—For each tan of grain, 2 *tou* 5 *shêng* of rice, and 40 to 42 cash has to be paid to the Yamên. It has to be carried by the farmer to the District Yamên.

18th December, 1888.

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From REV. W. E. BURNETT,  
China Inland Mission, Ning-hsia, Kansuh.

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Enclosed are the answers, as accurately as I can get them, to the questions proposed in your paper of March 8th. I

trust you will find them useful. No little trouble has been taken to collect this information and to render it as correct as possible. In my preaching tours, which have taken me all over the prefecture, I have made these questions a topic of conversation sometimes, and have thus been enabled to gather the facts you request. The Ning-hsia district lies on both sides of the Yellow River, and is a tract of country entirely intersected by a perfect network of canals and dikes, in order to carry off the surplus water of the river. These dikes are kept in constant repair by the country people, who dig them out annually, and improve the banks whenever necessity calls for the action. These large canals have been opened at different times, one dating as far back as the T'ang dynasty and another from the reign of Ch'ien Lung. The irrigation of the land depends upon the water from the Yellow River. As far as I have seen this river in Kansuh and Thibet, only in Ning-hsia district is it utilised to any extent for watering the land. There is a proverbial saying to this effect, that 天下的黄河都服甯夏; and really you would think so, if travelling in the prefecture when the land has been flooded, after the ingathering of the crops. Vast portions of the country are submerged and remain so all the winter, and only get dry again by the following spring and summer. A very little rain falls, and, naturally speaking, were it not for the means provided the whole place would be a desert. But, as it is, the Ning-hsia prefecture reckons to be a portion rich in agricultural productions, although the population is sparse, and sprinkled over a wide area. There is a good deal of meadow land which affords splendid opportunities for stock breeding, and I may add that the cattle raised here are equal, if not superior, to the cattle I have seen in other parts of China.

1.—The average size of the agricultural holdings in this district is from 250 mow to 300 mow. There are, however, a few of 500 mow.

2.—About seven-tenths of these are owned by the cultivators, a small proportion being held on lease. Hired hands are employed, some throughout the whole year and others only during the harvest time. The regular hands are paid from 1,600, 1,700, 1,800 to 2,000 cash per month, including food. During harvest time extra hands are paid 170 and 180 cash per day, also with food.

3.—In the case of leases the landlord is generally paid in money, and at the rate of about 1,700 cash per mow per year. There are cases, however, where the land is let out and the landlord is paid in kind by receiving one half the crop.

The largest land-proprietors own 400 and 500 mow. There are none possessing 1,000 or 10,000 mow.

4.—The average annual production per mow is about 7 or 8 tan (斗) of rice, and 6 or 7 tan of barley. A tan of rice is equal to about 40 catties, and a tan of barley to about 35 catties. The local selling-price of good rice averages between 450 and 550 cash per tan, while wheat goes from about 400 to 500 per tan.

5.—The land tax varies in different parts, but is very high all over the district, on account of the nature of the place, it being "a land flowing with water." In the immediate neighbourhood of the fu city, the land-owner has to produce 1 tan 2 sheng of rice per mow and 1 tan 4 sheng of wheat, besides millet and grass. In other places where I have been I find the tax is much lighter, only 4 sheng of rice and 4 sheng of barley having to be produced per mow. The tax is paid direct to the District Yamêns, twice in the year.

On the whole, although the people labour under heavy imposts—差使, as they call it here—yet they may be said to be comfortably situated. The land produces well, and generally pays well for the labour expended. About a third is devoted to the growth of the poppy, although, from the quantity of opium annually brought to the market, it is a loss to the individual farmer to cultivate it. Grain pays well, but the price would go down again if the cultivation of the poppy ceased. The price has gone up as opium has come down. Apricots, peaches, plums and apples, also pears, are grown, but they are all dear compared with other places I have been to. Orchards were destroyed during the Mahommedan rebellion, and even at this late period they have not reached their former point of perfection. The vine also is cultivated, but to an inconsiderable extent. The winters being very severe, most of the fruit-trees suffer. The peach is particularly of note in this respect. I have walked through orchards where I have noticed numbers of peach-trees destroyed by the frosts. Vegetables of all kinds are plentiful. It has been frequently remarked that in the "year of peace," i.e., previous to the Mahommedan rebellion, the whole land presented a much better aspect than it does now. On every side traces of this terrible rupture may be met with. The land has been practically depopulated, and, of course, as a natural sequence, agriculture and every other industry have more or less suffered. Numbers of places may be mentioned, which once were flourishing cities, now mere masses of ruins, with a few people scattered amongst the broken walls, as if trying to hide themselves in the secrets of solitude and desertion.

*July 10th, 1888.*

From GEO. JAMIESON, Esq.,

H.B.M.'s Acting Judge, Yokohama, Japan.

*President of the Society.*

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*Notes on the Condition of the Peasantry in Kiangsi,  
made in the course of travels in 1883-4.*

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The Holdings in this part of the country are invariably of small extent. Out of 15 cases inquired into the smallest was 3 mow, or half an English acre, the largest 26 mow= $4\frac{1}{3}$  acres, the average being about 8 mow.

Of the 15 cases 8 were owners of the land wholly or in part, the others farmed land as tenants paying rent. In all the cases the work was done by the members of the family, and generally there was not enough work to keep them employed all the year round. All the land was in crop at least once a year, and most of it bore two or three crops. A rice crop, the principal, was grown between June and September, and wheat between November and May, while rape beans, cabbages, and other green crops alternated with the latter on suitable soils. On the higher land, where there was not sufficient water-supply for rice, cotton was the summer crop.

In the case of leases the landlord was invariably paid in kind, the general rule being that he received one half the summer rice crop. The yield per mow of the best land in a good year would be 4 tan of paddy, that is, of unhulled rice as it comes from the threshing-floor. A tan is 2 baskets, and weighs about 140 catties, or say  $1\frac{1}{2}$  cwt. The yield per mow is thus about 6 cwt., or 36 cwt. per acre, of which the landlord takes half. A tan of rice sells for about \$2; the rent, therefore, in money value would be \$4 per mow, or \$24 (£4 stg.) per acre. This, however, assumes that the land is of the

best quality, and is also favourably situated for transport. In the great majority of cases the yield would not exceed half that. The winter wheat crop, which yields from one to two tan a mow, and all the other crops, belong to the tenant.

A family of five or six persons owning 8 mow of land can manage to get along with tolerable comfort in good years, but there is nothing left over for luxuries. They can never save any money, or what little is saved disappears in those recurring events, deaths and marriages, which are always a source of extravagance. The cottages are furnished in the rudest and simplest manner. The clothing of both sexes, shoes included, is made at home by the women from strong, coarse native cloth, a suit of which, well patched and mended, will last five or six years. Their food is invariably rice, with salt fish or pickled vegetables as a relish; on great occasions a little pork is added. Beef and mutton are unheard of.

Families owning 15 or 20 mow are of course much better off, and would almost count themselves wealthy. Those with 30 or 50 mow would be decidedly so. But very few are to be met with, that is of single families, who own as much as 50 mow. Four-fifths of the whole mass of the people in this District own or cultivate individually less than 15 mow.

The land tax for the highest class of land here amounts to between 200 and 300 cash, or say \$0.25 a mow, equal to about 4s. an acre.

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From E. L. OXENHAM, Esq.,  
H.B.M.'s Consul, Chinkiang, Kiangsu.

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1.—The agricultural holdings in the vicinity of Chinkiang average 20 mow, and may be said to range between 10 and 50 mow. Since the T'ai ping Rebellion no large proprietors

remain, only peasant holders. Towards Mooshan and the south large tracts of land remain untilled for lack of population, though distress in the north is gradually driving immigrants southwards, who are opening up slowly these tracts of soil.

In the north of Kiangsu more large proprietors exist, and a considerable proportion of the land is rented. Farmers, when lessees, do not cultivate more than 50 to 100 mow each as a rule.

2.—On the north of the Yang-tze as much as  $\frac{7}{10}$ , and some say  $\frac{8}{10}$ , of the land is rented, especially in the more southern parts of the northern portion at Hsing Hua and T'ai-chow. Hired hands are employed, the supply of labour from the Yellow River districts being abundant. Seventeen strings of cash are paid as wages per month, together with food.

To the south of the River,  $\frac{9}{10}$  of the land is owned and cultivated by the proprietors. Labour, especially in winter, is employed, the men coming from the north of the River and from the Yellow River districts. They get about two strings of cash per month with their food. Very often only food and lodging are given.

3.—Where rent is paid in the usual occidental fashion, which is but seldom, about two strings of cash a mow is paid per annum. The system most generally in force is, however, the metayer system, by which a certain proportion of the crop harvested goes to the landlord and a certain part to the tenant. As is usual in China, where our European hard-and-fast and rigid systems are not customary, and are unsuited to the equitable sense of the people, the proportion of the crop given varies with the season. In a very bad year nothing is given, nor any equivalent in money. In a good year, for rice, 4 *tou* (bushels) per picul of the harvested crop would go to the landlord; for wheat, 3 *tou* per picul; for beans,



peas, and peanuts 3 *tou* a picul; 10 *tou* equal one picul of lbs. 133½. Rice commutes for 1,250 cash a picul when unhusked, and for 2,870 cash a picul when husked.

As was stated above, the number of large proprietors to the south of the River is very small, and the same may be said of the country within 30 miles of the north bank of the Yang-tze. Farther north, however, large landed proprietors are more common, and peasant owners are rare. One family, named CH'EN, is said to possess 400,000 mow (66,000 acres,) and its properties extend into the provinces of Hupei and An-hui. Another person, named YANG, owns 300,000 mow, whilst owners of 40,000 to 70,000 mow are numerous. These large properties are situated in the more northerly portions of the province of Kiangsu, but at Hsing-hua and T'ai-chow there are also large proprietors owning from 10,000 to 1,000 mow. The T'ai-pings, who almost extirpated or drove out the inhabitants living near Chinkiang, and who burnt, with the Yamêns they destroyed, the land registries, did little damage in the northern prefectures of Kiangsu, and the old families retained their land. To the south of the Yang-tze the land, after 1865, was occupied by the first comer, to whom a title was given after some years' occupation, and the payment of land tax was allowed. Of course, under such circumstances, none but poor cultivators who could make a living out of the produce of their farms would take up land, and then only in small quantities.

Temples often own considerable tracts of land, bestowed on them from time to time by pious or astute Emperors. The Temple on Golden Island owns some 3,000 mow, and the various temples at Silver Island another 4,000 mow. On Huashan is a temple, where the mother of Kien Lung cultivated virtue, which owns some 5,000 acres.

4.—In a good year a mow of fertile land would produce as much as 4 piculs of paddy, and slightly less good land 3 to 3½ piculs of paddy.

Wheat in good years gives	1 $\frac{2}{10}$	picul a mow.
Beans	”	” 1 $\frac{7}{10}$ ” ”
Peanuts	”	” 8 bushels ”
Indigo	”	” 1½ picul ”
Cotton	”	” 15 catties ”
Vegetables	”	” 10 piculs a mow.
Roots	”	” 8 ” ”
Paddy is worth ...	...	\$1.40 a picul.
Rice ” ...	...	\$2.90 ”
Wheat ” ...	...	\$2.00 ”
Beans ” ...	...	\$2.10 ”
Indigo ” ...	...	\$3 to 4 ”
Cotton ” ...	...	\$15 cents a catty.

5.—Land tax on good arable land is from 500 to 600 cash a mow. In the case of hill land 10 mow, for purposes of land tax, count as one mow. In towns, 1,000 cash a mow is paid. The tax is paid in direct to the District Yamên twice a year. At the first payment money is given, the crop then ready being wheat; but at the second collection, payment is always in kind, it being important to obtain rice to store it in the public granaries for public purposes. Seven *sheng*, or pints, of rice are paid per mow.

Various fees have also to be paid. At the times of payment, a printed paper is left at the house of each person by the district runner, for which 14 cash in the country, and 28 cash in towns, has to be paid. On paying the tax in to the Yamên a fee of 25 per cent on the amount paid in has to be given to the magistrate's *mênshang*.

The houses of the peasantry near Chinkiang are very poor and furnished in the rudest manner. A table, a mud stove, a chair, or some wooden benches and cradles, are the only furniture.

It is on the land the peasant proprietor lavishes all his care and labour, and the cultivation is indeed garden-like in its neatness and order. In times of distress the absence of rich resident proprietors is very noticeable. Relief can only be given by officials and volunteers, and that in an intermittent and irregular way, whilst the dismal abodes the peasantry have to live in, and with which they are content, proves how much they lose by the absence of a higher visible standard of household comfort and refinement.

15th December, 1888.

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From REV. FREDK. BODEN,  
Wesleyan Mission, Wusueh, Hupeh.

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The following information refers only to Kwang Tsi Hien (廣濟縣), in the province of Hoopeh.

1.\*—Ten mow. One informant said ten mow, if paddy fields; 7 or 8 mow, if land for growing cotton, wheat, etc.

2. (a.)—In some parts of the Hien 30 per cent of these holdings are owned by the cultivators, in other parts only 10 per cent.

(b.)—Hired hands are employed. Eight to ten thousand cash per annum with board is considered good pay. As low as six thousand is paid, but this would be for inferior labour. At this season of the year (June) sixty cash

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\* See list of questions on pages 59 and 60.

(with three meals) a day is being paid for extra hands. 1,000 cash=\$1.

3. (a.)—In the case of paddy fields, the landlord is paid in kind. He receives about  $\frac{2}{3}$  of the annual yield. At a certain village at which the writer was staying the night, the farm-folk stated that the landlord received  $\frac{2}{3}$ . If a field, in a good year, yields an exceptionally large crop, the cultivators get the benefit. If the year be a very bad one, the landlord receives less than the stipulated quantity, and at times it even comes to no rent at all.

The rent of all other land is paid in money:—

Good soil...	1,300-1,400	cash per mow per annum.
Medium ...	1,000	” ” ”
Poor ...	600-900	” ” ”

(b.)—There are a few people who own 300 mow, and these are regarded as large proprietors. 200 mow is considered a good deal.

4. (a.)—Annual average production per mow:—

*Paddy.*—Good soil, 5 bushels (=4 piculs).

Medium,, 4 ”

Poor ” 3 ”

*Wheat.*—Good ” 12 ”

Medium,, 8 ”

Poor ” 5 or 6 ”

*Barley.*—Good ” 15 ”

Medium,, 10 ”

Poor ” 7 or 8 ”

*Cotton.*—Good ” 90 cattles.

Medium,, 70 ”

Poor ” 50 ”

*Note.*—A crop of wheat or barley, and one of cotton, are got from the same field in one year.

(b.)—Local selling prices :—

<i>Rice in husk</i> (穀)	}	Good year, 8 or 900 cash per picul.		
Medium		1,000	„	„
Bad		1,400-2,000	„	„
<i>Wheat.</i> —	}	Good „ 1,500 cash per bushel of 十斗.		
Medium		2,000	„	„
Bad		2,500-3,000	„	„
<i>Barley.</i> —	}	Good „ 500-800 „ „ „		
Medium		800-1,100	„	„
Bad		1,200-1,400	„	„

*Note.*—Rice in the husk is seldom sold by weight; wheat and barley never. If wheat can be kept over the winter a higher price is realized. For instance, this year's wheat has sold for 2,100 cash per bushel, whilst last year's, sold a few months ago, fetched 3,200 cash per bushel. It is, however, only the fairly well-to-do that can afford to wait for this better price.

Cotton, in a good market, 50 cash per catty.

„	Medium	„	40	„	„
„	Poor	„	30	„	„

This market is largely regulated by the number of purchasers that come. If they arrive in good numbers, high prices are maintained; if there be but few, the market is poor and low rates have to be accepted.

5.—The average land tax is about 300 cash per mow. It is paid into the Yamên. In case of floods, a list of those unable to pay is handed to the District Magistrate, who transmits it to the Provincial Governor, who in turn passes it on to the Government. If the Government remit the taxes that year, and there follow a couple of good years, the amount so remitted will have to be made up. In the case of an ordinary drought, the full tax has to be paid, but if the drought be excessively severe an abatement will be granted,

From the RT. REV. BISHOP MOULE,  
Hangchow, Chékiang.

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In reply to your questions on behalf of the Asiatic Society, (Circular dated 8th March), I have received the following from fairly well-informed Chinese scholars, one of them speaking for Jin ho ( 仁和 ), one of the Districts of Hangchow Fu, the other for the plain of Shaohing, both in Chekiang.

1.—Holdings vary from 4 or 5 to several hundred mow, not, in Jin ho, exceeding 1,000, though, near Shaohing, there are estates of several thousand, perhaps not 10,000.

Working farmers till at most one or two hundred mow; more in Shaohing.

2.—Hired labour is employed, but not in any large proportion. My informants thought hardly 20 per cent of field work was hired.

Wages for a skilful and good hand might come to say \$20 and board for half a year.

In the mountain districts as little as \$15 and board per annum is paid.

My informants could not strike a proportion between freehold of the cultivator and leasehold. It is common for a small owner to add a few mow on lease.

Large owners employ an Agent to let their farms.

3.—The landlord is paid always in either paddy or dressed rice; usually the latter; never in silver.

The proportion is said to be nearly, if not quite, one-half of an average crop of rice. It is, however, a fixed amount, except in bad years, when a composition may be come to, the small tenants (who usually pay more) being let off at the same rate as large holders.

All the other crops go to the tenant, *e.g.*, wheat and barley, pulse, mulberry, sesamum, etc., etc.

4.—Good land, well-tilled, will yield 3 stone (石 *shih*), of paddy. Price and measure vary greatly according to locality. But the above yield was understood to be taken at the standard weight of the 石.

5.—The land tax is commonly compounded for in silver, at \$1, more or less, per mow. It is paid at the District Granary (庫), under the control of the District Officer (Hsien).

18th April, 1888.

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From REV. J. F. JOHNSON,

American Presbyterian Mission, Hangchow, Chûkiang.

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The agricultural holdings or farms here vary in size from 3 or 4 to 20 or 30 mow, as a general thing. The average size is probably 12 or 15 mow.

Of the cultivators, I was told that  $\frac{2}{3}$ , perhaps  $\frac{1}{2}$ , are owners of the land; the rest, leasers or renters. One able-bodied, expert workman is supposed to tend 6 mow. Hired labour is much used, and at rates like these: for a day's work, from 120 to 160 cash; for a month's, from 2,400 to 3,000 cash; boys get about 1,000 cash a month; and in every case the labourer is fed by the employer. By a mutual-help system many farmers avoid the necessity of employing hired help.

The landlord is paid  $\frac{1}{3}$  of the produce as rent. In our *hien* the largest farm is about 200 mow; in our *foo* there are a few men who hold 1,000 mow or more, but perhaps none who have as much as 10,000 mow.

The average yield per mow varies with the soil and with the year. Good land will ordinarily yield 2 tan (piculs) of hulled rice; poor land, perhaps 1 tan. You may double

these figures if you speak of unhulled rice. Barley or wheat is but little grown here. The farmer gets from \$1.70 to \$2 a tan for his rice, the retail price of which is from 240 to 320 cash a *tou*.

Land tax is paid in silver in the 5th moon, at the rate of 1 tael for 7 mow; in the 11th moon in rice, at the rate of 6.08 shing a mow. And these taxes are paid at the Yaméns and granaries of the different hiens. Many of the farmers pay tax with a bad grace; they often give tax-collectors and townsmen a piece of their mind upon the slightest provocation.

People here speak of the land of the Shaohing plain as unusually productive.

Many small farmers engage in other businesses during their leisure from farm work.

One of my informants says, that the total land tax for a year varies between 400 and 1,000 cash a mow, according to the quality of the land.

There is but little arable land near us that does not yield at least two or three different crops a year.

*April 14th, 1888.*

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From GEO. PHILLIPS, Esq.,

H.B.M. Consul, Foochow, Fuhkien.

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*On the Tenure of Agricultural Land in the  
Neighbourhood of Fuchau.*

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In the neighbourhood of Fuchau, the average size of the agricultural holdings or farms is from 100 mow to 10 mow.



About half these are owned by the cultivator and about half held on lease.

A landlord cultivating his own land is obliged to hire labour for about five months a year, and at five different periods.

The wages paid are as follows :—

- 1°.—For preparing the ground and planting out the rice shoots for the first crop, 200 cash a day (about 18 cents).
- 2°.—Weeding and raking between the rice-plants is paid for at the rate of 80 cash or 7 cents a day. A very low class labour is employed in this work.
- 3°.—For reaping the first crop, 160 cash or 14 cents a day is paid.
- 4°.—Preparing the ground and manuring the second crop, 80 cash a day or 7 cents is paid.
- 5°.—Reaping the second crop, 120 cash or 10 cents a day is paid.

In all cases food is provided by the landlord.

The second crop is sown between the first, so that both grow together, but the second crop is, of course, sown later.

In the case of Leases, the Landlord is almost always paid in kind, he having half the produce; sometimes an arrangement is made whereby the Landlord receives his rent in silver, the value of the half crop being reckoned at the market rate of the day. Large landed proprietors are few. There is said to be only one man owning 1,000 mow. There are a few farms between 300 and 100 mow in size.

Land is now considered a very poor investment in Fuchau, hence few are willing to purchase landed property.

Taking all classes of land together, the average annual production is 8 tan a mow. A tan consists of two baskets of about 50 catties each.

The local wholesale selling price is 1,600 cash or \$1.40 per tan.

The average amount of the land tax is :

1 mace 5 can. 2 li 6 cash a mow on first-class land, or about 4s. per English acre.

1 mace 3 cand. 8 li a mow on second-class land=3s. 4d. per acre.

9 cand. 8 li a mow on third-class land=2s. 6d. per acre.

In addition to the above, rice to the value of  $1\frac{8}{10}$  shing (pint) is given for each mow of first-class land.

For second-class land  $1\frac{6}{10}$  shing (pint) is given.

The above taxes are collected in the spring and autumn by deputies sent to the villages by the District Magistrate. All the taxes are paid by the land-owner.

Two men usually cultivate ten mow of land, and four men are required to reap the same.

A holding of fifteen mow produced last year, 120 tan of rice.

Value of the Rice	...	...	...	...	\$160
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Outlay :—

Rent of Farm (60 tan of rice,	
half crop)...	...
	\$80

Rent of Bullock for ploughing,	}	18
Labour and Seed Rice ...		

	\$98	98
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Balance to Farmer ...	<u>\$62</u>
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Three grown-up people and two children maintained.

It must be remembered that these tenants raise a quantity of vegetables, etc., when the rice has been reaped ; this is all their own and forms the condiment to their rice. They

seldom eat meat, only a little fish, generally salted, and are looked upon as the most pitiable of all classes. They eke out a livelihood with great difficulty.

Women and girls do a great deal of field-work in Fuchau.

In concluding this paper, I must acknowledge my indebtedness to the Rev. L. LLOYD for the valuable aid he has afforded me in furnishing much of the information contained therein.

*Fuchau, 12th September, 1888.*

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From MISS A. M. FIELDE,

American Baptist Mission, Swatow, Kwangtung.

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In response to the list of questions sent out by the Council of the C.B.R.A.S., March 8th, 1888, I have the honour to send information obtained by me from ten owners of land, living in four districts, all within fifty miles from Swatow.

In this region a very large proportion, probably nine-tenths, of the men are engaged in agriculture. The agriculturists all live in villages, isolated farm-houses being unknown. The villages are walled, are very close together, and are densely populated. The wide-spreading, flat fields, lying along the river-banks at the foot of the hills, may be made to yield, here on the Tropic of Cancer, a constant series of crops, without interval on account of winter. Their chief productions are rice, sugar-cane, sweet potatoes, pulse, garden vegetables, peanuts, indigo, sesamum, ginger, the grass-cloth plant and wheat. Rice is the staple food of the people; and in the best years the local product just supplies the local demand. Sugar is the principal export. Cane

requires less labour than any other crop, and will grow upon unwatered land which is unsuitable for rice-culture. The chief expense in tillage here, is for fertilizers, beancake from Chefoo and Newchwang being commonly used, at an outlay of from one to seven dollars, and an average of four dollars, upon every mow ( $\frac{1}{8}$  of an acre approximately) of arable land. Besides this, ashes, hair and all other vegetable and animal refuse are carefully husbanded and methodically added to the soil. The first crop of rice is planted, always upon watered land, in the 3rd Chinese month, and is harvested in the 6th month; the second crop of rice is planted in the 7th month, and harvested in the 10th month; then wheat, turnips, cabbage or other vegetables are sometimes planted in the 11th month, and are harvested in the 2nd month. Only one crop of cane is cut in one year from the same field. Of potatoes, peanuts, and indigo, two crops a year may be taken from the same land. The rotation of crops is generally practised.

1.—In order to answer perfectly the inquiry as to the average size of holdings, it would be necessary to have access to the records of the District Yaméns of this Department. Lacking this, I have been able to ascertain only the average size of the holdings of a few clans:—

At Be Rhu	a clan of 2,000 persons owns	1,650 mow
„ Ho Ie	„ „ 300	„ 240 „
„ Tou Lio	„ „ 800	„ 785 „
„ Nam Leng	„ „ 1,400	„ 2,300 „
„ Thah Rng	„ „ 400	„ 350 „

As the emigration of men is constant, and the smothering of female infants is common, it is probable that the land will support no more than its present population. One mow of land to each mouth is commonly declared to be the least

that will enable the cultivator to live, even with the highest cultivation of his land and the utmost frugality in the use of its products.

2.—It is thought that three farmers out of four till more or less land that belongs to another. When a father dies, his land is divided equally among his sons, a small extra portion being given to the eldest for meeting the expense of worshipping the ancestral manes. This tends to diminish in each succeeding generation the amount of land held by single individuals. There are men who individually own and till so little as one-fifth of a mow. Land may almost always be bought by those who have money, and emigrants returning from abroad often invest their money in land. No man sells land willingly, however, and the fact that land is sometimes sold proves that some families lack capable labourers.

When hired hands are employed, the usual wages are from eight to ten cents a day, with a noonday meal. At the planting and harvesting of rice, the wages are from ten to twenty cents a day with five meals, or thirty cents without food. A farmer may be employed by the year, in which case his wages are from eight to fourteen dollars, with food, clothing, head-shaving and tobacco. Few landlords hire hands except for a few days during the planting and harvesting of rice. Those who have more land than they and their sons can till, lease it to be tilled by their neighbours.

3.—When land is leased, the lessee always pays the landlord in paddy, the amount varying with the quality of the land from two to six baskets for each mow. A basket is 80 catties\* in weight. The average quantity of paddy paid for each mow is 4 baskets, or 320 catties. This is about one-half the rice-crop for the year. The payment is made in

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\* A catty= $1\frac{1}{2}$  lb.

dry, threshed, unhusked rice, the straw and all else from the field going to the labourer.

In the very best years the skilful agriculturist may pay out one-third of the crop for the rental of the land; the cost of manure may be another third of his crop, and he may have the remaining third as net profit on his work. In a bad year the lessee may insist upon the landlord's taking one-half the crop in full payment for the use of the land, even when one-half the crop is much less than the amount agreed upon as annual rental.

Much land is held on inalienable leases, given by an ancient proprietor to the family of a clansman. For such leases the annual rental is usually one or two baskets of paddy for each mow.

The proprietor of twelve mow (two acres) of the best land, having a family of only five persons, may live, without work, from the product of his land.

I have heard of only one landlord who owns so much as 1,000 mow, within 50 miles from Swatow. There are few who own so much as 500 mow, and the possession of 50 mow makes a man wealthy. Those who own 20 mow rarely cultivate the whole of it themselves. A young, strong man may till six mow of land alone, when the raising of water by a pump is not required. Three strong men may till thirty mow, if the fields be continuous and favorably situated in regard to water.

4.—The average annual product of the watered land is about enough to pay the landlord, to pay for the fertilizers bought, and to leave the labourer a profit of \$5.00 per mow for his work. The quantity raised on each mow varies from 640 to 1,280 catties, according to the quality of the land, and the year. The local selling price of paddy is \$1.25 per basket of 80 catties. One basket of paddy makes  $3\frac{1}{2}$  pecks of

rice, or 70 pounds; and four baskets of paddy are required each month for a family of five persons.

5.—The Government tax varies according to the location and the fertility of the field, from 15 to 30 cents per mow, the average being about 25 cents per mow. Unwatered land pays no tax. The tax is always paid in money, to a tax-gatherer sent from the District Yamên.

The value of the best rice-fields is \$100 per mow. The interest here on money lent is from 12 to 20 per cent.

The average cost of food here for an adult is \$1.50 per month. This includes sixty pounds of rice, which costs \$1.04 and the remainder is spent in fish, pickled cabbage, cheap vegetables and fruits as relishes.

Clothing is usually woven in the house, from the fibre of the grass-cloth plant (*Boehmeria nivea*) which grows here, or from cotton imported from Hankow. Five dollars spent wisely each year will keep up a comfortable and even elegant outfit of clothing for a man or a woman. The average value of the clothing for each member of a farmer's family might be reckoned at four dollars.

A room may be furnished in such a way as to make it comfortable for the farmer, for five dollars, and such a room would usually be occupied by three or four persons.

A complete outfit for farming may be bought for forty dollars. It includes:

A plough with two ploughshares.	\$2.00	} \$40.00
Two harrows... ..	2.50	
A wooden pump or water-wheel	4.00	
A threshing machine ...	2.50	
A water-buffalo ... ..	20.00	
Hoes, sickles, baskets and sundries	9.00	

*Examples in Illustration.*

Two brothers, aged 31 and 32 years, own  $3\frac{1}{2}$  mow of watered, and  $3\frac{1}{2}$  mow of unwatered land, inherited from their father. Their house, with the land upon which it stands, is worth \$50.00, their furniture \$20.00, and their farming appliances \$30.00. They live as comfortably as their neighbours, have paid up an old debt inherited from their father, and are now laying up money to invest in wives. Twenty years ago a wife could be had for thirty dollars; whereas none can now be obtained for less than one hundred dollars. Last year they got 22 baskets, or 1,760 catties, of paddy from their rice-fields, besides a winter crop of vegetables. This supported them and fed their stock. They planted sugar-cane on the unwatered land, put on \$15.00 worth of manure, and sold the cane when ready for cutting for \$40.00. The taxes on their land amounted to 80 cents.

The owner of land always pays the land tax. The lessee always furnishes everything required in tillage.

*Example Second.*

PONG HIA lives in a village of 300 persons, in which about 30 men are land-owners. PONG HIA owns more than any other man in his clan, having 12 mow. His family consists of 10 persons. He is 46 years old, his wife is 41, his son is 22, his son's wife is 22, his four daughters are from 10 to 17, and his two grandchildren are 3 and 8 years old. He and his son till his land, hiring help at harvest time. The women-folk weave and make the clothing for the family, rear pigs and fowls, and do all the housework. The house in which these 10 persons live is worth \$120.00, including its site; the furniture is worth \$44.00; the clothing worth about \$40.00, and the farming appliances about \$40.00.



The family lives comfortably upon the products of its land, and is reckoned affluent.

*Example Third.*

CHONG CHI's family consists of 13 persons—himself, his wife, his aged mother, his four sons, aged respectively 21, 18, 12 and 8 years, his widowed daughter-in-law, her son and daughter, aged respectively 21 and 19 years, his daughter, aged 15 years, his two grandchildren, aged 8 and 12 years. He owns 10 mow of land, which is tilled by his sons and grandsons. The women rear swine and fowls, and do all the housework. His house is worth \$300.00 with its site, his furniture \$100.00, his farming appliances \$32.00, and the clothing of the family about \$40.00. The manure for his land costs \$40.00 a year, and he pays just \$2.00 in taxes. The products of the 10 mow feed the family seven months of the year, and it is supported during the remaining five months by the outside earnings of himself and his sons.

*May 17th, 1888.*

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From REV. F. T. FOUCAR,  
China Inland Mission, Tali-fu, Yunnan.

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Subjoined I shall endeavour to give you information as desired under the various heads of your circular-letter of March 8th. It is not, however, gathered by personal observations, as I have had little intercourse with the rural population of the district, they being Ming-chia aborigines, most of them not able to speak Chinese, and it only applies to the T'ai-ho (太和) valley, which is about 100 miles long by 8 or 10 broad.

My informant is the teacher of our Mission school here. He has been, however, at one time employed as clerk in connection with the collecting of the land taxes, and should therefore know.

1.—The average size of the farms is 10 mow; 20 mow is the size of the very biggest.

2.—About 8 out of 10 farms are owned by the cultivators, the rest are held on lease. Hired hands are employed, the wages are 3 meals and 100 cash for male, 3 meals and 70 cash for female, labourers per day at the time of the transplanting of the rice. At other times, 3 meals and 60 cash a day is paid for male, and 1 meal and 50 cash a day for female, labourers.

3.—Rent is paid in kind at the rate of 3 *tou* (斗), of rice a year for good land, and 2 *tou* for inferior land. There are a few proprietors who own 100 or 200 mow. These got their land as a reward for service, quelling the late Mahomedan rebellion.

4.—Good land produces 20 *tou* of unhulled rice per mow, middle land 15 *tou*, and poor land 10 *tou*, the *tou* weighing about 30 catties, and worth about 300 cash.

5.—The land tax amounts to 8.4 *shǎng* (升) per mow for good, 6.4 *shǎng* for middle, and 4.4 *shǎng* for poor land, for the rice crop. The tax for other crops is paid in cash at the rate of 280 cash per mow—(the exchange for 1 tael of silver averages 1,500 cash here.) Each village has a man appointed to collect the tax and hand it to one of the 16 collectors appointed by the magistrate, but paying it direct to the District Yamên is also practised.

August 2nd, 1888.

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## LAND TENURE IN CHINA.

The following notes are translated, with the consent of the Author, from a valuable treatise by the Rev. PETER HOANG, "ex clero Missionis Nankinensis Presbyter," entitled "De Legali Dominio Practicæ Notiones," issued from the Mission Press at Zi-ka-wei, in 1882. Many clauses are abbreviated, only an abstract of them being given. Those clauses, however, which have a direct bearing on the subject treated in Mr. GEO. JAMIESON's paper on "Land Tenure in China," are translated in full, being indicated by quotation marks. The information appears to apply to the Province of Kiangsu, south of the Yangtze.

H. B. M.

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A PRACTICAL TREATISE ON LEGAL OWNERSHIP.

By the Rev. PETER HOANG.

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## Chap. I.—PREPARATION OF DEEDS.

1.—"Though there is no legally prescribed form for Deeds, yet the differences which exist in different localities give rise to no trouble, since the technical expressions for the conditions of the contract are everywhere the same; if one knows well the ordinary forms of one district, it will be easy for him to ascertain the special usages and customs of other districts, if any there be, and to conform to them as may be required."

2.—Large characters, thus 壹貳, etc., are always used in Deeds, and not the abbreviated forms, thus 一二, etc.

3.—**正** or **整** is added to a numeral to show that there are no fractions, thus **壹百兩正** and **貳拾畝整**.

4.—The character **零**, used in common writings to represent *zero*, thus **壹千零二十**, is not so employed in legal Deeds, where the above sum would be written **壹千貳拾**.

5.—“If one or two characters are omitted in copying a Deed, the omitted characters may be interpolated in their proper place, and a note added at the foot of the Deed enumerating the characters which have been interpolated, the note being signed by the drafter of the Deed.

6.—“It is very important that the matter of the contract should be clearly set forth, that the conditions of the agreement should be expressed without any ambiguity, and that the clauses should be expressed in legal and technical terms.

7.—“It is no less important that the boundaries of the property be clearly noted in the Deeds. If a right-of-way exists over the property of another, the right is indicated by the words **出入由某處路**, and the owner of the land over which the right-of-way exists should be invited to sign as one of the witnesses, as a precaution against his extending his holding in the future by enclosing the common way. If he refuses to sign, it is incumbent on the vendor to assert the right-of-way, based on long use and consensus of testimony, and to urge and compel him to sign in accordance with custom. If the property adjoining (*e.g.*, the eastern) boundary of the land to be sold belongs also to the vendor, this is expressed as follows **東至原業** (*east to property of the vendor*) or **東至數足** (*east as far as will make up the quantity of land now sold*). If the property adjoining (*e.g.*, the western) boundary of the land to be sold belongs also to the buyer, this is expressed as follows **西至得業** (*west to property of the buyer*). If the boundary is in the middle

of a stream, it is expressed by 半河; if in the middle of a street, by 半街 or 出街.

8.—“When the boundary is in the middle of a street, the boundary-stone is placed at the side of the street, but must be inscribed 出街界, which expression, by common usage, indicates that the boundary is not at the site of the stone, but outside, viz., in the middle of the way; if the boundary is at the site of the stone, the character 出 is omitted. The boundary-stone is placed so that the inscribed face looks on the adjoining property, unless prevented by a wall. If a stone cannot be conveniently erected, a 界灰 (*boundary-lime*) may be substituted for the *boundary-stone*; this is made by driving a longish post into the ground, then drawing it out and filling the hole with lime. When the *boundary-lime* is used, the fact is noted in the Deeds, and again in the *Property Roll*,<sup>1</sup> since such a mark, being covered by the earth, shows no sign of its existence. The setting of boundary-marks is done in the presence of public officials, 圖書 or 保正,<sup>2</sup> who give due warning to the neighbouring proprietors.”

9.—The right-of-way for an irrigating channel or for drainage over another's land must be expressed in the Deeds.

10.—In Sung-kiang 松江, Tsung-ming 崇明 and elsewhere, printed forms of Deeds, approved by the local officials, are sometimes used.

11.—In Hwai-an 淮安, Wu-ho 五河 and elsewhere, forms printed on stronger paper and in stricter legal phraseology are sometimes used.

12.—These forms, though printed, still require an experienced hand to fill them in.

13.—Families with large possessions frequently prepare two property rolls called 置產簿; one contains copies of all

<sup>1</sup> See below § 13.

<sup>2</sup> See below § 17.

Deeds with explanatory notes, and is deposited in some safe place; the other contains abstracts only of the Deeds, and is deposited with authentic documents in the archives of the family.

### Chap. II.—TERMS EMPLOYED.

14.—“The vendor is styled in Deeds 賣主 or 失主 or 棄主 or 原主 or 原業主. The buyer is styled 買主 or 得主 or 業主. If the buyer (B) sells the property to a third party (C), the relation of the former vendor (A) to the ultimate buyer (C) is expressed by 上首原主, and the relation of the ultimate buyer (C) to the former vendor (A) by 現業主. An owner who hands over property in pledge, 典當, and thereby surrenders its use and income in lieu of lawful interest,<sup>3</sup> is styled 出典主, and, since he still retains ownership in the property, is also styled 業主, and, since he has lost control over the property, is styled 原主. The party who accepts property in pledge and thereby enjoys its use and income, is styled 典主 or 現業主.

15.—“The drafter of the Deed is styled 代筆, and signs his name at the foot of the Deed with the phrase 代筆. He is by custom nominated by the vendor and not by the buyer, but the latter has the right to demand that an upright and experienced man be selected. If the vendor himself draws up the Deed, he again signs at the foot with the phrase 自筆; if the vendor's son writes the Deed, he (the son) signs with the phrase 子筆.

16.—“Middlemen, who have negotiated between vendor and buyer for the conclusion of the contract, are styled 原中. Others who are invited to sign as witnesses, are styled 散中. The principal witness, who is ordinarily

<sup>3</sup> See below §§ 22, 23.

selected from the nearer relatives of the vendor's family, *e.g.*, his father, uncle or nephew, is styled 見賣.

17.—“The public officer who is charged with the preservation of order in a district, is styled 小甲, elsewhere also 地保, and is of low rank. The officer who has charge of ownership in land and the collection of the Imperial tribute, is styled 圖書, elsewhere also 經造 and 地保, and is of respectable position. In the country, one person often performs both the above functions, and is styled 保正. Attendants who, commissioned by the magistrate, reside in the district to enforce payment of tribute are styled 圖差 or 糧差. The public officer who has charge of preparing tax certificates and of inscribing the name of the owner in the public records,<sup>4</sup> is styled 冊書 or 編書. The officer who has charge of the confirmation of contracts,<sup>5</sup> is styled 稅承. The officer to whom is entrusted by the magistrate the whole care of collecting taxes is styled 漕總 or 總書. The officer whose duty it is to measure property is styled 亭耆. The officer on whom devolves the delimitation of fields, ways and streams, is styled 繪圖.”

18.—In Hwai-an 淮安, Wu-ho 五河, and elsewhere, there are official offices for preparing contracts styled 房地行 or 官牙.

### Chap. III.—THE VARIOUS FORMS OF TRANSFER OF OWNERSHIP.

19.—“絕賣 or 杜絕, *irrevocable sale*, is a contract by which the vendor surrenders the right of redemption. In order that the sale may be legally recognised as irrevocable, the law prescribes that in the Deed shall be employed the phrase 絕賣永不回贖.

<sup>4</sup> See below § 32.      <sup>5</sup> See below § 61.

20.—“**活賣**, *revocable sale* or *return sale*, is a contract by which the vendor preserves the right of redemption. It is evident that property is sold *revocably* at a lower price than if sold *irrevocably*. The law prescribes that in Deeds under this form of contract the phrase **活賣准貼找回贖** shall be employed. The law further prescribes that there shall be expressed the number of years on the expiration of which it is agreed that redemption may take place. If the vendor does not redeem, the buyer is not thereby prevented from retaining possession beyond the stated period. The right of redemption is styled **田根**. The vendor by revocable sale is said still to retain the *root of the soil*, while the buyer in a revocable sale is said to possess only the *face of the soil*, **田面**.

21.—“If the Deeds of Sale are not clearly drawn up, and the above formulæ are omitted, so that it cannot be ascertained which form of sale, whether *revocable* or *irrevocable*, was agreed upon, the law solves the question by prescribing that if thirty years shall have elapsed from the date of the contract, it is to be adjudged an *irrevocable sale*, so that the vendor may not demand any margin of value or redeem the property; if, however, thirty years shall not have elapsed, it is to be adjudged a *revocable sale*.

22.—“**典當** (colloquially **典押** or **活典**), *pledging*, is a contract by which anyone delivers real property as security for value received, and thereby surrenders its use and income in lieu of lawful interest, until, by repaying the money, the property is redeemed. This *pledging* is similar to a *revocable sale* in that he who has delivered the property as security, preserves the right of demanding the balance of the value of the property, and of redeeming the property within the time agreed upon; it differs from a *revocable sale* in that in *pledging* the time of redemption cannot be extended beyond



ten years, on the expiration of which, if the property is not redeemed, the *pledging* must be converted into a sale by a new contract.

23.—“A *pledging*, 典當, differs from a *mortgage*, 抵押; for in *pledging*, the debtor delivers the property and pays no interest for the money due, and the creditor enjoys the property and its income in lieu of interest; in *mortgage*, however, the debtor only secures the debt on the property, does not deliver possession of it, and pays interest, while the creditor does not enjoy the property and its income, but only has an action against the property if the debt is not repaid by the debtor.

24.—“In *pledging*, the contracting parties commonly exchange Deeds; one, signed by the party delivering the property, is styled 典當正契; one, signed by the party receiving the property, is styled 典當副契.

25.—“*Subsequent receipt of the balance of value*, 加找, is a contract by which, for his real property sold by *revocable sale* or pledged in a *pledging*, the original owner receives the balance of its value from the same buyer or pledgee, without selling the property by *irrevocable sale*. Claim for this balance of value should be made at the expiration of the time agreed upon for redemption. In this second Deed, 加找契, which is signed by the receiver of the balance of value, is expressed the extension of time settled by the new agreement, on the expiration of which the property may be redeemed; in the same Deed is also inserted a clause, *redemption is allowed but no balance of value is further to be demanded*, 聽贖不找; by which clause the vendor, while preserving the right of redemption, binds himself to relinquish the property to the other party failing redemption, or to effect an *irrevocable sale*, without again claiming a balance of value. The receipt of the balance of value and the extension of the term

of redemption are inserted at the foot of the original deed of sale or of *pledging*.

26.—“If the actual proprietor of the property bought by *revocable sale* or acquired in *pledging* does not agree to the claim of the first proprietor for the balance of value, the latter may legally deliver the property to a third party for a higher price, and return to the second proprietor the money which he has received. If the second proprietor is in need of money, he may legally sell the property to another by *revocable sale*, or deliver it by *pledging*, for the same value as he had given; if he received a larger sum, the first proprietor would be compelled to give more in redemption than he had received, which is not just. The second proprietor may, however, transfer the property to a third party for a smaller sum, and this happens when no one is found willing to acquire the property at its former value; when ultimately the first proprietor redeems the property, the second proprietor receives the sum advanced by him, unless he has surrendered to the third proprietor his right to receive it by delivering to him all prior Deeds. The property being thus delivered to a third party, the onus of paying the balance of value, if the first vendor demands it, lies with this third party; but the first vendor cannot legally apply directly to the third proprietor either to claim the balance of value or to redeem the property, but should claim either right only after first notifying the second proprietor.

27.—“The redemption of property sold by *revocable sale* or transferred in *pledging*, is styled 回贖. The first proprietor cannot legally redeem the property before the stated term without the consent of the second proprietor; nor can the second proprietor, on the expiration of the stated term, refuse to the first proprietor the right of redemption. On redemption the property should be retransferred in the same state

as it was received, if, *e.g.*, the house walls are destroyed or other things broken, compensation is deducted from the price of redemption. If, however, articles are added, they are either taken away by their owner or sold at a valuation to the redeemer. Expenses incurred by the second proprietor prior to the contract, *e.g.*, fees to middlemen, are by the custom of many districts refunded by the redeemer if redemption occurs within three years from the date of the contract. On redemption the second proprietor ought to return to the first proprietor the Deeds received from the latter; if these Deeds are by chance lost, then the second proprietor signs a new Deed and hands it to the first proprietor, in which he certifies that the former Deeds have been lost and that if they are afterwards found he will make no further claim; this *certificate of lost Deeds* is styled 遺失契據. In the same way the first proprietor should deliver to the second proprietor the subsidiary Deed, 副契, if he received any; if this Deed should by chance be lost a new one should be signed certifying to the fact.

28.—“A *subsequent irrevocable sale*, 加絕, is a contract by which one party sells by *irrevocable sale* to the same second party property either sold by *revocable sale* or transferred in *pledging*, whether the balance of value be claimed or not.”

29.—Sometimes, though contrary to law, further claims are made on the buyer after an irrevocable sale. To avoid trouble, these claims are sometimes met, under the name of alms, under a written pledge not to make further claims.

30.—When real property is sold at once by *irrevocable sale* in Soochow it is customary to have one Deed, 杜絕契. In Sung-kiang and elsewhere, for property sold at once by *irrevocable sale*, four Deeds are prepared simultaneously, viz., a Deed of *revocable sale*, 活賣契, a receipt for the balance of value, 加找契, a Deed of *subsequent irrevocable sale*, 加絕契,

and an acknowledgement of the receipt of alms, 嘆氣據 or 情借據, the total value being distributed over the four Deeds and different dates given to them.

31.—A *Deed of Gift* of real estate for benevolent purposes, 捐據, is valid, but is better replaced by a Deed of *irrevocable sale*.

#### Chap. IV.—REGISTRATION IN THE PUBLIC RECORDS.

32.—“過割 or 過戶, the substitution of the name of a new proprietor for that of his predecessor, is the act by which a public official at the request of the new proprietor inscribes his name, or that of a community which he represents, in the public records, adding the quantity of land, in what prefecture and district, and under what number situated, and by whom sold to him. Then the name will be inscribed in the authentic schedules or certificates of payment of taxes.”

33.—The characters of the 千字文 are used to distinguish the documents of various properties of the same owner in the same district.

34.—“A proprietor who has omitted this registration in the public records, is legally liable to a penalty, besides the confiscation of all the land, of blows with a bamboo proportioned to the quantity of land. From one to five mow inclusive the penalty is forty blows, and for each additional five mow an addition of ten blows; beyond thirty-five mow the penalty is invariably one hundred blows. The time for registration is not held to be laid down in the Statutes; but since this registration is required in order that the land may have its proper taxpayer, and since the name of the said taxpayer should be inscribed in the certificates, it is evident that registration must be effected before the date on which the first of the three payments required each year is due from the new proprietor.

35.—“Though this registration is prescribed for all proprietors, whether acquiring the property by right of purchase or in *pledging*, still ordinarily only the proprietors who hold by an *irrevocable sale* demand it; but if a proprietor acquiring property by right of *revocable* purchase or of *pledging*, doubts the good faith and probity of the first proprietor, he usually demands registration, and afterwards, when the property is redeemed, the redeemer should demand registration anew for himself.”

36.—Church property is registered under special instructions from the Central Government.

37.—Officials charged with the collection of taxes prefer to have several properties of the same owner in the same district inscribed on one certificate, but it is better to have a separate certificate for each lot of land.

38.—The amount of fees for registration cannot be accurately stated; it depends on the value of the land, on the number of mow, and on the personal status of the owner.

#### Chap. V.—IMPERIAL TAXES.

39.—“漕糧 is the Imperial rice-tribute imposed on fertile lands, and the amount is proportioned to the richness of the soil. In the province of Kiangsu the rice to be paid each year for each mow is from *shih* 石 0.0009 (9 *shao* 勺) to *shih* 0.11 (1 *tou* 斗 1 *shêng* 升); but in the province of Anhui it is from *shih* 0.0021 (2 *ko* 合 1 *shao* 勺) to *shih* 0.059 (5 *shêng* 升 9 *ko* 合).”

40.—From A.D. 1368 to 1863 portions of Kiangsu were burdened with much heavier rice-tribute than stated above.

41.—To cover cost of collection, 1,052 cash are exacted for each *shih* assessed on a proprietor's lands. If the rice-tribute

is commuted for a money payment at the fixed rate, then the 1,052 cash per *shih* are added to the fixed rate.

42.—This tribute begins to be collected in the 11th moon, with an additional charge of 500 cash for delay to the 1st moon of the following year.

43.—“**地丁銀** is the Imperial tribute in silver now imposed only on lands. This tribute was formerly imposed both on lands and persons; adult men were required to pay each per annum about Taels 0.019 of silver; but in A.D. 1728, the portion to be paid by persons was added to the land tax, which thereby, the personal tax having ceased, was increased. The amount of this tax is in proportion to the fertility of the soil. In the province of Kiangsu for each mow is paid from Taels 0.01 to Taels 0.40; in the province of Anhui from Taels 0.009 to Taels 0.13. This tax is called also **白銀** or **條銀** or **忙銀**; one portion is paid in the middle of the 2nd moon, the rest in the middle of the 7th moon, the first being called **上忙銀**, the second **下忙銀**.”

44.—Land tax is payable in Ku-ping 庫平 Taels, with certain additions for cost of collection.

45.—For early payment certain remissions are made.

46.—“**蘆課銀** is the money tax imposed on lands which are not yet arable and produce only reeds, or which have been brought under cultivation but are not yet recognised as arable by the magistrates. Lands actually not yet arable are those which have recently been formed by alluvial deposit, as, *e.g.*, many lands on the banks of the River Yangtsze where only reeds grow. Lands already brought under cultivation, but not yet recognised as arable are such as, *e.g.*, those lying in the peninsula of Hai-mên and on the island of Tsung-ming, 崇明, and those on the banks of the River Whang-poo, 黃浦, in Shanghai. This tax is usually collected in two instalments in the year, as in Tsung-ming

and Hai-mên; but in Shanghai it is collected in one payment from the 4th to the 8th or 9th moon; in Tsung-ming the tax on marshes, which is at the lowest rate, is also collected in one payment.

47.—“The amount of this tax due for each mow is from Taels 0.009 to Taels 0.151. The value of these Taels does not follow the value fixed by the magistrates for the land tax, 地丁銀. In this year (1882), while 2,200 cash are the fixed equivalent of the Tael for land tax, 地丁銀, the Tael for *non-arable* land tax, 蘆課銀, is fixed in Shanghai at 3,200 cash, in Tsung-ming and Hai-mên at 2,600 cash. The kind of land specified above commonly pays only this kind of tax and is exempted from the rice-tribute.

48.—“鹽課銀 is a money tax imposed on lands which formerly were legally devoted to the manufacture of salt, and have been since brought into cultivation, without authority, but with the ultimate approval of the Government. Lands of this class are styled 灶田. The amount of tax payable per mow is commonly from Taels 0.01 to Taels 0.10, and is styled 忙銀, being likewise collected in two instalments. This tax is commonly collected not by the District Magistrates but by poor mandarins charged with the supervision of the salt manufacture. Lands of this class are subjected only to this tax, and are numerous in maritime districts, such as Kin-shan 金山, Tang-chow 通州, etc.

49.—“屯田 or 軍田 are lands which in former dynasties were cultivated by families who were entrusted with the hereditary duty of guarding the city or of transporting the tribute-rice by boat up the Grand Canal, 運糧河, to Peking. These lands, since they are now cultivated without regard to the above duties, are liable to a money tax under three heads: the amount of this tax per mow is commonly, under the first head, 米銀, Taels 0.03, under the second head,

錢糧, Taels 0.14, and under the third head, 津貼銀, Taels 0.23. It is generally collected not by the local magistrate but by poor mandarins commissioned for the purpose, and is partly devoted to the tribute-rice transport service, and partly distributed among the families who formerly had the duty of providing for the transport, though they do not now perform it."

50.—Land of this sort is distributed over the districts in blocks of from two to several thousand mow.

51.—"In the years containing an intercalary month, money taxes due are increased by about one per cent, while the rice-tribute is diminished by about one thousandth."

52.—Fertile lands are required to pay taxes in both rice and money, while other lands are exempt from the rice tax.

53.—"It is thus evident that the annual taxes imposed on lands and due to the Government are subject to great variation, but generally for lands subject to both taxes about 500 to 900 cash per mow suffice, and for those subject only to one tax from 20 to 400 cash per mow."

54.—Certain properties devoted to public or charitable use are legally exempt from all taxation.

55.—Other lands have from time immemorial been subject to no taxes, such as a great part of the land within the city of Soochow.

56.—"Owners pay to the tax collectors from 10 to 100 cash per mow for cost of collection, the smaller holdings paying the larger sum per mow.

57.—"When the taxes have been paid, the magistrates issue to the owners certificates duly sealed, which are called 版串 or 執照. These certificates must be preserved, since they are proof not only of the payment of taxes but also of the ownership of the property, especially in the absence of other legal titles, or when the contract of sale has not yet been



legally *confirmed*, and the Deeds not yet sealed by the magistrate."

58.—In years of famine the payment of taxes is deferred to future years, and often by Imperial grace remitted wholly or in part.

59.—On the occasion of certain important Imperial events the taxes are remitted wholly or in part.

60.—Owners who defer payment of taxes beyond the fixed date, which is the 4th moon of the following year, are compelled to pay and suffer a legal penalty in the proportion that the amount due bears to the whole.

#### Chap. VI.—THE CONFIRMATION OF CONTRACTS OF SALE.

61.—**稅契** is the act by which the new proprietor pays to the Government the legal tax for a contract of sale, whether revocable or irrevocable, of his house or land recently entered into, in order that the local magistrate may furnish the Deed with his seal and label attached, called **契尾**, and so confirm the contract. This label bears the seal of the provincial treasurer. The local magistrate has a supply of labels sent by the provincial treasurer, and accounts for them annually, remitting at the same time the taxes received. The owner must obtain this *confirmation* within a year after he has purchased the land or house, whether by *revocable* or by *irrevocable* sale. After one year the owner who has omitted this formality, besides being required to conform to the law, is liable to receive fifty blows irrespective of the value of the property, and to be fined half the value named in the contract."

62.—If the value of the property does not amount to Taels 1,000, this *confirmation* is done by the immediate local magistrate, Chih-hsien, etc.; if it exceeds Taels 1,000, this

magistrate must report to, and the Deeds must be sealed by, his immediate superior.

63.—“**稅銀** is the legal tax levied for this *confirmation*, being three per cent of the value, and under the name of **耗銀** a further amount is collected of five per cent of the legal tax, and besides 500 cash are required for the cost of the label attached. The silver in which this tax is paid is the same as that required for the land tax, **地丁銀**. . .

. . . On the label **契尾** are inscribed the names of the buyer and vendor, the quantity whether of land or houses sold and the amount paid; there is also inscribed on it the amount due as legal tax for *confirmation*, but only the amount due, not the amount actually paid, though more might have been paid than was due.”

64.—“The contract of *pledging*, **典當**, does not require *confirmation* until after ten years, and then the *pledging* ought to be converted into a sale by a new agreement.

65.—“If the Deeds have only the seal of the local magistrate affixed to them, without having the label **契尾** attached, the buyers are presumed to have evaded payment of the tax, and are liable to the legal penalty provided for this evasion.

66.—“A person who redeems his property requires no *confirmation*, because in redemption no new Deed is drawn up, but only those Deeds are restored to the redeemer which he himself before delivered to the buyer. Besides, the acquisition of ownership by redemption is based on the old purchase, which is supposed to have been confirmed.

67.—“The law of *confirmation* for an *irrevocable sale* is commonly strictly observed in the city and suburbs, but in the country only when a rich buyer has bought a large property, and by the omission of the *confirmation* might give his enemies an opportunity of laying a plaint before a magistrate, and when he fears that the vendor will not keep faith.”

## Chap. VII.—ALLUVIAL DEPOSITS.

68.—“New land, or land formed by alluvial deposit, is divided into two classes: *old land now re-formed*, 故土復生, and *land independently formed in the middle of a stream*, 江心突漲. *Re-formed land* is that which, once washed away by the force of the waters, has reappeared; *land independently formed* is an island which has formed in the middle of a stream or in the sea. *Re-formed land* is legally restored to its former proprietor, whether it is or is not separated from the land of which it once formed part; in the case of land, separated from its former hold, washing away from one bank of the stream, and forming on the other, as the land gradually washes away from the one bank, land forming on the other bank may be substituted for it; or when land has washed away from the bank of the stream, and then in the same stream not far from the bank an island is formed, this is recognised as actually the land washed away. In order that the old proprietor may make a legal claim to the *re-formed land*, he is required to prove that it is in the same place where he already had possession. The proof admitted, besides evident signs if any exist, is the entry in the public records, in which the proprietor immediately after the washing away of his land, took care that its situation and limits should be inscribed.

69.—“*Re-formed land* which is reclaimed without sufficient proof, and *land formed* on the bank of a stream where formerly there existed no land, besides islands *independently formed* in a stream or the sea, belong to the Government, which sells them through the magistrate to those who first offer the value fixed by law proportioned to the quality of the soil.

70.—“Land situated on the shore of the sea, or a stream, or lake, should be measured each winter, and taxes are remitted for any part of it washed away.

71.—“New land is measured every five years (in Kiangsu every ten years), and assessed for taxes according to the fertility of each lot; if any land, originally lightly taxed, in course of time becomes richer, a heavier tax is imposed on it. No one is permitted to inhabit and cultivate an island formed in the open sea far from the mainland.

72.—“When land is *re-formed* its former owners, either because they have migrated far away or because it is difficult to prove their right, commonly put in no claim to it. Hence all *formed* land deposited on the edge of a neighbouring property is commonly occupied by the neighbouring proprietor and is sold to him by the Government at the time of legal measuring. An island or land *independently formed* in the sea or in a stream is occupied and bought by influential people of the district and settled by colonisation.”

73.—In the island of Tsung-ming special disposition is made of newly-formed land.

#### Chap. VIII.—THE SOIL AND SURFACE OF LAND.

74.—“Land is divided into *the soil*, 田底, and *the surface*, 田面. The possessor of the *soil* is styled a *tributary*, 糧戶, being held liable for payment of taxes on the *soil*. The possessor of the *surface*, though he may have the exclusive right of leasing the soil for cultivation, is styled a *tenant*, 佃戶, the same as simple lessees of the land who have not the above right. *Registration*, 過戶, and *confirmation*, 稅契, concern only the owner of the *soil* and not the owner of the *surface*, since the latter is not called on to pay taxes.

75.—“In Sung-kiang and several other places the *soil*, 田底, is called 糧田, that is, land on which taxes are paid;

the *surface*, 田面, is called 租田, that is, land for which rent is paid. If the *soil* and the *surface* belong to one proprietor in Sung-kiang, it is called 租糧田, elsewhere 糧田.

76.—“The *soil* is commonly worth from three to six times as much as the *surface*; if they belong to different proprietors neither has the right to build a house or make a tomb on the land. He who possesses only the *soil* cannot himself cultivate the land, but is required to lease the *soil* to him who possesses the *surface*, and who has the right, unlimited in time, of leasing the *soil*, nor can he expel the lessee at his own will, except in the case where the *tenant* owes him for rent an amount equal to the value of the *surface*. When the possessor of the *surface* has contracted a debt of this kind, he is expelled from the cultivation of the land, and the *surface* becomes the property of the owner of the *soil*; then the latter may sell the *surface* to another or may lease it with the *soil*.

77.—“When the *tributary* sells his *soil* to another, besides the Deed of Sale, he commonly signs another Deed, called 會租據, which is shown to the *tenant* through the official 地保, that the *tenant* may thereby be warned of the change of ownership and may sign a new lease. Likewise when a *tenant* sells his *surface*, he is required to introduce the new *tenant* to the proprietor of the *soil*, in order that he may sign a new lease. If the owner of the *soil* doubts the good faith of the new *tenant*, he may require the former *tenant* to guarantee the rent of his successor. The *tenant* who possesses the *surface* may lease to another his right to cultivate the land; then the lessee pays rent to the proprietors of the *soil* and *surface* as may be due.

78.—“In Tsung-ming and Hai-mên the *soil* is called 承買價, and the *surface* is called 過投; there the *surface* is worth six to eight times more than the *soil*; hence the rent is small. The holder of the *surface* having almost

absolute power, may build a house or make a tomb on the land, which the owner of the *soil* may not do. When anyone buys the *surface* and the *soil* together two Deeds are commonly drawn up, one for the *surface* and one for the *soil*, that the expense of *confirmation*, 稅契, may be smaller, since the purchase of the *surface* requires no *confirmation*."

79.—The division of ownership into *soil* and *surface*, arose in Sung-kiang from the custom of giving *caution money*,<sup>6</sup> by which the lessee acquires *tenant right*; and in Tsung-ming and Hai-mên from the expense of reclaiming alluvial lands.

#### Chap. IX.—LEASING OF LAND AND HOUSES.

80.—“When leasing land is spoken of in this treatise it only refers to land intended for cultivation; for the leasing of land for building purposes does not give much trouble, since for land of this sort only its position need be regarded; the greater the industrial use which can be made of the land from its situation, the greater its rent. Besides, the leasing of land for building rarely occurs except in the case of the European concessions. When a person who does not possess the *surface* of the land leases the land from its proprietor for cultivation, he commonly deposits in advance a sum as *caution money*, called 頂首, which should amount at least to three years' rental. This *caution money* is returned to the lessee on his relinquishing the land, unless it should be devoted to paying rent due.

81.—“The Deed signed by the lessee (whether he has, or, from his possession of the *surface*, has not, deposited *caution money*) is called 認田契 or 佃約 or 攬種票. In it all the conditions of the agreement and the amount of the *caution money*, if any was given, are enumerated. In Sung-kiang

<sup>6</sup> See below § 80.

sometimes the lessor gives to the lessee a receipt for *caution money*, if deposited, called 付度.

82.—“Leases of land differ greatly both in the mode and the time of paying rent; they differ more as regards the payment of taxes. The amount of rent depends on several circumstances: first, on the amount of *caution money* paid, the greater the *caution money* the smaller the rent, since the *caution money* may be placed at interest; second, on the fertility of the soil and the excellence of its position, such as at no great distance from a stream, so that irrigation and drainage are easy; third, on the scarcity of land to be leased, i.e., the greater the number of inhabitants the greater demand for land to be cultivated, and therefore the greater its value; fourth, on how much is supplied by the lessor, i.e., whether the lessor supplies to the lessee or not dwellings, seed, manure, and the more expensive agricultural implements, such as irrigation-wheels; fifth, on the actual size of the mow, for since the measure of surface differs in different localities, a mow is larger in one place and smaller in another. Finally, it not infrequently happens that a space which is estimated to contain within its boundaries both nominally and judicially for the payment of taxes a total of say ten mow, in reality contains eleven mow or only nine. The principal cause of this uncertainty is said to have been the fraud in olden time of the vendors of these lands.

83.—“Leases are of many kinds, by reason of diversity of conditions, of which a few of the principal are as follows:—

“1.—米租 is a lease, the rent being payable in rice only husked but not cleaned; in Soochow and Sung-kiang the average amount per mow is 9 *tou* 斗; payment is required at the end of the 10th moon and is often made in money, the rice being converted at its market price.

“2.—穀租 is a lease, the rent being payable in unhusked rice; the average amount per mow is 180 catties, and is payable in the 9th moon.

“3.—預租 is a lease, the rent payable in money in advance, *i.e.*, in each spring before sowing; the average amount per mow is about 2,000 cash.

“4.—秋租 is a lease, the rent payable each year after the autumn harvest; the average amount is a little greater than if paid in advance.

“5.—分種 is a lease by which the lessor and the lessee share the crops in kind; if the lessor has received no *caution money* from the lessee, or if he has supplied seed and manure, the lessor commonly takes six-tenths and the lessee four-tenths; otherwise the shares are equal.

“6.—議租 is a lease by which in each year, while the autumn crops are maturing, the lessor, by a broker, and the lessee, examining first the state of the crops in each field, agree on the proportion of the crop to be paid after the harvest to the lessor; for the most part the lessor takes four-tenths, since generally for this kind of lease the lessor has received a fairly large amount of *caution money*.

“7.—包三担 is a lease in which the lessee for every thousand paces, *i.e.*, four mow, pays in May one *shih* 石 of wheat, in August one *shih* of Indian corn, and in November one *shih* of beans; this form is frequent in Tsung-ming.

84.—“Rent which is payable in rice is divided into two kinds, 實租, *real rent*, and 額租, *titular rent*, or 正租, *principal rent*. *Real rent* is paid in full, *i.e.*, in the quantity stipulated in the lease. *Titular* or *principal rent* should be less by about 25 per cent than the amount stipulated. In order to induce lessees to pay sooner, owners ordinarily appoint several



days, by paying before which lessees secure a remission of 7 or 5 or 3 per cent.

85.—“In years of average crops owners give a greater or less remission of rent in proportion to the crop; in the amount of remission they follow the 董事, trustees of benevolent institutions, who make remissions of rent to the lessees of the property of the institutions in proportion to the amount of the crop.

86.—“In years in which the Imperial tribute is remitted by the Emperor, the owners should legally yield three-tenths of the remission to the lessees.

87.—“The lessee who does not pay his rent is liable to a penalty of eighty blows, and payment is enforced.”

88.—In years of average harvest the net annual income from each mow of rich land is generally from 800 to 1,200 cash; but from failures to pay rent not more than eight-tenths is usually received. The interest on capital invested in land is generally not more than from three to five per cent.

89.—“In leasing a house the lessor also demands *caution money*, 頂首, which amounts to at least three months and at most a year's rent. The greater the *caution money* within the limit of one year's rent, the less the rent, the reduction being based on interest on the *caution money* calculated at ten per cent per annum. The lessee signs a lease called 賃房文契, in which are enumerated the number of rooms, all articles belonging to the house, *e.g.*, windows, doors, etc., the amount of *caution money*, and all the conditions of the agreement. If a large house is leased, a separate inventory of everything belonging to it is made, so that afterwards, when the lessee surrenders the house, all the inventoried articles may be restored. The lessee moreover signs a document called 租摺, in which the rent paid is noted as paid; rent is

payable either monthly or at the end of the year, or three times a year (on the 5th day of the 5th moon, the 15th day of the 8th moon, and the end of the year) as may have been agreed upon. For an intercalary month half the monthly rent is customarily remitted. If the lessee who has given a considerable sum as *caution money* demands a receipt, the lessor gives him a document called 召票."

90.—In Shanghai the lessee by custom pays an additional charge of one per cent on his rent, called 小租, but this custom does not hold in Soochow; elsewhere, however, it is customary to fee the rent collectors.

91.—"When the lessor ejects the lessee through no fault of the latter, it is customary to remit three months' rent and to give three months' notice; likewise when the lessee wishes to quit a house, he is required to give the lessor three months' notice."

92.—"The *caution money* is restored to the lessee on his quitting the house, unless he should be in debt for his rent, in which case it serves to acquit the debt. In case a leased house is destroyed by fire, the lessor is required by law to restore to the lessee of the burnt house none of the *caution money* received, if the fire began in this house; but if it began in a neighbouring house, the lessor restores a third. If the lessee wishes to re-lease the house when rebuilt, he must again give *caution money*; the amount of the rent must then be settled afresh."

#### Chap. X.—TITLE DEEDS.

93.—In A.D. 1783, *Title Deeds*, 田單, were prescribed and issued for the whole Empire. After this, when new land was formed by alluvial deposit, the proprietors received *Treasurer's certificates*, 司照, or *Magistrate's certificates*, 縣照.

When these documents are lost, the tax certificates are taken as proof of ownership.

94.—These *Title Deeds* go with the land. Judicially, he is the proprietor who holds the *Title Deeds*, unless their acquisition is proved to be illegitimate.

95.—When a proprietor sells his land to another, he delivers to the new proprietor his *Title Deeds*, the delivery being noted at the foot of the Deed of Sale. If a small portion of the land is sold, the *Title Deed* is not delivered to the buyer, but the vendor signs a *Supplementary Title Deed*, called 代單 or 劈單, and on the *Title Deed* a note, signed by witnesses, is made showing to whom, when, and what part of the land covered by the *Title Deed* has been sold. Moreover, at the foot of the Deed of Sale is written the reason why the vendor has retained the original *Title Deed* and delivered only a *Supplementary Title Deed*. If, however, the greater portion of the land be sold, the vendor should deliver up his *Title Deed*, and the buyer signs a *Supplementary Title Deed*, a note being made on the original *Title Deed*, showing by whom and what part of the land covered by the *Title Deed* has been retained.

96.—*Title Deeds* once issued are never renewed; but if lost, the magistrate will, on petition, record the fact in his office archives; sometimes, for people of position, the magistrate issues a sealed document, called 諭單, in which he confirms the owner's right and cancels the *Title Deed* if found to exist.

97.—When land is sold of which the *Title Deed* has been lost, the vendor is required to sign a *Supplementary Title Deed*, 代單, and add to the foot of the Deed of Sale a note showing when and how the loss occurred and when the magistrate was informed of the loss; at the same time the vendor delivers to the new proprietor his tax certificates for

the last few years. The buyer also claims all former documents relating to the land, the documents delivered being enumerated at the foot of the new Deed; if, however, the old documents have been lost, their loss is there noted and this clause added:—*if old documents relating to the same land exist, they are null and void.*

98.—The *Supplementary Deed* which replaces the *Title Deed* is delivered to the buyer on each change of ownership; if it is lost, a Deed supplementary to it is made out.

99.—In Tsung-ming and Hai-mên, Title Deeds of land are called 印歸. In Tsung-ming, on account of continual changes from erosion and deposit, Title Deeds are renewed every three years; in Hai-mên they were formerly renewed every five years, but this has been abolished.

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## ON THE TENURE AND TRANSFER OF REAL PROPERTY IN CHINA AND THE MODE OF SUCCESSION TO LAND.

[The following pages, contributed nearly twenty years ago to the *Cycle* by a gentleman specially competent to deal with questions relating to land in China, and who had made a profound study of the subject, are here reprinted with a few unimportant changes and omissions.]

At the present time, when the entrance of China into the comity of nations has been announced in several solemn instruments, it may be interesting to consider the limits of the rights of foreigners as regards the disposition of land purchased by them, their personal capacity to transfer, the formalities connected with the title, and the extent of their dominion over their property.

In the first place, the right of the State to its public property or domain is absolute, and excludes that of its own subjects as well as of foreigners. This doctrine is distinctly laid down in its broadest form in that vast mine of ancient constitutional history—the *King* or Classics, and, more especially, the maxims expressed in the lines—

晉天之下莫非王土

All the land in the world is the property of the Sovereign ;

率土之濱莫非王臣

All the dwellers on the land are the Sovereign's servants,

from the book of Odes, are cherished by all educated Chinese. The claim of the Emperor of China to the ownership of the soil of tidal rivers up to high-water mark is a natural deduction from this law. Theoretically, then, the Emperor is the universal landlord, and the landholders merely his tenants ; but practically land is sold in China absolutely, the title deeds being worded in the same terms as are used in deeds of sale for children, horses or other personal property.

In the next place, it must be distinctly understood that, as was stated many years ago by the law officers of the Crown, "there is no pretence for the introduction of the English law of real property in this country. It is a universal principle of law in Europe, that in all questions respecting immovable property the *lex loci rei sitæ* prevails, and we think it both right and useful that the same rule should be acted upon in the administration of justice in China." A little consideration will shew the extreme reasonableness of this requirement, as although our present laws, having been constantly altered and amended to meet the successive requirements of each age, leave little to be desired as regards the transfer of real property in England, they would be singularly out of place in this country, where the laws more

closely resemble the Civil Law than our own. The reasons given by jurists for the maintenance of this doctrine is that it is not permissible for the subjects of other states to upset the various systems of tenure ruling in the country where the land is situated, which land has certain qualities indelibly impressed upon it by the laws of that country. However, a deed or will executed according to the law of the place where it is made is valid not only as to personal, but as to real property, wherever situated: provided that the property is allowed by the *lex loci rei sitæ* to be alienated by deed or will. Of course it will be necessary to observe the particular forms required in the place where the land is situated, such as the registration of title deeds, etc.

It has been the prudent policy of all nations to prevent foreigners from purchasing land within their territories, and it is not therefore surprising that the Chinese should enforce their laws in this regard towards us, in consequence of which we purchase land under leases in perpetuity instead of holding it as our absolute property. This treatment of foreigners is, however, exceedingly liberal compared with the laws of England in like cases. In the fifth article of the Act of Settlement it is not only laid down that no person born out of the kingdoms of England, Scotland and Ireland should have any grant of lands, tenements and hereditaments from the Crown to himself or to any other or others in trust for him, but that he should not enjoy any office or place of trust, either civil or military, thus making England more exclusive than China, which had centuries before that time employed foreigners in most important trusts, of which MARCO POLO furnishes a well-known instance. So strictly has this class of laws been enforced in England that it has been held that if lands be purchased by a natural-born subject in trust for a foreigner, the Crown may claim the benefit of the purchase;

and even now, after years of government by an enlightened and liberal ministry, in a country whose subjects are ever declaiming on behalf of progress, telegraphs and railways, should a foreigner unheedingly purchase land the Crown may at any time assert a right to his estate. It is not very many years since the Government in some extravagantly liberal frame of mind passed an Act allowing foreigners, subjects of friendly states, to lease land for twenty-one years. The above remarks do not, of course, apply to persons of foreign extraction who, having taken the oath of allegiance and abjuration, have become naturalised British subjects.

As a general rule, all land in China can be sold absolutely, or mortgaged by Deed to be redeemed at a fixed period, or mortgaged by deposit of Title Deeds in similar manner to our own equitable mortgages, where the land can be redeemed at any time which may suit the mortgagor. In no business transactions is greater caution required than in purchases of this nature, frauds being so very common and so difficult to avoid that it is customary for the natives themselves to employ conveyancers, called 牙人, duly licensed by the high provincial authorities, to conduct the transactions for them. These persons, however, are not employed in this district, the duty in question being performed by that responsibility-saddled underling, the inevitable Tepao. Even in England some years ago the learned Judge LAWRENCE remarked, "I have always understood that in purchases of land the rule is caveat emptor," but Chinese law, we shall endeavour shortly to shew, has applied this maxim and its congener "*vigilantibus non dormientibus subveniunt jura*" to a degree which might be deemed severe, did we not know the gross state of ignorance and gullibility of the peasant proprietors, and the consequent necessity of strong measures to protect their interests.

The first duty of a purchaser should be to ascertain whether the land offered for sale is alienable or in mortmain, and secondly, whether the vendors are authorised to sell. In considering these questions he should bear in mind that the Chinese, like other Asiatics, are devoted to metaphysics, and that they have not consequently at any stage of their long existence as a nation developed a taste for jurisprudence, so that the main efforts of their legislators have been applied to enacting laws for the suppression of disorders and the collection and protection of the revenue, leaving what we call the civil or mercantile law, or the law of contracts, pretty much in the hands of the local authorities, who often either refer the litigants to the Town Guilds for arbitration, or else themselves apply to the Guilds for information respecting the consequences which should, according to mercantile usage, follow particular defined predicaments of fact, or, as we should say, for the law on the subject, in order to apply those consequences to the cases brought before them. Any official of the rank of Taotai or Intendant of Circuit is competent, by and with the advice of the local Guilds, to publish regulations as far extending in their character as the Trustee Act or the Statute of Frauds. Consequently the only sources we have wherefrom to obtain a knowledge of the laws of this country are the Penal Code, the Edicts, Mandates, Decrees and Rescripts of the Emperors, Regulations published by proclamation by the provincial or local authorities, decided cases and the *responsa prudentum*, or opinions of the jurisconsults attached to the *yaméns*. From these sources we learn that ancestral temples and tombs, land belonging to a family or clan generally and set apart for providing funds for general family purposes, for instance the maintenance of a family school-master or grave-keeper, are inalienable, as also land



dedicated to charitable purposes and registered as such in the office of the local authority, which the original grantor is not permitted to sell. Any person disobeying these laws is liable to punishment, while the land will be taken from the purchaser and the purchase-money returned. Likewise land devoted to public purposes, such as Confucian temples, examination halls, *yaméns*, etc., mountains belonging to the Government, public roads, sea-walls, river-embankments, temples in which sacrifices are performed by officials in accordance with law, spots celebrated in antiquity, ancient monuments, streets and ways, tombs of celebrated men, etc., cannot be sold, and in case of breach of this law the vendors will be punished, the lands returned, and the money paid recovered. From the express mention made of certain classes of temples which are not saleable, it would seem that ordinary buildings of the kind can be purchased, but we incline to the opinion that they must be used for religious purposes after the transfer. Unoccupied land in any part of the empire and "new land formed by alluvion" may be cultivated by the nearest residents on payment of the regular taxes, to commence at the end of six years in paddy lands, and at the end of ten years on high lands, after the commencement of cultivation. "Land formed by alluvion" refers to islands formed in large rivers, when the first occupants of the districts may take possession of them, but with regard to the imperceptible increase of land added by alluvion, Chinese law appears to coincide with civil jurisprudence, namely, "*quod per alluvionem agro tuo flumen adjecit, jure gentium tibi adquiritur.*"

With regard to those persons who are authorised to alienate landed property, grandfathers, fathers and elder brothers can validly dispose of family land without the consent of their grandsons, sons or younger brothers, respectively; and even

the land painfully acquired by the latter through their own industry may be sold by the former in direct opposition to their wishes. The juniors cannot even validly sell their own lands, and the seniors can by legal process recover possession from purchasers. We have already remarked that the laws of China more closely resemble the Civil Law than our own, and we find a remarkable analogy in respect to the situation of the junior members of families. According to the Roman law the *filius-familias* could not have any property of his own, though sometimes the father permitted the son to have what was termed a *peculium*, that is, a certain amount of property placed under his exclusive control. Nevertheless this *peculium* remained in law the property of the father, and though the son had the disposition and management of it, yet this was solely by the father's permission. So strict was the ancient law on this point that JUSTINIAN says "igitur *liberi nostri utriusque sexus quos in potestate habemus* *olim quidem quidquid ad eos pervenerat (exceptis videlicet* *castrensibus pecuniis) hoc parentibus suis acquirebant sine* *ulla distinctione. Et hoc ita parentium fiebat, ut esset eis* *licentia, quod per unum vel unam eorum acquisitum est,* *alii filio vel extraneo donare vel vendere vel quocumque* *modo voluerant adplicare."* With regard to the 'habens in potestate' we may remark that none of the family, sons nor daughters, nor the wife who, in order to preserve the symmetry of the system, was treated by law as a daughter, were free agents, and even the children of married sons were in the power of the *pater-familias* (the 族長 *Tsuh-chang* of the Chinese) as completely as the sons themselves. The "castrense *peculium*" consisted merely of what was given to a son when setting out upon military service, or acquired while that service lasted, which, from motives of state policy, he was allowed to dispose of as freely as though he had been *sui juris*.

In this country the property of traitors is at once confiscated to the Crown, but in the absence of any law to the contrary we believe that ordinary criminals when undergoing their sentences of punishment may transfer through their relatives their landed property, which is carefully protected for them by the law during their enforced sequestration. A lunatic or idiot not in actual confinement is competent to alienate land, as also a widow, but the latter must obtain the concurrence of her father-in-law before she can make a valid transfer, and this is a point which should be carefully noted by foreigners, as widows, as a class, are invariably anxious to dispose of their landed property.

The question as to what persons are authorised to alienate naturally leads us to the subject of succession, and here we may observe that all the authorities we have consulted tell us that the law will not permit a man to dispose of his property by Will to any other than his own children, however depraved or prodigal, insane or imbecile those children may be. This, however, is not so astonishing when we reflect that in England, where for divers reasons landed property has always been held in higher estimation than in any other country, the right of devising freehold lands by Will became complete and universal only on the abolition of feudal tenures after the restoration of King CHARLES II.

The first rule of succession is that landed property shall descend in infinitum to the issue of the last holder.

The second rule is that the male issue shall be admitted before the female.

The third rule is that where there are two or more of the male issue in an equal degree of consanguinity they shall inherit altogether and equally, and that in default of male issue the females shall inherit equally. This rule of course only applies to the land of the people generally, for with

regard to grants made by the Crown to the hereditary nobility, the doctrine of primogeniture or right of the eldest of the males to inherit both title and property, applies much the same as in England. Indeed this custom appears to have taken deeper root in China and England than in any other countries, for we learn from the authorities that on the continent of Europe some portion of the inheritance or some charge upon it is, in many cases at least, secured by law to the younger sons. With regard to the disposition of ordinary landed property it appears that the heirs are always at liberty to divide it as nearly as possible into equal parts, and when such division is impracticable it is the custom to pay in an amount of money from the personality sufficient to bring up the value of the smaller lots to that of the larger, and then to draw for the choice of the portions of the property thus equally divided, in the presence of a gathering of friends and neighbours. Of course the doctrine of *seniores priores* applies in this case also, and a younger brother would not be permitted to divide the landed property in case the elder brothers should elect to hold it intact.

The fourth rule is that all the lineal descendants, in infinitum, of any person deceased shall represent the last purchaser.

The fifth rule is that on the failure of lineal descendants of the purchaser the inheritance shall descend to his widow.

The sixth rule is that, there being no widow living, the inheritance shall descend to the collateral relations, being of the blood of the purchaser, subject to Rules 2, 3 and 4 above cited.

The seventh rule is that in default of the heirs above mentioned the land shall revert to the Government, and it is the duty of the headborough and villagers to report such cases to the local authorities, on pain of punishment as abettors in an attempt at concealment.

Having now endeavoured to shew what lands are alienable and what persons are able to alienate, the next question is in what mode we may make our purchases with safety. We would first draw attention to the fact that it is a well-known rule of civil jurisprudence that no man can transfer a greater right or interest in any property than he possesses himself. In the next place, the Chinese have the greatest horror of anything approaching to verbosity in their deeds and contracts, and consequently attach the utmost importance to usage and customary incidents. Now it is a rule, not only of Chinese law but also, we believe, of almost universal application, that usage may be engrafted on contracts in addition to their express written terms. Indeed, Chinese make contracts with a view to the application of local usages in like manner as an Englishman would regard the bearing of the general law in a similar position. In the latter case the Englishman would contemplate the rights annexed by the general law to the stipulations expressed in his contract, while the Chinese would look to the local usages and customary incidents to afford him similar advantages. As an exemplification of usage at Shanghai we will suppose that a foreigner fresh from home, well instructed in legal matters and carefully grounded in that most backneyed of law maxims, "*cujus est solum, ejus est usque ad cœlum*," purchases a plot of land covered with native houses for the price of Tls. 1,000. Some time afterwards when he wishes to remove the native houses and commence building on the spot, he finds to his horror that by the usage of the district he is bound to pay another sum of Tls. 1,000 before he can remove houses standing on his own property.

When it has been ascertained that the land offered for sale is alienable, and that the vendors are authorised to sell, the next step to be taken is to obtain from the vendor the old

title deeds, covering at least the fifty years last past. This is almost indispensable to obtain an indefeasible title, free of mortgages and all other incumbrances. Then the purchaser should cause the certificates of registration, 契尾, appended to the title deeds, to be carefully compared by some trustworthy Chinaman with the counterfoils kept in the district magistracy. Next he should summon the local Tepao or headborough, and proceed to the spot and announce to the neighbours his intention to purchase. Then he should in their presence put down his boundary-stones or, still better, dig a deep trench round his property, unless, of course, it should be bounded by public thoroughfares, when he would be liable in damages for any accidents which might result therefrom. Before leaving the spot he should enquire from the neighbours and Tepao whether any mortgages have been made on the land, and afterwards cause similar enquiries to be made at the magistracy registration office, where, according to the strict letter of the law, all deeds of mortgage should be registered within the space of one year, when they are termed 紅契, or indentures. When not so registered they have not the same authority, and are called 白契, or 白頭契, imperfect deeds or escrows. When the deed of transfer is being draughted, the purchaser would do well to cause the insertion of a clause clearly discharging him, his executors and assigns from any leases, mortgages, removal expenses or other incumbrances, notwithstanding any local usages or customary incidents to the contrary. Finally, he must be particularly cautious to prevent the insertion of supplementary clauses inserted in small characters between the body of the deed and the signatures of the parties on the left-hand side, the simplest plan being to fill up the vacant space with cross lines or cancelli, as is customary in the body of a cheque. Finally, to prevent the substitution

of another deed for his own, he should, with a European pen, make private marks on the Chinese paper which it would be impossible for a native to imitate.

We may now proceed to consider the subject of personal interests in real estate.

Prior to the reign of the Emperor KIEN-LUNG—the Chinese JUSTINIAN—the mode in which the Chinese disposed of their landed property seems almost incredible to us who have been brought up with strict notions of those rules which were first introduced into Western Europe on the establishment of the feudal system. The Chinese, although they have profoundly studied various branches of philosophy, seem never to have attained any marked success in the scientific development of their language, and nowhere is this failing more apparent than in documents relating to property. For instance, we learn by a decree issued in the 18th year of KIEN-LUNG, that the words 買賣 do not convey an absolute right or title to property as would the equivalent “buy and sell,” given in our dictionaries but merely mean the transfer of an interest liable to redemption. To prevent litigation, the decree ordains that in future, in order to convey lands permanently, the words 賣絕永不回贖, “absolute sale without power of redemption,” shall be plainly inserted in the deeds; that all lands conveyed within the thirty years then last past not containing this definite expression should be liable to redemption, while with a view to the prevention of litigation becoming immortal while man is mortal, it is laid down that all land conveyed more than thirty years prior to the date of the decree should be held to be irredeemable.

Again, when referring to mountain-land used for burial-places, where, in consequence of the exigencies of the doctrine of Fêngshui, many favoured spots become the subjects

of fierce litigation, Chinese law, taking into consideration the vague terms of ancient title deeds, some of which describe property as being respectively bounded by the river, the sea, the mountain and the valley, or the land of Wang on the east and of Chang on the west, lays down that the ownership shall be deemed to vest in such persons as hold the land tax receipts, and whose names appear in the registry books, and that only deeds of decidedly modern date shall be looked upon as instruments of title. The present law as to disputes respecting landed property is that where a legal conveyance has been made or, in cases of inheritance, where the heirs have signed an agreement assenting to division, or have allowed five years to elapse without demurring to such division, no suit shall be entertained by the authorities, except of course on equitable grounds. Transfers of landed property redeemable at will are still common in this country, but the laws relating to the subject are involved in those relating to pledge and hypothecation, to which we will now refer.

It is an interesting fact that in the days of antiquity the Chinese like ourselves affected the *vifgage*, or *vivum vadium* rather than the mortgage properly so called, and this system, though long ago obsolete with us, still flourishes and holds its place in the affections of the people of this country, so much so that the laws respecting the pledging of land in China take little note of the modern system of mortgage or rather hypothecation. The Chinese *vifgage* is a conveyance of an estate redeemable according to the expressed wishes of the parties, either at a certain period or at will by the *vifgagor* on repayment of the amount borrowed. Pending such period the property is held by the *vifgagee*, who can either occupy it himself or sublet it, the *vifgagor* paying no interest for the money borrowed,



and the *vifgagee* no rent for the property. This somewhat resembles our own Welsh mortgages, where the rents and profits of the estate are in like manner received by the mortgagee in satisfaction of the interest of the loan. There is, however, this substantial difference, that in the Welsh mortgage there is no covenant for the repayment of the loan, and the mortgagee cannot compel either redemption or foreclosure, while in the Chinese *vifgage*, if the *gagor* fail to observe the stipulated conditions the *gagee* may cause the value of the property to be assessed by arbitrators, when he has the right of preemption on tendering to the *gagor* the difference between such assessed value and the consideration-money originally paid. Should the *gagee* be unable or unwilling to do this, the *gagor* is permitted to sell the property to whom he will on repayment of the consideration-money to the *gagee*. Also the *gagee* may under such circumstances repledge the property to a third person, to whom the original owner is forbidden to make offers as to sale or redemption without notice to the intermediate party.

Our ancient *vivum vadium* differs from the Chinese, in that instead of being redeemable either at will or at a certain fixed period on payment of principal without interest, the estate was held by the pledgee until the rents and profits should repay the sum borrowed.

The Roman *pignus* appears to have most closely resembled the Chinese *gage*, it being a system by which property was pledged as a security for money lent, the property being transferred to the creditor upon condition of its being returned to the owner when the debt was paid. There is, however, this important difference, namely, that in cases where the debt was not paid at the stipulated time, the creditor, not the debtor, was clothed with authority to sell the pledge, and re-imburse himself from the proceeds.

Various causes have concurred to make this process popular in China, one great inducement being that persons are enabled to occupy the property at once and pay for it by instalments, the first payment being the consideration-money of the pledge, the second, the so-called purchase-money, and the last, the balance required to make up the equitable value. Another reason probably is the natural dislike of Orientals to part for ever from their patrimonial estates, as is well exemplified by the case of Naboth the Jezreelite, related in the First Book of Kings.

The laws relating to *vifgages* are very similar to those relating to the absolute sale of landed property, in fact the commentators draw no distinction between these classes of contracts. The first duty of the *vifgagee* is to pay the transfer duty, failing which he will be punished in accordance with the laws against smuggling and evasion of duties generally, namely, the infliction of fifty blows with the smaller bamboo and the forfeiture of half the value of the property. The next step is to cause the new-comer's name to be entered in the registry book, the penalty for neglecting which is a graduated number of blows of the bamboo together with the total forfeiture of all the non-registered property. The commentators seem unable to agree whether the last-mentioned pains and penalties shall be visited on the pledgor or pledgee, one stating that the finger of the law points only to the pledgee, and that the pledgor can only be punished under that most satisfactory of statutes, a law which surpasses all the efforts of British legislators, and which is worthy of the consideration of the most enlightened statesmen and philosophers of the West, viz., "that whoever is guilty of improper conduct and such as is contrary to the spirit of the laws, though not a breach of any specific article, shall be duly punished." The commentators conclude with the

apposite remark that in cases of collusion it is probable that both parties should be alike punished.

The reason why non-registration of the new-comer's name is so much more severely punished than the evasion of duties, is that in the former case a door is opened for fraud and extortion on the part of the pledgor, and for the evasion of the incidents appertaining to the possession of land, namely, personal service of various kinds to be rendered to the Government when required, payment of land-tax and the like on the part of the pledgee; while evasion of transfer duty merely leaves a deficit in the Government accounts.

The commentators explain that the above-mentioned forfeitures do not include 宅 human habitations, such as houses, booths, carts or boats, or their fixtures, such as corn-mills and the like, to which the incident of personal service does not apply; and as they justly remark, it would be unreasonable to confiscate a house worth Tls. 100 on account of the non-registration of the one mow of land on which it stands.

The re-pledging of lands is an offence which comes under the head of fraudulent conveyances, but the punishment is more severe, being equivalent to that imposed in cases of larceny, viz., one hundred blows of the larger bamboo, and perpetual banishment to a distance of one thousand miles. The punishment is thus increased in consequence of the evil disposition manifested by the offender in abstracting first the gagee's money and next his land also.

All land belonging to banner-men, soldiers at military stations, and persons connected with the grain transportation service, or set apart for their subsistence, is inalienable, and any native taking it in pledge is amenable to severe punishments under sundry statutes. This, however, does not interfere with the letting of land for short periods in order to prevent its being left uncultivated. The commentators mention that landed

property cannot be left in pledge for a longer period than ten years, and that in case that period is exceeded the transfer duty shall be levied and the legal punishment inflicted.

The law requires that the duties on transfers of landed property shall be paid in the same manner as the land tax at the district magistracies, but that a separate office shall be set apart for its collection. The person in actual possession must present the deed and pay duty in person, when the magistrate shall append to each deed a separate certificate of registration, and hand the deed back, as a general rule, at once to the owner, any delay, malfeasance or misfeasance on his part being punishable. We have already mentioned that these certificates are of the utmost value as a means of preventing fraud. The date of their origin is not mentioned by the commentators, but we learn that they were discontinued as long ago as the 6th year of the reign of the Emperor TUNG-CHING, and again revived in the first year of KIEN-LUNG.

The registration fee on land and house property is three per cent. on the consideration-money. Should the amount exceed Tls. 1,000 the district magistrate must within a month forward both the original deeds and the certificates of registration to his super-ordinate Prefect and Intendant of Circuit respectively for inspection, which documents they are bound to return within a period of ten days. Should they fail to do so they will be fined half a year's pay, while a delay of twenty days will be visited with the loss of a year's salary, and any further delay with a reduction of rank. These officers must endorse on the appended certificates the circumstances connected with their examination, as also the dates on which they were respectively returned.

One of the chief causes of the misunderstandings which so frequently arise between foreigners and Chinese in their

business relations, is the habit of members of both nationalities of using technical terms in preference to plain language, and in no case is this more misleading than in matters connected with landed property. Nothing is more common than to hear discussions about mortgages in reference to cases in which the property is not delivered to the creditor but remains in the possession of the debtor, while the Chinese system of hypothecation does not recognise the most essential condition of an English mortgage, namely, the right of foreclosure. In such cases the remedy of the debtor is similar to that of the *vifgagee*, and we need only remark that the law of hypothecation of land and house property, in contradistinction to the laws respecting the pledging of goods and chattels, follows the rules laid down in the more common class of gages which we have already explained. It is said that the reason why Chinese legislators have taken so little notice of this class of transfer is that, owing to the great difficulty encountered by creditors in their endeavours to recover the sums lent, in conjunction with the wide door opened for fraud owing to the debtors not being in actual occupation of the property, and the consequent needlessness of reporting such transactions to the official registrars, the Chinese have only of late years commenced generally to avail themselves of this system.

We shall now consider the liabilities of the parties in connexion with the property whether pledged or hypothecated. Here we must first observe that the Chinese law makes a remarkable deviation from its ordinary doctrine respecting accidents, viz., that all parties shall abide by the decree of the Almighty (各聽天命) which, according to the common law as expounded by the authorities, holds good with regard to all such cases as collisions at sea, on rivers, etc., and which is usually inserted in contracts as a special clause,

somewhat similar to the proviso in our bills of lading, charter-parties and the like respecting the Act of God, and is to the effect that that which is caused by the uncontrollable hand of Nature, and is so inevitable in its character that it can by no foresight or industry of the parties interested be prevented, shall not render such parties liable for the consequences.

With regard to dilapidations or other injuries to the property generally or to any fixtures recited in the instruments of transfer, the commentators state that an assessed reduction shall be made in the consideration-money. As to fires, the authorities, as we might reasonably expect, are more explicit, and they exhibit clearly the much maligned Chinese doctrine that division is equity. The law does not seem quite clear in cases where fires originate in the pledged property itself, probably because the legislators saw no necessity for specially declaring the unwritten law existing on the subject, but in all cases where before the expiration of the period mentioned in the deeds, houses are destroyed by conflagrations not originating within the premises themselves it is laid down by a decree passed in the 12th year of the Emperor KIEN-LUNG that such premises shall be rebuilt at the joint expense of the gagor and gagee, when the term shall be extended for a further period of three years, at the end of which time the gagor shall repay the amount of consideration-money originally received by him. Should the gagor have no means wherewith to meet his half of the expense of rebuilding, the gagee shall rebuild the premises at his own expense, when the period of redemption shall be extended for the space of three years, at the end of which time the gagor will be required to repay the original consideration-money with an addition of four-tenths. In case the gagee be unable to bear his share of such expenses, the gagor shall rebuild the

premises at his sole cost, and deduct four-tenths from the consideration-money at the period of redemption. Should, however, that period have lapsed before the occurrence of the fire, the gager can redeem on payment of half of the consideration-money. But should he be unable to provide the necessary funds the gagee must himself rebuild the premises, when the term will be extended for a further period of three years, when the gager will be required to repay the consideration-money in full with an additional four-tenths. In case neither the gager nor the gagee is able to rebuild the burnt-down buildings, the site and remaining débris shall be sold, and the gager shall hand to the gagee one-third of the proceeds of the sale. In order to prevent any dispute between the parties when the premises are rebuilt, it is laid down that the extent, measurements, style of architecture, materials and ornamentation generally shall conform to those of the original buildings.

With regard to transfers of property redeemable at will, which are not at the present day, to the best of our belief, very common in this country, the commentators state that such classes of interests closely resemble gages generally, and that the above regulations respecting fires apply to them also. As to rented property, the old law was that in cases where buildings were burnt down accidentally the tenant was not required to make any compensation. By the decree of KIEN-LUNG above referred to, it is however laid down that the tenant when entering a house shall hand to the landlord a deposit of money. Should the fire originate in the tenant's house, as the landlord is put to the expense of rebuilding he will be permitted to retain the whole of the deposit-money. But should the house be burnt down by a conflagration originating elsewhere, he must return the tenant one-third of such deposit-money.

In reference to the subject of gages, seeing that human beings have ever been regarded by the law in the light of real rather than personal property, we will now turn aside to view the laws relating to the pledging and hiring of wives and daughters, or rather, taking into consideration the great power and authority in the family of the *paterfamilias*, we should probably be more correct in saying, of women generally.

This practice together with the more extreme one of absolute sale was common enough in Europe during the dark ages, the poor having even been absolutely obliged to sell themselves for subsistence in times of famine. As the great historian of the now celebrated city of Tours says, "*Subdi-derunt se pauperes servitio ut quantulumcunque de alimentis porrigerent.*" Indeed, so terribly did poverty and famine press upon them that, shortly before the Norman Conquest, we learn that mothers ate their children and children their parents, while human flesh was sold in the markets with little pretence of concealment.

Again, in the book of *NEHEMIAH* we read that the people after stating that they had mortgaged their lands to buy corn, go on to complain that they were even compelled "to bring "under bondage their sons and daughters." In short, in every age and country, until times comparatively recent, personal servitude appears to have been the lot of a large, perhaps the greater, portion of mankind, and when we consider that this vast and until of late years thickly-populated Empire contains extensive districts either unproductive or subjected to alternate droughts and inundations, we need not be surprised to learn that legislators have sanctioned the pledging by poor people of their wives and daughters for the purpose of acting as domestic servants, etc. This system seems to resemble closely that of the *vifgage*



before alluded to, namely that at the making of the transfer a fixed period of redemption shall be stated in the deeds, and that at the time of redemption the original sum shall be repaid without interest. It must, however, be distinctly understood that this law does not permit the pledging or hiring of wives or daughters for the purpose of acting as the primary or secondary wives of the pledgees or hirers, for in such cases husbands are liable to the punishment of 80 blows of the larger bamboo, and fathers to 60 blows, for their respective offences. The husband is punished with 80 blows, in the first place because he is lost to shame, secondly because by forcing his wife to lose her chastity he subverts the moral obligations of their relationship, and thirdly because he sets a demoralising example to the community generally. The parents who pledge or hire their daughters are dealt with more leniently because although they force their children to lose their chastity, yet this breach of the laws of Nature is not considered by the Chinese legislators so gross as is the violation of their sacred ties by husbands and wives, which offence, as is well known, is visited in this country with very severe penalties.

It is a legal presumption that the gagee or hirer cannot possibly be ignorant of the illegal nature of the transaction he is engaged in, and therefore the law punishes him with the same number of stripes as the gager, and the consideration-money or, as it is euphemistically called, the wedding present, is forfeited to the Government. In all such cases the victims remain unpunished, it being the merciful doctrine of Chinese law that the wives and daughters are unwilling parties, and act only under compulsion.

The crime committed by the patriarch ABRAHAM, the marrying of a wife to another man under the pretence of her being a sister, is regarded as a graver offence than mere

pledging or hiring, the commentators remarking that such conduct is not only a disgrace to the name of humanity, but is also aggravated by the heartless deception. In these cases, as the wife is necessarily a party to the fraud, she is liable to the punishment of 80 blows of the bamboo, but this may be remitted on payment of a fine, as is the usual course when dealing with women under similar circumstances. As in these cases the continuity of the important human relation of marriage is irrevocably broken, the wife is not, as a general rule, allowed either to go back to her husband or to abide with the gagee, but must return to her parents. If, however, a wife is sold on account of extreme poverty, she is allowed to remain with the purchaser, and her husband will only be dealt with under the severest measure of the law respecting unlawful conduct generally.

Should the daughter have already been betrothed she reverts to her affianced spouse should he choose to take her, but in case he decline so to do, she must go back to her parents, when she is free to marry whom she will.

We now turn to the conditions under which ecclesiastical property is held. It is a strange fact that in all ages and in all countries covetousness should be associated with old age, so that just at the time when man must inevitably part with all his possessions in this world, he seems to cling most tenaciously to them. In the words of CONFUCIUS, "In youth, "when the physical powers are not settled, the superior man "guards against lust; when he is strong, and the physical "powers are full of vigour, he guards against combativeness; "when he is old and the animal powers are decaying, he "guards against covetousness." Still more strange is it that when men have lastingly resigned all interest in the pomps and vanities of this wicked world, and have voluntarily cut themselves off from all the ordinary pursuits of life and the hope

of posterity, they seem to be exceptionally liable to this vice.

After the fall of the Roman Empire, the laws of which did not permit tenure of land in mortmain, the history of Western Europe abounds with accounts of the struggles of Churchmen to acquire possession of landed property. Not only did they receive vast grants by the voluntary munificence of princes, but whole estates were thrown into the common stock by persons entering monasteries, large properties were given away by men when starting on military expeditions or in the terror of expected dissolution, while in the general ignorance of writing the clergy occasionally committed the pious fraud of forging charters, culminating in England with the astounding doctrine "that as spiritual men were of better conscience than laymen, and had more knowledge of what things would conduce to the benefit of the souls of the deceased," the Church should enjoy the right of administering the estates of persons dying intestate, and of disposing of them "in pios usus," while such delinquents as deprived the Church of this right by making wills were vicariously punished through their representatives, who were forced to prove the genuineness of such documents to the satisfaction of the much-injured Ordinary. To such an extent did this system prevail that in the thirteenth century the property of the Church was estimated at nearly one-half of England, and at a still larger ratio in other countries.

From the similarity existing between Buddhism and Catholicism in so far as regards the celibacy of the clergy and the vast influence possessed by both over the minds of men through their professed power of benefiting the souls of believers after death, we should naturally suppose that the latter would likewise have held vast landed estates in this country; nevertheless we have been informed by

Chinese that there is no mention in the whole range of their history of any successful attempts in this direction. However this may be, it is pretty certain that at the present day the collegiate and glebe land does not suffice for the maintenance of the ecclesiastics, many of whom are forced to obtain a livelihood by systematic begging.

It may be urged that the metaphysical character of the Buddhist religion is so thoroughly absorbing as to take away all desire for worldly possessions; and this view is somewhat supported by the history of Buddhism in former days in India, where, as we learn from European writers, devotees, in their heartfelt wish to rid themselves of their frail tenements of flesh, and to enter Nirvāna, held all carnal desire for power or property in supreme contempt. Unfortunately, the course Buddhism has since taken in Thibet and Tartary completely upsets this hypothesis, the former country being governed, at least nominally, by a hierarchy, while in Tartary the power, possessions and overruling and insolent bearing of the Lamas towards the other inhabitants are utterly inconceivable by those who have not actually been eye-witnesses.

Again, in Ceylon, a writer mentions that whenever he saw high farming in the interior, it almost invariably proved on inquiry that the land belonged to some monastery, while Lieut.-Col. COLEBROOKE, in his official report for the year 1831, says that a large portion of the cultivated land in the province of Kandy belonged to religious communities. Possibly, however, this may be accounted for by the superior intelligence of the latter, whereby the clergy, as in ancient times in England, might have far excelled the laity in both the science and art of farming, and thus land might have been profitably cultivated by the one, which would have remained worthless in the hands of the

other. That their present uninfluential position does not wholly arise from a general want of ambition, resulting from the indolent nature of the lives they lead, is proved by the fact that they have over and over again interfered with the administration of affairs in this country, more especially during the Ming dynasty, when their intrigues occasioned much trouble to the Empire.

One great reason for this want of success is probably the comparative isolation in which members of the various Buddhist monasteries live. So far as we know, although they make use of the term "orders" yet they certainly have not at the present day any powerful, far-extending organization to enable them to combine against the contemptuous opposition of the Confucianists; indeed the chief link which binds the various communities together seems to be merely the use and study of the same religious books and the practice of a common ritual.

In their attempts to establish a hierarchy they have also miserably failed, as they are obliged to apply to the temporal arm, namely to the Board of Ceremonies, for a simple license or certificate of priesthood. As far as we know, the nearest approach at the present time to the powers wielded by our ancient bishops and mitred abbots is in the hands of the 司綱僧, who, although by title a kuan, or Government official, scarcely ranks with the magistrate of the district in which he resides. He has exclusive jurisdiction as regards petty offences, but his duties would seem mainly to consist in bringing the misdemeanours of his subordinate priests to the knowledge of the local authorities. By these officials he is selected from the higher grade of priests and recommended to the Board of Ceremonies, from which he holds his appointment, and in case he fails to discover and report on any grave crimes, or even such offences as the illegal taking of

probationers or novices by the priests under his control, he is liable to degradation and punishment.

The crushing hand laid on the Buddhist religion by the Confucianists through the Government has often been a subject of comment. It is curious that they do not base their objections upon the high ground formerly taken by certain European moralists in reference to religious orders, viz., "that they withdraw men of pure conduct and conscientious principles from the exercise of social duties, and thus "leave the common mass of human vice unmingled," neither do they, like our own stern moralist, King JOHN, profess to be shocked at their vices—*propter vitæ suæ turpitudinem*—nor is the slightest alarm excited by their ambition, or jealousy by their wealth. They are simply looked upon as barren fig-trees uselessly cumbering the ground. In consequence of this view the law of mortmain is of the most stringent character. It is laid down curtly that priests cannot sell ecclesiastical property, because it does not belong to them personally, while the statute decrees that no religious houses of any nature or kind shall be built, nor any additions made to buildings already existing, without express permission to that effect being obtained from the Emperor by formal application through the high provincial authorities, under the penalty of 100 blows, offenders being in addition unfrocked and sentenced to military banishment, while offending nuns are confiscated to Government and sold as slaves; the reason given being that this set of people neither toil nor spin, pay no taxes, render no personal service to the Government, while they lead a life of uselessness, prey upon the property of the people, and by their celibacy tend to diminish the sum of the population. This rule, of course, only applies to the larger religious buildings, it being unnecessary to apply for permission to erect those small shrines which are considered

as necessary a complement to every hamlet as are clothes to the human body. Following up the idea that priests try to shirk the duty of "rendering unto Cæsar the things which are Cæsar's," the law decrees that all candidates for priesthood must have at least two brothers living to carry on the ordinary family duties, and in case there be any mistake not only are the priests themselves divested of their sacred character and put in the cangue, but the heads of their families, the local hierarchs and the abbots of the monasteries they have entered, are likewise implicated. Moreover, there are divers regulations obliging priests to visit their parents, sacrifice to their ancestors, mourn for their relations, and wear certain kinds of vestments, while so strict is the supervision exercised that the members of the lower orders are only allowed one novice, and then only when the master is upwards of forty years of age; while all wandering priests, and such as grow their hair for purposes of mendicancy, under pretence of fulfilling vows, are sent back to their places of settlement and unfrocked. In short, the laws in this regard are very vexatious, and sometimes conflict with and contradict their own theories. For instance, severe punishment is decreed in case priests attempt to marry, although their celibacy is made a ground of complaint, as we have already mentioned.

Turning finally to the question of succession, we are met by the facts that in China the worship of ancestors forms by far the most important element in the religious observances countenanced by the Government, and that as this duty centres upon the head of the family, the laws respecting inheritance of birthright are very stringent and minute. In order to arrive at a clear comprehension of this subject, we must bear in mind that notwithstanding the opinions of European writers or the teachings of Chinese philosophers

to the contrary, the State officially recognises, and, to the best of our belief, has always recognised, the doctrine of the immortality of man. Were it otherwise, the high respect shewn to ancestors, the costly coffins, elaborate funerals, the extensive and often picturesque grave-yards, and the three years of enforced mourning for deceased parents, with its concomitant drawbacks, would be absolutely devoid of meaning.

In support of this view we will call the attention of the reader to passages in the *Shoo-king*, or Classic of Constitutional History, where the Emperor PWAN-K'ANG states in his protest, "I think of the toils of my predecessors, who are 'now the spiritual sovereigns, for your ancestors,'" and again, "Were I to err in my government and remain long 'here, my High Sovereign, the founder of our House, would 'send down great punishment for my crime and say, 'Why 'do you oppress my people?' If you, the myriads of the 'people, do not attend to the perpetuation of your lives and 'cherish one mind with me, the one man, in my plans, my 'predecessors will send down on you great punishment for 'your crime and say, 'Why do you not agree with Our 'young grandson, but so go on to forfeit your virtue?' "

In the *Peking Gazette*s of the present day this doctrine would seem to be frequently alluded to by Government officials in their memorials, where they commonly remark that in questions under discussion the Emperor will be guided by the instructions he has received from his ancestors. On the other hand this is explained away by some learned Chinese as merely relating to the instructions handed down by such ancestors while alive, and, owing to the fondness of Chinese for elliptical phrases, together with the notable absence of strict rules of grammar in our ordinary European sense of the term, the precise meaning to be



conveyed is often difficult to ascertain with anything like exactitude. The *Gazettes* frequently contain applications from the local authorities to the Throne for permission to erect temples or other monuments to the honour of tutelary deities who by their active exertions have saved cities from capture by the rebels, and the most philosophical of Chinese are obliged to confess that the deities here spoken of are believed to exist in a spiritual form, and that they are the spirits of dead men who were very virtuous in their lives. Again, we learn from the Hangchow tablet that the great deity Tien-how is the spirit of a human being whose name, family and lineage are known at the present day. Moreover, the extreme horror entertained even by the common people in regard to the practice of dissection is a notable proof of the deep hold this doctrine has upon their minds; indeed the idea of annihilation after death seems incomprehensible to them. We have been told that it is by no means an uncommon occurrence for dutiful sons to run out to the graves of their deceased mothers during violent thunderstorms, in order to assuage their fears by saying that they are come thither to protect them. Not very long ago, the Viceroy LI HUNG-CHANG brought before the notice of the Emperor the admirable conduct of a young lady in committing suicide for the purpose of waiting upon the spirit of her deceased father in the nether world. Here also the learned explain that this was done merely with a political object, that the girl's idea that her father still lived in a world of spirits was preposterous, but that notwithstanding, her conduct displayed such a high tone of filial piety as to be worthy of all commendation. LI HUNG-CHANG's language, however, will bear no such forced interpretation. While he says that "she followed her father under the earth without a moment's hesitation," he gives as his reason for applying for a

monument his desire not only to hold her up to the world as an exemplar but also "to soothe and comfort the spirits "in darkness."

From the above it would seem that not alone are the dead supposed to exercise a great influence over the living, but the living in their turn are required to ameliorate the condition of the dead. So far from this idea being peculiar to the State religion, it is also shared by the Buddhists, who on stated occasions sing with much pomp and solemnity a kind of mass or requiem for the repose of the dead; while the Buddhas themselves are merely the spirits of dead men.

The commentators, in their remarks on the succession to the birthright, state that this subject must not be confounded with primogeniture, which affects the hereditary nobility only; and they further point out that the whole of the nation is brought under the property laws, viz., "the belted "gentry, scholars, army and freemen generally." On our part, we must also desire the reader to distinguish between the succession to the birthright and the right to enter upon possession of the landed property of an ancestor generally.

The first rule laid down by the law is that the son of the bondwoman shall not be heir before the son of the freewoman—in the language of the commentators 以貴不以長, "blood before age"—so that no matter how much younger the sons of the wife may be, they shall succeed before the sons of the concubines; while with regard to the claims of the former amongst themselves, the rule is 以長不以賢, "age before merit," and therefore the first-born shall succeed, although, like ESAU, he may happen to have a younger brother endued with more estimable qualities. In case the first-born dies and leaves issue, his eldest son shall succeed, in preference to the brother by the whole or the half blood, or the children of the concubines, in infinitum. In case of failure of male

issue by the principal wife after she has attained fifty years, the eldest son of the concubine shall be appointed to the succession. Should there be no male issue either by wives or concubines, a male must be chosen of the nearest degree of consanguinity to continue the succession, but the commentators expressly state that as it is not a question of the hereditary nobility, the law allows the parties the liberty of choosing out of those of equal degree, beginning with the nephews, any one they may fancy either for his moral worth, intellectual ability or general amiability, in case they cannot agree with the first in rotation. The rule in this case is 禮順人情, "the ceremonial accommodates itself to human affections."

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## PROCEEDINGS.

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*MINUTES of a GENERAL MEETING held at the Society's Library  
on Friday, 22nd February, 1889.*

Dr. R. A. JAMIESON, Senior Vice-President, occupied the Chair. There were about thirty persons present.

The CHAIRMAN in opening the proceedings announced that the following new members had been elected by the Council :—Monsieur A. Bottu, Mr. G. McIntosh, Dr. R. S. Ivy ; and continuing, said that strenuous efforts had been made to interest the Community in the proposed Trade and Commerce Museum for Shanghai. Success, however, had not attended these efforts, and it now became his duty to read the Council's final Report on the subject, which would inform the meeting as to the reasons which had caused them for the present to abandon further action in the matter. He then read the Report as follows :—

### *Second Report of the Council on the*

#### PROPOSED TRADE AND COMMERCE MUSEUM.

The enquiry as to the support which the proposed Museum was likely to meet, referred to in the Council's first Report, was duly made. The answers received from the foreign community of all nationalities were generally satisfactory, and it may be taken as demonstrated that the establishment of a Trade Museum at Shanghai would be welcomed by the foreign merchants, and that the Museum would have their strong support. Enquiry among the Chinese merchants did not elicit nearly so unanimous an expression of approval ; but the Council are confident that further explanations of the utility of such a collection of the exportable products of their own country, would speedily remove the doubts existing in the minds of the few who entertain them, and would

bring the Chinese mercantile body into line with their foreign competitors, or colleagues, in supporting the institution.

The advent of the famine, which is devastating some neighbouring parts of the Empire, and especially the districts subject to the officials to whom the Museum must look primarily for aid, has prevented the Council from attempting to obtain the official support without which it would be useless to start in organising such a public institution as the proposed Trade Museum. Without such support assured, it has been deemed useless to solicit the aid of the representative bodies—the two Municipal Councils and the Chamber of Commerce; and consequently no further steps have been taken.

In view of the apparent inutility of seeking official support, and in consequence of the demands which the famine relief will probably make on the purse of the community, the Council have reluctantly come to the decision that it would be inadvisable to press the project for a Trade Museum, and that it must be abandoned for this year at least.

The Council, in taking up the scheme, acted for the Society as being generally representative of all classes of the community. They venture to express the hope that, when the project is revived, they will find themselves allied with some more distinctly mercantile body representing the class chiefly to be benefited—the mercantile community.

H. B. MORSE.

*Hon. Secretary.*

22nd February, 1889.

The HON. SECRETARY then announced that a circular, similar to that for 1889 on "Currency, Weights, and Measures," would be sent out in 1890 on the subject of "Inland Communications, Roads, Canals, Bridges, Post, etc." He stated this beforehand, because he thought it advisable that people should have ample time for preparing notes on the subject.

The CHAIRMAN said he had a melancholy duty to perform, in announcing that the Council were about to lose the valuable services of their much-esteemed Honorary Secretary, but he was happy to state that Mr. Morse, although the Council lost his services, was not about to sever his connection with the Society. His duties called him away from Shanghai, and the Council feared that they would find it hard to get as able a successor to discharge the duties of Secretary, which Mr. Morse had fulfilled in a manner which left nothing to be desired. People outside the Council could hardly realise the amount of routine work which the post of Secretary brought with it, and this work had during Mr. Morse's term of office been largely supplemented by voluminous correspondence and Report drafting in connexion with the Trade and Commerce Museum scheme. He (the Chairman) proposed a hearty vote of thanks to Mr. Morse for the great amount of work he had done for the Society, and for the unflagging interest which had animated him in performing his duties as Secretary.

Mr. P. J. HUGHES seconded the proposition, and cordially endorsed everything the Chairman had said about the valuable services which Mr. Morse had rendered to the Society, concluding amidst applause by wishing him every success in his new post.

The proposition was carried by acclamation, and Mr. Morse in returning thanks, mentioned the great assistance he had always received from the members of the Society generally, especially in the providing of matter for the Journal. He urged that all interested in the work of the Society should put into the form of a paper or of a note for the "Notes and Queries" anything that struck them as new and valuable.

The chief business of the evening was the reading of a paper by Mr. Geo. Jamieson (President), on "Tenure of Land in China and the Condition of the Rural Population."

The CHAIRMAN in introducing the subject mentioned the efforts which Mr. Giles had made some years ago to reanimate the Society by establishing symposiums. The Council had since then succeeded in getting together a great deal of information on various subjects which up to that time could only be found scattered

through the columns of newspapers and periodicals. Much had been done in the same direction during Dr. Hirth's presidency, and now, as the fruit of Mr. Jamieson's activity, an exceedingly interesting and valuable set of papers upon the subject of land tenure in China had been got together, the contributions coming from North, South, East and West, and forming a collection of great importance, but too bulky to be laid before the meeting. As at once an introduction and a supplement to this collection, their President had written a paper, which, without being a summary of all the facts, was specially valuable as the contribution of an expert on a subject which they all regarded with great interest. It was the Council's intention to print this series of papers in a fascicule which will moreover contain (1) a translation, made by their indefatigable Secretary, of the more important sections of a work on the local rules governing land tenure. This work, entitled *De Legali Dominio Practicæ Notiones*, was published in Latin in 1882 by the Rev. PETER HOANG, a Chinese member of the Jesuit Society. Following this would (2) be found a reprint of a series of articles contributed about 20 years ago to the *Cycle* on this same subject, by an English barrister who had devoted a great deal of attention to all the questions involved, who was exceedingly well versed in Chinese and Chinese law, and whose name, if he were at liberty to mention it, would guarantee the accuracy of the statements contained in the articles. All these would together form a manual on the subject, containing everything known about the transfer of land and the terms upon which it is held in China; and he need hardly say that it was most desirable that foreigners should be made aware of every available fact on a subject of such great and growing importance.

The HON. SECRETARY then read a paper on "Land Tenure in China," by the President of the Society, Mr. Geo. Jamieson. (*The Paper is printed in this fascicule, pp. 59-79.*)

The CHAIRMAN having invited discussion—

Mr. CARLES said that the paper from their learned President, was one which went over all the ground of land tenure in China.

It was very remarkable how little had been hitherto written by foreigners on the subject. An important but incomplete series of papers had been written by the late Mr. T. T. Meadows in the *Chinese Repository*, part of which had been re-embodied in the *Cycle*, in which he believed that in addition to the papers by the English barrister, referred to by the Chairman, there were others of an equally interesting nature. But unfortunately the index to the *Cycle* was very deficient, and it was therefore extremely difficult to find them. There were two or three points in the President's paper to which he should like to refer, as they bore upon the question of land tenure in and around Shanghai. When this part of the country was ravaged by the Taipings, most of the people fled from their homes for refuge elsewhere, and when they returned, the authorities took measures to assist them in securing possession of their lands. The original title deeds had in most instances been destroyed, and the authorities had to issue new papers to the people upon their return. The title deeds issued by them were what are called *tientan* or *fangtan*; they mentioned the *pau* in which the land lay, and the subdivision, called *tu*. They were also numbered and lettered. When people purchased property, it was desirable that they should compare these particulars with the documents they received. From what he had seen, the custom of attaching "tails," to deeds seemed to have fallen into desuetude, and he met very few cases where deeds had been accompanied by these "tails" when supported by *fangtan*.

Turning to the other side of the subject, the sale of property by Chinese to one another, he said there were two terms used, one which corresponded to an absolute sale, the other to a sale, but not absolute. When the word *chüeh* is not inserted in the document, he believed the lessor considers that he has a right to claim something from the other party should the land rise greatly in value. But when the land is absolutely or irrevocably sold, the lessor has no further right in the property. One very remarkable point in connection with these deeds was that the signatures were not generally written by the persons whom one would expect to write



them. For they were almost always written by the person who drafted the document, and this was perhaps why so many persons were required when any dealings took place on a Chinese deed. The witnesses generally put their mark, while the draughtsman wrote the names. For this reason the draughtsman was looked upon in a court of law as in part responsible for the deed. He was not a simple copyist, but attached the names, and in cases of loss might be called upon to pay some sum to the person claiming. Mr. Jamieson had referred to the subject of *corvée*. In the north of China, at least, he (Mr. Carles) thought that this did not attach to land only. It was principally carters and such who suffered most severely from this cause, and they had no land of their own. Sometimes indeed a small sum was paid by the Government for the use of their carts and boats, but it did not always reach their hands.

All persons who had travelled on the Yangtze had seen the large tracts covered with reeds. He had no knowledge as to how these lands were owned, and he would be very glad of some information on the point. The reeds seemed to belong to the villagers, but he did not think they paid any taxes on the land, and he imagined that the property was arranged more by mutual consent between the villagers than by any other means.

Mr. MORSE gave the meeting a number of very interesting passages on the subject, which he translated from the treatise by the Rev. Peter Hoang, entitled *De Legali Dominio Practicæ Notiones*, published at Zicawei. One of the passages threw some light upon the reed-covered land referred to by Mr. Carles, which is liable to taxation, under a special tax on lands not yet brought under cultivation, from which liability it would appear that reed-lands might be subject to private ownership. Around Shanghai the land tax was payable once a year on such reed-lands. Referring to the question of middlemen in land transactions, according to the authority quoted it appeared that the vendor could compel the attendance of the middleman, who was interested (say as owner of land over which a right-of-way existed) as a witness to the deed; while there was generally a relative of the vendor who witnessed

the signing of the deed, and was called an eye-witness. Another point of interest touched upon was as to the intervention of the Tepao in such transactions, and which it appeared was not always necessary. In connection with the "tails," or labels attached to deeds, the Rev. Mr. Hoang said that these "tails" were supplied to the Magistrate by the Provincial Treasurer, by whom they were sealed, and to whom the Magistrate had to account for their disposal every year. Mr. MORSE also read a passage bearing on the different kinds of sale, revocable and irrevocable, and of mortgage (one similar to the European form, another in which the property was delivered for the use and benefit of the mortgagee). A very curious form of ownership was mentioned in the work, where the author spoke of land, one of the proprietors of which owned the soil and the other the surface. The owner of the soil is held liable for the taxes, etc., and in some places the value of the soil is estimated at three times the value of the surface, while in other parts of the country the valuation is reversed, and there are very curious rights of both owners as to the building of houses and laying of coffins mentioned in connection with this dually owned land. In some places the owner of the soil is obliged to lease his part to the proprietor of the surface, who cannot be evicted for nonpayment of rent unless the arrears amount to the rent value of the soil. In Tsungming and Haimên, the author said that the surface was worth six times as much as the soil, and the owner of the surface there had almost an absolute right to build a house on the land, which the other proprietor had not.

Mr. KINGSMILL gave some interesting particulars of the curious methods adopted along the Yangtze for the assessment of rent on leased lands, which is settled upon the basis of the harvest yield each year. This constantly varying, and the apportioning being rendered still more difficult by land being split up into small holdings, the proprietors before harvest time assessed the land and settled the average yield, and the rents were then paid either in kind or in the market rate of the various cereals grown on the land. Everyone who travelled through the country was acquainted with

this, and if he asked the people about their rents he would get the answer *shí fēn hao*, ten parts good, or equal to the average; and sometimes, even the proportion would be a *shí ěr fēn hao*, an exceptionally large crop, or a *chī fēn* or *pā fēn hao*, below the average. As far as his experience went, there did not seem to be any private ownership of the grounds along the river covered with reeds, until the land was brought into cultivation. It seemed to be all Government land, and the people only got the right to cut reeds, he believed, by paying so much. The land appeared to be farmed from the Government, but no land tax could be demanded until it was reclaimed and brought into a state of cultivation; but this statement applied especially to formations by alluvial deposit.

Mr. G. J. MORRISON said he would suggest that the authors of the statements about the amount of produce, etc., should be written to a second time and asked for the precise nature and value of the measures they gave. He thought that very little was known about the produce of land in China, and he also knew by experience how difficult it was for an ordinary traveller to find out anything about the subject on account of the variations in the value of the measures used. In some places it might be that a picul meant twice as much as in others, and unless these measures were given very exactly in the papers, the Society might only be the means of circulating misleading information. He therefore suggested that the Council should ask the people who furnished the papers to give also statement of the weights mentioned in English avoirdupois, and what they meant by a picul; by this means they would be able to secure, he thought, much valuable information.

The CHAIRMAN said that Mr. Morrison's suggestion was a very valuable and practical one, and mentioned that in one particular case where the Council had some doubt about the value of the currency and measures used, they communicated with the author and found that he was correct. The Council were now seeking information upon the general question, a circular at present in circulation asking for contributions from a multitude of missionaries and others upon this very point.

Mr. JAS. BUCHANAN asked whether anyone could give him any information about a statement made in the *Daily News* some years ago, namely, that all lands held by foreigners here were registered in the Chehsien's yamên though all registers of land appeared to have been made in the Taotai's yamên. Was it a fact that each sale was registered in the Chehsien's yamên by the Chinese, who, looking upon foreigners as mere wayfarers, did not regard the transaction as a sale but only as a lease? He had heard that for a certain payment this registration in the Chehsien's yamên could be cancelled.

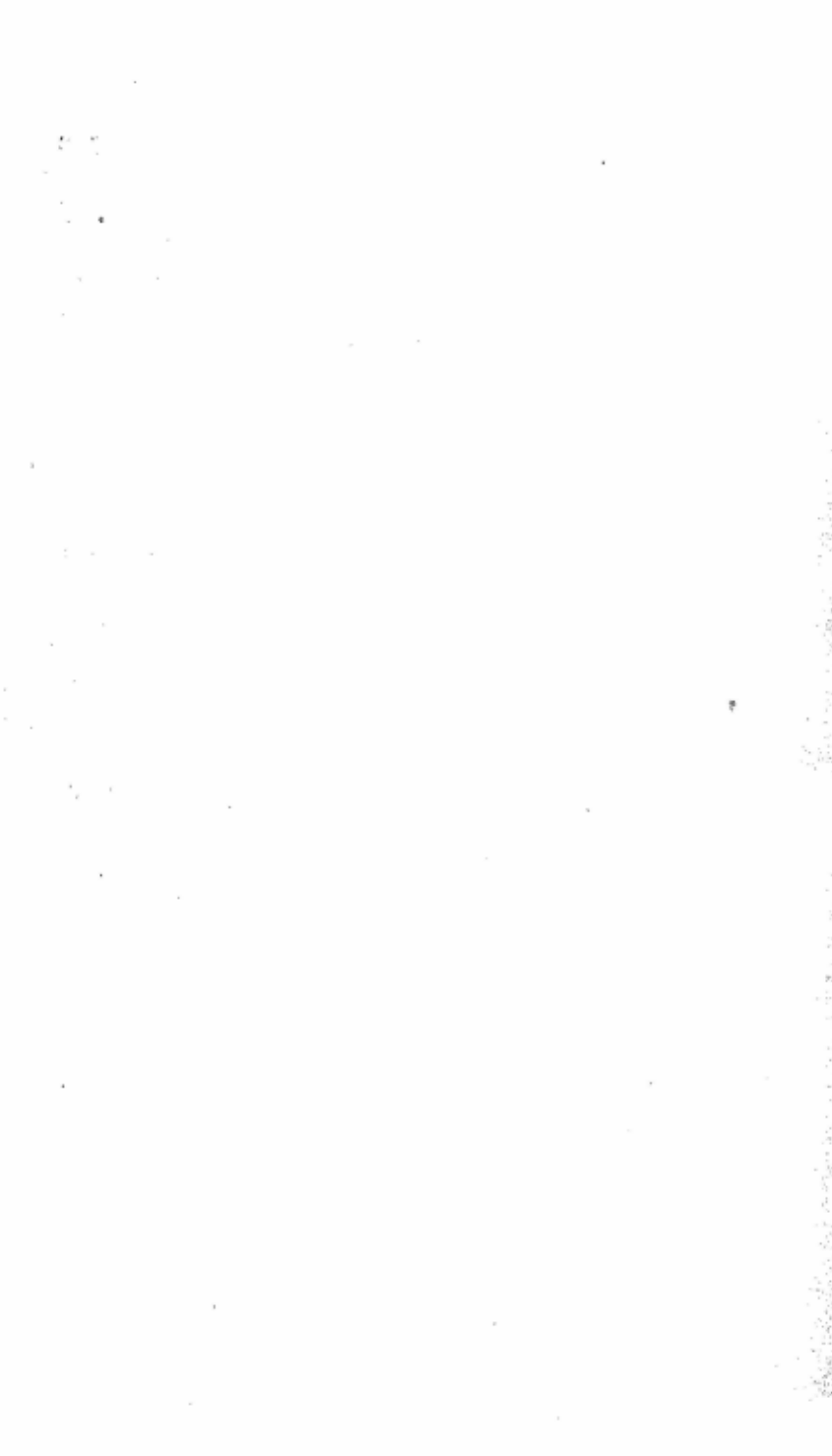
Mr. CARLES mentioned that in two instances he knew of the lease of land held by a foreigner being cancelled for nonpayment of taxes; in one case the land did not revert to its original owner, in the other case he was uncertain what took place.

Mr. HUGHES said there was no doubt a double registration, one in the Taotai's and the other in the Chehsien's yamên, where there was always a record of the original ownership.

The CHAIRMAN gave notice that the next paper would be on "Chinese Chess."

A vote of thanks to Mr. Jamieson for his valuable paper, and another to the Chairman, brought the meeting to a close.

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# THE BORE OF THE TSIEN-TANG KIANG (HANG-CHAU BAY).

BY COMMANDER MOORE, R.N.,

H.M.S. "Rambler."

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I have been requested by the Council of the China Branch of the Royal Asiatic Society to prepare a paper on the Bore of the T sien-tang kiang, and propose to divide my account into two parts, (1) the details of the observations of those floods which were seen, giving the times of arrival at a certain spot, heights, speed and general appearance, (2) the origin and reason of the phenomenon, and general conclusions to be deduced from the observations.

The Lords Commissioners of the Admiralty having decided to discontinue the survey on the coast of China, it became my duty to find out before the end of this, the final season, something about this Bore, as an appropriate termination to a series of tidal observations along the sea-board.

The Hang-chau Gulf is a place which has always excited my curiosity. Leading into the heart of a great silk country, it is unvisited by ships, and apparently is as much shunned by seamen as if it were a portion of the inhospitable Polar Sea. What was the mystery which made it so inaccessible? Was it mere rumour which gave it such a bad name, or was there in reality a serious impediment to navigation, which set a seal upon this artery of the interior? The published information regarding the Eagre or Bore was

of the most meagre description, and did not of itself convey any reason why, with ordinary precaution, trade should not be carried on by sea with Hang-chau. Strong tides had been met with by our men-of-war which visited the locality on one or two occasions during the last 50 years, but nothing which should present an insuperable barrier to commerce. In this paper it will be my endeavour to show why the Tsien-tang is blocked, through the existence of a phenomenon which, though known in many other parts of the world, is elsewhere so rare in its occurrence and so comparatively feeble in its action as to place no serious obstacle in the way of trade.

The miles used in the following statements are geographical miles, or sea knots of 2,020 yards. Ten geographical miles are equal to eleven and a-half land or statute miles. The times are the *mean* or "clock" times of the places of observation.

The "Rambler" was moored on the 19th September 1888 off an island at the south-west extremity of Chapu Bay, which will in future be known as "Rambler Island." This is the furthestmost limit in the Gulf for the safe navigation of ships. The accompanying tracing of a portion of the Admiralty chart will show the position of the island and the other stations to which it will be necessary for me to allude. A tide-pole was erected, and a careful series of observations were made of the rise and fall of the water throughout three days and nights, commencing at full moon. While this was going on, there were also records being kept at West Volcano Island, which it will be seen is situated in the mouth of the Hang-chau Gulf, 45 miles east of Rambler Island. A fortnight before, a series of simultaneous observations had been taken at West Volcano Island and Chang-tau. It was thus possible to trace the progress

of the tidal wave from the ocean to the estuary of the Tsien-tang.

On the 20th September some of the officers and myself started with the first of the flood-tide in two steam-cutters and a sailing-cutter, to observe the Bore, which I had every reason to believe originated inside the mouth of the river 30 miles distant. We proceeded without accident over the shallow flats for three hours, but then struck the ground, and soon found that there was a tide of great strength running, which placed the boats in rather an awkward situation. The measurement of the rate of the stream was 10 to 11 miles an hour, and the water rose 9 feet in half-an-hour. This was our first experience of the Bore and after-rush. Fortunately, we had lost our way, owing to the erroneous position of the river given in the existing chart, and instead of meeting with the main Bore, we had inadvertently dropped into the south branch of it, which is never so high, and which on this occasion came in without a front cascade. Being in complete ignorance of the time and place where the Bore originated, we had started an hour too soon. At 9.30 a.m., an hour after we left the ship, a sudden rise of water took place on the tide-pole at Rambler Island. We felt the rush about 11.30, being at the time 10 miles south-east of the entrance to the Tsien-tang.

That afternoon, with some difficulty, we found the river, and ran the boats ashore, two hours after high-water, on the south bank opposite Haining, laying out and burying the anchors, and taking every precaution to secure the boats against the arrival of the next flood. As the strength of the rush of water following the Bore cannot be better exemplified than in what happened to two of the boats on this night, I will describe in detail their position and how they were anchored.



They grounded at half-tide, when the water was near its mean level, that is to say, 9 feet 9 inches above low-water.<sup>1</sup> The keels of the boats therefore were 7 to 8 feet above low-water, and about half-way between the shore and the water, at low tide. They must have been at least half-a-mile from the nearest part of the Bore, because the foreshore consists of a gradual slope of sand for a distance of 1·3 mile. The steam-cutter, the deeper boat of the two, was anchored with 33 fathoms of stout chain and a 60-lb. anchor, buried and backed up by 4 iron weights each weighing half a hundred-weight; there was also a 2-cwt. bag of coal on the bight of the chain  $1\frac{1}{2}$  fathom from the anchor.

The sailing-cutter had a 60-lb. anchor buried in the sand, with 30 fathoms grapnel taut, and two 2-cwt. bags of coal secured to the grapnel near the anchor.

It was a calm, still night, with a little rain hanging about. The murmur of the Bore in the distance was heard at 11.29; the cascade could be seen at 11.55, and it passed us with a loud roar at 12.20, well over on the north bank of the river. All that could be seen was a steep slope of white water, overfalling and pouring over itself as it advanced, the river filling up to the level of the flood as the Bore went by. At 12.25 the overflow over the flats from the Bore struck the two boats, which were aground in the position I have mentioned, and floated them at once. The steam-cutter brought up with a severe jerk, and at once commenced to drive to the westward, the sailing-cutter following soon after. The boats dragged in company for a

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<sup>1</sup> We arrive at this conclusion thus: Another steam-cutter, which obtained a sounding of 9 feet near high-water that night, was aground, but not dry by one foot, when these two boats ran on to the sands. The water, therefore, had not fallen more than 9 feet when they took the ground. The spring rise and fall is 19 ft. 6 in.

distance of 3 miles in 25 minutes, the steam-cutter during the whole of that time going full speed ahead.<sup>2</sup>

During the rush in the morning it was found that the sailing-cutter, owing to her smaller draught, rode over the stream much easier than the steam-cutters, and held better to her anchor. It was the same now, but the steam-power of the deeper boat kept them together.

The strength of this current must have been at least 10 miles an hour. The reason of this violent rush following the Bore, will be seen by the diagram and appendices annexed, which I will explain at a later stage. The height of this Bore was 10 to 11 feet.

The other steam-cutter also got into difficulties during this night; but as her experiences do not add to the illustration of the strength of the stream, it is unnecessary to relate them in detail.

I should mention that the sudden rise of water at Rambler Island, which occurred at every flood, commenced this night at 9.30. There was therefore an interval of nearly 3 hours between the times of the Bore showing itself at Rambler Island and at Haining.

On the following day, the 21st September, about 9.45 a.m., an overfall was seen by Lieut. BALFOUR on board the "Rambler," approaching the ship from the offing, 4 or 5 miles distant to the north-east. It reached the ship at 10.15, the waves being sufficiently high, when breaking against the broadside, to throw water into the mizen chains and spray on to the poop, and then disappeared to the westward past

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<sup>2</sup> When the anchors were weighed, it was found that the flukes which had been in the sand, and a great part of the chains, were burnished bright like polished silver. The coal in the bags, with the exception of  $\frac{1}{2}$  cwt. in one bag, was all washed out, and the bags were filled with sand tightly packed.

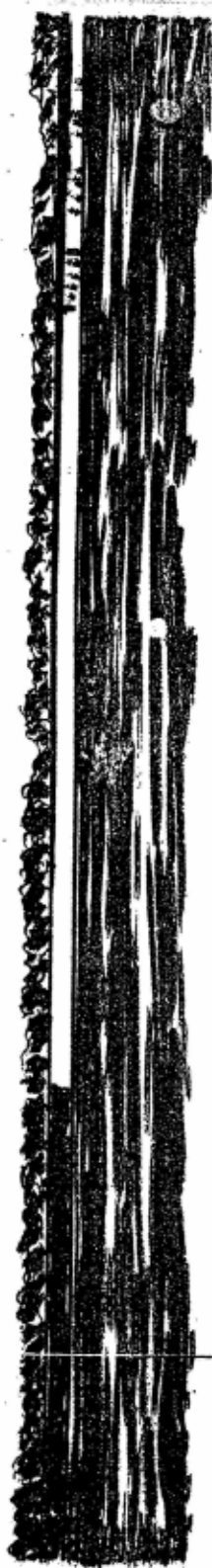
Rambler Island. At 10 the water commenced to rise suddenly at the island from 9 feet 4 inches below mean level to 4 feet 7 inches above mean level at 11 o'clock.

From a boat beached at high-water on the south bank of the entrance of the Tsien-tang kiang, the Bore was seen approaching along the sea-wall between Haining and Chisan at 12.24. It had the appearance given in *Fig. 1*.

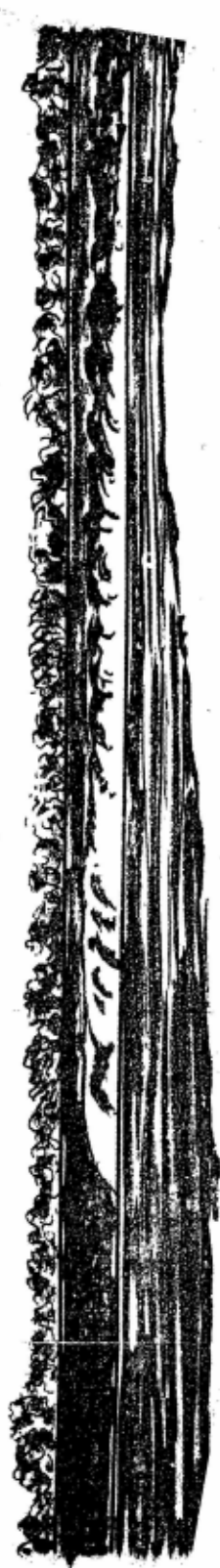
Shortly after it was first seen, the white light on the sea-wall shot suddenly out to the right, to nearly twice its length, the left extreme of the whole line remaining the highest. I have no doubt that this elongation was the junction of the south-east branch of the flood. The weather was calm, and there was a good deal of mirage. The appearance on a closer approach was that of a long, crested wave, breaking in places, in others only about to break, the top of the flood curving towards us and drawing back, hurried on by the great speed of the Bore.

At 12.47 the Bore passed the Haining Pagoda. Front part a white cascade of foaming water. The south side of the Bore consisted of a long line of breakers and wall of water, tapering from the front to the smooth following water half a mile behind, the breakers discharging outwards towards the south bank of the river. There was broken water on the top of the Bore for a long distance behind the crest, in which no ordinary boat would have lived, and conspicuous above the disturbed water a second roller or miniature Bore occasionally rose up, and after moving onwards with the rest for a time, would leap up as if struck by some unseen force, and disappear in a cloud of spray. Height of Bore 9 feet, but the broken water behind it could not have been less than 13 or 14 feet above the level of the river in front. The Chinese standing by said this was not a high Bore, as the weather was calm. Nine junks came

*Fig. 1.*



*Fig. 2.*





up behind the disturbed water, with sails set, but regardless of wind (of which, indeed, there was none), and entered the river at great speed.

A feature of this Bore worth noticing was the deliberation of the curved side in breaking. At the mouth of the river this is only seen from the south bank. All the front, over to the north shore, is a continuous cascade. It is the outer discharge on to the very gradual sand-slope, which shows as deliberate breakers, and in any sense as a wall. It looked, at times, as if the great speed checked the curve just as it was about to make its arch over on to the sand.

At 1.38 the water had risen 15 feet (approximately). It was high-water between 3 and 3.30. The stream was then making out strong along the south bank.

At 10 p.m. on 21st September, the water rose at Rambler Island from 10 feet 7 inches below mean level to 4 feet 9 inches above mean level at 11.30. The Bore passed the pagoda at Haining at 12.52. It was high-water about 3.30 a.m., and the stream was then running out along the south bank of the river. We were too far away, on this occasion, to make any reliable observations of the height or appearance of the Bore.

The water rose suddenly at Rambler Island at 10 a.m. on the 22nd September from 11 feet 8 inches below mean level to 3 feet above mean level, which it reached at 11.30. Three officers observed this Bore from the south bank of the Tsien-tang. It passed the pagoda at Haining at 1.10 p.m., travelling at a speed of 12.7 miles an hour, and its height was found to be 10 to 11 feet. It had the appearance given in *Fig. 2*.

No second wave or line of cascade was seen on this or any other day. As on the 21st, the south side of the Bore formed a line of breakers and water attempting to break,

tapering in height from the crest of the cascade in front to the smooth, shining flood following. Disturbance on the back of the flood, but not so marked as on the previous day. The river filled up very quickly to the level of the Bore after the cascade had passed. High-water at 4 p.m.; and the stream at once commenced to set out. On the south bank the outgoing stream commenced at 2.45.

It became necessary now for the boats to return to the "Rambler." One of our steam-cutters was seriously damaged. The difficulty of navigating the river and securing the boats at a sufficient height to protect them from the Bore and after-rush, together with the fact that springs were past, and the consideration that we were unacquainted with the return route and had to feel our way, decided me to postpone the completion of my observations until I could visit the river by canals from Shanghai. Three of the officers engaged a junk, and proceeded to Haining and Hang-chau, and were able to observe the Bores of the 23rd September.

We took shelter in the boats on the night of the 22nd in a bay 12 miles east of Haining, under the conspicuous headland of Chi-san. Between 9 and 11 p.m. we heard the roar of continual overfalls outside, but did not see the Bore. The water, where our boats were grounded, rose and fell in the most singular manner as much as 3 feet several times without any surface disturbance, showing the conflict in progress between the outgoing stream and the flood. The water rose on the tide-pole at Rambler Island from 9 feet 4 inches below mean level at 10.30 p.m. to 5 feet 11 inches above mean level at midnight. Lieut. PUREY-CUST, who was at Haining, noted that the Bore passed the pagoda at 1.20 a.m. (approximate), and that it was 8 to 10 feet high. He observed that at 8.20 the water had fallen to 5 feet above

its lowest, having dropped 13 feet 4 inches in 4 hours. The river was at its lowest level immediately before the Bore arrived, and the stream was running out. There was only one cascade. At 2 a.m. the water had risen 15 feet. The junk, in which he and two other officers had secured their passage, then proceeded to Hang-chau, and accomplished a distance of 24 miles in 4 hours, with scarcely any wind to assist the force of the flood-stream.

On Sunday, 23rd September, there was a sudden rise of water at Rambler Island from 11 feet 10 inches below mean level at 10.30 a.m. to 5 feet 9 inches above mean level at 12.30. The Bore passed the Ferry at the city of Hang-chau—which is 53 miles distant from Rambler Island—at 4 p.m. (approximate). Dr. BASSETT-SMITH, who watched it, states that the distance he was from the cascade was too great to enable him to form a correct estimate of its height, but the larger junks appeared to ride over it, and, judging by the after rise of the water, he considers that it could not have been more than 4 or 5 feet.

Abreast the city of Hang-chau, the deep channel of the Tsién-tang is near the south or right bank, and consequently an observer on the north bank, from which the slope is very gradual, would have the same view of "lagging" which we had from the south bank at the mouth of the river on the 21st and 22nd September. Dr. SMITH first saw the Bore about 3.30 p.m., coming up the river as a straight line of foam. As the highest part progressed along the south bank, the flood discharged itself towards him in a long line of breakers, tapering from the crest of the Bore to the smooth, shining water behind where the river was filling up. A junk was seen sailing up to the vanishing end of these breakers. When close-to, she lowered her sail and rode gently over the surf, then proceeded on her course down the



river. A quarter of an hour after the front of the Bore had passed, the flood was felt at the Ferry in the form of chow water. Between the time the front of the Bore passed and the arrival of this chow water, the tide rose quietly  $1\frac{1}{2}$  foot; when the chow came, it rose suddenly 2 feet more; and during the succeeding hour it rose only 1 foot. The entire range of tide (3 days after full moon) was probably not more than 5 to 6 feet. It happened to be examination time at Hang-chau, and thousands of students and others flocked down to the water's edge, to witness the phenomenon.

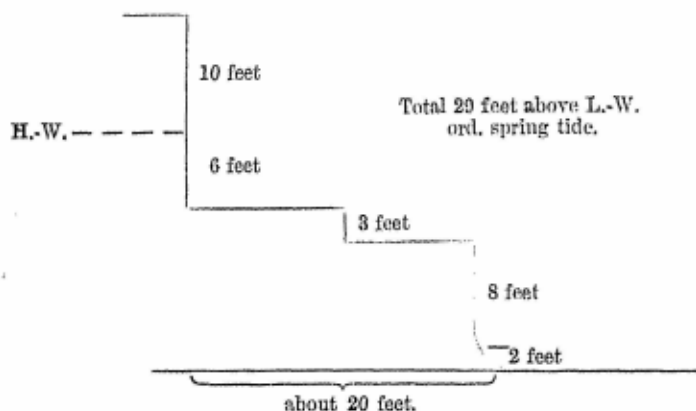
Subsequent observations made with care by Mr. GEORGE MOULE establish the fact that the range of spring tide at Hang-chau does not exceed 6 feet. I am obliged to disagree with Dr. MACGOWAN, who informed the Society, some years ago, that he had watched the progress of a Bore in this locality which he estimated at 30 feet high; and that the cascade was higher off the city than at the mouth of the river. A Bore cannot be higher than high-water spring tide, and there is no reason to suppose the range of spring tide to have altered materially during the last hundred years. At the mouth of the river the range of spring tide is 19 to 20 feet, and the cascade is generally three times as high as it is off the city of Hang-chau. Dr. MACGOWAN's erroneous description of the Tsien-tang Bore will be found in Professor MAURY's famous work—*Physical Geography of the Sea*. During the few days of her stay in the Hang-chau Gulf, the cables of the "Rambler," were much strained and damaged by the violent ebb-stream, which was found to run at its greatest velocity between the second and third hour after high-water. The reason of this is apparent when the tables of differences of level and the diagram of simultaneous levels are consulted. To these I will allude presently. We had some difficulty in saving one cable, for

when weighing anchor on the 24th September, a north-east wind sprang up with the flood-tide, and a severe overfall surrounded the ship with waves as high as the gunwale. This lasted two hours. We fortunately got away with only the loss of all the pauls and bars of the capstan.

Several questions connected with the Bore still remained unanswered, and it was necessary to take observations for latitude and longitude at Hang-chau and Haining. After arrival at Shanghai, I went over to Hang-chau in a house-boat, and from thence to Haining, which I reached on the 4th October. As before remarked, this town is situated at the mouth of the Tsién-tang kiang, on the north or left bank. The Bhota Pagoda, built ages ago, to solicit a good Fung-shui to keep out the flood, is the most favourable point of view from which to see the Bore approach, and from which to watch it enter the river as a whole cascade after the junction of the two branches, and its conflict with the sea-wall. It is here that it is first seen as one unbroken line, commencing its majestic progress towards the city. From Haining there is a busy export. The junks, of which sometimes a dozen may be seen loading or unloading at the same time, draw from  $1\frac{1}{2}$  to 2 feet water when empty, and ground  $1\frac{1}{2}$  to 2 hours after high-water on a platform of stones enclosed by piles alongside the sea-wall. The attached sketch will best show how this platform is constructed, and how it is protected from the Bore by a massive buttress at the eastern end, which is 253 feet long (*i.e.*, parallel to the sea-wall), 66 feet wide, and semi-elliptical in shape, and consequently deflects the flood-stream before it reaches the shelter. From the estuary south-east of Haining, the junk platform is protected by a spit of sand, dry at low-water, stretching out from the opposite shore, round which the southern branch of the flood must pass. Unless, therefore,

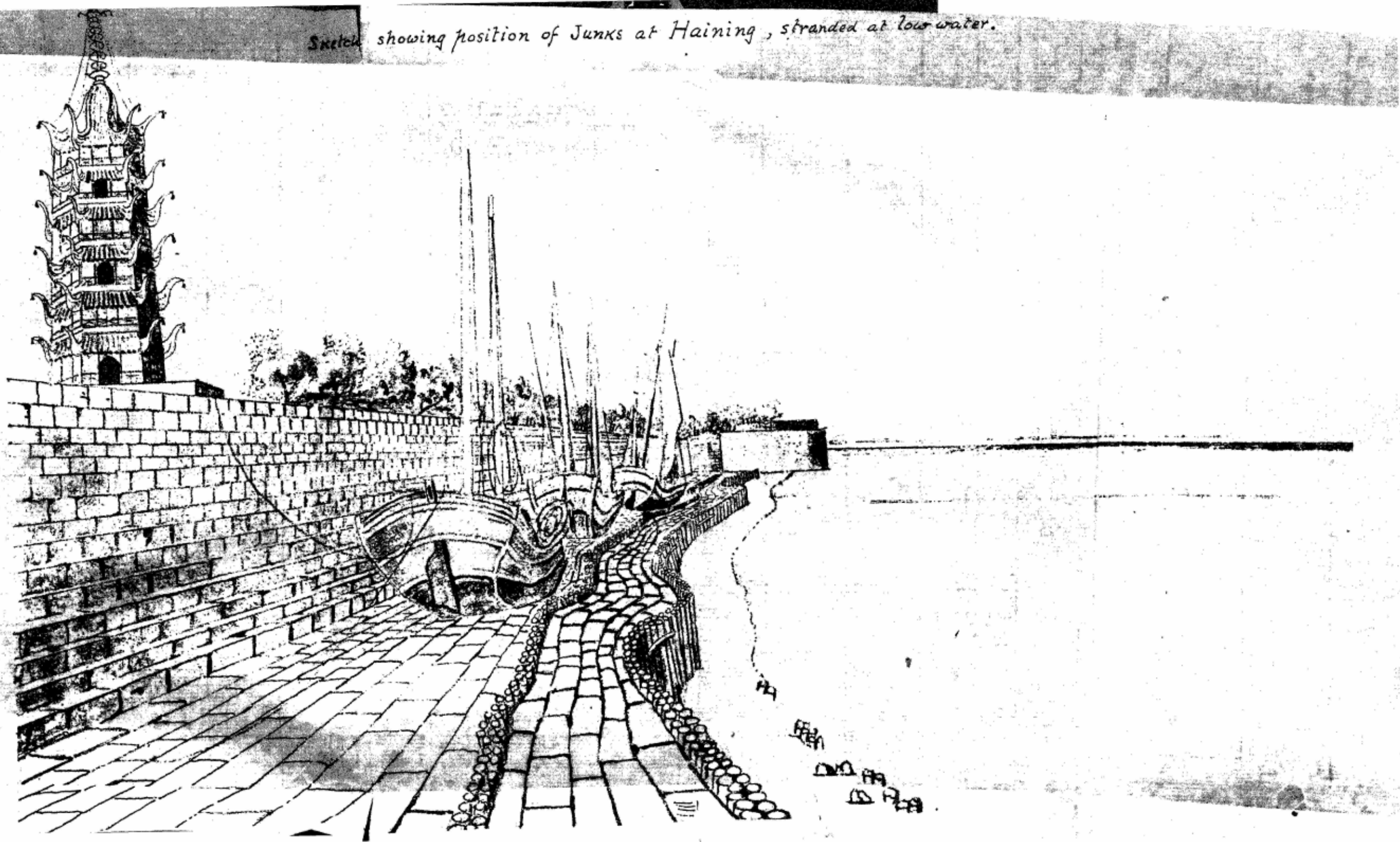
the south bank of the river changes its shape, or the buttress is destroyed, the force of the Bore cannot be experienced by junks on the platform, though the side of the cascade will wash along the piles which confine the stones.

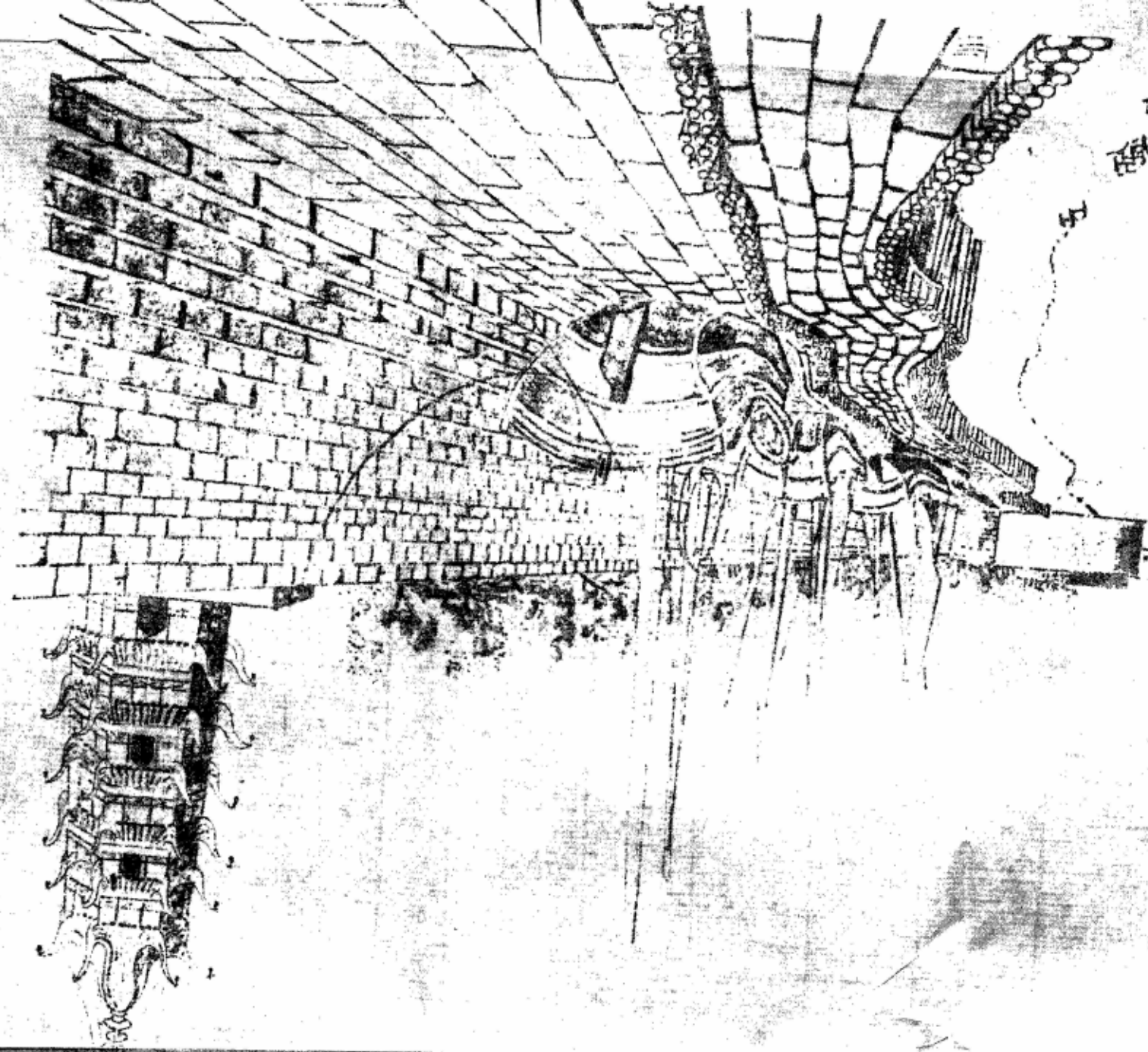
This shelter or platform, abreast the pagoda, is 1,100 yards long, 20 feet wide, and 7 to 8 feet above low-water ordinary spring tide. At the west end of it there is another buttress, protecting a shelter on a higher level, of which Mr. Cust made the following measurements:—



The shelters—and I understand that there are many others up the river along the sea-wall—are well inside of a direct line from the outer tangent of one buttress to the outer tangent of the next. The sea-wall, abreast the pagoda, is  $23\frac{1}{2}$  feet high above low-water ordinary spring tide, and 16 feet above the junk-platform. The side is cut in steps (15 in number) like those of a dock, but only 4 inches broad, so that the side of a junk, rising and falling, does not lodge. They may strike the wall, and in fact often do when the spring tide Bores pass, but, rudely built as they are, no harm comes of it. When the Bore is heard approaching,

Sketch showing position of Junks at Haining, stranded at low water.





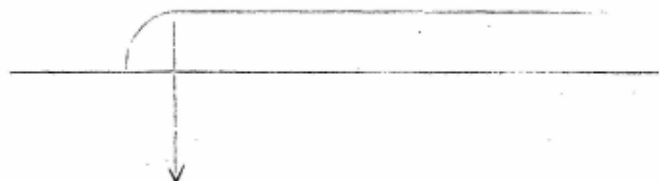
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100 ft. 100 ft.

Sketch showing position of tanks at Landing

the junk-master looks to his warps, lays out extra ones if he thinks it will be a high cascade, and summons his crew, who stand by with poles and boathooks. As the Bore passes, there is the usual shouting and gesticulating until the after-wash has gone by, when the junk is fairly afloat and able to carry on loading.

The water must be 9 feet high to float an empty junk. For the reasons I have mentioned, and because the bank, though steep-to from the channel of the river, is actually dry for 3 or 4 feet outside the piles which confine the junk-platform, the side of the Bore is never so high as the crest over the deep water. Thus, if I observe that, at the first rush, the piles are hidden and the junks afloat—as was the case on Sunday 7th October, and it is plain to me that the crest of the cascade is 2 or 3 feet higher than the side of it—I say the height of the Bore is 10 to 11 feet.

The term “Bore,” as meant in this paper, is the front of the advancing flood, that part where the water commences to fall over the edge of the plane on to the river beneath.



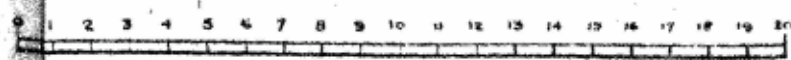
The water invariably rises—within 15 minutes after the passage of the Bore—to a height above it of from one-quarter to one-half its own height. This is not, strictly speaking, the Bore, and is not included. Again, the surface behind the crest is generally in a state of violent commotion, the waves leaping up many feet above the general level. The height of these waves is not taken into account when recording the measurement of the Bore.



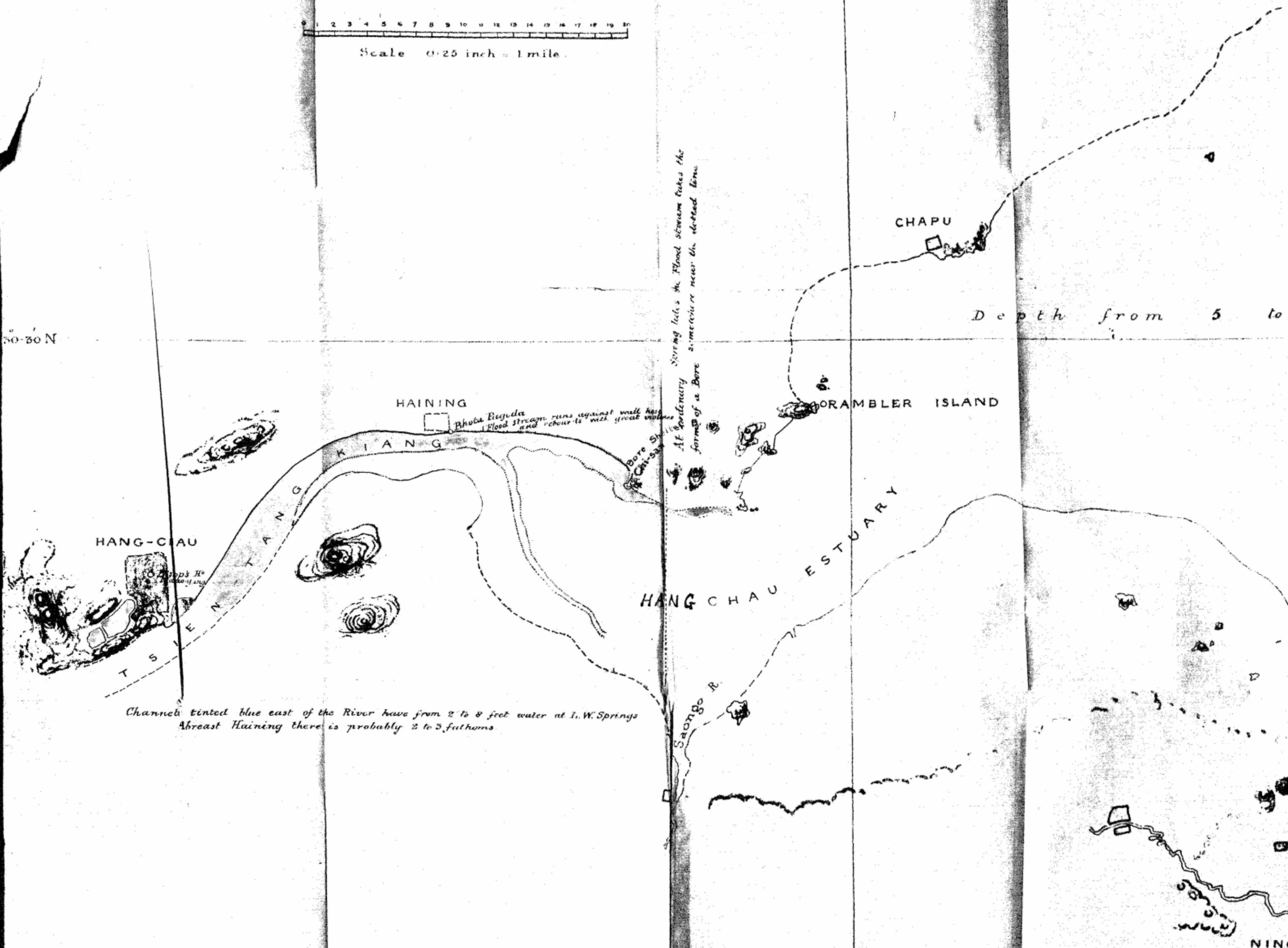
extended by a sketch drawn by Commander W. L. Moore

To accompany Report on the Bore of the T sien-tung Kiang.

GEOGRAPHICAL		POSITIONS	
HAG-CHAU	<i>Bishop's house. Mu suo-yang</i>	Latitude	30 15 28 N
HANING	<i>Bhota Pagoda</i>		30 24 23
RAMBLER ISLAND	<i>Summit</i>		30 26 3
WEST VOLCANO	<i>Lighthouse</i>		30 20 501
CHINGTAU ISLAND	<i>Summit</i>		30 15 467



Scale 0.25 inch = 1 mile



SHANGHAI

YANGTSE KIANG

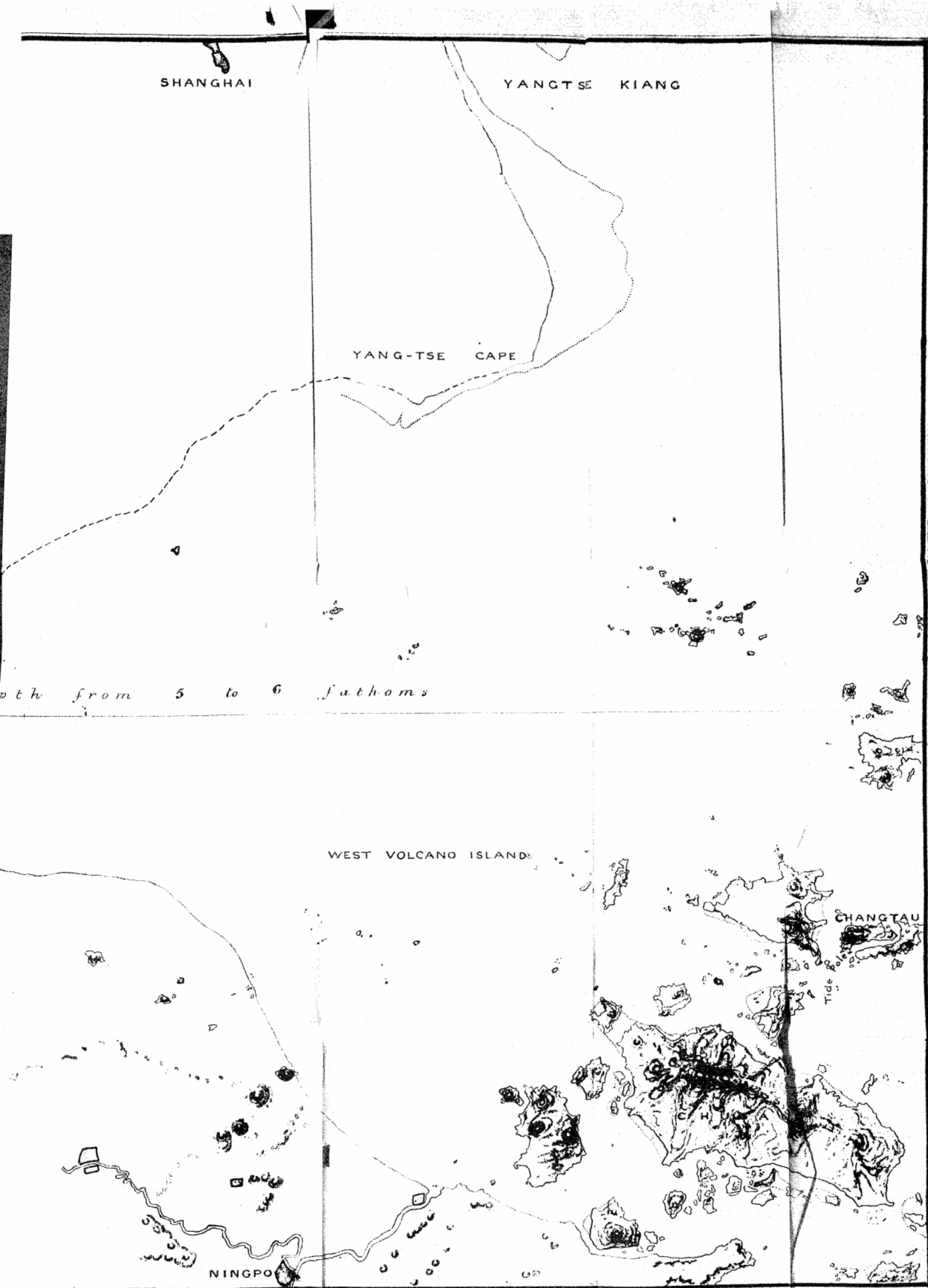
YANG-TSE CAPE

Depth from 5 to 6 fathoms

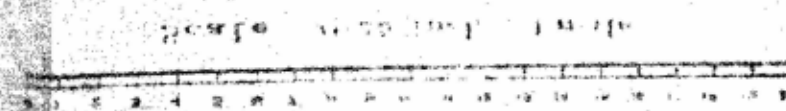
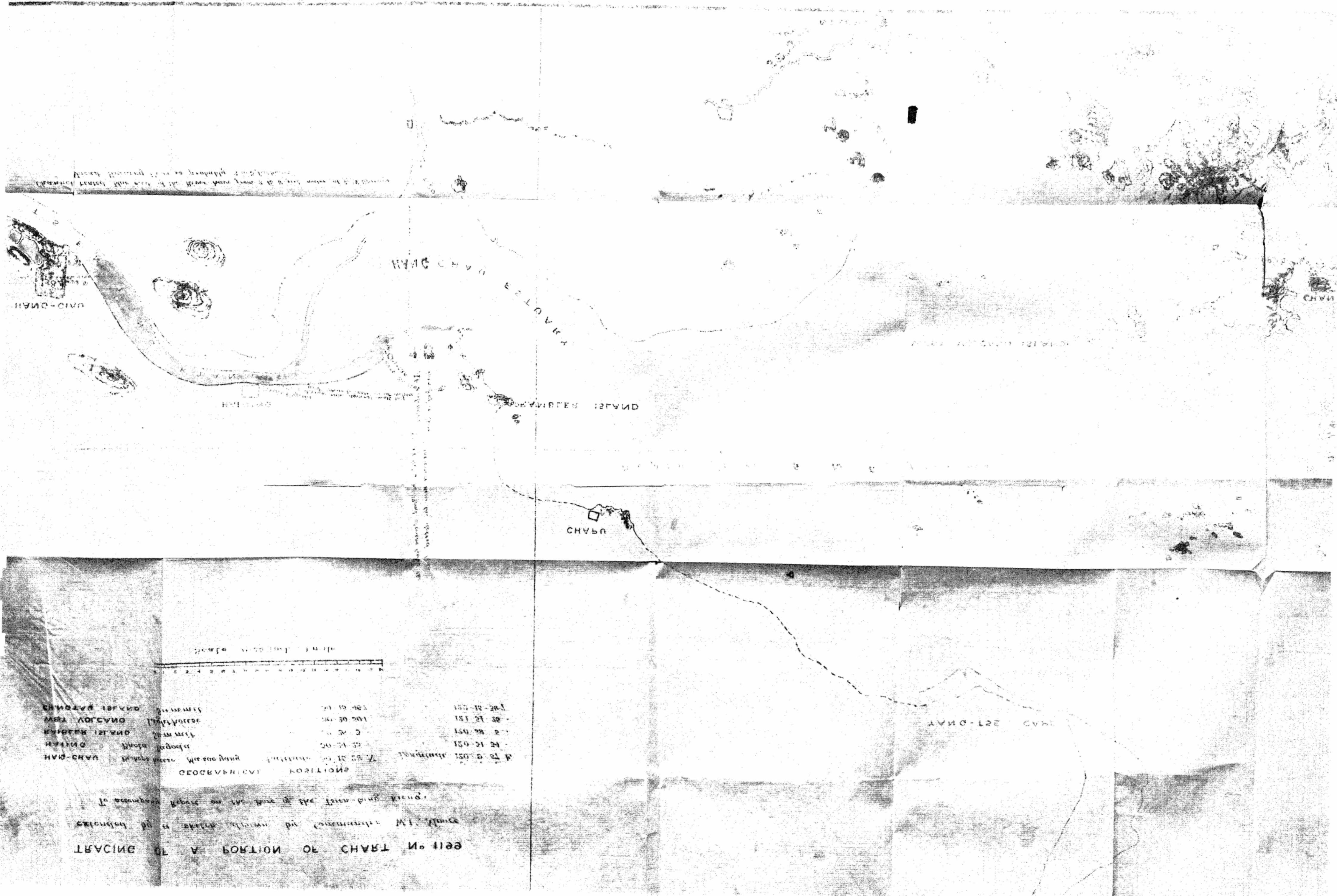
WEST VOLCANO ISLAND

CHANGTAU

NINGPO





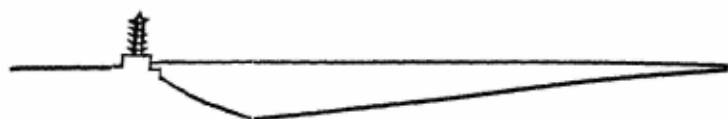


GEOGRAPHICAL POSITIONS			
HUMS CHAY ISLAND	150° 12' 30" W	49° 10' 00" N	150° 12' 30" W
HUMS CHAY ISLAND	150° 12' 30" W	49° 10' 00" N	150° 12' 30" W
HUMS CHAY ISLAND	150° 12' 30" W	49° 10' 00" N	150° 12' 30" W
HUMS CHAY ISLAND	150° 12' 30" W	49° 10' 00" N	150° 12' 30" W
HUMS CHAY ISLAND	150° 12' 30" W	49° 10' 00" N	150° 12' 30" W

TO ACCOMPANY REPORT ON THE STATE OF THE TIDE-GAUGE STATION  
 EXTENDING TO A PERIOD OF SEVEN MONTHS, FROM JANUARY TO JULY 1900  
 TRACING OF A PORTION OF CHART NO. 1133

The chart will show the lay of the land, and the position of the place of observation at Haining with reference to the estuary and opposite side of the river. The Tsien-tang, opposite the pagoda, is 2·4 miles wide, but at low-water the breadth of the stream is not quite one mile.

The deepest water is some 2 to 4 cables from the north bank, the section being somewhat like this in shape:—



From the statements of the natives, and one or two casual soundings which were obtained, I have reason to believe that there is 2 to 3 fathoms *at least* in the channel at low-water spring tide. One sounding of  $7\frac{1}{2}$  fathoms was obtained at high-water.

The sea-wall affords some evidence of the force of the Bore, its massive construction showing what the authorities have thought necessary to withstand the daily shocks. As it is distinguished by the Chinese from the embankment behind, it was probably built at a different epoch. Both are very old.<sup>3</sup> The two together measure across 80 to 90 feet, of which distance the sea-wall occupies about 30 feet. Its top is 3 to 4 feet above high-water, ordinary spring tide,<sup>4</sup> and is faced with blocks of stone 5 feet long, 1 foot 4 inches broad, and 1 foot 2 inches deep, laid endways out, and joined together by rivets of iron. Thirty to forty feet from the edge of the wall, on the embankment, there is a mud ridge, 7 to 8

<sup>3</sup> Mr. CARLES has kindly looked up the *Pei-nen-yun-fu*, which gives the date of the commencement of the building of the sea-wall as 911 A.D.

<sup>4</sup> *i.e.*, abreast the pagoda. West of the pagoda half a mile, there are places where it is 9 to 10 feet above high-water spring tide.

feet high, lined with trees. Beyond the sea-wall, and giving it further support, are the junk shelters and buttresses before described. The latter are built of mud enclosed by fascines.

The sea-wall, as distinguished from the embankment behind it, is said to have been built over 500 years. It extends, without interruption, to Chi-san eastward, and up the river between 19 and 20 miles. About 1,000 people are said to be constantly employed on its repair. I have only seen 12 miles of it close-to—that portion near the Bhota Pagoda and to Chi-san—but this, at any rate, was in excellent condition. The country which it protects from the flood is from 2 to 6 feet below high-water spring tide.

The embankment extends with more or less regularity from the T sien-tang kiang to Woosung, round Yangtze Cape, a distance of 120 miles.

The Bhota Pagoda at Haining, which is said to be over 1,000 years old, is 120 feet high, hexagonal, six-storied, and has 36 bells. The highest gallery is 84 feet above high-water, and consequently 103 feet above the level of the river before the Bore arrives. The outer wall around the bottom of the pagoda is distant 30 feet from the edge of the sea-wall.

The following is the record of certain Bores observed about the time of new moon early in October:—

4th October. Day Bore. Observer on the sea-wall abreast Bhota Pagoda, Haining. Day calm.

10.44.—Bore was seen approaching from a direction between Chi-san and the sea-wall.

11.2.—A second roller formed behind the first line of breakers, probably due to the effect of the rebound from the sea-wall.

11.10.—As the flood narrowed in width to enter the mouth of the river, the sea was very confused, picturesque

lines of corkscrew breakers forming, and exhausting themselves against the south bank.

11.16.—Bore passed pagoda, as one straight line of continuous cascade, 5 to 6 feet high, washing the top of the piles confining the junk shelter.<sup>5</sup> The line was as straight as infantry on the march, for 9 cables ( $\frac{9}{10}$  of a mile) across the river. If not for its speed, I think a good launch might have ridden over this Bore. There was no second roller.

11.29.—Water had risen to 9 feet.

12.28.—Water 14 feet.

1.53.—High-water, 15 feet above the lowest level of the day. Up to the time the Bore passed, the stream was running out in the deep channel of the river.

5th October. Day Bore. Observer first on the highest gallery of the pagoda—103 feet above low-water.

10.56 a.m.—Bore in sight (through the telescope of a theodolite) coming towards the river along the sea-wall. Could distinguish the crest curling and breaking in places, in others a compact wall. Descended the pagoda, and took up position at low-water level. Water at its lowest for the day.

11.32.—Bore in sight. Height of eye above river  $5\frac{1}{2}$  feet.

11.50.—Bore passed the pagoda. Height over deep channel of river 8 feet. Line of cascade nearly straight across and continuous.

11.58.—Water had risen 10 feet.

1.43 p.m.—Water 16 feet.

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<sup>5</sup> A word of explanation is required here. If the cascade washed the top of the piles at *spring tide*, it would be 6 to 7 feet high at the side and probably 8 to 9 feet over the channel, but the day before new moon the water in the river had not fallen to within 1 foot 6 inches or 2 feet of the level at springs. Consequently the height of the cascade was only 5 to 6 feet.

2.50.—High-water,  $16\frac{1}{2}$  feet.

The water was at its lowest level for the day, and the stream was running out in the deep channel of the river at the time the Bore arrived.

When about 2 miles east of the pagoda, the flood-stream struck the sea-wall with great violence and rebounded. There was a severe rippling on the back of the Bore when it passed the pagoda, but no second roller or cascade.

Mr. GEORGE MOULE had stationed himself, at my request, on the sea-wall, 6 to 7 miles from Hang-chau and between 14 and 16 from Haining. The Bore passed him at 1.5 p.m. and the height was 6 feet.

5th October. Night Bore. The night Bore of the 5th (the period of new moon) was observed from abreast the pagoda. Observer, at first, sitting on the piles which confine the junk shelter. Weather fine, sea calm.

10.37 p.m.—Heard the muttering of the Bore. No doubt it could have been heard before had it not been for the continuous noisy rippling of the outgoing stream in the deep channel. At this time, the flood must have been between 12 and 16 miles distant.

10.45.—Noise very distinct.

11.28.—Junk-men, on top of sea-wall, stated that they could see the Bore.

11.58.—Bore passed pagoda with a loud roar. First rush level with the bottom of the sea-wall at the inner edge of the junk-platform. Height in centre 9 feet.

12.1 a.m.—Junks afloat, and surging against wall.

12.9.—Water had risen to 13 feet. Highest during the night 18 feet.

As far as could be made out in the darkness, the line of cascade was straight across to the opposite sands. Water was at its lowest level at the time the Bore arrived. The

natives said that, *considering the calm weather*, this was a high Bore.

6th October. Day Bore. Observer on highest gallery of pagoda. Weather fine. Sea calm. Light airs from the south.

11.30 a.m.—Sighted Bore coming, as usual, straight from inside Chi-san Cape, along the sea-wall, the highest part being near the wall. The dry sand-flats visible from the pagoda, 5 to 10 miles distant and in line with Chi-san, no doubt prevent the Bore being seen sooner.

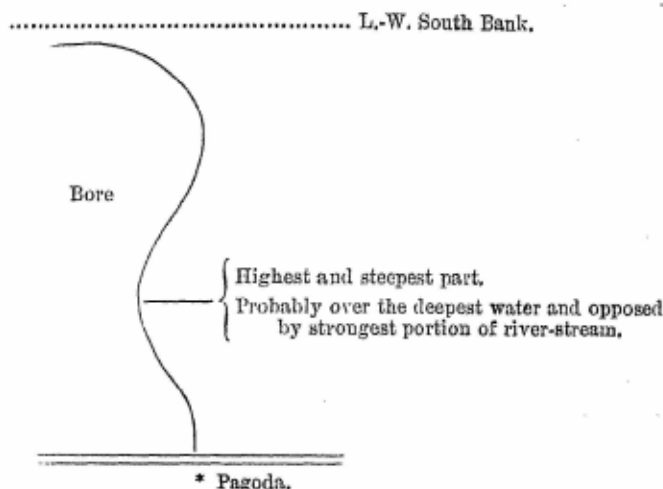
11.57.—A second Bore, not quite so high, was observed approaching from the south-east, with a second roller coming up on its back. The latter, on a closer approach, subsided, and the south-east branch of the Bore presented a uniform appearance. Converging towards each other, the right extreme of the line of breakers extending southward from the sea-wall (the main Bore), and the left extreme of the south-east branch, met at 12.8 with a splash and overlapping roller. The combined line of rollers now extended from the sea-wall to the sand-flats which stretch into the estuary from the south bank of the river, a distance of 2 miles, subtending an angle at the pagoda of  $39^{\circ}$ . Noise distinct.

12.15 p.m.—Flood-stream hit the sea-wall about 2 miles east of the pagoda, and rebounded with great violence, raising a series of breakers behind, but twice as high again as, the front of the Bore. These waves and breakers ran for some distance in a southerly direction, the sea of the estuary becoming violently agitated for two miles, and, after a time, settled down to the mean height of the top of the advancing flood. As the Bore contracted in width to conform to the mouth of the river, the rippling on its back was very severe. The highest part was in the middle, where the opposing rebounds from the sides met. The water was at its



lowest level of the day, and the stream in the river was running out, until the last minute before the Bore arrived.

12.23.—The Bore now marshalled into a fairly straight line of cascade, entirely breaking in a steep slope of bubbling foam, and passed the pagoda with the usual loud noise. The line of cascade was somewhat in this shape:—



The junks moved at once. Height of cascade over the deep channel 9 feet. A severe rippling was travelling on the back of the Bore, but no second roller.

12.29.—Rippling had passed, having extended behind the cascade for about a mile. Eleven junks came up behind the Bore, and swept into the river with the after-rush.

12.40.—Water had risen to 14 feet.

3.19.—High-water 19 feet. Stream commenced to set out of the river.

Mr. GEORGE MOULE observed this Bore from the same place on the sea-wall as on the 5th October. It passed him at 1.32 p.m., height 9 to 10 feet.

6th October. Night Bore. Observer on the sea-wall near Bhota Pagoda. Weather rainy, with moderate S.E. wind.

11.38 p.m.—Heard the muttering of the Bore. The splash of the waves prevented its being heard before.

11.59.—Noise distinct.

12.3 a.m.—Occasionally saw the glint of the foam.

12.35.—Bore passed pagoda with a loud roar. Height 10 feet. As far as could be seen in the darkness, it appeared to be nearly a straight line across the river.

12.42.—Water had risen to 13 feet. During the night, the water rose to  $19\frac{1}{2}$  feet above low-water ordinary springs, 4 feet from the top of the wall abreast the pagoda.

7th October. Day Bore. Moon  $1\frac{1}{2}$  day old. Observer on sea-wall abreast Bhota Pagoda, Haining. Wind from the eastward; force 4 to 5 (BEAUFORT's scale), with rain, and squally appearance to seaward.

12.36 p.m.—Heard the Bore. Too much rain to see far.

12.40.—Noise distinct, though there was talking going on around and sound from the lapping of waves on the sand below.

12.48.—Bore in sight. When between one and two miles east of the pagoda, the flood-stream charged the sea-wall and rebounded with great violence, raising an irregular wall of water behind, but about twice as high again as, the front of the Bore. The top of this mass must have been nearly, if not quite, as high as the level of my eye—which was 28 feet above the level of the river at the time. Nothing could be seen beyond it, and at first I took it to be a part of the distant land. At a cautious calculation, I estimate it to have been, for a period of 3 or 4 minutes, 20 feet above the level of the river at the same spot immediately before the Bore arrived. Before reaching the entrance of the river, it



broke, and tumbled over in a series of magnificent rollers on to the back of the Bore.

12.57.—The Bore passed with a deafening roar, as one continuous cascade from bank to bank, and instantly floated the junks on the shelter. Over the deep channel of the river, the crest of the cascade was 10 to 11 feet high, but there were many waves carried along in the rippling on its back which were 3 to 4 feet higher. For several minutes after it had passed, the bosom of the flood was violently convulsed, heaving to and fro, from one bank to the other, like the ocean surface after it has closed over a sinking vessel, now and again leaving a depression in the centre, and washing up to within 6 feet of the top of the sea-wall.

1.7.—Mean level of water at the wall, 13 feet above low-water springs, *i.e.*, the level of the river before the Bore arrived. The water was at its lowest, and the stream was running out, to the last moment. That portion of the cascade which was over the channel of the river was slightly retarded and steeper than the rest of the line. The Chinese said this was a good Bore, and attributed its violence to the easterly wind in the Hang-chau Gulf.

This concludes the notes on those Bores which I personally observed. Judging by the replies which I received from the natives to questions put at various times, it would appear that none of the cascades I saw were, in their estimation, as high as they often are at spring tides. They expect highest tides and highest Bores in the winter. This, at Haining, where a high or low Bore has a practical bearing upon their daily life. At Hang-chau there is a story that the highest Bore is always on the 18th day of the 8th moon, *i.e.*, three days after the full moon of September; but it certainly was not so this year, and it is difficult to see why it should be so

any year, except when full moon happens to correspond with perigee, which it did nearly in 1887.

I understand that the Society was informed at one of its late meetings that the Bore of the Tsien-tang kiang only occurs at or near the equinox. As the object of our meeting is to fully discuss the subject, I take this opportunity of giving this statement an unqualified contradiction.

The junk-men say that the water has been known to rise within 2 feet of the top of the sea-wall, and to fall 2 feet lower than the lowest I recorded. This would make the range of exceptional spring tides 23 feet.

With reference to our full moon observations, it should be remarked that the range of that spring tide at West Volcano Island was a foot lower than it has been, and 2 feet lower than what may be expected under extraordinary conditions; while the water-marks on the rocks round Rambler Island and the opposite coast indicated a possible tide 17 feet above our computed mean level, and 5 feet above the spring tide, high-water, which we recorded.

The new moon Bores were not assisted by any continuous easterly wind in the Gulf, though a wind sprang up during the last 24 hours of my stay, which no doubt made the night Bore of the 6th October, and the day Bore of the 7th, both higher and earlier than they otherwise would have been. I believe the phenomenon has been, so far, observed under normal conditions, possibly under rather less favourable circumstances than usual. I have no doubt that there are occasions when the crest of the cascade attains a height of 15 feet, and continues at that height for a distance of 14 or 15 miles. A typhoon, or a long continuance of easterly wind blowing into the Gulf, would occasion this.

I will now compare the time of the passage of the Bore, in each case, with the time of the transit of the moon succeeding that to which the origin of the phenomenon is due.

DATE.	A.M. or P.M.	Mean Time Bore passed Pagoda at Haining.	Time of Moon's Transit.	Bore passed before or after.	Interval between Bore passing and ☽ transit.	REMARKS.
		<i>h. m.</i>	<i>h. m.</i>		<i>h. m.</i>	
○ 21st Sept. ...	A.M.	0 20	0 19	A	0 1	Calm.
	P.M.	0 47	0 42	A	0 5	
22nd " ...	A.M.	0 52	1 3	B	0 11	"
	P.M.	1 9	1 24	B	0 15	
● 4th October	A.M.	11 16	10 41	A	0 35	Calm.
5th "	A.M.	11 50	11 33	A	0 17	"
	P.M.	11 58	11 59	B	0 1	"
6th "	P.M.	0 23	0 26	B	0 3	
7th "	A.M.	0 35	0 52	B	0 17	East wind.
	P.M.	0 57	1 20	B	0 23	Strong E. wind.

It appears from this, that the Bore originated by the sudden rise of water in the estuary following the inferior transit of the full moon and the superior transit of the new moon, passes Bhota Pagoda, Haining, precisely at the minute of the superior transit of the full moon and the inferior transit of the new moon. Or speaking generally, it may be said that the Bore passes Haining as the moon crosses the meridian. On very calm days (such as the 4th October) before or after spring tide, it is behind time, and during strong on-shore winds, it comes in early.

The proofs of the speed, and the evidence on which the heights of the different Bores were estimated, will be found in Appendix D. Mr. GEORGE MOULE has made several observations of the times and heights of Bores, which, with his permission, I now lay before the Society.

- (1) From the Ferry of Hang-chau, about 23 miles (by the river) from Haining:—

DATE.	A.M. or P.M.	Mean Time Bore passing.	Time of Moon's Transit.	Interval.	REMARKS.
1886		<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	
23rd October ...	P.M.	3 48	2 16	1 32	High-water at 4 h. 17 m.
2nd November	P.M.	1 10	10 9	3 1	
6th "	P.M.	3 8	1 58	1 10	High-water 6 feet 4 inches.
7th "	P.M.	3 52	3 0	0 52	Seen from the Sa- natorium. Time not to be relied upon to within 5 minutes.
17th "	P.M.	1 45	10 45	3 0	
19th "	P.M.	2 29	0 13	2 16	
20th "	P.M.	3 10	1 0	2 10	High-water 3 feet 8 inches.

From these notes, it will be seen that the time of the Bore passing Hang-chau is exceedingly irregular, owing probably to the shoals below the city. The early Bores are those of highest spring tides, when the difference of level is greatest between the water in the Hang-chau Gulf and the river before the Bore arrives, and when, consequently, the greatest propelling force is at work.

The average time for the Bore to pass Hang-chau about full and change of the moon is 2 hours after the Moon has crossed the meridian, the average height 2 to 3 feet. It is high-water in less than one hour afterwards.

Mr. GEORGE MOULE observed, that when full moon corresponded with apogee, the spring rise was only 3 feet 8 inches, but when new moon corresponded with perigee it was 6 feet 4 inches. The ordinary spring range at Hang-chau may be accepted at 5 to 6 feet.

On 3rd November, Mr. MOULE crossed the river and observed the Bore pass from a point directly opposite the city of Hang-chau. The time was 1 h. 29 m., and the height between 2 and 3 feet. His notes on two Bores about new moon

in October, which were taken on the sea-wall at a position 6 to 7 miles from Hang-chau, have been recorded with my own. The spring rise and fall at this spot was found to be 12 feet (approximate). He observed three Bore about full moon in October from a position on the sea-wall (the Avenue) about 5 miles from Hang-chau and 17 to 18 (along the wall) from Haining.

The times and heights were as follows :—

DATE.	A.M. or P.M.	Mean Time Bore passing.	Moon's Transit.	Interval.	Height.	REMARKS.
1888		<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>feet.</i>	
19th October ...	P.M.	1 11	11 21	1 50	7 to 8	Strong N.N.E. wind.
20th " ...	P.M.	1 30	0 4	1 26	8 " 9	
22nd " ...	P.M.	2 42	1 32	1 10	7 " 8	

Mr. J. A. JACKSON, who was then travelling for the American Bible Society, informs me that in the middle of July 1885, when on his way down the Tsién-tang kiang, he was upset by the Bore. The boat had on board about 20 passengers, 3 of whom were drowned. The accident occurred just before daybreak. The name of the nearest city was Fu-yang, the boat being 15 li from it towards Hang-chau, and about 100 li, or 25 geographical miles, from the latter city. Having obtained a passage in another boat, Mr. JACKSON continued his journey, and had an opportunity of seeing the next Bore from a safe position. He was then about 12 or 13 geographical miles from Hang-chau, and estimated the height of the cascade as 5 feet. The moon was in perigee at 10 a.m. on 12th July 1885, and the phase of new moon occurred at 1 p.m. on the same day. Mr. JACKSON's rough guess at the date was the 19th. He has promised to look at the entries in his journal. I expect he will find that the

accident, which so nearly cost him his life, occurred on the 14th or 15th July.

Lieutenant A. F. BALFOUR, the second in command of the "Rambler," proceeded to Haining at the end of November, and has furnished me with the following observations:—

1st December. Day Bore. Two and a-half days before new moon. Nine junks on the platform and two anchored off it with two anchors out ahead, and riding to the river-stream by a pole driven through a hole in the stern. Sea calm. Observer, first, on the highest gallery of the pagoda.

9.36 a.m.—Bore in sight, coming straight from Chi-san.

9.46.—South-east branch of the Bore in sight.

10.10.—Bore passed pagoda as one continuous cascade from bank to bank, 3 to 4 feet high. The two junks rode over it. Speed did not appear to be nearly as great as that recorded at spring tide. About ten minutes after the main Bore had passed, the south-eastern branch joined the after-rush, and gradually subsided on to the back of the Bore, forming heavy chow-water.

10.26.—Water rose suddenly to 7 feet above the lowest of the day, and there was a marked increase in the strength of the current, due to the second Bore.

10.37.—Junks floated (9 feet).

12.16 p.m.—High-water 14 feet 4 inches. The water was at its lowest for about 2 hours before the Bore arrived, and the stream of the river was running out to the last moment.

1st December. Night Bore. Observer on the sea-wall near the pagoda.

9.47 p.m.—Distinctly heard the muttering of the Bore.

10.39.—Bore passed the pagoda. Height 3 to 4 feet.

10.44.—A sudden rush of water, and rise to 8 feet, due probably to the south-eastern branch of the Bore following the main cascade.

2nd December. Day Bore. Observer, at first, on top of the pagoda. Water of river 3 inches above level of low-water ordinary spring tide. No junks anchored in the river on this day.

10.17 a.m.—Both branches of the Bore in sight. As on the previous day, the south-east branch did not join the main Bore exactly, but ran into it after the latter had passed the usual point of junction. It then appeared to run across the main flood-stream, and strike the sea-wall about 2 miles east of the pagoda, breaking over it, and sending volumes of spray over the trees on the embankment.

10.52.—The main Bore passed pagoda. Height 4 to 5 feet.

10.54.—The south-east branch of the Bore, with a regular front cascade, not quite so high, but travelling much faster than the main Bore, passed pagoda, and appeared to soon overtake the first cascade.<sup>6</sup> The water rose to 8 feet. Two minutes after, it fell to 7 feet, but soon rose again, and at 11.7 was 9 feet above the lowest of the day.

3rd December. Day Bore.

11.35 a.m.—Bore passed pagoda. Height 5 feet.

11.37.—Sudden rush, and rise of water to 9 feet.

4th December. Day Bore.

12.15 p.m.—Bore passed pagoda. Height 10 to 11 feet. Junks floated at once. There was no second rush.

5th December. Day Bore. Observer on top of pagoda. Weather calm. Misty atmosphere.

12 (noon).—Both branches of the Bore in sight. Stream running out very swiftly in the deep channel up to the last moment.

12.48 p.m.—The two branches of the flood met.

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<sup>6</sup> This is the only occasion on which a second cascade has been seen passing Haining.

12.58.—Flood-stream hit the sea-wall and rebounded with great violence. Sea of the estuary agitated for some distance.

1.2.—Bore passed pagoda. Height 10 to 11 feet.

1.12.—Water had risen to 13 feet. Severe rippling on the back of the Bore.

3.46.—High-water 20 feet.

Mr. GEORGE MOULE observed this Bore from a position on the sea-wall, which he had occupied on former occasions, 17 to 18 miles above Haining. The Bore passed him at 2.16. Height 9 to 10 feet.

6th December. Day Bore.

12.55 p.m.—Bore in sight from the sea-wall.

1.40.—Bore passed pagoda. Height 10 to 11 feet.

The Chinese repeated to Lieutenant BALFOUR the statement which they made to me in October, that the Bore passes Haining with every flood-tide throughout the year. Mr. MOULE has proved that this is not the case 16 miles above Haining. Being desirous of settling the point, he visited the sea-wall, 17 to 18 miles above Haining, on the 29th November, on which date the lowest range of tide might be expected—(the last quarter of the moon occurred at 1.20 a.m. on 27th November)—and saw no sign of a Bore. The flood came in with a rush, but there was no cascade.

On his arrival at Haining, Lieutenant BALFOUR found a large section of the western buttress of the Haining platform washed away. The natives told him that this had occurred about 20 days previously. It was new moon on 4th November at 8 a.m., and the planet was in perigee at 11 p.m. on the same day. The Bores which visited the river at these springs were notoriously violent at Hang-chau, several junks being torn from their moorings.

Mr. BALFOUR visited that part of the sea-wall where the rebound takes place, about two miles east of Haining, and



informs me that outside the sea-wall at this part there is a barrier of piles 20 feet wide and 7 feet above low-water spring tide. It extends along the wall for several hundred yards. Outside of this again, but not extending so far east and west, probably limited to where the first charge of the flood is expected, there is a separate breakwater of piles, not so broad, but nearly the same height.

During the full moon Bores in October, and accompanying all Bores observed from the sea-wall between 16 and 18 miles from Haining since that date, immense numbers of duck and other water-fowl have been seen to accompany the cascade. The first time they were noticed by Mr. MOULE, he describes them as appearing as a low, thin cloud across the river, coming in view before his eye was attracted to the white wall of the cascade. On a closer approach, the cloud resolved itself into a gigantic flock of birds, hovering about the edge of the Bore, from 2 to 50 feet above it. Large numbers of duck were also observed floating up in the after-rush. The birds have never been seen in large numbers at Haining, or at the city of Hang-chau, but they seem to hang about the cascade between the two places. It would be interesting to discover the reason of their attraction to the Bore.

The following experience of Archdeacon MOULE's shows that the Bore is felt in a small river, 22 miles south-east of Haining, well out in the estuary:—

“On November 12th, 1867, when returning from Hang-chau to Ningpo, I had entered the river Dzao-ngo (which falls into the T sien-tang near its mouth) at a place called Ts'ing-pu, by means of a buffalo-worked haul-over. The boatmen immediately set to work to scull and pole the boat, so as to reach the haul-over on the opposite bank, two miles up the stream—(the river here is about a quarter

of a mile wide). The tide had run out, however, and there was a dead calm, so we made no way. I was reading in the boat, when a loud shout roused me, and then I heard a roar and a rush, and, looking out, I saw the tidal wave a quarter of a mile off, advancing rapidly. The boatmen shoved off shore, and headed it just in time. The wave stood 3 or 4 feet high. We bumped over the first,—(there were three leading waves),—the second flooded the boat; but safely over the third, there was no more danger. Boats near me fared worse, tilts were knocked off, and cargo washed into the river.”

Dr. MACGOWAN has done his best to give our Bore a very good character for height,<sup>7</sup> but we must not flatter ourselves that it is the highest in the world, for that of the River Amazon is said to attain a height of 180 feet. An animated description of this phenomenon is to be found in the *Dictionnaire de la Conversation*, under the heading “Barre d’un Fleuve, Barre d’Eau,” also in HUGHES’ *Physical Geography*, and ALISON’S *History of Europe*, Chap. 67. The latter version is so artistic that I cannot refrain from quoting it:—

“A vehement struggle ensues at its mouth (that is, the mouth of the River Amazon) between the river flowing down and the tide running up. Twice every day they dispute the pre-eminence, and animals equally with men withdraw from the terrible conflict. In the shock of the enormous masses of water, a ridge of surf and foam is often raised to the height of a hundred and eighty feet; the islands in the neighbourhood are shaken by the strife; the fishers, the boatmen and the alligators withdraw trembling from the shock. At spring tides, such is the vehemence of this collision that

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<sup>7</sup> Paper read before the Society 12th January 1853.

the opposite waves precipitate themselves on each other like hostile armies; the shores are covered to a great distance on either side with volumes of foam; huge rocks, whirled about like barks (*sic*) are tossed up to the surface; and the awful roar re-echoed from island to island, gives the first warning to the far distant mariner that he is approaching the shores of South America."

Members of the Society must examine the accounts of the Bore, or Pororoca (as the Indians call it), of the Amazon, for themselves, and determine how much reliance can be placed on them. Personally, I can only say, that I rose from the perusal of the description quoted above with a feeling of humiliating inferiority, and the conviction that nothing would astonish me in future,—quite prepared, if need be, on turning over the leaves of some other standard history or encyclopædia, to learn that there is a Bore, about the globe somewhere, as high as the ball of St. Paul's Cathedral.

The phenomenon of the Bore is not altogether unknown in the Woosung River, here, at Shanghai.

Mr. R. W. SHAW states, that on one occasion between the 16th September and 13th October 1868, (thinks the date was about 8th October), a Bore came up the Woosung River about 11 a.m.; estimated height 8 to 10 feet. Several sampans capsized, and cargo-boats broke adrift. A sampan, with his dog in it, was capsized end for end, bows first. When it was washed ashore, the dog was found alive underneath. Mr. SHAW's ship (the "Bertha") was, at the time, ashore on the mud below Messrs. BOYD & Co.'s Dock. The Bore floated his ship and threw her against the wharf, which was severely damaged. The small dock was flooded by the water. Captain ANDERSEN, of the "Ping-ching," who remembers the circumstance, is of opinion that the height of the wave was 7 feet.

To return, for one minute, to the special phenomenon which is the object of this paper, I will quote the account given by Dr. MAIN, some years ago, which is the most accurate description I have yet seen:—

“The configuration of the Hangchow Bay and the embouchure of the Tsien-tang river, which flows into it, favours the formation of the tidal phenomenon called a “Bore.” As the tide enters the river, in meeting the stream a watery ridge is formed right across the river, which in rushing against the descending current gradually grows into a perpendicular wall of water, and assumes the form of an advancing cataract, and during the Spring and Autumn equinoxes is sometimes 20 feet high. It is a grand and exciting scene to see it as it rushes past with prodigious violence and at a velocity of about 15 miles an hour.”

The name given to the Bore by the Chinese is simply *Chau*,—(the tide). Sometimes they speak of it at Haining as *Chau-dau*,—(the great tide). I have asked several of them, and they can give no reasonable explanation of the flood coming in this particular manner, but all emphatically declare it to be a bad “Fung-shui.” It is not surprising that they should make such a phenomenon the object of superstition and the theme of romance, devoted as they are to “Fung-shui,” or the occult influence of air and water.

At Haining, the story believed in by the junk-men is this: Many hundred years ago there was a certain general who had obtained many victories over the enemies of the Emperor, and who, being constantly successful and deservedly popular among his countrymen, excited the jealousy of his sovereign, who had for some time observed, with secret wrath, his growing influence. The Emperor accordingly caused him to be assassinated, and thrown into the Tsien-tang, when his spirit conceived the idea of revenging itself by bringing the

tide in from the ocean in such force as to overwhelm the city of Hang-chau, then the magnificent capital of the Empire. As my interpreter, who has been for some years with English-speaking people, put it, "His sowl felt a sort of ugly like arter the many battles he had got for the Emperor." The spirit so far succeeded as to flood a large portion of the country. Becoming alarmed at the distress and loss of property occasioned, the Emperor endeavoured to enter into a sort of compact with the spirit, by burning paper and offering food upon the sea-wall. This, however, did not have the desired effect, as the high tide came in as before, and it was at last determined to erect a pagoda at the spot where the worst breach in the embankment had been made. Hence the origin of the Bhota Pagoda, which induced a "good Fung-shui." After it was built, the flood-tide, though it still continued to come in the shape of a Bore, did not flood the country as before.

Archdeacon MOULE informs me that the natives of Hang-chau hold the Bore in great awe, and are to be found, at certain seasons, worshipping it as the arbiter of their destiny. During the Taeping rebellion, when the city was taken and re-taken several times, and thousands of homeless fugitives were crossing the Tsien-tang daily for two years, the Bore did not come. The channels are constantly altering, and he believes that, owing to some change in the bed of the river, or in the flats in the estuary, the flood did not reach the city in this shape, or, at any rate, the roller was comparatively harmless to what it was before, or has been since, that disturbed time.

Bishop MOULE has been so kind as to send me two legends relating to the Bore of the Tsien-tang, which, with his permission, I submit for the information of the Society. They will be found in Appendix A. It appears that the

phenomenon was known in the early part of the 5th century B.C., and that the embankment was constructed outside the city of Hang-chau 910 A.D. In the *T'ang-shu ti-li-chih*, however, it is mentioned that "In Yen-kuan, in Yü-hang of Hang-chou, there is a sea-wall (*han-hai-t'ang-ti*) 124 li long, which was rebuilt in the first year of K'ai-yuan (713 A.D.) In the earlier legend, there is an expression which would seem to indicate that the estuary or river had then a somewhat different formation, sufficient to delay the flood by two hours,—“whenever it came again at dawn and dusk, it had a wrathful sound. . . .” This is a distinct allusion to spring tide, and could only refer to the Bore, which it will be observed arrives off Hang-chau, in the present day, about 4 p.m. on the third day after full or new moon.

The causes of the Bore are three:—

- 1.—The funnel or delta shape of the Hang-chau Gulf, which is open to the eastward, directly in front of the tidal wave from the Pacific Ocean. It is 50 to 60 miles wide at the mouth, about 10 miles at the narrower part where navigation ends, and the general depth is much greater across the mouth than it is in the western part.
- 2.—The large area of sand-flats at the head of the Gulf.
- 3.—The outgoing stream from the Tsien-tang kiang.

The Chusan Archipelago is remarkable for its swift tidal streams, which attain a velocity, in certain channels, of 8 knots an hour at spring tide. Last May, it was remarked by the officers of the “*Rambler*” that the time of high-water among the Volcano Islands was very different from that at Chang-tau harbour, although the distance between the two places was small; and it was arranged to erect the tide-pole at West Volcano Island, in any case necessary for the reduc-

tion of soundings in the western half of our survey, before the Chang-tau pole was taken down, and to carry out simultaneous observations of the level of the water, about the change of the moon early in September. The result showed that the apex of the tidal wave took two hours to travel between these two stations, and that at certain times of tide, fluctuating between the third and fourth hours of the flood, and between the fourth and sixth hours of the ebb at Chang-tau harbour, there was a considerable difference of level of the water, amounting at spring range to over 5 feet.

The comparisons between the levels at various times are shown in Appendix B. On reviewing these, it no longer causes any wonder that the tidal stream between the two stations should get up a velocity of 5 knots an hour, and in narrow straits as much as 7 or 8 knots an hour; and it is harmonious with the register, that the greatest speed should occur, as the current log kept on board the ship shows is the case, when it is about high or low water at Chang-tau, that is, when the difference of level is neither greatest nor least, but half way between, or when the sea is in the middle of its struggle to regain equilibrium, and has succeeded in reducing the difference of level between the two stations to one-half the maximum of that tide.

On the 8th September, the tide-pole at Chang-tau was embarked, and on the 20th it was erected at Rambler Island. The distance between Rambler Island and West Volcano Island is 46 miles, and the difference of establishment, that is, the time occupied by the tidal wave in passing from one to the other, is only one hour; but whereas at the latter station the range of tide is 12 feet at springs, at the former it is, owing to the configuration of the Hang-chau Gulf, 25 feet, and, under certain conditions of wind and position of the moon in her orbit, as much as 34 feet. Appendix C.

shows the comparison between the level of the water at Rambler Island and West Volcano Island for every half-hour from noon on 20th September 1888 to midnight on 22nd September.

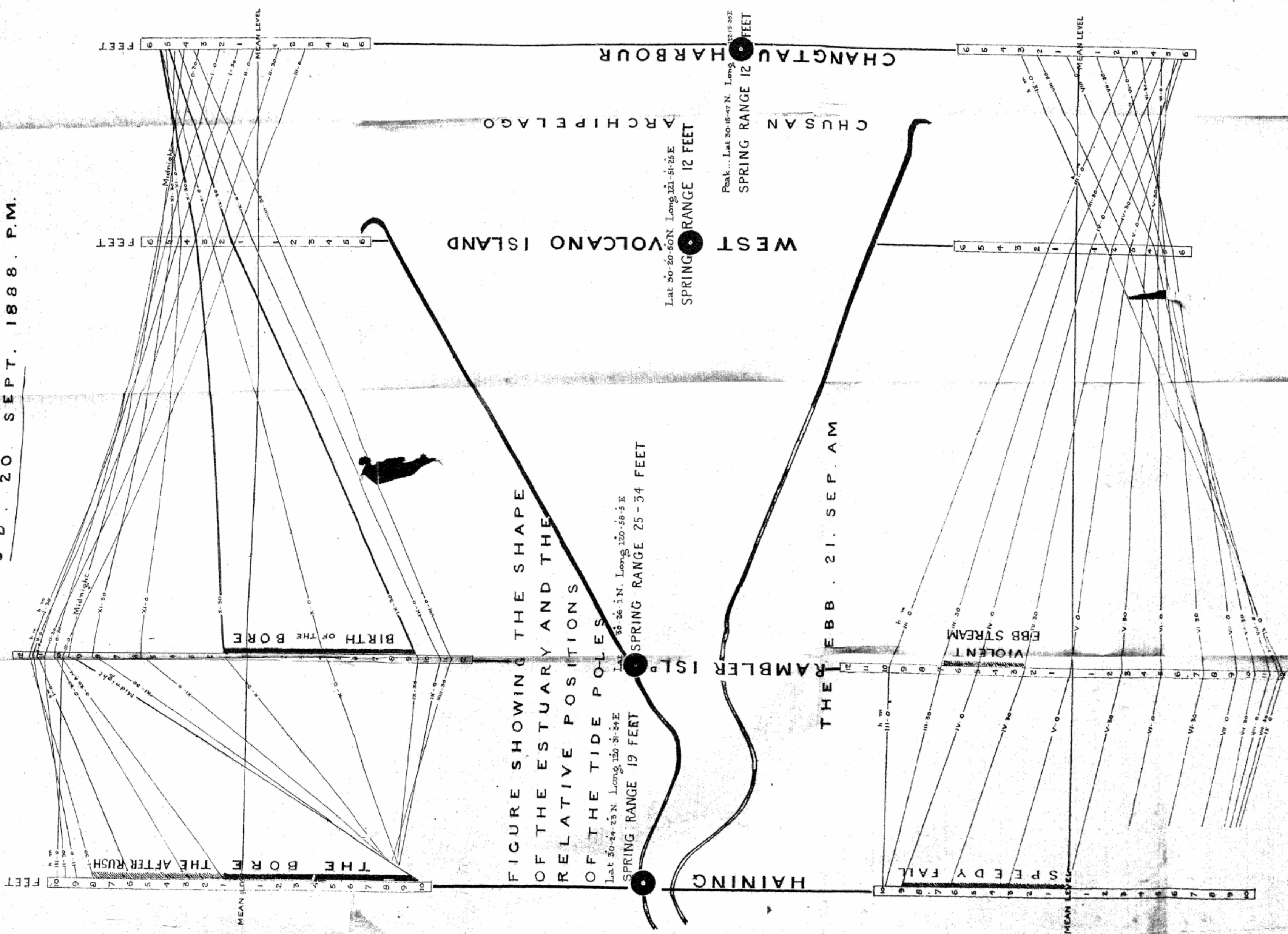
It became of importance to institute a similar comparison between Rambler Island and the Tsien-tang kiang. Unfortunately, this was not practicable. Tide-poles were taken away in the boats for the purpose, but the difficulty of navigating the river and sheltering the boats, rendered any exhaustive inquiry into the half-hourly movements of the water impossible. Times of high and low water have, however, been obtained, also the range of spring tide, and a knowledge has been gained of the times of mean level and no tide. These are entered in Appendix C.

On inspection of the tables, it will be noticed that about an hour before it is high-water at Chang-tau, when the sea is between one and two feet above mean level at West Volcano Island, the water goes up at Rambler Island from 9 feet below mean level to 2 feet above it in one hour, bringing the difference of level between the two stations from 10 feet (West Volcano highest) to 2 feet (West Volcano also highest), the rise at Rambler Island being five times as much as that at West Volcano Island, or just in that proportion which the breadth of the estuary at the former place bears inversely to the width of the mouth where West Volcano is situated. Here are the elements of a tremendous force:—water banking up into the small end of a funnel, running down hill, and having in front of it a vast field of sand, the greater portion of which is dry when that force is set in motion, and indeed for some minutes afterwards. Presently the water begins to set over the flats slowly, but no doubt with more velocity and tumult through the very narrow channels kept open by the Tsien-tang kiang. When the sands are covered



DIAGRAM OF SIMULTANEOUS LEVELS OF THE WATER:  
SHOWING THE PROJECTION OF THE BORE: THE AFTER  
RUSH AND SPEEDY FALL.

THE FLOOD. 20 SEPT. 1888. P.M.



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with 2 feet of water, the flood-streams run with great impetuosity. Friction, caused by the ground and by the swift outgoing streams of the river, impedes it; an overfall is formed, first, no doubt, and always higher, in the channels. By and by a greater volume overlays the first of the flood, and having less to contend against, runs forward and falls in front, also to be checked by the river-stream, and so on until in half-an-hour the Bore is formed, and as more water is shot in from behind, it gathers in height, and acquires sufficient strength to proceed on its course towards the river. It cannot take long to form, for the interval between the beginning of the quick rise at Rambler Island and the time of the Bore passing Haining, is two and a-half hours, and the distance between the two places is 29 miles. The difference of level between Rambler Island and the river at the time the two branches of the Bore effect a junction, and it commences to contract in width, is 19 feet. The flood is probably travelling faster at that time than at any previous period. The accompanying diagram will help to show the great differences of level which result in the projection of the Bore, the force which propels it for so many miles, and the reason of the velocity of the after-rush which follows the cascade, and which drove our boats 3 miles from their anchorage on the night of the 20th September. It will be seen that the difference of level between the water at Rambler Island and at Haining is 4 to 6 feet for an hour after the Bore has passed the latter place, and decreases very slowly up to the time of high-water in the river. The water at Rambler Island is then falling fast, and has come down to the level of that at Haining. As the estuary at Rambler Island is four times as broad as the river, and the force of the moon's attraction does not, so far as the river is concerned, enter into the question, directly the water at this station falls below

that of Haining, the stream must inevitably set out of the river,—and we found that it did so, directly after high-water. The river falls very rapidly, following close upon the water at Rambler Island, which is in the full swing of its downward course when the water in the river has only just begun; it is at mean level two hours after high-water, at the fifth hour ebb it is nearly low-water, the last foot dribbles away very slowly, and for two hours before the arrival of the Bore the water falls only 3 or 4 inches. The stream, however, of the river continues to make out fast along the channels, and is found opposing the Bore, which it helps to create. At Rambler Island the ebb-stream was found to be strongest between the second and third hours' fall, and to be practically nil after the fourth hour. The damage to our cable occurred in two cases after the second hour. The tables show that the difference of level between Rambler Island and West Volcano Island is then about half the maximum—West Volcano lowest,—and that at the fourth hour ebb, the two stations are on the same level. The stream from the river still flows out with great strength, but is expanding to the greater breadth of the estuary and quickly losing its speed.

I will now combine Appendices B. and C., which will show the levels from which the diagram is drawn, noting that it is H. W., F. & C. of the moon, at Chang-tau Island 10 h. 14 m., at West Volcano Island 0 h. 19 m., Rambler Island 1 h. 27 m., Haining 3 h. 0 m., and Hang-chau 3 h. 0 m., (approximate). The Bore passes Haining at 0 h. 0 m., and the city of Hang-chau between 1 h. 30 m. and 2 h. 30 m., according to circumstances.

To trace the progress and inclination of the tidal waves which followed the full moon of 20th September, from the ocean to the Hang-chau estuary, it will be sufficiently accurate to adopt the differences of level observed between West

Volcano Island and Chang-tau harbour on the 6th and 7th September, as the time and height of high-water at West Volcano Island were the same on both full and change of the moon.

DATE.	Difference of Level between Rambler Island and West Volcano Island.		West Volcano Highest or Lowest.	Difference of Level between Changtau Harbour and West Volcano Island.		West Volcano Highest or Lowest.	Difference of Level between Rambler Island and Changtau Harbour.		Changtau Highest or Lowest
20th Sept. 1888.	<i>ft.</i>	<i>in.</i>		<i>ft.</i>	<i>in.</i>		<i>ft.</i>	<i>in.</i>	
<i>h.</i> <i>m.</i>									
Noon	3	10	L	1	10	H	5	8	L
0 30 p.m.	5	0	L	2	5	H	7	5	L
1 0	6	5	L	3	2	H	9	7	L
1 30	7	4	L	3	6	H	10	10	L
2 0	8	0	L	3	7	H	11	7	L
2 30	8	7	L	3	8	H	12	3	L
3 0	8	2	L	3	10	H	12	0	L
3 30	4	8	L	3	10	H	8	6	L
4 0	5	1	L	3	4	H	8	5	L
4 30	4	0	L	2	8	H	6	8	L
5 0	2	0	L	1	6	H	3	6	L
5 30	0	2	H	0	3	L	0	5	H
6 0	1	9	H	1	8	L	3	5	H
6 30	3	7	H	3	1	L	6	8	H
7 0	5	6	H	4	2	L	9	8	H
7 30	7	2	H	4	8	L	11	10	H
8 0	8	10	H	4	11	L	13	9	H
8 30	10	3	H	4	8	L	14	11	H
9 0	11	1	H	4	1	L	15	2	H
9 30	10	4	H	3	4	L	13	8	H
10 0	6	10	H	2	9	L	9	7	H
10 30	2	3	H	1	11	L	4	2	H
11 0	1	5	L	0	10	L	0	7	H
11 30	3	4	L	0	3	H	3	7	L
Midnight	4	0	L	1	5	H	5	5	L
21st Sept. 1888.									
<i>h.</i> <i>m.</i>									
0 30 a.m.	4	9	L	2	3	H	7	0	L
1 0	6	1	L	3	1	H	9	2	L
1 30	7	1	L	3	4	H	10	5	L
2 0	7	10	L	3	4	H	11	2	L
2 30	8	6	L	3	7	H	12	1	L
3 0	8	6	L	3	11	H	12	5	L
3 30	6	9	L	4	1	H	10	10	L
4 0	5	9	L	3	11	H	9	8	L
4 30	4	4	L	3	9	H	8	1	L

DATE.	Difference of Level between Rambler Island and West Volcano Island.		West Volcano Highest or Lowest.	Difference of Level between Changtau Harbour and West Volcano Island.		West Volcano Highest or Lowest.	Difference of Level between Rambler Island and Changtau Harbour.		Changtau Highest or Lowest.
21st Sept. 1888.									
A. M.	ft.	in.		ft.	in.		ft.	in.	
5 0 A.M.	2	11	L	2	11	H	5	10	L
5 30	1	2	L	1	7	H	2	9	L
6 0	0	6	H	0	0	—	0	6	L
6 30	2	5	H	1	8	L	4	1	H
7 0	3	9	H	3	4	L	7	1	H
7 30	5	1	H	4	6	L	9	7	H
8 0	6	10	H	5	0	L	11	10	H
8 30	8	11	H	5	0	L	13	11	H
9 0	10	4	H	4	8	L	15	0	H
9 30	11	1	H	4	6	L	15	7	H
10 0	10	2	H	3	8	L	13	10	H
10 30	5	1	H	2	10	L	7	11	H
11 0	0	3	H	1	7	L	1	10	H
11 30	1	5	L	0	6	H	0	11	L
Noon	3	8	L	0	5	H	4	1	L
0 30 p.m.	4	6	L	1	7	H	6	1	L
1 0	5	4	L	2	5	H	7	9	L
1 30	6	2	L	3	2	H	9	4	L
2 0	7	4	L	3	4	H	10	8	L
2 30	8	2	L	3	7	H	11	9	L
3 0	8	7	L	3	10	H	12	5	L

This table shows that two hours before high-water at Chang-tau, when the apex of the tidal wave is over the deep water of the ocean, there is a difference of level of 15 feet between the water at Chang-tau harbour and Rambler Island. There is no indication of remarkable pressure at West Volcano Island, which is at the mouth of the Hang-chau Gulf, but an hour later, when the apex of the wave is nearing the Chusan Archipelago, there is great pressure on the water in the Hang-chau estuary, and the difference of level of the water between Chang-tau and Rambler Island reduces 13 feet in one hour and a-half. Judging by the analogous case of Chang-tau and West Volcano, the strongest flood-stream would be when this difference is reduced by one-half,

that is to say, when the water is in its full swing of effort to regain equilibrium. It is then high-water at Chang-tau, and the Bore forms west of Rambler Island.

The Bore cannot be accurately described as a wave. It is in no sense an undulation, nor is there any depression after it has passed. The same particles of water which rise with such a significant jump in the neighbourhood of Rambler Island, are precipitated over the vast bar of sand into the T sien-tang. It is in this that the danger to shipping lies. In its effort to find equilibrium, the flood is travelling at a rate of 12 to 13 miles an hour, and overcomes everything in its progress. A wave, or two waves, of 6 to 10 feet in height may be met with good anchors and cables. Not so the Bore. A vessel moored off Haining would, in my opinion, be completely overwhelmed in a good spring-tide Bore, such as is described by the natives as happening occasionally during the winter months.

So far from there being any depression behind the cascade, our observations show that it is always succeeded by a rise of 3 or 4 feet of water. If the estuary terminated at Rambler Island, or the next cape in the gulf, to the south-west, we should probably see a rise of 50 or 60 feet, as in the Bay of Fundy; but the outlet being there, the pent-up waters discharge themselves through it, and as soon as the level of the sea at their source falls, they fall also. If asked for a brief definition of the Eagre or Bore, I would say: Two-thirds of the flood-range of the day arrives in the river, at any given spot, in a quarter of an hour, and in such a form as to show the observer a well-defined body of water, advancing at a high speed, many feet above the level of the river where he is situated. The front or crest of this flood is in the shape of a bubbling cascade of foam, about as high as the mean river-level, pounding itself and the sea in front of it in

precisely the same manner as the first onset of the ordinary flood-tide on a stretch of sand.

Anyone who has witnessed the coming-in of the flood on the sand-flats, at Weston-super-Mare, for instance, has seen a Bore on a miniature scale. On a very calm day, standing on the sea-wall, I found it difficult, if the Bore was a small one, to divest my mind of the idea that I was looking at the same sort of thing. The placid river became sand in imagination, and the regular line of foam nothing but a bigger and noisier ripple. In boisterous weather the scene is different; there is the same bubbling cascade, but the line is not so regular, squalls in the estuary appear to be whipping up the flood, the waves in the river destroy the illusion of sand, the fierce rebound from the sea-wall, the irregular rippling on the back of the Bore, with its waves tossed hither and thither and throwing up clouds of spray, the height, and the noise, all remind the spectator that he is looking upon one of the violent forces of nature.

From the shallow side of the river, that is, the south bank at Haining, and the north bank at the city, the pounding cascade does not strike the attention so much as the breakers along the side of the Bore.

It is improbable that the cascade ever exceeds 15 or 16 feet, as the first rush of the flood depends upon the quick rise in the neighbourhood of Rambler Island, and there is no reason to suppose that, even in a typhoon, this ever exceeds by 6 feet what was recorded by the "Rambler's" party. Bishop MOULE estimates 15 feet as the height of one Bore which he saw from the sea-wall about 5 miles east of Hang-chau. Dr. MAIN,<sup>8</sup> of the Church Missionary

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<sup>8</sup> Dr. MAIN attempted to race the Bore on horseback along the sea-wall. He succeeded in keeping up with it for a few minutes at full gallop, his horse exerting itself to the utmost.



Society, measured down the wall, at the same spot, on one occasion, before the Bore arrived and after it had passed, and made the difference 12 feet.

The effect of a rebound from the sea-wall, such as happens daily east of Haining, is to raise water from 5 to 15 feet above the Bore, making a total of 20 to 30 feet under exceptional circumstances, but only for a few minutes.

The locality where the flood ceases to form mere rippings, and to create a Bore, no doubt varies very much with the wind at the mouth of the Gulf, the age of the moon, and the strength of the outgoing stream of the river.

On rare occasions, it is something more than a mere overfall at Chapu, 40 miles from Haining; but, as a rule, an ordinary spring-tide Bore would form a few miles east of Chi-san, 12 to 16 miles from Haining. I have heard the muttering 1 h. 20 m. before the Bore arrived, and at that time it could not be less than 12 miles distant. It is improbable that I heard it immediately it was formed, because I had very little experience of the sound, and there was a certain amount of noise around, caused by the lapping of the waves, and rippling of the river-stream.

The position where the Bore vanishes, and nothing remains but a swift rush, is also variable.

Bishop MOULE experienced the Bore on the 29th May this year (1888), three days after full moon in perigee, at a place on a branch of the Tsién-tang kiang which is 18 or 19 miles above Hang-chau and about 41 miles from Haining. His notes on the occurrence will be found in Appendix D., and will, no doubt, be examined with keen interest by Members of the Society, as exemplifying the extraordinary impetus of the flood on certain rare occasions. As a rule, the Bore expires just above the city of Hang-chau. Its usual life, then, is 3 to 4 hours, during which time it travels 35 to 40

miles, but under certain rare combinations of wind, perigee spring-tides, and unusual stream from the river, it may have a life of 8 or 9 hours and travel as much as 80 to 90 miles. The sound in the distance is peculiar, and not exactly like any other. It most resembles the leaden noise of breakers on a distant coral reef, being a continuous muttering, broken only by an occasional dull thud, indicating some new addition to the flood or some exceptionally heavy breaker. As it approaches, the sound increases very gradually until it passes with a roar but little inferior to the rapids below Niagara. A few minutes after it has passed, nothing is heard or seen, the river has filled up to the level of the Bore, and no vibration from the foot of the cascade can penetrate the flood above it.

To sum up, from observations made at full and change of the moon, and information received from reliable witnesses, I feel justified in coming to the following general conclusions:—

At full and change of the moon, the Bore of the Tsientang Kiang originates between 10 h. 0 m. and 10 h. 30 m. in the neighbourhood of the meridian of Chi-san, a conspicuous headland 12 miles E.S.E. from Haining. On a still night, it can be heard from Haining, within half-an-hour after it has formed, and on a fine day it can be seen with a good telescope about the same distance.<sup>9</sup> It is divided into two branches, one of which keeps along the north shore of the estuary, touching the sea-wall with its north extreme and the sands with its south extreme; this is the main Bore, and the highest. The other appears in view at Haining from a south-easterly direction, touching sand on both sides. When 4 miles from Haining, the branches join, the right extreme of the first with the left extreme of the second,

<sup>9</sup> From the top of the pagoda.

making a continuous white line 2 miles in length. Shortly afterwards, the Bore commences to contract in width, increase in speed, and rise in height, conforming to the mouth of the river. When 2 miles from Haining, the flood-stream (probably that from the south-east,) runs through the other, or deflects the course of the whole, and charges into the sea-wall. There is no particular effect at the wall itself, but a violent rebound, causing a tumultuous rising of the water in waves, several hundred yards behind, but twice as high again as the front of the Bore. These waves are in existence for many minutes, travelling in a southerly or south-westerly direction, and, after a time, subside on to the back of the Bore. Precisely as the moon crosses the meridian, the Bore passes Haining, where it is nearly a straight line across the river, 9 cables wide, 8 to 12 feet high, and travelling between 12 and 13 knots<sup>10</sup> an hour, its front being a uniform, sloping cascade of bubbling foam, falling forward and pounding on itself, and on the river before it, at an angle of between 40° and 70°. The highest and steepest part is over the deep channel of the river. The north edge of the flood swells up to the sea-wall as it goes along; but the south side, meeting as it does a very gradual incline of sand, which rises only 19 feet in 1·4 miles, trails away in a tapering wall of very deliberate breakers, which end half-a-mile behind, where the Bore had passed 3 or 4 minutes previously. The river fills up to the level of the Bore soon after it goes by, but not evenly. The height, speed and regular appearance of the front are maintained for 16 miles above Haining, after which the Bore decreases in height, and passes the city of Hang-chau about 2 h. 0 m., soon to break up and disappear. The stream behind the

<sup>10</sup> A cable is one-tenth of a sea mile. A knot is a sea or geographical mile.

Bore, which I have designated the "after-rush," runs at a speed of about 10 knots<sup>11</sup> for one hour, and then diminishes to between 8 and 5 knots for the last two hours of the flood. A quarter of an hour after the Bore has passed Haining, the water has risen to 13 or 14 feet, and at 2 h. 0 m. to 18 feet. It is high-water, 19 feet, at 3 h. 0 m., and the stream at once commences to run out swiftly. At 5 h. 0 m. the river is at mean level, at 8 h. 0 m. it is nearly low-water. The outgoing stream, however, continues to run to the eastward with considerable velocity until the arrival of the next Bore. The water in the river is at its lowest for the two hours preceding the Bore. It is high-water at the city of Hang-chau about the same time as at Haining, but the rise and fall does not exceed 6 feet. At Haining, therefore, the flood lasts for 3 hours, the ebb, if such it may be called, for 9 hours. At the city, the flood continues for about an hour, and is nearly all in the Bore. There is no place, east of the city, where boats can be secured in safety  $2\frac{1}{2}$  hours after high-water. Boats drawing as much as 3 feet must look out for a berth  $1\frac{1}{2}$  hour after high-water. Traffic between Haining and Hang-chau begins soon after the Bore has passed, and ends 2 hours after high-water, a period of from 3 to 4 hours. On the right or south bank of the Tsien-tang kiang, the stream (at any rate for 5 or 6 miles within the mouth) commences to run out strong an hour before high-water at Haining. The reason of this has yet to be investigated. I offer it, as a possible explanation, that this may be the deflected river-water shoved on one side, so to speak, by the advancing Bore. Should any Members of the Society visit the south bank of the river, it would be well to take a hydrometer, and make an attempt to solve this interesting

<sup>11</sup> It will be remembered that I am describing an ordinary spring-tide Bore.

question. Opposite the city, the Bore, if it occurs at all, is not regarded in any way as dangerous for 15 or 20 days in the month. At Haining, the natives state positively that it comes with every flood-tide, but that in calm weather, at neap tides, it is only 2 or 3 feet high. It is probably always dangerous for boats on account of its speed. At springs, I have shown, it is most formidable, even for ships. Navigation in the river, or in the estuary, as far east as Chi-san, is out of the question.

The regularity of the appearance and shape of the Bore, the distance at which it is heard at night and seen by day, its charge against the sea-wall, its speed, height, gleaming front, and thundering roar as it tears past the observer, render it, in my opinion, a most impressive phenomenon.

Those who wish to see it at its best should take care to be at Haining 2 days after full or new moon, avoiding the epochs when these phases correspond with apogee. The best Bores of 1889 will be on the following dates: May 17th, 18th and 19th, June 16th and 17th, July 15th and 16th, November 25th and 26th. The Night Bores will be the highest, except in November.

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## APPENDIX A.

Extract from "Topography of West Lake, Hang-chow"  
(*Hsi-jui-chi*, sec. 45, fol. 2):—

With regard to the tide of the Tsien-tang, there is an old legend that Wu Tsze-sü, after frequent remonstrances with the prince (Fu-ch'a of the feudal state of Wu) without result, was condemned to death but permitted to die by his own sword. When about to die, he charged his son in these words. 'Pluck out my eyes at the south gate, that 'I may see the army of Yüeh,<sup>12</sup> coming to ravage Wu. Take the 'skin of a *ti* fish' (*Silurus*, says WILLIAMS' Dictionary, evidently a large species) 'wrap in it my corpse, and fling me into the river. 'Then at dawn and dusk I shall come on the tide to gaze on the fall ' (or defeat) of Wu.'

From that time the tide-head at Tide-gate Hill came hurtling up, several hundred feet high, overleaping the sea-wall and passing Yü-pü (Fish Creek), after which it generally subsided. Whenever it came again at dawn and dusk, it had a wrathful sound, and the swift rush of thunder and lightning, and could be heard more than a hundred *li* off. Then might be seen, in the midst of the tide-head, Tsze-sü sitting in a funeral car drawn by white horses. Whereupon they built a temple to appease him with sacrifice.

Note by Bishop MOULE:—

The date of this legendary event is early in the 5th century B.C., when, according to MAYERS (*Chinese Reader's Manual*), Fu-ch'a and his minister lived and died. MAYERS makes Tsze-sü, after his suicide, to have been sewn up in a *wine-skin* and flung into the river near Soochow. This is perhaps a mistake for Hang-chow. MAYERS identifies the state of Wu with Keangsu, but it certainly at one time included Chekiang as far as the left bank of the Tsien-tang.

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<sup>12</sup> On the right bank of the Tsien-tang kiang.

From the *Jin-ho Hsien-chi* (Topography of the district Jin-ho, one of the two divisions of the Department of Hang-chow) sec. 12, fol. 15 :—

The T sien-tang river unites in a (common) boundary the districts of Jin and T sien. Originally its liability to the incursions of the sea-tide was the calamity of the men of Hang-chow, and there was no device of any value for restraining it. Under the later Liang dynasty, in the 8th moon of the 4th year of K'ai-ping (A.D. 910) Prince T sien Wu-suh at length built—without the How-ch'aou and T'ung-chiang gates ("await-tide" and "open on river"—approximately the present S.E. angle gate and the one next it to the east)—a dyke to meet the tide-water. Day and night the work of piling and ramming the earthen walls was pressed forward without result. Whereupon he (the Prince) ordered some hundreds of valiant cross-bowmen to face the west (? up stream) and shoot arrows with a view to stay the fury of the tide. Again, he caused prayer to be offered on the hill Sū (within present city wall), whereupon, the tide-water retiring abashed, he made bamboo bands, piled huge stones, and drove in large trees. When the dyke was fully completed, after some time they founded a walled city. All that is now high and dry plain was formerly shifting, alluvial soil.

**Note by Bishop MOULE :—**

T sien Wu-suh is said to have been a leader of salt-smugglers, who, for services against a band of rebels, was first made a local governor, and then a tributary Prince, a rank which was held by his son and grandson till the latter resigned his authority into the hands of the Emperor of the great Sung Dyansty (see MAYERS' *Chinese Reader's Manual*, Art. 772 to 774). Inscriptions bearing the date and style of the last Prince are still to be read over the great south gate of Hang-chow.

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## APPENDIX B.

Simultaneous Observations of the Distance of Water from mean sea level at Chang-tau harbour and West Volcano Island, 4th to 8th September 1888.

[N.B.—In the following table “a” indicates above and “b” indicates below mean level respectively.]

DATE.	ABOVE OR BELOW M.L.				Difference of Level.	REMARKS.
	Chang-tau.		W. Volcano.			
4th Sept. 1888. h. m.	ft.	in.	ft.	in.	ft. in.	
4 0 p.m.	b 4	4	b 4	7	0 3	
4 30	b 3	7	b 5	1	1 6	
5 0	b 2	8	b 5	0	2 4	
5 30	b 1	6	b 4	7	3 1	
6 0	b 0	2	b 3	8	3 6	
6 30	a 1	3	b 2	6	3 9	
7 0	a 2	7	b 1	1	3 8	
7 30	a 3	8	b 0	1	3 9	
8 0	a 4	5	a 1	2	3 3	
8 30	a 5	1	a 2	5	2 8	
9 0	a 5	4	a 3	7	1 9	9 h. 5 m. high-water, Chang-tau harbour.
9 30	a 5	3	a 4	8	0 7	
10 0	a 5	0	a 5	4	0 4	
10 30	a 4	5	a 5	6	1 1	
11 0	a 3	9	a 5	2	1 5	
11 30	a 3	2	a 4	10	1 8	
Midnight	a 2	4	a 4	4	2 0	
5th Sept. 1888. h. m.						
0 30 a.m.	a 1	4	a 3	9	2 5	
1 0	a 0	3	a 3	2	2 11	
1 30	b 0	10	a 2	6	3 4	
2 0	b 1	10	a 1	4	3 2	
2 30	b 2	9	a 0	4	3 1	
3 0	b 3	8	b 0	9	2 11	
3 30	b 4	0	b 1	9	2 3	
4 0	b 4	1	b 2	7	1 6	
4 30	b 3	11	b 3	5	0 6	
5 0	b 3	5	b 4	4	0 11	
5 30	b 2	7	b 4	9	2 2	
6 0	b 1	6	b 4	10	3 4	
6 30	b 0	3	b 4	3	4 0	
7 0	a 0	10	b 3	2	4 0	
						9 h. 55 m. low-water, Chang-tau.



DATE.	ABOVE OR BELOW M.L.				Difference of Level.	REMARKS.
	Chang-tau.		W. Volcano.			
5th Sept. 1888.	ft.	in.	ft.	in.	ft. in.	
h. m.						
7 30 a.m.	a	1 11	b	2 0	3 11	9 h. 5 m. high-water, Chang-tau.
8 0	a	2 9	b	1 0	3 9	
8 30	a	3 4	a	0 1	3 3	
9 0	a	3 6	a	1 0	2 6	
9 30	a	3 5	a	1 10	1 7	
10 0	a	3 2	a	2 8	0 6	
10 30	a	2 10	a	3 1	0 3	
11 0	a	2 6	a	3 9	1 3	
11 30	a	1 11	a	3 9	1 10	
Noon	a	1 0	a	3 5	2 5	
0 30 p.m.		0 0	a	2 11	2 11	3 h. 50 m. low-water, Chang-tau.
1 0	b	1 1	a	2 2	3 3	
1 30	b	2 4	a	1 0	3 4	
2 0	b	3 5	a	0 2	3 7	
2 30	b	4 4	b	0 10	3 6	
3 0	b	4 11	b	1 8	3 3	
3 30	b	5 5	b	2 7	2 10	
4 0	b	5 6	b	3 6	2 0	
4 30	b	5 2	b	4 3	0 11	
5 0	b	4 5	b	5 0	0 7	
5 30	b	3 6	b	5 6	2 0	9 h. 45 m. high-water, Chang-tau.
6 0	b	2 6	b	5 6	3 0	
6 30	b	1 2	b	4 9	3 7	
7 0	a	0 5	b	3 5	3 10	
7 30	a	2 0	b	2 4	4 4	
8 0	a	4 0	b	1 5	5 5	
8 30	a	4 9	a	0 4	4 5	
9 0	a	5 2	a	2 2	3 0	
9 30	a	5 5	a	3 7	1 10	
10 0	a	5 5	a	4 7	0 10	
10 30	a	5 2	a	5 5	0 3	4 h. 35 m. low-water, Chang-tau.
11 0	a	4 9	a	5 9	1 0	
11 30	a	4 3	a	5 10	1 7	
Midnight	a	3 7	a	5 9	2 2	
6th Sept. 1888.						
h. m.						
0 30 a.m.	a	2 5	a	5 5	3 0	4 h. 35 m. low-water, Chang-tau.
1 0	a	1 3	a	4 6	3 3	
1 30	a	0 2	a	3 5	3 3	
2 0	b	1 0	a	2 2	3 2	
2 30	b	2 2	a	0 11	3 1	
3 0	b	3 2	b	0 1	3 1	
3 30	b	4 0	b	1 2	2 10	
4 0	b	4 6	b	1 10	2 8	
4 30	b	4 8	b	2 7	2 1	
5 0	b	4 7	b	3 8	0 11	
5 30	b	4 4	b	4 7	0 3	

DATE.	ABOVE OR BELOW M.L.		Difference of Level.	REMARKS.
	Chang-tau.	W. Volcano.		
6th Sept. 1888.	ft. in.	ft. in.	ft. in.	
h. m.				
6 0 a.m.	b 3 5	b 5 5	2 0	
6 30	b 2 1	b 5 7	3 6	
7 0	b 0 11	b 5 1	4 2	
7 30	a 0 4	b 3 11	4 3	
8 0	a 1 6	b 2 7	4 1	
8 30	a 2 10	b 1 5	4 3	
9 0	a 3 5	b 0 3	3 8	
9 30	a 3 8	a 0 9	2 11	9 h. 45 m. high-water, Chang-tau.
10 0	a 3 8	a 1 9	1 11	
10 30	a 3 6	a 2 7	0 11	
11 0	a 3 2	a 3 1	0 1	
11 30	a 2 7	a 3 7	1 0	
Noon	a 1 11	a 3 9	1 10	
0 30 p.m.	a 1 0	a 3 5	2 5	
1 0	b 0 1	a 3 1	3 2	
1 30	b 1 3	a 2 3	3 6	
2 0	b 2 5	a 1 2	3 7	
2 30	b 3 8	0 0	3 8	
3 0	b 4 10	b 1 0	3 10	
3 30	b 5 10	b 2 0	3 10	
4 0	b 6 4	b 3 0	3 4	
4 30	b 6 7	b 3 11	2 8	4 h. 40 m. low-water, Chang-tau.
5 0	b 6 5	b 4 11	1 6	
5 30	b 5 9	b 6 0	0 3	
6 0	b 4 10	b 6 6	1 8	
6 30	b 3 7	b 6 8	3 1	
7 0	b 2 1	b 6 3	4 2	
7 30	b 0 1	b 4 9	4 8	
8 0	a 1 11	b 3 0	4 11	
8 30	a 3 5	b 1 3	4 8	
9 0	a 4 5	a 0 4	4 1	
9 30	a 5 1	a 1 9	3 4	10 h. 25 m. high-water, Chang-tau.
10 0	a 5 7	a 2 10	2 9	
10 30	a 5 8	a 3 9	1 11	
11 0	a 5 5	a 4 7	0 10	
11 30	a 5 0	a 5 3	0 3	
Midnight	a 4 5	a 5 10	1 5	
7th Sept. 1888.				
h. m.				
0 30 a.m.	a 3 7	a 5 10	2 3	
1 0	a 2 5	a 5 6	3 1	
1 30	a 1 4	a 4 8	3 4	
2 0	a 0 3	a 3 7	3 4	
2 30	b 1 0	a 2 7	3 7	
3 0	b 2 4	a 1 7	3 11	
3 30	b 3 6	a 0 7	4 1	
4 0	b 4 4	b 0 5	3 11	

DATE.	ABOVE OR BELOW M.L.		Difference of Level.	REMARKS.
	Chang-tau.	W. Volcano.		
7th Sept. 1888.				
h. m.	ft. in.	ft. in.	ft. in.	
4 30 a.m.	b 5 2	b 1 5	3 9	5 h. 0 m. low-water, Chang-tau.
5 0	b 5 6	b 2 7	2 11	
5 30	b 5 4	b 3 9	1 7	
6 0	b 5 0	b 5 0	0 0	
6 30	b 4 1	b 5 9	1 8	
7 0	b 2 11	b 6 3	3 4	
7 30	b 1 4	b 6 0	4 8	
8 0	a 0 6	b 4 6	5 0	
8 30	a 2 0	b 3 0	5 0	
9 0	a 3 1	b 1 7	4 8	
9 30	a 4 0	b 0 6	4 6	10 h. 30 m. high-water, Chang-tau.
10 0	a 4 3	a 0 7	3 8	
10 30	a 4 4	a 1 6	2 10	
11 0	a 4 3	a 2 8	1 7	
11 30	a 3 11	a 3 5	0 6	
Noon	a 3 4	a 3 9	0 5	
0 30 p.m.	a 2 6	a 4 1	1 7	
1 0	a 1 7	a 4 0	2 5	
1 30	a 0 5	a 3 7	3 2	
2 0	b 0 7	a 2 9	3 4	5 h. 25 m. low-water, Chang-tau.
2 30	b 1 10	a 1 9	3 7	
3 0	b 3 1	a 0 9	3 10	
3 30	b 4 2	b 0 3	3 11	
4 0	b 5 4	b 1 3	4 1	
4 30	b 6 0	b 2 6	3 6	
5 0	b 6 3	b 3 5	2 10	
5 30	b 6 5	b 4 3	2 2	
6 0	b 5 8	b 5 0	0 8	
6 30	b 4 9	b 5 10	1 1	11 h. 5 m. high-water, Chang-tau.
7 0	b 3 5	b 6 0	2 7	
7 30	b 1 7	b 5 2	3 7	
8 0	a 0 6	b 4 2	4 8	
8 30	a 2 2	b 3 0	5 2	
9 0	a 3 7	b 1 6	5 1	
9 30	a 5 0	0 0	5 0	
10 0	a 5 7	a 1 4	4 3	
10 30	a 5 11	a 2 7	3 4	
11 0	a 6 1	a 3 8	2 5	
11 30	a 6 0	a 4 11	1 1	
Midnight	a 5 8	a 5 11	0 3	
8th Sept. 1888.				
h. m.				
0 30 a.m.	a 4 9	a 6 4	1 7	
1 0	a 4 2	a 6 5	2 3	
1 30	a 3 3	a 6 3	3 0	
2 0	a 2 1	a 5 9	3 8	
2 30	a 1 0	a 4 9	3 9	

DATE.	ABOVE OR BELOW M.L.				Difference of Level.		REMARKS.
	Chang-tau.		W. Volcano.				
8th Sept. 1888.	ft.	in.	ft.	in.	ft.	in.	
h. m.							
3 0 a.m.	b	0 1	a	3 7	3	8	5 h. 50 m. low-water, Chang-tau.
3 30	b	1 8	a	2 5	4	1	
4 0	b	3 1	a	1 3	4	4	
4 30	b	4 0	a	0 3	4	3	
5 0	b	4 6	b	0 6	4	0	
5 30	b	4 10	b	1 8	3	2	
6 0	b	4 11	b	2 9	2	2	
6 30	b	4 6	b	3 8	0	10	
7 0	b	3 7	b	4 10	1	3	
7 30	b	2 4	b	5 5	3	1	
8 0	b	1 1	b	5 3	4	2	
8 30	a	0 3	b	4 4	4	7	
9 0	a	2 7	b	2 4	4	11	
9 30	a	3 8	b	1 0	4	8	
10 0	a	4 9	a	0 2	4	7	
10 30	a	5 2	a	1 4	3	10	10 h. 50 m. high-water, Chang-tau.
11 0	a	5 2	a	2 3	2	11	
11 30	a	5 0	a	3 4	1	8	
Noon	a	4 7	a	4 5	0	2	

## APPENDIX C.

Simultaneous Observations of the Distance of the Water from Mean Level at Haining, Rambler Island, and West Volcano Island. Full Moon, September 1888.

[N.B.—In the following table "a" indicates above and "b" indicates below mean level respectively.]

DATE.	ABOVE OR BELOW MEAN LEVEL.			Difference of Level between Rambler Island and W. Volcano Island.	REMARKS.
	Haining.	Rambler Island.	W. Volcano Island.		
20th Sept. 1888.	<i>ft. in.</i>	<i>ft. in.</i>	<i>ft. in.</i>	<i>ft. in.</i>	
A. M.					
Noon	...	a 8 2	a 4 4	3 10	
0 30 p.m.	...	a 9 3	a 4 3	5 0	
1 0	...	a 10 1	a 3 8	6 5	
1 30	a 9 0	a 10 4	a 3 0	7 4	
2 0	a 9 6	a 10 0	a 2 0	8 0	
2 30	a 9 6	a 9 6	a 0 11	8 7	
3 0	a 9 0	a 8 1	b 0 1	8 2	
3 30	...	a 5 9	b 1 1	6 10	
4 0	...	a 3 3	b 1 10	5 1	
4 30	...	a 1 2	b 2 10	4 0	
5 0	0 0	b 1 5	b 3 6	2 1	
5 30	...	b 4 5	b 4 3	0 2	
6 0	...	b 6 5	b 4 8	1 9	
6 30	...	b 8 6	b 4 11	3 7	
7 0	...	b 10 2	b 4 8	5 6	
7 30	...	b 10 11	b 3 9	7 2	
8 0	...	b 11 3	b 2 5	8 10	
8 30	...	b 11 4	b 1 1	10 3	
9 0	...	b 10 9	a 0 4	11 1	
9 30	b 8 0	b 8 10	a 1 6	10 4	} Birth of the Bore.
10 0	b 9 0	b 4 3	a 2 7	6 10	
10 30	b 9 0	a 1 3	a 3 6	2 3	
11 0	b 9 6	a 5 9	a 4 4	1 5	
11 30	b 9 6	a 8 3	a 4 11	3 4	
Midnight	b 9 9	a 9 6	a 5 6	4 0	Pressure removed from Rambler Id. Bore passed Haining 12 h. 20 m.

DATE.	ABOVE OR BELOW MEAN LEVEL.			Difference of Level between Rambler Island and W. Volcano Island.	REMARKS.
	Haining.	Rambler Island.	W. Volcano Island.		
21st Sept. 1888.					
h. m.	ft. in.	ft. in.	ft. in.	ft. in.	
0 30 a.m.	a 3 0	a 10 4	a 5 7	4 9	
1 0	a 6 0	a 11 3	a 5 2	6 1	
1 30	a 8 0	a 11 7	a 4 6	7 1	
2 0	a 9 0	a 11 5	a 3 7	7 10	
2 30	a 9 6	a 10 11	a 2 5	8 6	
3 0	a 10 0	a 9 10	a 1 4	8 6	
3 30	a 10 0	a 7 0	a 0 3	6 9	
4 0	a 9 6	a 5 0	b 0 9	5 9	
4 30	...	a 2 6	b 1 10	4 4	
5 0	...	a 0 1	b 2 10	2 11	
5 30	0 0	b 2 7	b 3 9	1 2	
6 0	...	b 5 0	b 4 6	0 6	
6 30	...	b 7 5	b 5 0	2 5	
7 0	...	b 9 3	b 5 6	3 9	
7 30	...	b 10 5	b 5 4	5 1	
8 0	...	b 11 3	b 4 5	6 10	
8 30	...	b 11 9	b 2 10	8 11	
9 0	...	b 12 0	b 1 8	10 4	
9 30	...	b 11 8	b 0 7	11 1	
10 0	b 9 0	b 9 4	a 0 10	10 2	} Birth of the Bore.
10 30	b 9 0	b 3 6	a 1 7	5 1	
11 0	b 9 0	a 2 3	a 2 6	0 3	
11 30	b 9 0	a 4 7	a 3 2	1 5	
Noon	b 9 6	a 7 3	a 3 7	3 8	Pressure removed from Rambler Id.
0 30 p.m.	b 9 6	a 8 3	a 3 9	4 6	0 h. 36 m. Bore passed Haining.
1 0	a 4 0	a 8 11	a 3 7	5 4	
1 30	...	a 9 6	a 3 4	6 2	
2 0	...	a 9 10	a 2 6	7 4	
2 30	a 9 0	a 9 7	a 1 5	8 2	
3 0	a 9 0	a 8 11	a 0 4	8 7	
3 30	a 9 0	a 7 5	b 0 10	8 3	
4 0	a 9 0	a 5 3	b 1 8	6 11	
4 30	...	a 2 9	b 2 8	5 5	
5 0	...	a 0 4	b 3 8	4 0	
5 30	0 0	b 2 3	b 4 4	2 1	
6 0	...	b 4 8	b 4 11	0 3	
6 30	...	b 7 1	b 5 10	1 3	
7 0	...	b 9 2	b 6 1	3 1	
7 30	...	b 10 8	b 6 0	4 8	
8 0	...	b 11 6	b 5 3	6 3	
8 30	...	b 12 0	b 3 10	8 2	
9 0	...	b 12 5	b 2 4	10 1	
9 30	...	b 12 4	b 0 11	11 5	

DATE.	ABOVE OR BELOW MEAN LEVEL.			Difference of Level between Rambler Island and W. Volcano Island.	REMARKS.
	Haining.	Rambler Island.	W. Volcano Island.		
21st Sept. 1888.					
h. m.	ft. in.	ft. in.	ft. in.	ft. in.	
10 0 p.m.	...	b 10 7	a 0 4	10 11	} Birth of the Bore.
10 30	...	b 4 6	a 1 7	6 1	
11 0	b 9 0	a 1 3	a 2 8	1 5	} Pressure at Rambler Island removed.
11 30	b 9 0	a 4 9	a 3 4	1 5	
Midnight	b 9 0	a 6 11	a 4 0	2 11	
22nd Sept. 1888.					
h. m.					
0 30 a.m.	b 9 0	a 8 0	a 4 4	3 8	} 0 h. 52 m. Bore passed Haining.
1 0	a 3 0	a 8 11	a 4 6	4 5	
1 30	...	a 10 2	a 4 4	5 10	
2 0	...	a 10 6	a 3 10	6 8	
2 30	...	a 10 7	a 2 8	7 11	
3 0	a 9 0	a 10 3	a 1 7	8 8	
3 30	a 9 0	a 9 0	a 0 7	8 5	
4 0	a 9 6	a 7 3	b 0 4	7 7	
4 30	a 9 0	a 4 6	b 1 6	6 0	
5 0	...	a 1 11	b 2 7	4 6	
5 30	...	b 0 7	b 3 2	2 7	
6 0	0 0	b 2 9	b 3 11	1 2	
6 30	...	b 6 3	b 4 8	1 7	
7 0	...	b 7 9	b 5 6	2 3	
7 30	...	b 9 9	b 5 9	4 0	
8 0	...	b 10 9	b 5 5	5 4	
8 30	...	b 11 5	b 4 4	7 1	
9 0	...	b 12 0	b 2 10	9 2	
9 30	...	b 12 2	b 1 6	10 8	
10 0	...	b 11 8	b 0 4	11 4	
10 30	...	b 8 3	a 0 9	9 0	} Birth of the Bore.
11 0	b 9 0	b 1 9	a 1 11	3 8	
11 30	b 9 0	a 3 0	a 2 10	0 2	} Pressure on Rambler Island removed.
Noon	b 9 6	a 5 1	a 3 7	1 6	
0 30 p.m.	b 10 0	a 7 1	a 4 2	2 11	} 1 h. 10 m. Bore passed Haining.
1 0	b 10 0	a 8 0	a 4 4	3 8	
1 30	a 3 0	a 9 3	a 4 4	4 11	
2 0	...	a 10 2	a 3 11	6 3	
2 30	...	a 10 5	a 3 3	7 2	
3 0	...	a 10 3	a 2 4	7 11	
3 30	a 9 0	a 9 7	a 1 0	8 7	
4 0	a 9 0	a 8 1	0 0	8 1	
4 30	a 8 6	a 5 7	b 0 10	6 5	
5 0	...	a 2 10	b 1 10	4 8	
5 30	...	a 0 9	b 2 10	3 7	

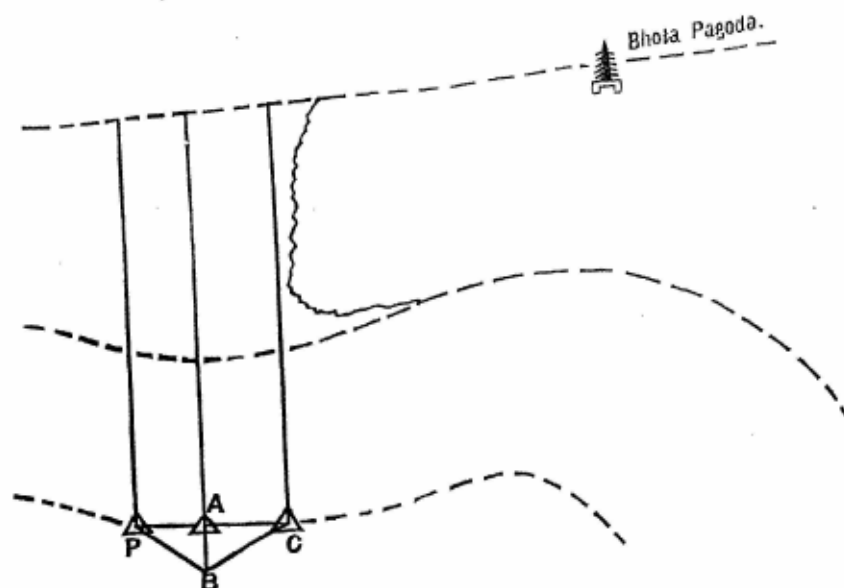
DATE.	ABOVE OR BELOW MEAN LEVEL.			Difference of Level between Rambler Island and W. Volcano Island.	REMARKS.
	Haining.	Rambler Island.	W. Volcano Island.		
22nd Sept. 1888.	<i>ft. in.</i>	<i>ft. in.</i>	<i>ft. in.</i>	<i>ft. in.</i>	
<i>h. m.</i>					
6 0 p.m.	0 0	b 1 7	b 3 6	1 11	
6 30	...	b 4 3	b 4 4	0 1	
7 0	...	b 6 7	b 4 10	1 9	
7 30	...	b 8 8	b 5 4	3 4	
8 0	...	b 10 3	b 5 4	4 11	
8 30	...	b 11 2	b 4 10	6 4	
9 0	...	b 11 7	b 3 2	8 5	
9 30	...	b 11 9	b 1 9	10 0	
10 0	...	b 11 6	b 0 9	10 9	
10 30	...	b 9 4	a 0 3	9 7	} Birth of the Bore.
11 0	...	b 3 7	a 1 8	5 3	
11 30	...	a 1 11	a 2 10	0 11	
Midnight	b 9 0	a 5 1	a 3 6	1 7	Pressure at Rambler Island removed.



## APPENDIX D.

Proofs of the Speed, and evidence on which the Heights of the different Bores were estimated :—

## SPEED.



A base  $AB$ , 821 feet, was measured in a direction perpendicular to the general direction of the Bore. Observers at  $P$  and  $C$ , having the line between them through  $A$  and rectangular to  $AB$ , observed the angles  $APB$ ,  $ACB$ , thus obtaining ... ..  $AP=3,463$  feet.

$AC=4,326$  „

Total length of Base ... ..  $CP=7,789$  feet.

Three observers with chronometers were stationed at *C*, *A* and *P*. *C* and *P* had the telescopes of their theodolites parallel and at right angles to the line *CAP*. Observer at *A* had previously walked to *B* and selected an object on the opposite bank of the river in line with *A*. As the Bore passed, observers at *C* and *P* took the time when the left extreme of the foot of the cascade passed the wire of their theodolites. Observer at *A* took the time when the same phase passed the object he had chosen.

### RESULT.

Place.					Mean Time.		
—					h.	m.	sec.
Bore passed	<i>C</i>	...	...	...	1	21	50
"	<i>A</i>	...	...	...	1	25	15
"	<i>P</i>	...	...	...	1	27	54

This gave the speed as observed :—

Between <i>C</i> and <i>P</i>	...	...	...	...	12'71	knots.
" <i>C</i> and <i>A</i>	...	...	...	...	12'53	"
" <i>A</i> and <i>P</i>	...	...	...	...	12'90	"

It will be seen that  $2\frac{1}{2}$  hours elapses from the time of sudden rise at Rambler Island to the time Bore passes Haining. The distance is 29 miles. Also that 1 h. 12 m. elapses between the Bore passing Haining and a position on the sea-wall 15 miles to the south-west of Haining.

The following account by Bishop MOULE is of great interest as illustrating the impetus of the Bore under certain conditions :—

"I felt the sudden rush of the tide at about 5 a.m. on May 29th this year, 1888, (four days after full moon) at a place about 100 *li* above Hang-chow, a little short of Tsien-shan, a picturesquely-placed town 107 *li* from Hang-chow, called from a striking pyramid-hill round which the river makes a sharp bend, and just above which it is spanned by a bridge of boats. We were sculling and towing when the trackers were suddenly called to come on board, and had only just time to do so when a smooth wave (perhaps 2 feet above the previous level) came swiftly up and took us up stream at a great pace, I should say full 5 miles an hour. Unhappily, I have no detailed memoranda of the exact spot, but the 100 *li*, which the boatmen gave me in answer to my immediate question, 'how far are we from Hang-

chow?' places it between Ling-p'u, a busy town, 89 *li*, and the above-named Tsien-shan, 107 *li*, from Hang-chow."

In a later letter Bishop MOULE was good enough to reply to a question of mine about the time. He says:—

"I am sure of the day (29th May) and of the early hour (5 or 6 o'clock), but cannot answer for half-an-hour either way. The spot where the Bore overtook us was reputedly 100 *li* from Hang-chow, *not* the main river, but a branch which enters it from a little east of South (*see* Customs' Map of Tsien-tang River) near I-k'ian, which is 51 *li* from the head of the stone bund of Hang-chow. The nearest point to my sight of the Bore, which I have noted in my diary, is Tsien-shan, some 28 *li* up the branch, and which I passed about 6 a.m. So that if I wrote 5 a.m. for the occurrence I was probably out at least an hour or more."

Now, the junkmen speak of the distance between Haining and Hang-chau as 90 *li*, and it is in reality 23 geographical miles by the river. I think we may fairly assume that 4 *li*=one geographical mile. The 100 *li* given to Bishop MOULE by the natives, I reject for the more accurate measurement he gives from the Customs' Map in his second letter, viz., "near Tsien-shan, which is 79 *li* from the stone bund at Hang-chow." Suppose we call the whole distance from Haining to where the Bore overtook the boat as 164 *li*, or 41 geographical miles, we shall probably be very near the truth. On the night of the 28th May, the Bore was certainly early, as the apex of the tidal wave passed our station at Chang-tau 5 minutes after midnight, which is three-quarters of an hour at least before its time; but it is out of reason that the Bore should have reached Haining before 1 h. 30 m., as the usual interval between high-water at Chang-tau and the Bore passing Haining is 1 h. 46 m. Adopting 6 o'clock as the time the wave overtook the boat, this gives a mean speed of the Bore from Haining of 9 knots an hour. Probably the speed decreased gradually, after reaching the shallows off Hang-chau, from 13 knots downwards, until it passed Bishop MOULE at a speed of 4 or 5 knots. It was probably a good Bore, as full moon corresponded nearly with perigee. On the 26th and 27th May, the range of tide at Chang-tau harbour was 13 feet—1 foot more than ordinary springs. On the night of the 28th, however, the range was not extraordinary, but the high-water was early.

## HEIGHT.

20th September. Night Bore. A boat grounded at mean level, which is  $9\frac{1}{2}$  feet above low-water, obtained a sounding of 9 feet, 15 minutes after Bore passed. The boat drew 3 feet water. This makes a height of  $15\frac{1}{2}$  feet. By subsequent observations, it was found that 15 minutes after a Bore had passed (at spring-tide) the water had risen 3 to 4 feet higher than it was immediately after the cascade had gone by. This would make the height of this Bore 10 to 11 feet.

21st September. Day Bore. An observer in a steam-cutter aground at H.-W. on the south bank of the river opposite Haining. Eye about 3 feet above H.-W. spring tide; saw the top of the Bore in line with keels of junks on the shelter abreast of Bhota Pagoda. The keel of a junk is  $7\frac{1}{2}$  feet above the low line at springs, and the highest part of the Bore is distant from junk about 4 cables. Junk from observer 2.3 miles. Height of Bore 9 feet.

22nd September. Day Bore. An observer at base station C, 5 feet above H.-W. spring tide, observed the depression of the top of Bore to be  $0^{\circ} 4' 50''$ . Depression to top of sea-wall  $0^{\circ} 1' 0''$ . Distance of sea-wall (approximate) 3 miles. Distance of top of Bore (approximate) 2.4 miles. Sea-wall about 24 feet above L.-W. ordinary spring tide. An observer at base station A, with eye level with H.-W. spring tide, considered the height of the Bore to be three-quarters that of the sea-wall opposite. An observer at base station P, eye level with H.-W. spring tide, considered that a man on the sands was two-thirds as high as the Bore. The man was of average height, and  $1\frac{1}{2}$  mile distant. Bore, as before, 2.4 miles. The same observer could distinguish no difference in level when looking through the telescope of his theodolite, between the top of the sea-wall opposite and the disturbed water on the back of the Bore. Bore 10 to 11 feet.

22nd September. Night Bore. Lieutenant PURRY-CUST, who was on a junk-shelter one-third of a mile west of the pagoda at Haining, notes, "the side wave, as it struck the embankment, was not more than from 4 to 5 feet high, and the real wave outside apparently 8 to 10 feet. In about 3 minutes, the tide rose 10 feet. Probably the rapid rise was until level with the real wave outside. Bore 8 to 10 feet."

New moon, 4th October. Day Bore. The side of the cascade washed the top of the piles, which, at that time, were  $5\frac{1}{2}$  feet above the level of the river. That part of the cascade which was over the deep channel appeared to be higher. Bore 5 to 6 feet.

5th October. Day Bore. Side of cascade level with top of piles, which, at that time, were 7 feet above the level of the river. Part of cascade over deep channel higher. Five minutes after Bore passed, the junks on the shelter moved. It required 9 feet water to move the junks. Estimated that the crest of the cascade must have been nearly as high as the level of the water five minutes after it had passed. Bore 8 feet.

5th October. Night Bore. Side of cascade passed level with top of piles, which were 7 feet above the level of the river, and half-a-minute afterwards water was up to bottom of wall. In 3 minutes junks were afloat and surging against wall. It required 9 feet water to float junks. Height of cascade over the deep water probably 2 feet higher than at the side. Considered that, on this occasion, crest of cascade on passing should be registered as high as the water at the wall 3 minutes later. Bore 9 feet.

6th October. Day Bore. Top of piles hidden by the side of the cascade, and junks afloat 2 minutes later. Considered that the crest on passing was as high as the water at the wall 2 minutes later. Bore 9 feet.

6th October. Night Bore. Side of the cascade swept over the piles and up to the bottom of the wall, which was  $7\frac{1}{2}$  feet above level of river at the time. No junk in the berth abreast the pagoda. In 7 minutes the water rose to 13 feet. Considered that the crest of the Bore must have been 2 or 3 feet higher than the side of the wall. Bore 10 feet.

7th October. Day Bore. Side of Bore floated the junks at once, which required 9 feet water above the level of the river at the time. Crest about 2 feet higher than side of cascade. Bore 10 to 11 feet.

The height of Bores at Haining, recorded by Mr. BALFOUR, were measured in the same way.

## CHINESE CHESS.

By Z. VOLPICELLI.

治國警  
如奕知  
其用而  
置得勝  
處者勝

The following sketch is an attempt to give an account of Chinese Chess, on a methodic plan, as is done in treatises on our game. In doing so, I have not been able to resist the temptation of occasionally pointing out resemblances between the Chinese game and ours in the Middle Ages; these lead naturally to the investigation of the origin of the royal game, but, unfortunately, I am not able for the present to pursue this subject, and must reserve it for a future occasion.

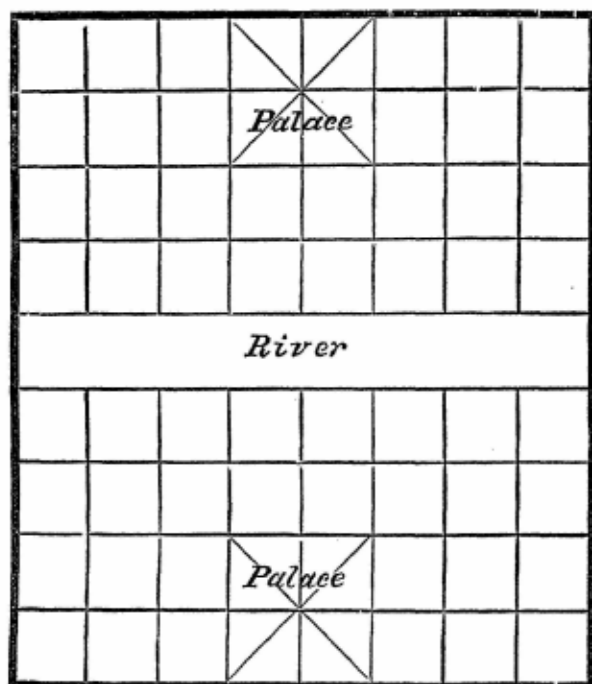
Mr. HIMLY, in No. VI (for 1869-1870), New Series of this Journal, went very thoroughly into the history of Chess in China, and pointed out many analogies and differences with the same game in other countries in different times. Mr. HOLLINGWORTH, in No. III (for December 1866), New Series of this Journal, gave a very complete, thorough and succinct account of Chinese chess, but, unfortunately, he sacrificed clearness to brevity, and it would be difficult to learn the game from his article without the aid of a native player. He omitted, moreover, to point out a very remarkable difference between the Chinese and the Western game;—in the former, stalemate counts a win for the side which has confined the adverse King, so that he cannot move except into check.

The two games, notwithstanding some differences, possess so many features in common, that I have only considered it necessary to point out in what they differ, and shall therefore not explain such points as the alternation of the moves, and the mode of capture, etc., which are identical in both games. I have had some opportunity of consulting native works on Chess, but such as I have seen, are rather for the advanced player, as they give no elementary instruction, so that I have had to supply this deficiency by my own experience, corroborated always, of course, by such native players as I have been able to question.

#### THE CHESS-BOARD.

This differs considerably from ours, the only similarity being that they both appear to have 64 squares, but even this leads to no common consequences, for two important reasons:—First, the Chinese board is divided horizontally into two halves, each of 32 squares, called Camps (營), separated by a rectangular space which is called the River (河). This really adds, for all intents and purposes, 8 squares to the board, because though they are not marked, still the River counts a step in passing it. Therefore, it would be more correct to say, that the Chinese board is a rectangle, 8 by 9, with the middle rank of squares left unmarked. Secondly, the Chinese chessmen are not placed on the squares, and do not move on them as in our game, but are placed on the points of intersection of the horizontal and vertical lines, and all the moves are performed on the lines, not on the squares.

Figure I. shows a blank Chess-Board, and it will be seen at a glance that though only 8 men can be placed in a rank, each occupying one square, 9 men can be placed in a rank

*Fig. I.*

when they occupy the points of intersection. The Chinese have therefore 9 files to our 8, and, as will be seen later on, when treating of their Chess-Notation, they count from 1 to 9 in a horizontal direction. For the same reason, the Chinese have 10 ranks instead of our eight. It follows naturally that the squares, having no importance, are not distinguished alternately by different colours, as is done on our Chess-Board, to guide the eye in the moves of certain Pieces.

There is still another peculiarity to be noted;—the four central squares at the bottom and top of the Board, form what is called the Royal Palace (宮). Another glance at



Figure I. will show that this space is distinguished by two diagonal lines,—the only ones on the Board,—all the rest being horizontal and vertical. It will be seen later on that the Palace is the only field of action allotted to the King and his two Ministers.

In Western mediæval Chess there seems to have been some kind of division of the Board, because CESSOLES, an author of the 13th century,<sup>1</sup> speaking of the first move of the Pawn, when he is allowed to advance two squares, explains this anomaly by saying, that within the boundaries of the realm, the Pawns feel safer, and therefore advance more boldly, but once they are over the borders they must be more cautious, and are only allowed to advance one square.

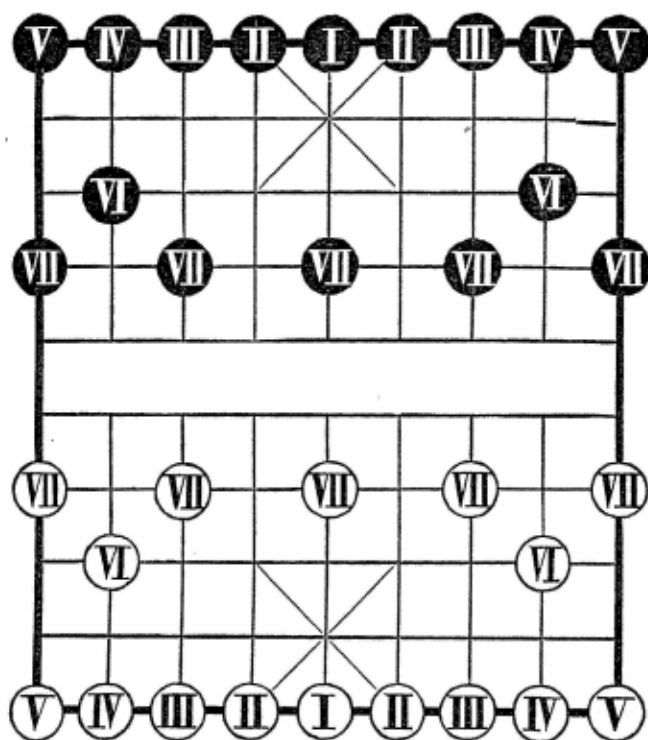
#### THE CHESS-MEN.

The Chinese have 16 men a side, as with us, but their total is differently constituted from ours, their 16 being made up by 1 King, 2 Ministers, 2 Bishops, 2 Knights, 2 Rooks, 2 Cannons and 5 Pawns, and some of these men are placed differently from ours. Figure II. shows a Chess-Board with all the Chessmen, as they are placed at the beginning of the game. The men are not shaped to roughly outline the object they are supposed to represent, like ours, but are simply round pieces of wood or ivory, like draughtsmen, with their names written on both surfaces.

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<sup>1</sup> Jacopus de Cessolis, otherwise Jacopo Dacciesole, in his work, entitled *Solatium Ludi Scæchorum, scilicet Libellus de Moribus Hominum et Officiis Nobilium*, supposed to have been the first work printed in England by Caxton, who gave the English translation in the year 1474, under the name of *The Game and Playe of the Chesse*. The book was meant rather to teach morals than Chess, still the moves, etc., are given,

Fig. II.



I.—King, 將 and 帥

II.—Minister, 士

V.—Rook, 車

III.—Bishop, 象 and 相

VI.—Cannon, 砲

IV.—Knight, 馬

VII.—Pawn, 卒 and 兵

I shall now describe the moves of the different Chess-men and the laws which regulate them.

### THE KING (將 and 帥).<sup>2</sup>

The Chinese names for this Piece really mean General, but I shall use the name familiar to Western players, as the

<sup>2</sup> The rival Kings, besides being distinguished by colour, are denoted by different characters.

alteration is immaterial. The power of this Piece, *except in one case*, is much more limited than that of our King; he can move forwards, backwards and laterally, one step at a time, like our Piece, but he cannot go out of the square space called the Palace, and even there, he is not allowed to move diagonally, though, as we have seen, there are two diagonals marked out; he can only move along the horizontal and vertical lines, and take any unprotected Piece or Pawn that lies next to him on these lines. I mentioned one exception, where the Chinese Piece could exercise a more powerful action than ours; it is directed, however, exclusively against the hostile King. In Chinese Chess, the two Kings cannot stand on the same file, no matter in which rank of the Palace, without some intervening Piece or Pawn; the King is thus enabled not only to prevent the other King from being played on his file, but he can also protect one of his Pieces on that file against any attack of the hostile Monarch.

This law becomes very important towards the end of the game, when the greater part of the Pieces and Pawns have been exchanged; then, if there are no intervening men between the two Palaces, as the Kings can only be played on three possible files, the action of the hostile King reduces them to two in every case, and if he is placed on the middle file, the other King can only move backwards and forwards on either of the side-files. At the beginning of the game the Kings are placed in the centre of the first rank of the Palace, as shown in Figure II.

The far greater freedom of action of our King compared with that of the Chinese one, secluded in his Palace, suggests the reflection that the spirit of a nation's civilisation affects every branch of its activity, even such small things as its games; the Chinese Chess-King is as different from ours as the Chinese Emperor from a European Constitutional Monarch.

THE MINISTER (士).<sup>3</sup>

This Piece, by its position on the Board at the outset of the game, corresponds to our Queen, but its power is so much less, that this reason, and the fact that there are two Ministers, have prevented me from employing our term Queen to designate it. The Minister can move diagonally one step at a time, backwards and forwards, but always within the Palace, his action, like that of the King, ceasing at its walls; the diagonal lines are especially marked to indicate his moves. We thus see that the King and Minister combined possess all the variety of moves of our King, restricted to a narrow space. The two Ministers, at the beginning of the game, are placed, like good, loyal liegemen, one on each side of the King; in one move a Minister can be brought in front of the King, where he is protected by him and by the other Minister.

I stated that I decline to call this Piece a Queen, as it would be too disparaging to our noble Amazon; yet, if we look back to our ancient game, we shall find that the two Pieces were very similar. As late as the 15th century our Queen could only move diagonally to the next square, either forward or backward, exactly like the Chinese Minister. Only on her *first* move was she allowed to spring two squares in any direction. In a MS. collection of Problems of the 15th century in the Ducal Library at Florence, the Queen has sometimes the old manner of moving and sometimes the new one which the good old author calls "*Alla rabbiosa*"—"angry fashion," as we should say in Pidgin-English. It is lucky for the brilliancy of Chess that the "angry fashion"

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<sup>3</sup> This Piece has been generally called Secretary by foreign writers on the game, but Minister is more in accordance with our notions, as we call the principal Piece "King."

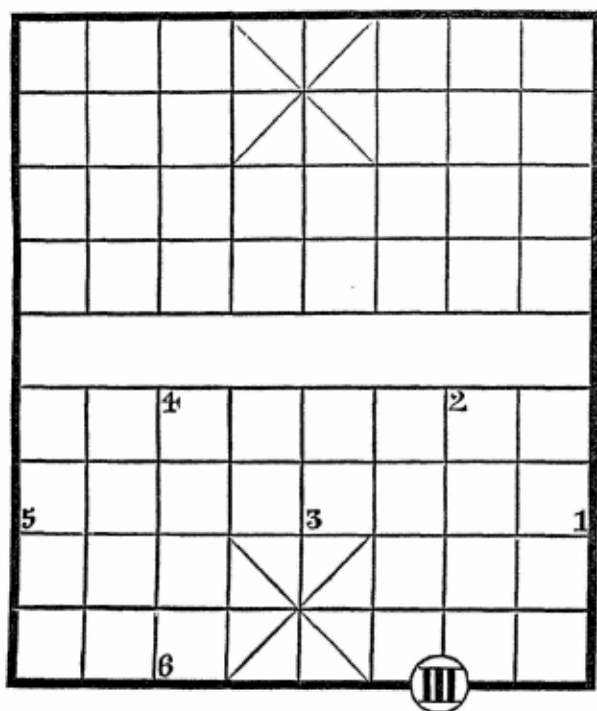
prevailed. The only difference between our mediæval Piece and the Minister was, that the former could fight all over the Board instead of being confined to a small arena.

### THE BISHOP (象 and 相).<sup>4</sup>

The Chinese name really means Elephant (the second character being used as an homonym) and corresponds to the Arabic term *Fil* (فيل) also meaning Elephant; the Italian *Alfiere* was derived from that word, with the Arabic article *Al* prefixed. This Piece moves diagonally forwards and backwards like our Bishop, but only two steps at a time, neither more nor less; he is, moreover, confined to his own Camp, not being ever allowed to cross the River. The Bishops and Ministers form a kind of *landwehr*, or militia, only employed for defensive purposes, the action of the former extending over the whole Camp, while the latter only defend the Palace. The Chinese Bishops are, if we may use the expression, both of the same colour, *i.e.*, they can go to the same places and they can mutually protect each other. At the beginning of the game, they are placed just outside the Palace, on the first rank, and they can circulate over the Camp, passing, however, always over the same places. Figure III. shows all the possible moves of the Bishop; it will be seen that he can only move to six other distinct places, after which he must repass over the spots he has already occupied. The most favourable position for the Bishop is just in the centre of the Camp (at No. 3 in the diagram), he can then command four places.

<sup>4</sup> The same remark applies to this Piece as to the King—a different character is used for the two sides.

Fig. III.



III.—Bishop, 象 and 相

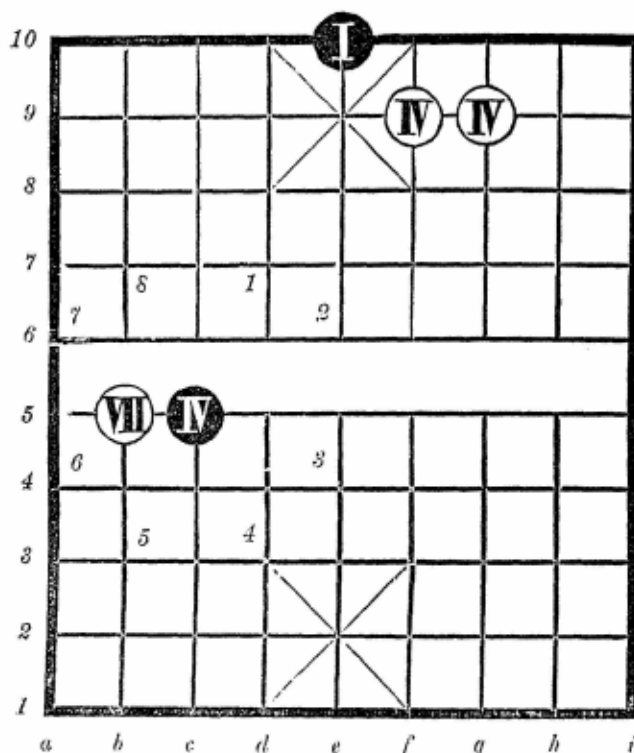
The moves of the Chinese Bishop are very similar to those of ours during the Middle Ages, when he was called *Alfy*; the latter also could only move on to the *third* square from that on which it stood, but it enjoyed two privileges denied to the present Chinese Bishop—it could jump over another man, like our Knight, and it could range all over the Board.

#### THE KNIGHT (馬).

This Piece is called Horse by the Chinese, by which name it is known in Italy also; it has the same moves as our Piece

—one step in a straight line and one in an oblique direction. Owing to the Chinese Piece moving on the lines instead of the squares, its move appears different from that of our Knight, and this difference is increased by the following consideration:—the Chinese Knight does not enjoy the important privilege of leaping over another man. This restriction of its powers brings out the importance of attending to the *order* in which the two steps forming the Knight's move follow one another. In our game it matters little whether the first step be oblique and the second in a straight line, or *vice versâ*, the Knight always comes to the same square, leaping over any obstacle. But in Chinese Chess it should be always remembered that the first step must be in a straight line, because, if there is another man in that place, the Knight cannot pass over him and perform the second part of his move—the step in an oblique direction. Figure IV. shows how the move of the Knight may be obstructed. The Knight at *c 5* would have 8 places to which he could be played, (they are marked from 1 to 8 on the Figure), if it were not for the Pawn at *b 5*, which prevents him going either to 6 or 7. If the Pawn were at *b 4* or *b 6*, it would not impede any of the Knight's moves. As the attack of the Chinese Knight can be masked by a covering Piece or Pawn, it is possible to give a discovered check from the Knight, nay even give a double check with two Knights, both impossibilities in our game. Figure IV. shows how this double check can be given. The Knight at *f 9* masks the attack of the Knight at *g 9*, but if the former is played to *d 8*, the King will receive its check and the discovered one of the Knight at *g 9*. The Knight can cross over the River into the hostile Camp, and come back if he eludes capture; he is far more powerful than the other Pieces we have yet examined, as he is an attacking Piece forming part of the field army.

Fig. IV.



I.—King, 將 and 帥  
 IV.—Knight, 馬  
 VII.—Pawn, 卒 and 兵

### THE ROOK (車).

The Chinese call it Chariot, but its move is exactly like ours; it can, when there is no obstruction, march all over the board, forwards, backwards and laterally, taking as many steps as it pleases. It is by far the most powerful Piece on the Chinese board, and, as we shall see later on, it is the only Piece which can give checkmate with the sole assistance of the King. Other Pieces can only win through stalemate.



All the Pieces we have examined, nine in all, occupy the first rank of the board,—the King in the centre, the two Ministers next to him, and on both sides, in successive order, the two Bishops, the two Knights and the two Rooks. There are still two more Pieces to be examined—the Cannons—which are placed at *b* 3 and *h* 3.

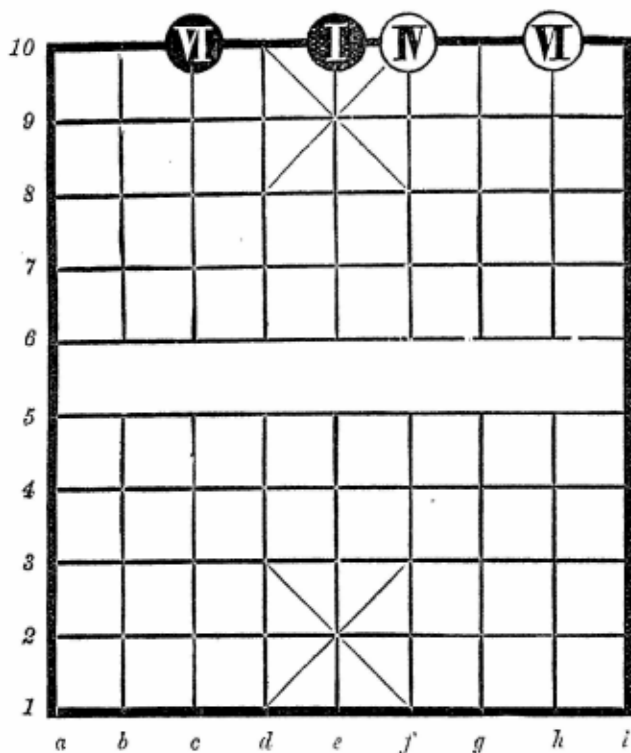
### THE CANNON (炮).

The Cannon has no corresponding Piece on our board, and its very peculiar attack contributes largely to differentiate the Chinese game from ours, and give the former that brilliancy which the confined action of nearly half its Officers would otherwise prevent. All the Pieces we have yet examined, attack and take hostile men in the same direction as they move, and with the same restriction—that there should be no intervening man,—none of them being able to leap over other men, like our Knight. The Cannon moves exactly like the Rook, and with the same extensive range; on an empty board, it can go from one end to the other, both forwards, backwards and laterally, but it cannot attack the man that lies immediately opposite to it on any of its horizontal and vertical lines of action,—it requires an intervening Piece or Pawn to enable it to exercise its power on the object of its attack. A covering Piece or Pawn is necessary for the attack of the Cannon; of course, the intervening man may be friend or foe, it may also be another Cannon. It has the privilege of our Knight in leaping over another man, but it is only allowed to do so when it takes a Piece or Pawn, and in so doing it moves in a straight line, either forwards, backwards or laterally. When there is no man to take, the Cannon cannot leap over another man, but is confined in its movements, as the Rook would be under the

same circumstances. The Chinese formulate this law of attack by saying, that the Cannon must have a "partition."

The power of the Cannon is enhanced by the support of the other Cannon on the same rank or file; in such a case, each serves as a "partition" to the other. It is very difficult for a foreign player to get familiarised with the vagaries of

*Fig. V.*



I.—King, 將 and 帥

IV.—Knight, 馬

VI.—Cannon, 砲

this strange Piece. Figure V. illustrates the attack of the Cannon. The Black King is under check from the White Cannon at h 10, the White Knight at f 10 serving as

"partition;" the Black Cannon at c 10 cannot take the White Knight by leaping over its King, as then the Black Cannon itself would serve as a "partition" for the White Cannon, the King still remaining in check; so Black has only two courses open to him, either to take the White Knight with his King, in which case the Black King would serve himself as a "partition" for the White Cannon, which could then take the Black Cannon, or to move out of check, in which case he also loses his Cannon.

### THE PAWN (卒 and 兵.)<sup>5</sup>

The Pawn has not the irregularity of its Western colleague, of taking a hostile man in a different direction from that in which it moves; during all its chess-life the Chinese Pawn takes in the same way as it moves. The move of the Pawn is always one step at a time; at first it can only move forwards, but as soon as it has crossed the River, it receives an early promotion, and is allowed to move also laterally in either direction. It can never, however, move backwards or attack in that direction, and as soon as it has advanced to the last rank on the board, instead of bursting from its chrysalis and becoming a Queen, it is condemned to move only on that rank from right to left or *vice versa*. The Pawn thus loses much of its power when it advances too far in the hostile Camp, and it is necessary to be very cautious in advancing it when it has crossed the River; it is better to move it laterally along the same rank, until the opportunity offers of advancing it without loss.

The seclusion of the King enables the *passed* Pawns, if I may use this expression, in the Chinese game, to play a very

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<sup>5</sup> The same remark holds good for the Pawn as was made for the King and Bishop.

important part in the end game, and they are as useful as minor Pieces in attacking the hostile King in his Palace. As I have mentioned, the Chinese have only 5 Pawns, which are placed, at the beginning of the game, on the 4th rank, alternately on the 1st, 3rd, 5th, 7th and 9th files.

### CHESS NOTATION.

The Chinese possess a method by which they can record all the moves of a game, and as it differs considerably from ours, it will need some explanation. They begin by dividing all the moves made on the board into three classes—advancing, retreating and lateral moves—and by numbering all the files, from right to left, from 1 to 9. All these distinctions are different for the two players, each counting from his own side, as in the English notation; thus, advancing for the one is retreating for the other, and *vice versa*, and the 1st file for the one is the 9th for the other. Each move is indicated by giving the name of the Piece, the number of the file on which it is placed, the direction of the move and the number of steps taken. This last indication is differently expressed according as the move is vertical or lateral; in the former case, whether advancing or retreating, the steps are counted from the place where the Piece stands, not included, up to the place where it goes, included; in the latter case, the number of the file to which the Piece goes, is only given. Thus, Rook 2 advancing 5, means, that the Rook which is on the 2nd file goes forward 5 steps; Cannon 5 retreating 3, means, that the Cannon on the 5th file goes backwards 3 steps. If these same Pieces were moved respectively 5 and 3 steps laterally, the notation would be Rook 2, laterally 7, *i.e.*, it goes to the 7th file; Cannon 5, laterally 2, or 8, according as the move was to right or left.

As the place occupied by the Piece is only indicated by the

number of its file, if there are two similar Pieces on the same file, it is sometimes uncertain which of them is to be played; but I do not think this a very important defect of the notation; at least, in all the chess analyses I have studied, I have not yet met a case where the doubtful move was not cleared up by the next, or at most the next two moves.

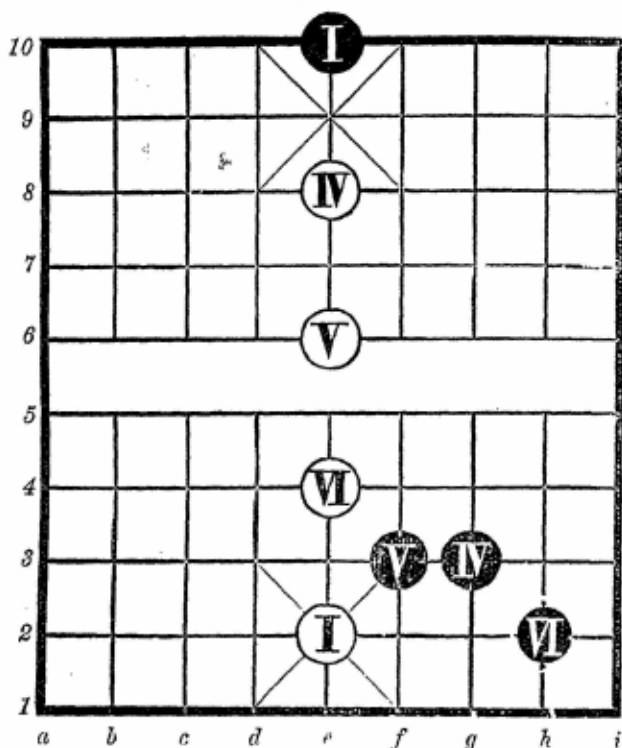
To explain the diagrams, I have employed, and shall continue to employ, the German notation, as the Chinese would needlessly complicate explanations, already difficult on account of the novelty of the subject; and the English system, to be adapted to the Chinese game, would require great alterations in the names of the files, the Chinese Pieces, as we have seen, not corresponding completely to ours.

#### CHECK, CHECKMATE AND STALEMATE.

In the Chinese game, besides the *simple*, *perpetual* and *discovered* checks, there is, owing to the peculiar attack of the Cannon, another kind, which we may call the *covered* check. A Cannon on the same rank or file as the hostile King, with no Piece or Pawn between them, is perfectly inoffensive, but if the owner of the Cannon interposes a Piece or Pawn, he gives check; of course, if the Piece interposed also attacks the King, this becomes a double check. In the Western game, it is at most possible to give a *double* check, but in the Chinese game a *triple* and *quadruple* check may be given. Figure VI. gives two examples of triple checks. If White plays his Knight to *c* 9 or *g* 9, he gives a triple check, viz., discovered checks of Rook and Cannon and simple check with the Knight. If Black plays his Rook to *f* 2, he gives discovered check from the Knight, covered check from the Cannon and simple check with the Rook. This same kind of triple check can be given with a Pawn in lieu of the Rook, but in both cases the White King, by taking the Pawn or

Rook, gets out of all three checks. A Cannon, instead of Rook or Pawn, would only give a double check.

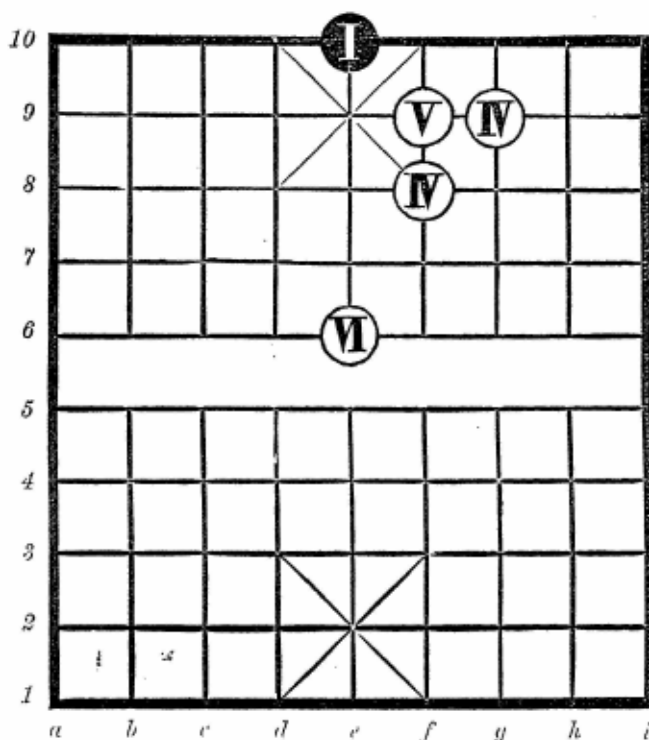
*Fig. VI.*



I.—King, 將 and 帥      V.—Rook, 車  
IV.—Knight, 馬      VI.—Cannon, 砲

Figure VII. gives an example of a quadruple check. White, by playing his Rook to e 9, gives double discovered check from the two Knights, covered check from the Cannon, and simple check with the Rook; a Pawn instead of a Rook would do as well, but in both cases, unless protected, the Black King can take the Pawn or Rook and get out of the four checks. A Cannon instead of the Rook or Pawn would only

Fig. VII.



I.—King, 將 and 帥

IV.—Knight, 馬

V.—Rook, 車

VI.—Cannon, 砲

give a triple check. The examples given above are, as far as I can see, the only possible triple and quadruple checks. These complicated checks rarely occur in practice, as they are not much more than curiosities, simple and double checks being most paying, but I have given them, as they serve to illustrate the power and peculiarities of the Chinese Pieces. On giving check, the word "King" may be employed to warn the other player, but this intimation is often neglected, and only when by the following move it becomes evident that

the adversary has not seen the check, is the word King mentioned. It is perhaps almost needless to remind the reader, that the primitive meaning of our word check was the same, as it came from the Persian word *Shah* (شاه).

In the Chinese game, checkmate is similar to ours, but it is not the only way by which the player can win,—a stalemate also counts in his favour. If the adverse King has no Pieces or Pawns to play, and if he cannot move anywhere without being in check, he is considered to have lost, though he is not in check at the time.

#### DRAWN GAME.

This may happen in the following cases: 1st.—When there is not sufficient force. This does not take place as often as in our game, because when the force is too weak to checkmate, it may often be able to stalemate, which, as I have stated, leads to the same result. 2nd.—When the forces are equal on both sides, as Rook against Rook with no advantage of position. 3rd.—When one side can give perpetual check. This may happen more easily in the Chinese game, owing to the seclusion of the King, who is thus prevented from gradually getting away from the Checking Piece, and sheltering himself behind one of his own men.

I am not aware that there is any rule corresponding to our 50-move law, which draws the game.

#### THE OPENINGS.

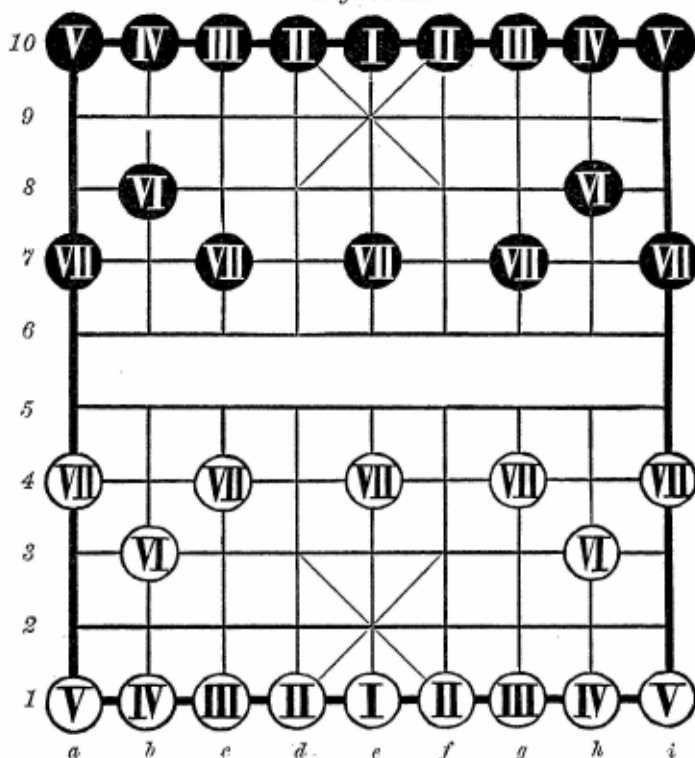
The Chinese do not seem to have paid much attention to this branch of the science; they seem to have preferred devoting themselves to the endings; and while it is easy to find books full of beautiful end-games requiring great brilliancy of combination, either to draw or win, the openings



are dismissed with some general advice. What follows, is mostly the result of my observation of play; I shall, therefore, only indicate the usual moves which occur at the beginning of most games, and give some rules for general guidance.

The advance of the King's Pawn, which is the first move in most of our openings,—the so-called Royal openings,—is not advisable in the Chinese game, as that Pawn constitutes at first the only protection to the King; it should not be advanced until a late stage of the game. Perhaps the most

*Fig. VIII.*



I.—King, 將 and 帥

II.—Minister, 士

V.—Rook, 車

III.—Bishop, 象 and 相

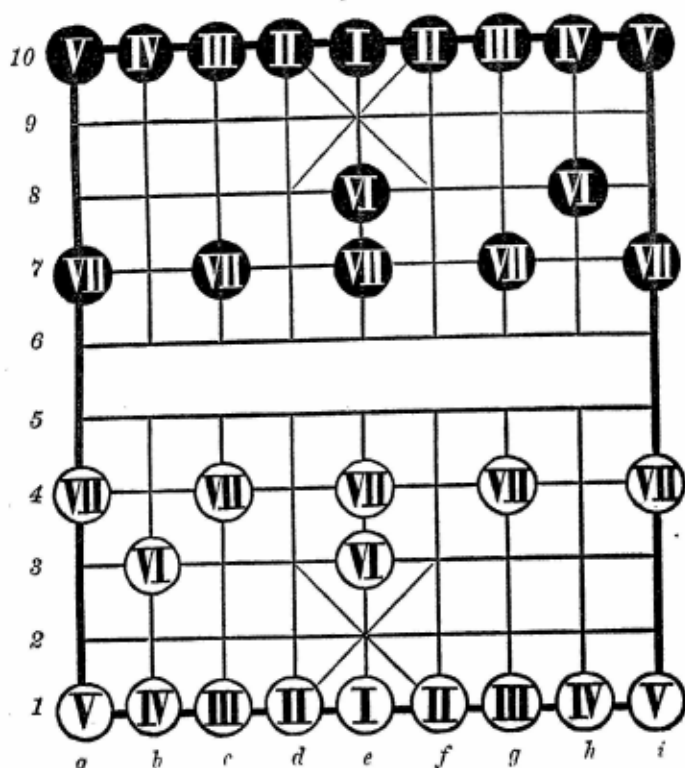
VI.—Cannon, 砲

IV.—Knight, 馬

VII.—Pawn, 卒 and 兵

usual first move of the Chinese, is to play one of the Cannons to *e* 3 (see Figure VIII) in front of its King; it then attacks the adverse King's Pawn. This may be compared to our King's Knight's opening. I may continue the comparison a little further, and say that Black may either defend his Pawn with a Knight at *g* 8 or *e* 8, as in the Italian Defence, or play one of his Cannons to *e* 8, à la Petroff. I

Fig. IX.



I.—King, 將 and 帥

II.—Minister, 士

III.—Bishop, 象 and 相

IV.—Knight, 馬

V.—Rook, 車

VI.—Cannon, 砲

VII.—Pawn, 卒 and 兵

give a diagram (Figure IX) of the last position, as it will furnish another illustration of the Cannon's play. White now can take Black's King's Pawn with his Cannon giving check; Black in answer can take White's King's Pawn with his Cannon, leaping over the other Cannon, and relieve himself from check.

It is also very common for both players to begin the game defensively, by protecting their King's Pawn with one or both Knights at *e* 3 and *g* 3 for White, and *e* 8 and *g* 8 for Black,—a parallel, I might say, to our Three and Four Knights' Game. Another very common defence occurring among the first moves, is to play one of the Ministers to *e* 2 or *e* 8 (for White and Black) to cover the King. The Cannons can also be played to advantage on the Rook's files, followed up by the advance of the Rook's Pawn, which cannot then be taken by the opposite Pawn, without exposing the adverse Rook to capture by the Cannon. The Chinese Pawns being so few in number, and placed on the fourth rank, all the attacking Pieces—Knights, Cannons and Rooks—can be brought into play without advancing a single Pawn. One of the Bishops is often played to *e* 3 for White and *e* 8 for Black; he then occupies the most commanding position he can attain on the Board, and he protects and is protected by the other Bishop. I may add, that to form a strong attack on the adverse King, the Knights should cross the River promptly, and a Rook on one of the Palace files with a Cannon behind it, thus forming a double attack, is very dangerous for the other player. In the early stages the Pieces crowd on to the centre files both for attack and defence.

#### ENDINGS OF GAMES.

In treating this part of my subject, I shall proceed, as is usually done in treatises on our game, by first examining the

simple class of endings, where a King is left alone, against an adverse force of different kinds, treating first the cases where this force is strongest, and following with the cases where it is weakest, and finally I shall give some complex positions of end games, where both sides have nearly equal forces, and it is simply a question of position and skill, to either win or draw. In all that follows, I shall suppose that the reader whom I am addressing has White the winning side, this will simplify very much many cases, as otherwise it would be necessary to use all sorts of circumlocutions to distinguish between similar Pieces of both sides. All the simple endings are much easier in the Chinese game, first, because the King is confined to his Palace, second, because a stalemate counts as much as a checkmate.

#### KING AND ROOK AGAINST KING.

With this force at your disposal, you can win in a very few moves. As the two Kings cannot stand on the same file, if your King is on the middle file, the Rook can, in most cases, give mate on the move, by checking on either of the side-files; if the Rook is unfortunately situated on the 8th or 10th rank, and the adverse King on the 9th, as you cannot then check on a Palace file, without having your Rook captured by the King, you must either retreat the Rook a few steps, and then mate the next move, or gain a move with your King, keeping him, of course, still on the middle file, and then, when the adverse King is forced to move to the 10th or 8th rank, you mate with the Rook. If your Rook is on the 9th rank and the adverse King on the 8th or 10th rank, you win on the move, by simply gaining a move with either King or Rook, each keeping, however, to his file and rank, the adverse King is then stalemated,—in fact, as he cannot leave the Palace, and the other King cuts off the next file, and the

Rook the next rank, he has nowhere to go to. From all that precedes, it becomes evident, that with your King on the middle file, you win in at most two moves.

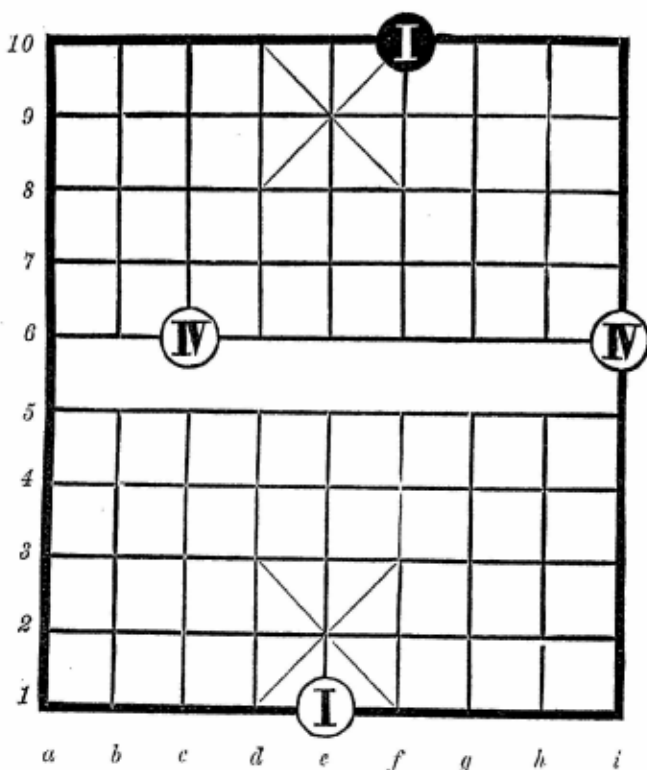
When the adverse King occupies the middle file, you have to drive him off it, with your Rook, and then by occupying the middle file with your King, the position becomes one of those we have just examined. Let us see the method of driving the adverse King off the middle file. This can generally be done in one move, by checking with the Rook on that file; the positions where this cannot be done, are the same as those we have examined in the first part of this ending, viz., when the Rook is on the 8th or 10th rank and the adverse King on the 9th, or the Rook on the 9th rank and the King on the 8th or 10th. In such cases you must retreat the Rook a few steps, and then check on the middle file the next move. So that, in at most three moves, you have your King on the middle file and the Rook ready to mate the next move. We can thus establish that with Rook, and the move, you are able to win, from all positions, in at most *four* moves. If it is Black's move, as he cannot alter materially any of the positions, you can still mate him in at most four moves.

#### KING AND KNIGHT AGAINST KING.

In the Chinese game it is not only possible to checkmate with the two Knights, but you can win with a single Knight by stalemate. As in the last ending, it will greatly simplify matters if your King is on the middle file; in such a case you have only to bring up your Knight, so that he may command the next place to the Black King. Figure X. shows how this can be done next move. With either of the Knights at *i* 6 or *c* 6, you can, if it is your move, play one to *g* 7 or *d* 8, stalemating your adversary. In advancing your Knight,

you should be careful not to play him on the middle file, covering your King, because, in such a case, Black can play *his* King on the middle file, pinning your Knight, until you move away with your King, thus losing all the advantage of the middle file.

Fig. X.



I.—King, 將 and 帥      IV.—Knight, 馬

If your King is on one of the side-files, you must move up your Knight, so as to command the 9th place on the centre file, then the adverse King can no longer move up and down that file, and must be played on to the other side-file, leaving

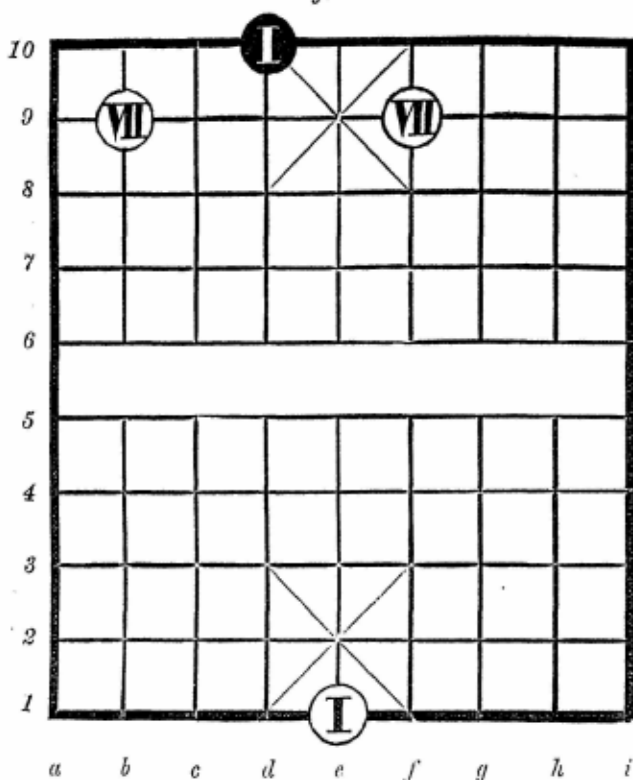
the middle file free for your King, and we come to the position examined in the first part of this ending.

#### KING AND PAWN AGAINST KING.

Though the Pawn cannot be Queened, it can win by stalemate whenever it has not reached the 10th rank. To examine this ending with greater clearness, I shall divide it into two classes:—1st. When your King is on the middle file. 2nd. When the Black King is on the middle file. In the first class, as the Black King is on one of the side-files, your Pawn is either on the same side as the adverse King, or on the opposite one. The Pawn at *b* 9, in Figure XI., shows the first case. If it is your move, you play the Pawn to *c* 9, and stalemate your adversary—(the Pawns, as I have stated, attack laterally as well as forwards, as soon as they have crossed the River). If it is Black's turn to play, as his King must go to *d* 9, you still play your Pawn to *c* 9, checking, and when the Black King moves to *d* 8 or *d* 10, you gain a move with your King, playing him to *e* 2, and Black is stalemated. The Pawn at *f* 9, in Figure XI., illustrates the second case. If it is your turn to play, you move Pawn to *e* 9, and Black is stalemated; if, on the other hand, Black has to move, his King goes to *d* 9, you still play your Pawn to *e* 9, checking, and when the Black King moves to *d* 8 or *d* 10, you gain a move with your King, playing him to *e* 2, and the adversary is stalemated.

Now let us examine the second class, *i.e.*, when the Black King occupies the centre file. As in the preceding class, we may distinguish two cases—when your Pawn is on the same side as your King, and when the Pawn and your King are on opposite sides of the middle file. The Pawn at *c* 9, Figure XII., will serve to show how you are to proceed in the first case. If it is your move, you play the Pawn to *d* 9,

Fig. XI.



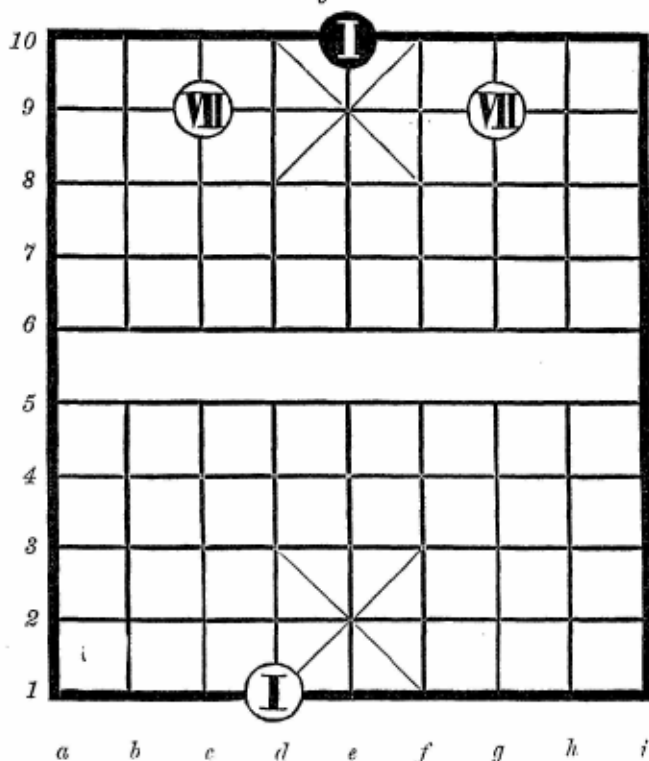
I.—King, 將 and 帥

VII.—Pawn, 卒 and 兵

and the Black King, being then unable to move up to *e* 9, on the centre file, will have to go to *f* 10, leaving the middle file free for your King, and as soon as you have occupied the centre file, we come to a position of the first class. If it is Black's turn to play, he will move his King to *e* 9 (his best move); you still play Pawn to *d* 9, checking, and the Black King will go either to *e* 8 or *e* 10, as he will try to keep on the centre file as long as he can; you gain a move with your King by playing him to *d* 2, and the Black King must abandon the middle file, and we come again to a position of



Fig. XII.



I.—King, 將 and 帥 VII.—Pawn, 卒 and 兵

the first class. The Pawn at *g9*, Figure XII., will show the second case. If it is your move, you play the Pawn to *f9*, and the Black King is stalemated. If it is Black's move, he will play his King to *e9*, and as you cannot check with your Pawn at *f9* without losing it, you must play your King to *d2*, gaining a move; now if Black plays King to *e10*, you play Pawn to *f9*, and stalemate him; his best move is King to *e8*, you then play Pawn to *f9*; Black has only one move to make, King to *f8*—(the Pawns do not attack backwards); you cannot then occupy the centre file with your King,

because Black can take your Pawn, so you play Pawn to *e* 9; again Black has only one move to make, King to *e* 8—(the Pawn attacking laterally, as soon as it has crossed the River prevents the King going to *f* 9); you move your Pawn to *d* 9, and the Black King must abandon the centre file, which you can then occupy safely, and we come again to a position of the first class.

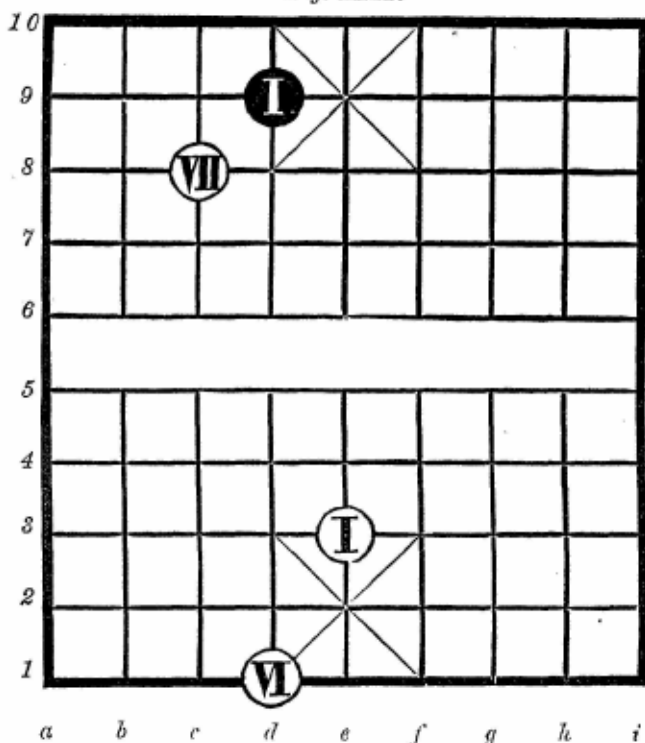
The Bishops and Ministers not being able to leave your Camp and Palace, are, as I have stated, useless for attacking, and as the Cannon cannot attack without an intervening man, there are no more endings where you can win with a single Piece or Pawn. I shall close the simple endings by showing how you can win with—

#### KING, CANNON AND PAWN AGAINST KING.

As you can win with King and Pawn alone, it seems a work of supererogation to show how you can do so with King, Cannon and Pawn; but the Cannon is such a strange Piece, that the more we know about it the better. So that, in what follows, I shall never attend to the attacking powers of the Pawn itself, but consider it simply as a "partition" for the Cannon.

As in all the preceding endings, we must distinguish two cases:—1st. Your King on the centre file. 2nd. Black King on that file. In the first case, if your Pawn is not farther advanced than the 7th rank, and on the same side as the adverse King, you can bring it on the same Palace file as the Black King, then play Cannon behind it, mating. If your Pawn is on the same side as the adverse King, but on the 8th rank, you can also win by gaining a move, either with King or Cannon, when the Black King is on the 9th rank. Figure XIII. will serve to show this position. You cannot play Pawn to *d* 8, as Black would take it, getting out

Fig. XIII.



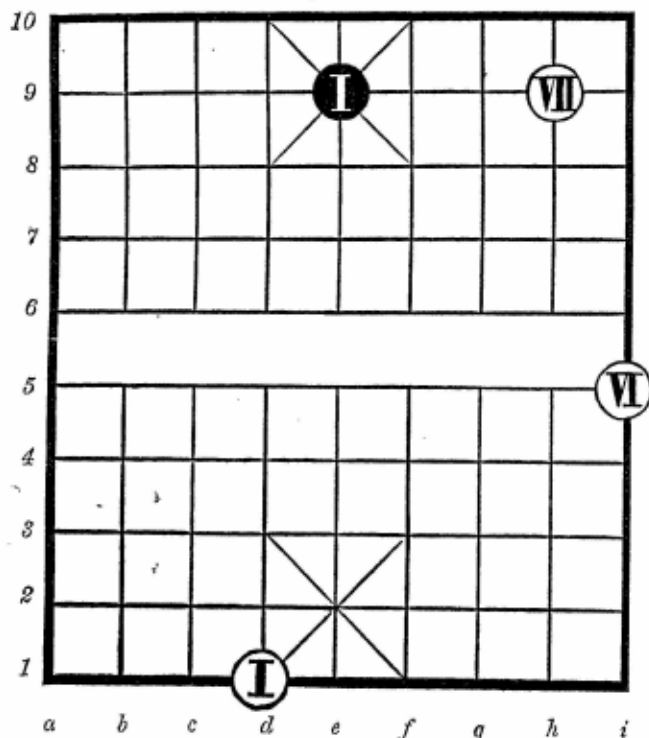
I.—King, 將 and 帥

VI.—Cannon, 砲 VII.—Pawn, 卒 and 兵

of the Cannon's check, so you must move King to *e* 2; Black must then retreat his King to *d* 10, and you play Pawn to *d* 8, covering check from the Cannon, and mating. When your Pawn is on the 9th rank, it is evident that it cannot serve as a "partition" for the Cannon to attack on a file, so you must then get your Cannon also on the 9th rank, behind the Pawn, so as to command that rank. You must do the same when your Pawn and the adverse King are on opposite sides of the centre file; in such a case, you cannot get your

Pawn over to the Black King's side to serve as a "partition" for the Cannon without losing command of the centre file, because crossing over, as soon as the Pawn is on the middle file, the Black King occupies it, pinning the Pawn until your King moves on to one of the side-files. So that, in this case, as well as when the Pawn is on the 9th rank, you have to get your Cannon on the same rank behind the Pawn;—this position is also the one you must secure when your King is on the side-file, *i.e.*, the second case, so I shall examine all these cases together, as they require the same mode of attack.

Fig. XIV.



I.—King, 帥 and 將

VI.—Cannon, 砲

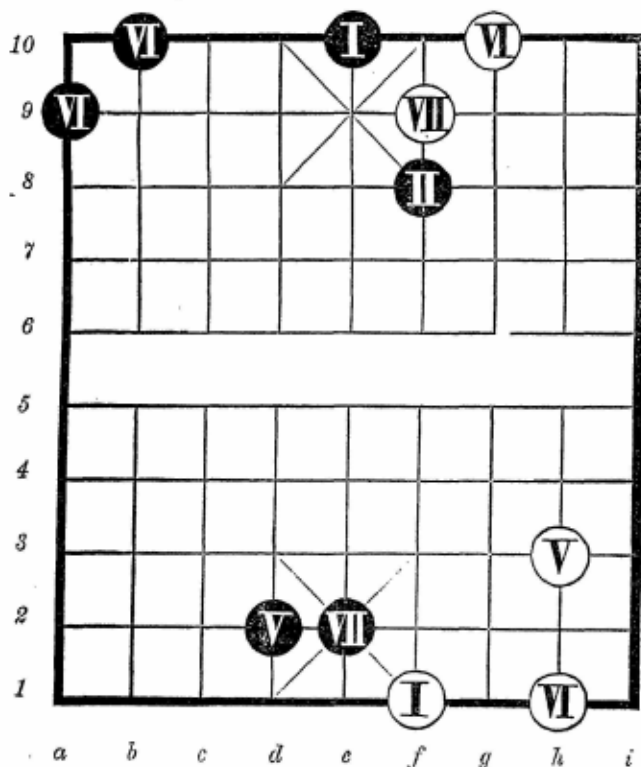
VII.—Pawn, 卒 and 兵

Figure XIV. illustrates the second case, and, as I have said, will serve also for some positions of the first case. You cannot drive the Black King permanently off the middle file with Cannon and Pawn, because as soon as you have driven off the King and occupied the centre file with your King, if you move away either Pawn or Cannon to commence the attack on the Black King on the side-file which he occupies, the King comes back to the centre file, pinning either Pawn or Cannon which may be interposed between the two Kings. You must proceed by establishing both Pawn and Cannon on the 9th rank, the Cannon behind the Pawn; in this way the Black King is confined in his movements either to the 8th or 10th rank, and as your King commands one of the three places in either of those ranks of the hostile Palace, the adverse King has only two places on which to move,—alternately from the centre file to the side-file not commanded by your King; as soon as he moves to the side-file you occupy the middle file with your King, and the adversary is stalemated. Figure XIV. will make clear all the preceding explanations. If it is your move, you play Cannon to *i* 9, checking; Black must play his King either to *e* 8 or *e* 10; in either case, you gain a move with your King, moving him to *d* 2; Black must play his King to *f* 8 or *f* 10, according as his first move was to *e* 8 or *e* 10; you play your King to *e* 2, and Black is stalemated. The Cannon and Pawn commanding the 9th rank, and your King the centre file, if it is Black's move, you win in only two moves. He must leave either the 9th rank or the centre file, by playing his King to *e* 8 or *e* 10 in the first case, to *f* 9 in the second case. In the first case you still play Cannon to *i* 9, Black must move to *f* 8 or *f* 10, you play King to *e* 1, and stalemate. In the second case you play King to *e* 1, Black must move his King to *f* 8 or *f* 10, you then play Cannon to *i* 9, stalemating.

## COMPLEX ENDINGS.

The Chinese have collected a great variety of these, but most of them are very long, and with so many variations, running up sometimes to several hundred moves, that I cannot give the reader more than two examples, which, from their shortness and brilliancy, I may call problems. I shall give the solutions with explanatory notes. Figure XV. gives the first position :—

Fig. XV.



I.—King, 將 and 帥

II.—Minister, 士

V.—Rook, 車

VI.—Cannon, 砲

VII.—Pawn, 卒 and 兵

If it were Black's turn to move, he could mate by the following moves:—

Pawn, *e 2—e 1*, check.

As the White King cannot go to *f 2*, by reason of the Rook at *d 2*, and cannot take the Pawn with his King, on account of its being protected by the Black King, he must play—

Cannon *h 1—e 1*, takes Pawn.

Black then plays—

Cannon *b 10—b 1*, check.

White must move away Cannon, say—

Cannon *e 1—e 4*.

Black plays—

Cannon *a 9—a 1*, mate.

We thus see that White's King is in a very critical position, and though Black's King may be checked, White, owing to the embarrassed state of his men, apparently cannot win. The following moves will, however, show how he can do so in a very pretty way:—

(1) Rook *h 3—e 3*, check.

It is useless for Black to interpose his Minister, as he would be taken, so he must play—

(1) King *e 10—d 10*.

White must keep up the attack—

(2) Rook *e 3—e 10*, double check.

Black cannot take the Rook with his Cannon, as he would still be under check from White Cannon at *g 10*, and if he take Rook with his King, White plays the other Cannon *h 1—h 10*, mating. So he must play—

(2) King *d 10—d 9*.

White plays—

(3) Cannon *h 1—h 9*, check.

If Black plays his King to *d 8*, White can check with his Rook at *d 10*, forcing Black's King to *e 8*, and then check first with one Cannon at *g 8*, and when Black removes the

Minister, with the other Cannon at *h* 8, mating. Black having no option must play—

(3) Minister *f* 8—*e* 9.

(4) Rook *e* 10—*d* 10.

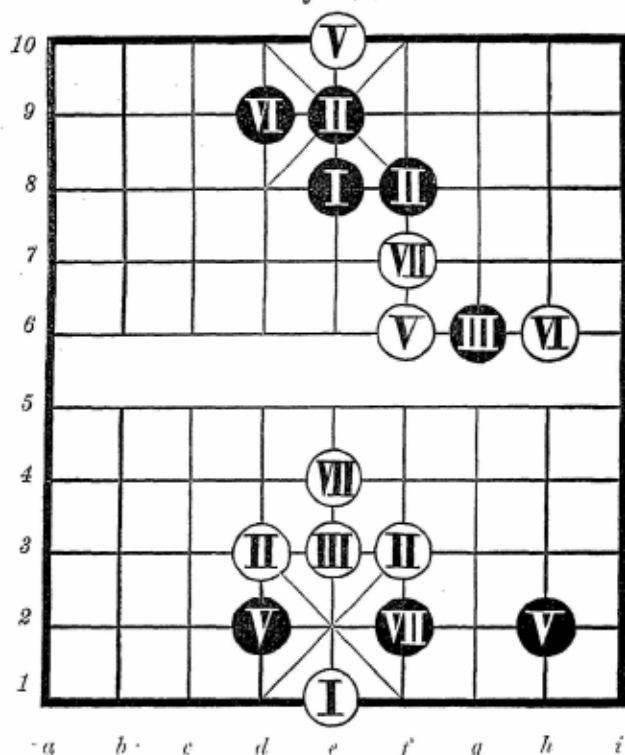
This move, and the following one, are very pretty. Black *must* take the Rook—

(4) King *d* 9—*d* 10, takes Rook.

(5) Pawn *f* 9—*f* 10, mate.

Black cannot go to *d* 9, as it is commanded by the Cannon at *h* 9.

Fig. XVI.



I.—King, 將 and 帥  
 III.—Bishop, 象 and 相  
 VI.—Cannon, 砲

II.—Minister, 士  
 V.—Rook, 車  
 VII.—Pawn, 卒 and 兵



Figure XVI. gives the second position. A glance will show that Black can mate White on the move, by playing Rook  $h\ 2-h\ 1$ . White can only save himself as follows :

(1) Pawn  $f\ 7-e\ 7$ , check.

(1) King  $e\ 8-d\ 8$ .

Black has no other move.

(2) Rook  $f\ 6-f\ 8$ , takes Minister, check.

This is the beginning of a series of sacrifices quite in Morphy's style, leading up, however, to a complete rout of Black's men. Black must play—

(2) Minister  $e\ 9-f\ 8$ , takes Rook.

White continues his sacrifices—

(3) Rook  $e\ 10-e\ 8$ , check.

Black cannot take the Rook with his King, as it is protected by the Pawn, so he must play—

(3) Bishop  $g\ 6-e\ 8$ , takes Rook.

Black's King is blocked up by his own men. White has still one more sacrifice to make—

(4) Pawn  $e\ 7-d\ 7$ , check.

(4) Cannon  $d\ 9-d\ 7$ , takes Pawn.

Black's move is compulsory—

(5) Cannon  $h\ 6-d\ 6$ , check.

This move, the last of a beautiful combination, strongly exemplifies the power of the Cannon ; at the same time that it checks, it attacks the Black Rook at  $d\ 2$ —

(5) Cannon  $d\ 7-e\ 7$ .

Black must remove the Cannon, as it is his only way out of check—

(6) Cannon  $d\ 6-d\ 2$ , takes Rook, check.

This is also a double attack, check to the King and to the Rook at *h 2*—

(6) Cannon *e 7*—*d 7*.

Black has no other move—

(7) Cannon *d 2*—*h 2*, takes Rook.

And White has broken up the whole of Black's attack, and saved himself from the impending mate.



## ADDENDUM.

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At a Meeting of the Society held on the 22nd October 1888, a paper was read by Mr. W. R. CARLES, on a Corean monument bearing inscriptions in Chinese and Manchu characters, which commemorates a Manchu invasion of Corea in 1637 A.D.

A translation of the Chinese on the face of the monument will be found in the current volume of the Society's Journal, pp. 1 *seqq.*

In a postscript to the paper it was mentioned that rubbings of the inscriptions had subsequently been received from Mr. COLIN M. FORD, H.B.M. Acting Consul-General in Corea. The Manchu inscription on the reverse of the monument having thus reached the hands of the Society, has been copied and photo-lithographed, and is now published in the hope that some competent Manchu scholar will furnish the Society with a translation, and notes on any points of special interest in it.

## NOTES AND QUERIES.

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### AGES OF CANDIDATES AT CHINESE EXAMINATIONS; TABULAR STATEMENT.

There are probably few countries where the system of examination has attained so complete a development as is the case in China. Unrestricted competition pervades the whole country and penetrates down to, and permeates through, the regions of commerce and agriculture. The application of the same principle is brought to bear with equal stringency on mental and intellectual matters, with such success that the product, the great civilian class in China, has for many centuries held its own against all attacks. Great generals, successful invaders, and powerful emperors have had to bend before the resistless assaults, or obdurate resistance, of this powerful hierarchy; while in modern times European diplomacy has not yet been a match for this strong organization. One peculiarity of the examination system in China is the absence of any limit of age for intending competitors. Children of 12 to 15 and dotards of 80 can all equally compete at the same examination. The veterans rarely or never succeed, but nearly every list of successful candidates contains the names of two, three or four youthful prodigies under 20 years of age. To show also how little age is taken into consideration, examiners, often men not much over 30, take rank, during the period of the *chu-jen* examination, with the highest provincial authority of the provincial capital where such examination is held.

Province.	Over 10 and under 20 years age.	Over 20 and under 30	Over 30 and under 40	Over 40 and under 50	Over 50 and under 60	Over 60 and under 70	Total.	
Keang-Su } An-Hui }	6	69	50	16	5	—	146	1st & 2nd: 32 & 37 years.
Che-Kiang ...	5	45	27	25	3	—	105	1st 44: 2nd 18: 3rd 46 "
Fuh-Keen ...	1	48	45	6	2	1	103	1st 27: 2nd 22: 3rd 30 "
Yun-Nan ...	8	40	9	3	3	1	64	1st 20: 2nd 59: 3rd 24 "
Kwei-Chow ...	2	27	11	6	4	—	50	1st 22: 2nd 23: 3rd 24 "
Keang-Si ...	2	43	44	11	3	1	104	1st 22: 2nd 28: 3rd 39 "
Kwang-Tung	2	35	36	11	4	—	88	1st 27: 2nd 41: 3rd 36 "
Shan-Hsi ...	—	29	32	10	1	—	72	1st 36: 2nd 29: 3rd 32 "
Hu-Nan .....	—	31	20	8	2	—	61	1st 30: 2nd 27: 3rd 23 "
Hu-Pei .....	2	25	26	6	2	—	61	1st 23: 2nd 30: 3rd 39 "
Kwang-Si ...	—	—	—	—	—	—	51	
Shan-Tung ...	—	—	—	—	—	—	74	
Shen-Si .....	—	—	—	—	—	—	52	
Ho-Nan .....	—	—	—	—	—	—	82	
Kan-Su .....	—	—	—	—	—	—	42	
Chihli .....	—	—	—	—	—	—	279	
Sze-Chuan ...	—	—	—	—	—	—	87	
Total ...	...	...	...	...	...	...	1,521	

An attempt is made in this contribution to give a tabular statement of the ages of the successful candidates at the examinations which took place in 1885 for the *chu-jen* degree. The returns are not complete, as, unfortunately, seven of the provinces, including the important province of Chihli, did not give the ages of the candidates in their printed returns; such as they are, however, they are given, and it will be seen the ages of the great majority of the successful candidates range between 20 and 40.

E. L. OXENHAM.

December 13th, 1888.

## PROCEEDINGS.

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MINUTES of a GENERAL MEETING held at the Society's Library on  
Monday, 10th December 1888, at 9 p.m.

Mr. P. J. HUGHES, Vice-President, occupied the chair. There were about 90 persons present.

The CHAIRMAN said that he had had only a few minutes' notice of the honour that was to devolve on him of introducing to the Society Commander Moore, who was to read the paper of the evening, on the Bore of the Tsien-tang River, and that he was in consequence not prepared to make any remarks on the paper further than that he believed it would be found of interest fully equal to that of any papers presented to the Society. He begged leave to introduce Commander Moore.

Commander MOORE, R.N., then read his paper entitled, "The Bore of the Tsien-tang Kiang (Hangchau Bay)," which is printed at pp. 185 *sqq.* of this fascicule.

The CHAIRMAN said that the Society was greatly indebted to Commander Moore for the interesting communication they had just heard, and called on the audience for any remarks that suggested themselves.

Mr. KINGSMILL said that one curious point had occurred to him. The course of the Tsien-tang had undoubtedly changed by erosion, the river formerly discharging far to the south of its present mouth; and as Commander Moore had stated that the Bore was occasioned by a coincidence of certain conditions, one of which was the situation of the mouth of the river at the apex of a wide-mouthed funnel, open to the East, it was probable that it was only about the time mentioned in the paper (A.D. 911) as that of the construction of the sea-wall, that the Bore began to be a danger to the country.

General MESNY gave some particulars regarding the Bore of the Hoogly. He stated that the general shape of Hangchow Bay, as shown on the chart hanging on the wall, bore a strong resemblance to that of the estuary of the Hoogly, and that the inciting causes were probably the same. He further stated that a sum of about 80,000 Taels was spent annually in repairs and maintenance of the splendid sea-wall from Hangchow to the mouth of the river.

A MEMBER called attention to the resemblance in shape between the embouchure of the Tsien-tang and that of the Thames, and asked how it could be explained that there was no Bore in the latter river.

Commander MOORE said that he had been struck by the resemblance in shape alluded to, and that he could only account for the absence of a Bore in the Thames by the fact that the flood tide, to reach its mouth, came round by the northern end of Scotland and at the Thames met a corresponding flood coming through the Straits of Dover, and that the two flood-currents neutralised each other. Further, the Thames had no such rapid natural current as was found in the Tsien-tang.

As there was no further discussion, the HON. SECRETARY, alluding to the lateness of the hour, moved that the hearty thanks of the Society be tendered to Commander Moore for his interesting and valuable contribution to its Proceedings. This was seconded and carried by acclamation.

The meeting then adjourned.

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MINUTES of a GENERAL MEETING held at the Society's Library on  
Wednesday, 15th May 1889, at 9 p.m.

Dr. R. A. JAMIESON, Vice-President, in the Chair.

The CHAIRMAN said that the meeting had been called at shorter notice than usual, in order to allow Mr. Volpicelli, the author of the paper on Chinese Chess, which was to form the subject of discussion that evening, to read it; but, unfortunately, Mr. Volpicelli

had been obliged to hurry through Shanghai, and it therefore had devolved upon the Honorary Secretary and himself to read the paper and illustrate it by the diagrams on the blackboard, which were enlargements of those which accompanied the manuscript.

After the paper had been read, Mr. P. G. von MÖLLENDORFF, referring to other literature on the same subject, mentioned a very exhaustive paper which had been written by his brother, Mr. Otto von Möllendorff, and published in the *Mittheil. der Gesells. f. Nat- u. Völkerkunde Ostasiens.*, Vol. II. (1878).

A vote of thanks was proposed by the CHAIRMAN to Mr. Volpicelli for the valuable information on Chinese Chess which he had furnished to the Society. The motion was seconded by Mr. P. J. HUGHES and carried unanimously.

The meeting then adjourned.

[*Mr. Volpicelli's paper is printed at pp. 248 sqq. of this fascicule.*]

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MINUTES of the ANNUAL GENERAL MEETING held at the Society's Library on Tuesday, 28th May 1889, at 9 p.m.

Dr. R. A. JAMIESON, Vice-President, in the Chair.

The meeting was purely formal, having been called for the presentation of Reports and Accounts, and the election of officers.

Before submitting these to the meeting, the Chairman announced the election of the following new members :—Mr. R. M. Campbell, Rev. J. S. Adams, Monsieur E. Chavannes and Mr. F. H. Mörsel.

The Reports and Accounts having been read by the Secretary, the CHAIRMAN proposed that "The Reports and Accounts as read be passed." The motion was seconded by Mr. KINGSMILL and carried unanimously.

The CHAIRMAN presented a copy of the last fascicule of the Society's Journal, containing a paper by Mr. Geo. Jamieson, President of the Society, on "The Tenure of Land in China and the Condition of the Rural Population," as well as a number of



contributions from missionaries and other residents in the interior, detailing the customs relating to the same matters locally ruling in widely-separated districts. This fascicule had just been completed, and would be in the hands of members in the course of a few days. In conjunction with the papers first mentioned, the greater part of the literature that had hitherto appeared on the subject of land tenure had been reproduced, and it was to be hoped that the importance of the volume would find for it a ready sale, as it formed a complete manual of information upon subjects which interested every foreign resident in China.

He also referred to a rubbing of the Tablet of Yü, which had been presented to the Society by the Rev. F. H. James, the characters in which were dissimilar to those generally known.

The CHAIRMAN then submitted the names of the gentlemen suggested by the outgoing Council for acceptance by the Society as the Council for the coming session, and proposed that the list selected be endorsed by the meeting. The following was the list:— P. J. HUGHES, M.A., *President*; W. R. CARLES and P. G. VON MÖLLENDORFF, *Vice-Presidents*; CARL BOCK, *Curator*; WM. BRIGHT, *Secretary*; R. M. CAMPBELL, *Treasurer*; ERNST FABER, DR. THEOL., *Librarian*; JOHN EDKINS, D.D., W. S. EMENS, J. H. FOCKE, DR. JUR., R. A. JAMIESON, M.A., and A. E. MOULE, B.D.

Mr. KINGSMILL seconded the motion, which was carried unanimously.

The CHAIRMAN spoke of the debt due by the Society to the officers for the past year, viz., the Hon. Secretary, Mr. H. B. MORSE, to whom a special vote of thanks had already been passed, the Treasurer, Mr. GEO. BROWN, the Curator, Mr. CARL BOCK, and especially to the Librarian, Mr. BECK, who for three years had discharged the duties of that office, duties of which the onerousness was in some measure evidenced by the bulky enclosure which accompanied his Report.

Mr. P. J. HUGHES said that, although highly complimented by having been elected President for the ensuing year, he felt that his task would be particularly difficult in attempting to follow in the

footsteps of his distinguished predecessors. He begged to move a vote of thanks to Dr. JAMIESON for the very efficient manner in which he had discharged the duties of President during the past year.

Archdeacon MOULE seconded the motion, which was carried by acclamation, and Dr. JAMIESON after thanking the Society for the kind terms in which he had been spoken of, declared the meeting adjourned until the beginning of the next session.

### COUNCIL'S REPORT FOR THE YEAR 1888.

1.—The following members of Council and office-bearers were elected at the Annual Meeting held under the presidency of Dr. Hirth on the 4th April 1888:—

GEO. JAMIESON, Esq.,	<i>President.</i>
R. A. JAMIESON, M.A.,	} <i>Vice-Presidents.</i>
P. J. HUGHES, M.A.,	
H. B. MORSE, Esq.,	<i>Hon. Secretary.</i>
H. BECK, Esq.,	<i>Hon. Librarian.</i>
H. E. HOBSON, Esq.,	<i>Hon. Curator of the Museum.</i>
GEO. BROWN, Esq.,	<i>Hon. Treasurer.</i>
T. W. KINGSMILL, Esq.,	} <i>Councillors.</i>
J. H. FOCKE, DR. JUR.	
Rev. E. FABER, DR. THEOL.	
Ven. Archdeacon MOULE, B.D.,	
W. R. CARLES, Esq.,	
W. BRIGHT, Esq.	

Almost immediately after the election of the above Council, the Society sustained a great loss in the departure from Shanghai of its President. As the Constitution of the Society contains no provision for the resignation of a President in the course of his

year of office and the election of another in his place, Dr. Jamieson has, at the request of the Council, acted as President.

Messrs. H. B. Morse and H. E. Hobson have also left Shanghai in the course of the year, though, fortunately, in the case of the Honorary Secretary the Society had the benefit of his services until March 1889. Messrs. W. R. Carles and Carl Bock were appointed by the Council to the posts thus left vacant.

2.—*Members of the Society*.—Twenty new members joined the Society during the year 1888, and but few have retired. The list now numbers 9 Honorary, 25 Corresponding, and 225 Ordinary members.

3.—*Meetings*.—Five meetings were held during the year, when papers with the following titles were read:—

“A Corean Monument to Manchu Clemency,” by Mr. W. R. Carles.

“A Guide to True Vacuity,” by Yuen Yang-tsze, translated by Bishop Moule, D.D.

“Changchow, the Capital of Fuhkien in Mongol Times,” by Mr. Geo. Phillips, F.R.G.S., H.B.M. Consul at Foochow.

“The Porcelain Pagoda of Nanking,” a translation of the historical portion of a pictorial sheet engraved and published by the Buddhist High Priest in charge of the Pao-ên Temple, by Mr. H. E. Hobson.

“Tenure of Land in China and the Condition of the Rural Population,” by Mr. Geo. Jamieson, President of the Society.

“The Bore of the Tsien-tang Kiang (Hangchau Bay),” by Commander Osborne Moore, R.N.

“Chinese Chess,” by Mr. Z. Volpicelli.

4.—*Journal*.—Besides the above, which are published in the current volume, a valuable paper on “Chinese Names of Plants,” by Aug. Henry, M.A., L.R.C.P., referring more especially to plants found at Ichang and in its neighbourhood, was included in Vol. XXII., for 1887.

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Much attention was devoted by the Council to the establishment of a Trade and Commerce Museum, a project which it was found necessary to abandon for a time. The correspondence on the subject will be found at pp. 49 *sqq.* of the current volume of the Journal.

The Council are glad to announce that there are now no arrears in the publication of the papers read before the Society. The amount of matter printed this year is considerably in excess of that in ordinary years, and the fascicule on Land Tenure is especially bulky, containing reprints of most of the important papers which have previously appeared on the subject, and thus forming a monograph on this important subject.



*Appendix I.—TREASURER'S REPORT.*

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The Society's finances require little comment, their condition being satisfactory. There is a balance to credit of Tls. 153.58, which is not quite so large as that of last year. The decrease is chiefly due to the fact that a considerable number of subscriptions for 1888 are, from various causes, not yet collected. Proper steps are being take to call these in, and they will go to swell the funds for 1889. The booksellers state that their sales of the Society's Publications have been insignificant, and their returns are consequently allowed to stand over.

*Museum.*—The usual grants have been received from the English and French Municipal Councils. A slight increase in wages will be noticed, caused by the Taxidermist's pay having been raised a dollar a month. The other payments are as usual. The balance in hand is Tls. 178.41.

GEORGE BROWN,

*Hon. Treasurer.*

Shanghai, 1889.

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## THE HON. TREASURER IN ACCOUNT WITH THE CHINA BRANCH OF THE ROYAL ASIATIC SOCIETY

Dr.

FOR THE YEAR, 1888.

Cr.

FUNDS.		EXPENDITURE.	
	Tls. cts.		Tls. cts.
To Balance from 1887	390 18	By Printing and binding Journals...	374 92
" Subscriptions from Members \$290	211 20	" Postages ...	38 03
" Sale of 1 copy Journal, Vol. XV, for 1880	88	" Stationery ...	2 74
" Rent from Shanghai Library	100 00	" Advertising ...	45 52
" Bank Interest	4 08	" Municipal Taxes ..	12 67
		" Repairs and Furniture ...	25 80
		" Fire Insurance ...	6 55
		" Wages of Library Coolie ...	27 01
		" Chinese Copying and Translating	7 30
		" Coals and Gas ...	3 46
		" Commission to Shroff, collecting subscriptions	8 76
		" Balance ...	153 58
Tls. ...	706 34	Tls. ...	706 34

E. &amp; O. E.

SHANGHAI, 1889.

Compared with Vouchers and found correct,

R. M. CAMPBELL.

A. L. ROBERTSON.

GEORGE BROWN,  
Hon. Treasurer.

## THE HON. TREASURER IN ACCOUNT WITH THE SHANGHAI MUSEUM FOR THE YEAR 1888.

Dr.	FUNDS.		EXPENDITURE.		Cr.	
	Tls.	cts.	Tls.	cts.	Tls.	cts.
To Balance from 1887	...	123 02	By Wages of Taxidermist and Coolie	...	322 66	
" Grant by Municipal Council	...	500 00	" Municipal Council Taxes	...	12 67	
" Grant by French Municipal Council	...	100 00	" Fire Insurance	...	10 63	
" Returns by Taxidermist—Profit on work	...	22 27	" Rent of Rooms paid to Shanghai Library	...	150 00	
" Interest on Bank Account	...	4 08	" 1 Year's Interest on Loan from Recreation Fund	...	75 00	
			" Balance at Credit	...	178 41	
	Tls. 749	37		Tls. 749	37	

E. &amp; O. E.

SHANGHAI, 1889.

Compared with Vouchers and found correct,

R. M. CAMPELL.

A. L. ROBERTSON.

GEORGE BROWN,  
Hon. Treasurer.

*Appendix II.—CURATOR'S REPORT.*

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Since I had the pleasure to take charge of the museum in June last year, on Mr. Hobson's departure, I have to report the following donations to the museum :—

1888.

June 15.—2 *Alligator sinensis* (Chinese alligator).

July 4.—Piece of Coral.

„ 4.—Specimen of Insect-wax.

„ 19.—*Zygæna malleus* (hammerheaded shark).

„ 19.—Snake (common).

„ 19.—*Xylotrupes dichotomus*.

„ 19.—Snake.

Aug. 1.—*Lamia punctator* (longicorn).

Sept. 8.—*Manis* sp. (Phatagin)—spoiled, rotten skin.

„ 29.—6 moths (*Actais Luna*, *Saturnia Cynthia*).

„ 29.—(*Saturnia atlas* 2, death's-head moth 2). *Asteria*  
(starfish).

Oct. 18.—*Mustela sibirica* (chorok).

„ 24.—*Limosa Baeri* (bar-tailed godwit).

„ 29.—2 snakes.

„ 31.—*Hirundo gutturalis* (Eastern house swallow).

Nov. 15.—*Gorgonia* sp. (coral).

„ 20.—*Milous melanotus* (black-eared kite).

„ 26.—Laughing dove from Germany.

„ 26.—*Gecinus Guerini* (green wood-pecker).

„ 28.—*Mungos* (mongoose).

Dec. 4.—*Viverra* (little spotted civet).

„ 10.—*Lempigius semitorques* (collared owl).

„ 22.—*Tadorma Valpanser* (sheldrake).

„ 27.—A collection of butterflies and beetles.



1889.

- Jan. 10.—*Totanus calidris* (redshank).  
,, 10.—*Hæmatopus osculans* (Eastern oyster-catcher).  
,, 10.—*Mergus merganser* (goosander).  
,, 10.—*Grus monachus* (hooded crane).  
,, 11.—Sp. Crustacea.  
,, 14.—*Tarandus Rangifer* (reindeer).  
,, 21.—*Botaurus Stellaris* (bittern).  
,, 21.—*Anthus Blakistoni* (Blakiston's pipit).  
,, 23.—*Circus Spilonotus* (striped harrier).  
Feb. 12.—*Coccythraustes melanurus* (black-tailed hawfinch).  
,, 12.—*Colymbus septentrionalis* (red-throated diver).  
,, 19.—Sp. of Sulphur from Formosa.  
March 5.—*Colymbus septentrionalis* (red-throated diver).  
,, 26.—*Exocoetus volitans* (flying fish).

Of the animals presented, there are none new to science, most of them being common forms, the rarest being Blakiston's Pipit (*Anthus Blakistoni*), a bird common in Japan.

In the collection are a number of bird and mammal skins in a useless state. The ever-present moths and worms, and the great heat, coupled with the moisture, play havoc among specimens, especially the skins, not so much the stuffed specimens.

The museum can boast of a fine collection of local birds, most of them in a good state of preservation, and whenever opportunity occurs, new specimens have been bought to supplement old, invalid ones.

The number of visitors from 1st June 1888 to 30th April 1889 was 3,237.

CARL BOCK,  
*Hon. Curator.*

Shanghai, 10th May 1889.

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*Appendix III.—LIBRARIAN'S REPORT.*

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GENTLEMEN,

I now have the honour to submit my Report for the year ended 30th April 1889, comprising:—

- 1.—A List of Societies, Public Institutions and Periodicals exchanging Publications with the Society.
- 2.—(a).—A List of the Transactions of Learned Societies and Periodical Publications received;  
(b).—A List of Miscellaneous Works presented to the Library or purchased by the Society.

Numerous fresh applications for the Society's Journal have been received during the year, mostly from scientific Institutions; so far as the stock on hand permitted, they have been responded to.

The following fascicules have been published and distributed during the year, viz.:—

Vol. XXII., Fasc., 3-6, 1887.

„ XXIII. „ 1 and 2, 1888.

Vols. XXI. and XXII., which were issued in several parts or numbers, have now been bound in one volume each, and can be supplied on application to the undersigned.

The Agency for the sale of the Society's Publications on the Continent of Europe, more especially in Germany, has been entrusted to K. F. Koehler's Antiquarium, Berlin.

H. BECK,

*Hon. Librarian.*

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**List of Societies, Public Institutions, and Periodicals  
exchanging Publications with the Society.**

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**ASIA.**

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**CHINA.**

*Peking :*

Peking Oriental Society.

*Shanghai :*

Statistical Department, Imperial Maritime Customs.

Observatoire Magnétique et Météorologique de Zi-ka-wei.

Chinese Recorder and Missionary Journal.

**COCHIN-CHINA.**

*Saigon :*

Excursions et Reconnaissances.

Société des Etudes Indo-Chinoises de Saigon.

*Pnôm-Penh (Cambodia) :*

Comité d'Études Agricoles, Industrielles et Commerciales  
du Cambodge.

**HONGKONG.**

*Hongkong :*

Hongkong Observatory.

China Review.

**INDIA.**

*Bombay :*

Bombay Branch of the Royal Asiatic Society.

*Calcutta :*

Asiatic Society of Bengal.

Agricultural and Horticultural Society of India.

Geological Department of the Indian Museum.

Geological Survey of India.

*Colombo :*

Ceylon Branch of the Royal Asiatic Society.

## JAPAN.

*Tokio :*

Rōmaji Kai.

Deutsche Gesellschaft für Natur-und Völkerkunde Ostasiens.

*Yokohama :*

Asiatic Society of Japan.

The Chrysanthemum.

Japan Mail.

Japan Daily Herald.

## JAVA.

*Batavia :*

Bataviaasch Genootschap van Kunsten en Wetenschappen.

## STRAITS SETTLEMENTS.

*Singapore :*

Straits Branch of the Royal Asiatic Society.

## EUROPE.

## AUSTRIA-HUNGARY.

*Trieste :*

Società Adriatica di Scienza.

*Vienna :*

K. Akademie der Wissenschaften.

K. K. Geographische Gesellschaft.

K. K. Geologische Reichsanstalt.

K. K. Zoologisch-Botanische Gesellschaft.

K. K. Naturhistorisches Hofmuseum.

Orientalisches Museum.

Anthropologische Gesellschaft.

Deutsche Rundschau für Geographie und Statistik.

Oesterreichische Monatsschrift für den Orient.

*Budapest :*

Société Hongroise de Géographie.

BELGIUM.

*Brussels :*

Société Royale Belge de Géographie.  
Académie Royale des Sciences.

DENMARK.

*Copenhagen :*

Det Kongelige Danske Geografiske Selskab.

FRANCE.

*Havre :*

Société de Géographie Commerciale.

*Lyons :*

Société d'Anthropologie.  
Société de Géographie.

*Marseille :*

Société de Géographie.

*Paris :*

Société Asiatique.  
Société Académique Indo-Chinoise.  
Société des Études Japonaises, Chinoises, Tartares et Indo-Chinoises.  
Société d'Acclimatation.  
Société de Géographie.  
Société de Géographie Commerciale.  
Société d'Ethnographie.  
Musée Guimet.  
Annales de l'Extrême Orient et de l'Afrique.  
Revue Critique d'Histoire et de Littérature.

*Tours :*

Société de Géographie.

## GERMANY.

*Berlin :*

K. Preussische Akademie der Wissenschaften.

Gesellschaft für Erdkunde.

Gesellschaft für Anthropologie, Ethnologie und Urgeschichte.

Orientalische Gesellschaft.

Orientalische Bibliographie.

*Braunschweig :*

Verein für Naturwissenschaft.

*Bremen :*

Geographische Gesellschaft.

*Dresden :*

Verein für Erdkunde.

*Frankfurt a/ Main :*

Verein für Geographie und Statistik.

*Frankfurt a/ Oder :*

Naturwissenschaftlicher Verein des Reg.-Bez. Frankfurt.

*Gotha :*

Justus Perthes Geographische Anstalt.

*Greifswald :*

Geographische Gesellschaft.

*Halle a/ Saale :*

Verein für Erdkunde.

Kais. Leopoldinisch-Carolinische Deutsche Akademie der  
Naturforscher.

Deutsche Morgenländische Gesellschaft.

*Hamburg :*

Geographische Gesellschaft.

*Jena :*

Geographische Gesellschaft.

*Koenigsberg i/ Pr. :*

K. Physikalisch-Oekonomische Gesellschaft.

Orientalische Bibliographie.

*Leipzig :*

Deutsche Morgenländische Gesellschaft.  
 Verein für Erdkunde.  
 Magazin für die Literatur des In-und Auslandes.  
 Literatur-Blatt für Orientalische Philologie.  
 Museum für Völkerkunde.  
 Kgl. Sächsische Gesellschaft der Wissenschaften.

*Metz :*

Verein für Erdkunde.

*Munich :*

Kgl. Bayerische Akademie der Wissenschaften.

*Stuttgart :*

Württ. Verein für Handels-Geographie.

GREAT BRITAIN AND IRELAND.

*Dublin :*

Royal Dublin Society.

*Edinburgh :*

Royal Society.  
 Royal Physical Society.  
 Scottish Geographical Society.

*London :*

Royal Asiatic Society of Great Britain and Ireland.  
 Royal Society.  
 Royal Institution of Great Britain.  
 Royal Geographical Society.  
 Society of Biblical Archaeology.  
 Zoological Society.  
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## ITALY.

*Florence :*

R. Istituto di Studi Superiori (Accademia Orientale).  
Società Asiatica Italiana.

*Naples :*

Società Africana d'Italia.

*Rome :*

R. Accademia dei Lincei.  
Società Geografica Italiana.

*Turin :*

Cosmos.

## NETHERLANDS.

*Amsterdam :*

R. Aardrijkskundig Genootschap.  
Académie Royale.

*S'Gravenhage :*

K. Instituut voor de Taal-, Land- en Volkenkunde von  
Nederlandsch Indië.

## PORTUGAL.

*Lisbon :*

Sociedade de Geographia de Lisboa.  
Académie Royale des Sciences.

## RUSSIA.

*Charkow :*

Société des Sciences expérimentales.

*Kiew :*

Société des Naturalistes.



*Moscow :*

Société Impériale des Naturalistes.

*Odessa :*

Société des Naturalistes de la Nouvelle-Russie.

*St. Petersburg :*

Imperial Botanical Garden.

Imperial Geographical Society.

Académie Impériale des Sciences.

## SPAIN.

*Madrid :*

Sociedad Geográfica.

## SWEDEN.

*Stockholm :*

Svenska Sällskapet för Antropologi och Geografi.

## SWITZERLAND.

*Neuchâtel :*

Société Neuchâteloise de Géographie.

## AFRICA.

## EGYPT.

*Cairo :*

Société Khédiviale de Géographie.

## AMERICA.

## CANADA.

*Ottawa :*

Geological and Natural History Survey of Canada.

*Toronto :*

Canadian Institute.

## MEXICO.

*Mexico :*

Ministerio de Fomento.

Sociedad Científica "Antonio Alzate."

Observatorio Astronómico Nacional de Tacubaya.

## UNITED STATES.

*Boston, Mass ; Cambridge, Mass. ; New Haven, Conn. ;*

*Philadelphia :*

American Oriental Society.

*Boston :*

American Philological Association.

*Brookville, Ind. :*

Brookville Society of Natural History.

*Cambridge, Mass. :*

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Museum of Comparative Zoology at Harvard College.

*Chicago :*

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American Philosophical Society.

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*Sacramento, Cal. :*

California State Mining Bureau.

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California Academy of Sciences.  
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*San Francisco :*

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*Trenton :*

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No. 3, Jan. 1888.

*Washington :*

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„ xxxiii. „ „

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Industry of Leadville, Col. By the same Author.  
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Survey, for the year ending with June 1886 :

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„ ii, Sketches. „ „

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## AUSTRALASIA.

### AUSTRALIA.

*Brisbane (Queensland) :*

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the Royal Geographical Society of Australasia :

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„ iii, „ 1, 1888.

„ „ „ 2, 1889.

*Melbourne :*

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- Compilation of Notes and Memoranda bearing upon the use of Human Ordure and Human Urine in Rites of a Religious or Semi-Religious Character among various Nations. By John G. Bourke, U.S. Army. Washington, 1888. Presented by the Author.
- Bi-metallism in Europe. Reports from the Consuls of the United States. No. 87, Dec. 1887. Washington, 1887. Presented.
- Note on the Lapps of Finmark. By H.H. Prince Roland Bonaparte. Paris, 1886.
- La Nouvelle-Guinée. III<sup>e</sup> Notice : Le Fleuve Augusta. Paris, 1887. IV<sup>e</sup> Notice : Le Golfe Huon. Paris, 1887. By the same Author. Presented.
- Uebersicht über die Litteratur der Württembergischen und Hohenzollernschen Landeskunde. Herausgeg. von dem Württ. Verein für Handelsgeographie. Stuttgart, 1888. Presented.
- Die Völker des Ural und ihre Sprachen. Vortrag in der Ungar. Geograph. Gesellschaft von Paul Hunfalvy. Budapest, 1888. Presented.
- Reis in Oost-en Zuid-Borneo van Koetei Naar Banjermassin. By Carl Bock. S'Gravenhage, 1887. Presented by the Author.
- Antiquarian, Architectural and Landscape Illustrations of the History of Java. By the late Sir Thomas Stamford Raffles, F.R.S. London, 1844. Presented by J. W. Maclellan, Esq.
- How to enliven Geographical Instruction and to lighten it. By Dr. Konrad Ganzenmüller. (Reprinted from the American Geographical Society Bulletin, No. 4, 1887.) Presented by the Author.
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## APPENDIX.

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### LIST OF OFFICERS OF THE SOCIETY FOR 1889.

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*President:* P. J. HUGHES, M.A.

*Vice-Presidents:* { W. R. CARLES, Esq.  
P. G. VON MÖLLENDORFF, Esq.

*Hon. Secretary:* WM. BRIGHT, Esq.

*Hon. Treasurer:* R. M. CAMPBELL, Esq.

*Hon. Librarian:* REV. ERNST FABER, Dr. Theol.

*Hon. Curator of Museum:* CARL BOCK, Esq.

*Councillors:* { W. S. EMENS, Esq.  
Rev. J. EDKINS, D.D.  
J. H. FOCKE, Dr. Jur.  
R. A. JAMIESON, M.A.  
Ven. Archdeacon MOULE, B.D.

# LIST OF MEMBERS.

(Corrected to 31st August, 1889.)

Members are particularly requested to notify the Hon. Secretary of any change of address or other necessary correction to be made in this List.

† Indicates a Member who has contributed to the Society's Journal.

§ " Life Member of the Society.

Name.	Address.	Year of Election
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## Honorary Protector.

His Majesty LEOPOLD II, King of the Belgians.

## Honorary Members.

Alcock, Sir Rutherford, K.C.B., D.C.L.	Athenaeum Club, Pall Mall, London, S.W.	1864
Hart, Sir Robert, G.C.M.G., LL.D.	Inspectorate-General of Customs, Peking.	1864
Legge, Prof. James, D.D. ...	University of Oxford .. ...	1864
Richthofen, Freiherr F. von ...	Berlin ... ..	1880
Seward, George F. ... ..	Orange, Essex County, New Jersey, U.S.A.	1864
Wade, Sir Thomas F., G.C.B., M.A.	5, Salisbury Villas, Cambridge ...	1864
Yule, Colonel Henry, C.B. ...	India Office, London, S.W. ...	1874
Zottoli, Père Angelo ... ..	Jesuit Mission, Sicawei, Shanghai ...	1886

Name.	Address.	Year of Election
<b>Corresponding Members.</b>		
†Bastian, Dr. Adolph ...	Ethnological Museum, Berlin ...	1865
†Bretschneider, E., M.D. ...	Moika, 64, St. Petersburg ...	1880
Cordier, Henri ...	3, Place Vintimille, Paris ...	1886
†Edkins, Rev. Joseph, D.D. ...	Custom House, Shanghai. ...	1864
†Fritsche, H., PH.D. ...	C/o Russian Legation, Peking ...	1877
†Fryer, John ...	Kiangnan Arsenal, Shanghai ...	1868
†Gabelentz, Prof. Georg von der	Grassistrasse, Leipzig ...	1884
†Giles, Herbert A. ...	British Consulate, Ningpo ...	1880
Happer, Rev. A. P., D.D. ...	Canton ...	1864
Hepburn, J. C., LL.D. ...	245, Bluff, Yokohama, Japan ..	1864
†John, Rev. Griffith, D.D. ...	Hankow ...	1864
Keischke, Ito, M.D. ...	Tokio, Japan ...	1875
Kreitner, G. Ritter von ...	Yokohama, Japan ...	1880
†Lindau, Rudolph, PH.D. ...	C/o Auswärtiges Amt, Berlin ...	1864
Lockhart, Wm., F.R.C.S. ...	67, Granville Park, Blackheath, London, S.E.	1864
†Macgowan, D. J., M.D. ..	Custom House, Wenchow ...	1864
†Martin, Rev. W. A. P., D.D. ...	T'ung-wên Kuan, Peking ...	1864
†McCartee, D. B., M.D. ...	C/o Dr. Ellinwood, 23, Centre Street, New York, U.S.A.	1865
†Moule, Right Rev. Bishop, D.D.	Hangchow ...	1864
†Muirhead, Rev. W. ...	London Mission, Shanghai ...	1864
Rondot, Natalis... ..	C/o Chambre de Commerce, Lyons	1864
Schereschewsky, Right Rev. Bishop, D.D.	23, Bible House, New York, U.S.A.	1864
Széchenyi, Count Béla ...	Zinkendorf, Hungary ...	1880
†Williamson, Rev. A., LL.D. ...	3, Minghong Road, Shanghai ...	1864



Name.	Address.	Year of Election
<b>Ordinary Members.</b>		
Aalst, Jules A van ...	C/o Custom House, Shanghai ...	1888
§Abbott, R. J. ...	Custom House, Shanghai ...	1888
Acheson, James ...	C/o Custom House, Canton ...	1880
Adams, Rev. J. S. ...	Am. Bap. Miss. Union ; Kin-hwa fu, via Ningpo	1889
Addis, Charles Stuart ...	Hongkong & Shanghai Bank, Hong- kong	1885
Adler, Max ...	Messrs. Reiss & Co., Shanghai ...	1885
†Allen, H. J. ...	54, Cambridge Road, Brighton, Sussex	1872
Andersen, N. P. ...	C/o Custom House, Shanghai ...	1883
†Anderson, G. C. ...	C/o Messrs. Jardine, Matheson & Co., Shanghai	1880
Anding, W. ...	C/o German Consulate-General, Shanghai	1887
Arnoux, Comte G. d' ...	Custom House, Hankow ...	1883
Baber, E. C. ...	C/o British Consulate-General, Shang- hai	1877
§Ball, J. Dyer ...	Supreme Court, Hongkong ...	1883
Bamford, Rev. A. J., B.A. ...	Wolverhampton, Staffordshire ...	1881
Baux, G. ...	20, Place Denfert-Rochereau, Paris	1885
†Becher, H. M. ...	C/o Messrs. Jardine, Matheson & Co., Shanghai	1885
Beck, H. ...	23, Szechuen Road, Shanghai ...	1885
Beebe, R. C., M.D. ...	Nanking ...	1889
Bethge, C. ...	Casa Valentino Molo, Bellinzona, Switzerland	1887
Bock, Carl ...	Consulate-General for Sweden and Norway, Shanghai	1888
Booth, A. S. ...	C/o Custom House, Amoy ...	1884
Borkowsky, P. ...	C/o Messrs. Overbeck & Co., Shanghai	1886
Bottu, Prof. A. ...	Kiangnan Arsenal, Shanghai ...	1889
Bourne, F. S. A. ...	C/o British Consulate-General, Shanghai	1885
Brand, W. ...	C/o Robt. Brand & Co., 7, Union Street, Old Broad Street, Lon- don, E.C.	1887
Bredon, M. Boyd, B.A. ...	C/o Custom House, Shanghai ...	1883
Bredon, Robt. E., B.A. ...	C/o Custom House, Shanghai ...	1885
Bright, Wm. ...	Inspectorate-General of Customs, Shanghai	1885
Bristow, H. B. ...	British Consulate, Chefoo ...	1877
Brosche, H. ...	Custom House, Hankow ...	1881
Brown, Geo. ...	British Consulate-General, Shanghai	1887
§Brown, J. McLeavy, B.A. ...	C/o Custom House, Canton ...	1865
Brown, Thos. ...	Kelly & Walsh, Limited, Shanghai...	1885
Buchanan, J. ...	Messrs. J. P. Bisset & Co., Shanghai	1887

Name.	Address.	Year of Election
Burrows, T. D. ... ..	Custom House, Kowloon, C/o Lane, Crawford & Co., Hongkong	1886
†Bushell, S. W., M.D. ... ..	British Legation, Peking ... ..	1868
Butler, Count A. von ... ..	Formosa ... ..	1886
Butler, P. E. O'B. ... ..	British Consulate, Ningpo ... ..	1886
Campbell, R. M. ... ..	Agra Bank, Shanghai ... ..	1889
†Carles, W. R. ... ..	British Consulate-General, Shanghai	1887
Carrall, James W. ... ..	C/o Custom House, Amoy ... ..	1885
Chalmers, James L. ... ..	C/o Custom House, Canton ... ..	1885
Chavennes, E. ... ..	French Scientific Mission (Tientsin). Peking	1889
†Clayson, W. H. ... ..	C/o Custom House, Canton ... ..	1885
Cocker, T. ... ..	Custom House, Canton ... ..	1885
Cooper, W. M. ... ..	12, Rue de Calais, Boulogne-sur-Mer	1877
Corder, G. A. ... ..	Hongkong ... ..	1885
Cordes, Aug. C. ... ..	Messrs. A. Cordes & Co., Tientsin ...	1877
Coughtrie, J. B. ... ..	45, Queen's Road, Hongkong ... ..	1879
Creagh, E. Fitzgerald ... ..	Custom House, Yuensan, Corea ... ..	1886
Danforth, A. W. ... ..	Cotton Mill Co., Shanghai ... ..	1887
De Groot, Dr. J. J. M. ... ..	C/o Netherlands Consulate, Amoy ...	1887
Deighton-Braysher, C. ... ..	Custom House, Shanghai ... ..	1870
Dennys, H. L. ... ..	Secretary's Office, City Hall, Hongkong	1877
Dmitrevsky, P. A. ... ..	Russian Consulate, Hankow ... ..	1882
Dodd, John ... ..	C/o Messrs. Dodd & Co., Tamsui ... ..	1872
Dowdall, Chas. ... ..	21, Foochow Road, Shanghai ... ..	1881
§†Drew, E. B. ... ..	C/o Custom House, Shanghai ... ..	1882
Duncan, Chesney ... ..	Jenchuan, Corea ... ..	1889
Ebbs, W. ... ..	Messrs. R. Telge & Co., Shanghai ...	1886
Ehlers, Aug. ... ..	9, Hankow Road, Shanghai ... ..	1886
Emens, W. S. ... ..	U. S. Consulate-General, Shanghai ...	1886
†Faber, Rev. Ernst, DR. THEOL.	Saunders' Compound, Shanghai ... ..	1886
Faragó, Edm. ... ..	Poste Restante, Budapest, Hungary. ...	1877
Fergusson, T. T. ... ..	C/o Messrs. Fergusson & Co., Chefoo ...	1872
Finzi, Vito ... ..	C/o Italian Consulate, Shanghai ... ..	1885
Fisher, H. J. ... ..	C/o Messrs. W. M. Deacon & Co., 80, Bishopsgate Street Within, London	1877
Flothow, Carl ... ..	Messrs. Siemssen & Co., Shanghai ...	1886
Flothow, Hugo ... ..	Messrs. W. Meyerink & Co., Shanghai ...	1886
Focke, J. H., DR. JUR. ... ..	German Consulate-General, Shanghai ...	1882
Francis, R. ... ..	10, Peking Road, Shanghai ... ..	1888
Fraser, M. F. A. ... ..	British Consulate-General, Shanghai ...	1888
Frater, Alex. ... ..	British Consulate, Swatow ... ..	1877
Fries, S. Ritter von ... ..	Custom House, Lappa ... ..	1885
Fulford, H. E. ... ..	C/o British Consulate-General, Shanghai	1885
Gabriel, Hermann, DR. JUR. ...	C/o German Consulate, Amoy ... ..	1884
†Gardner, C. T. ... ..	British Consulate, Hankow ... ..	1877

Name.	Address.	Year of Election
Gatti, Carlo ... ..	C/o Messrs. Jardine, Matheson & Co., Shanghai	1886
Gebhardt, F. ... ..	Messrs. H.M. Schultz & Co., Shanghai	1886
Gowing, Lionel F. ... ..	6, Upper Park Road, Haverstock Hill, London, N.W.	1885
Grant, P. V. ... ..	Messrs. Boyd & Co., Shanghai	1871
Gulick, Rev. L. H., M.D. ... ..	3, Soochow Road, Shanghai...	1885
†Haas, Joseph ... ..	Austro-Hungarian Consulate, S'hai.	1869
Hall, J. C., M.A. ... ..	C/o British Consulate-Gen., Shanghai	1888
Hallifax, T. E. ... ..	Seoul, Corea ... ..	1889
Hanbury, T. ... ..	C/o Messrs. Iveson & Co., Shanghai.	1868
Happer, Andrew P., Jr. ... ..	C/o Custom House, Shanghai	1885
Harding, J. R. ... ..	Custom House, Amoy ... ..	1885
Hart, J. H. ... ..	C/o Custom House, Shanghai	1885
Hart, Rev. V. C., M.A. ... ..	314, Parkdal, Ontario, U.S.A.	1887
Henderson, D. M. ... ..	Custom House, Shanghai ... ..	1885
Henderson, E., M.D. ... ..	2, Shantung Road, Shanghai	1876
Henningsen, J. ... ..	C/o Great Northern Telegraph Co., Shanghai	1885
†Henry, A., M.A. ... ..	C/o Inspectorate-General of Customs, Storey's Gate, London	1881
Hey, E. ... ..	8, Foochow Road, Shanghai...	1886
Hippisley, A. E. ... ..	C/o Custom House, Lappa ... ..	1876
Hirsch, Emil Edler von ... ..	Austro-Hungarian Consulate, Yokohama	1887
†Hirth, F., PH.D. ... ..	83, Sendlingerstrasse, München, Germany	1877
Hjousbery, E. ... ..	C/o Messrs. Mustard & Co, Shanghai	1880
†Hobson, H. E. ... ..	C/o Custom House, Shanghai	1868
Hodges, Rev. H. C., M.A. ... ..	The Deanery, Shanghai ... ..	1887
Hoetink, B. ... ..	Deli (Sumatra), C/o Netherlands Consulate, Singapore	1882
Holst, J. M. ... ..	C/o Great Northern Telegraph Co., Shanghai	1886
†Hosie, Alex., M.A. ... ..	British Consulate, Wenchow	1877
How, A. J. ... ..	1, Hongkong Road, Shanghai	1876
Hsu Chia-Kuang ... ..	1, Honan Road, Shanghai ... ..	1887
Hsu Ch'iu-i ... ..	1, Honan Road, Shanghai ... ..	1887
†Hughes, P. J., M.A. ... ..	British Consulate-General, Shanghai	1868
Hughes, T. F. ... ..	Custom House, Amoy ... ..	1885
†Imbault-Huart, C. ... ..	C/o French Consulate, Canton	1880
Ivy, R. S., D.D.S. ... ..	1, Kiukiang Road, Shanghai	1889
†Jamieson, G. ... ..	H.B.M.'s Supreme Court, Yokohama	1868
Jamieson, J. W. ... ..	British Consulate, Canton ... ..	1888
†Jamieson, R. A., M.A. ... ..	40, Szechuen Road, Shanghai	1864
Jansen, D. C. ... ..	Astor House, Shanghai ... ..	1877
Kenmure, A. ... ..	British and Foreign Bible Society, Canton	1887
Kennedy, General J. D. ... ..	C/o U.S. Consulate-General, Shanghai	1888

Name.	Address.	Year of Election
Keswick, J. J. ... ..	C/o Messrs. Jardine, Matheson & Co., Shanghai	1885
King, Paul H. ... ..	Custom House, Chefoo ... ..	1886
†Kingsmill, Thos. W. ... ..	28, Kiangse Road, Shanghai... ..	1864
Kleinwächter, F. ... ..	C/o Custom House, Shanghai ... ..	1868
†Kopsch, H. ... ..	C/o Custom House, Tamsui ... ..	1877
Korff, Adalbert... ..	Messrs. Melchers & Co., Shanghai ... ..	1886
Latham, T. ... ..	C/o E. Robinson, Esq., Hongkong ... ..	1886
Lenz, Ph., PH.D. ... ..	German Legation, Peking ... ..	1885
Lépassier, E. ... ..	C/o Custom House, Shanghai ... ..	1885
Lieder, Ph. ... ..	Messrs. Mandl & Co., Shanghai ... ..	1886
†Little, Archibald J. ... ..	C/o R. W. Little, Esq., <i>North China</i> <i>Herald Office</i>	1868
Little, L. S., B.A. ... ..	C/o R. W. Little, Esq., <i>North China</i> <i>Herald Office</i>	1879
Little, Robt. W. ... ..	<i>North China Herald Office</i> ... ..	1886
Llorente, Conde de ... ..	C/o Spanish Consulate, Shanghai ... ..	1886
Lockhart, J. H. Stewart ... ..	Hongkong ... ..	1885
Macgregor, John ... ..	Messrs. Jardine, Matheson & Co., Shanghai	1888
Macintyre, Rev. John ... ..	Newchwang ... ..	1880
Mackey, Jas. ... ..	38, Yama, Kobe, Japan ... ..	1886
Maclellan, J. W. ... ..	C/o <i>North-China Herald</i> , Shanghai	1888
Major, E. ... ..	14, Hankow Road, Shanghai ... ..	1887
Martinoff, G. ... ..	Tientsin ... ..	1889
McDougal, H., M.B. ... ..	Amoy ... ..	1885
McIntosh, G. ... ..	3, Minghong Road, Shanghai ... ..	1889
†Medhurst, Rev. C. Spurgeon ... ..	C/o Messrs. Sietas & Co., Chefoo ... ..	1888
Melchers, W. ... ..	Messrs. Melchers & Co., Hongkong... ..	1886
Mencarini, J. ... ..	C/o Custom House, Shanghai ... ..	1887
Mertz, C., PH.D. ... ..	C/o German Consulate, Amoy ... ..	1883
Metzger, E. ... ..	29, Kriegsbergstrasse, Stuttgart ... ..	1887
Meyer, R. ... ..	C/o J. J. Buchheister, Esq., Shanghai	1887
Meyer, Th. ... ..	9, Hankow Road, Shanghai ... ..	1886
Milles, W. J., F.R.C.S. ... ..	2, Shantung Road, Shanghai ... ..	1885
Mills, Lieut. D. A., R.E. ... ..	Bude, Cornwall ... ..	1888
Mittag, M. ... ..	Messrs. Gipperich & Burchardi, S'hai.	1887
†Möllendorff, O. F. von, PH.D... ..	German Consulate, Manila ... ..	1877
†Möllendorff, P. G. von ... ..	Inspectorate-General of Customs, Shanghai	1877
†Morrison, G. J., M.L.C.E. ... ..	Messrs. Morrison & Gratton, Shanghai	1880
Morse, H. B. ... ..	Custom House, Pakhoi ... ..	1888
Mörsel, F. H. ... ..	Custom House, Jenchuan ... ..	1889
Mortimore, R. H. ... ..	British Legation, Peking ... ..	1885
Moule, Ven. Archdeacon A. E. B.D. ... ..	Church Missionary Society, Shanghai	1888
Mowat, R. A. ... ..	H.B.M.'s Supreme Court, Shanghai... ..	1888
Müller-Beeck, Geo. ... ..	C/o German Consulate-General, Yokohama, Japan	1886
Murray, D. S. ... ..	British and Foreign Bible Society, Shanghai	1887

Name.	Address.	Year of Election
† Nocentini, L. ... ..	Via del Proconsolo, 21; Firenze, Italy	1884
Novion, A. ... ..	C/o Custom House, Shanghai	1885
Nully, R. de ... ..	Chateau de Bernos, Pas St. Laurent, Médoc, Bordeaux	1884
Ohlmer, E. ... ..	Hildesheim, Hanover, Germany	1885
Ottomeier, P. A. W. ... ..	Messrs. Siemssen & Co., Shanghai	1886
Owen, Rev. G. S. ... ..	London Missionary Society, Peking.	1872
Oxenham, E. L. ... ..	C/o British Consulate-General, Shanghai	1887
Palamountain, B. ... ..	Inspectorate-General of Customs, Shanghai	1886
† Parker, E. H. ... ..	British Consulate, Pagoda Anchorage, Foochow	1877
Patersson, J. W. ... ..	C/o Custom House, Canton	1883
Perkins, H. M., D.D.S. ... ..	1, Kiukiang Road, Shanghai	1885
Peterson, Denton E., D.D.S. ... ..	The Club, Shanghai	1887
Pichon, L., M.D. ... ..	16, Peking Road, Shanghai	1876
Piry, Théophile ... ..	Inspectorate-Gen. of Customs, Peking	1885
† Phillips, Geo. ... ..	British Consulate, Foochow	1883
Plancy, V. Collin de ... ..	Seoul, Corea	1877
† Playfair, G. M. H. ... ..	British Consulate, Tamsui	1885
Prentice, John ... ..	Messrs. Boyd & Co., Shanghai	1883
Price, G. U. ... ..	Messrs. Tait & Co., Amoy	1886
Pym, E. T. ... ..	Custom House, Wuhu	1885
Ramsay, H. F. ... ..	Hankow	1884
Bathsam, Th. ... ..	German Consulate, Canton	1887
Rayner, Charles ... ..	C/o Messrs. Carlowitz & Co., Tientsin	1886
Rees, Claude A. ... ..	Messrs. Gilmour & Co., Shanghai	1889
Reinsdorf, F. ... ..	German Consulate, Seoul, Corea	1883
Rémusat, J. L. ... ..	C/o Custom House, Canton	1885
Bennie, Sir Richard T. ... ..	H.B.M.'s Supreme Court, Shanghai	1885
† Rhein, J. ... ..	C/o Netherlands Legation, Peking	1877
Riva, Achille ... ..	C/o Messrs. Russell & Co., Shanghai	1885
Rocher, Emile ... ..	Custom House, Hanou	1877
Rocher, Louis ... ..	Custom House, Ningpo	1884
Rockhill, W. W. ... ..	No. 1620, 19th St., Washington, D.C.	1885
Rosthorn, A. Edler von ... ..	C/o Custom House, Hankow	1888
Ruhstrat, Ernst ... ..	C/o Custom House, Shanghai	1886
Russell, Sir Jas., C.M.G. ... ..	Hongkong	1870
Russell, W. B. ... ..	Custom House, Newchwang	1886
Sampson, Theo. ... ..	C/o Custom House, Canton	1868
Samson, J. ... ..	C/o Messrs. Reid, Evans & Co., Shanghai	1877
Samwer, Ernst ... ..	Cöln a/R, Germany	1886
Saunders, W. ... ..	14, Manor Road, Brockley, Kent	1865
Schjölth, Fr. ... ..	Custom House, Chinkiang	1885
Schmacker, B. ... ..	Messrs. Carlowitz & Co., Shanghai	1887
Schmidt, K. ... ..	Messrs. Carlowitz & Co., Shanghai	1888
Schröder, A. ... ..	C/o Pharmacie de l'Union, Shanghai	1885
Schulze, F. W. ... ..	Jenchuan, Corea	1879
Seckendorff, Baron Edm. von.	German Consulate, Tientsin	1880

Name.	Address.	Year of Election
Shinagawa, E. ... ..	C/o Japanese Consulate-Gen., S'hai	
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Southey, T. S. ... ..	Custom House, Amoy ... ..	1880
Spinney, W. F. ... ..	Custom House, Wuhu ... ..	1885
Startseff, A. D. ... ..	Messrs. Tokinakoff, Molotkoff & Co., Tientsin	1889
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Streich, K. I. ... ..	C/o German Consulate, Swatow ... ..	1880
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Tata, D. B. ... ..	Messrs. Tata & Co., Shanghai ... ..	1874
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Taylor, F. E. ... ..	C/o Custom House, Kowloon ... ..	1885
Underwood, G. R., M.B. ... ..	Kiukiang ... ..	1888
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Vissière, A. ... ..	86, Avenue de l'Est, Parc St. Maur (Seine)	1880
Voelkel, S. ... ..	Pharmacie de l'Union, Shanghai ... ..	1885
†Volpicelli, Z. H. ... ..	C/o Custom House, Shanghai ... ..	1886
§Vouillemont, E. G. ... ..	Shanghai ... ..	1888
Wale, H. T. ... ..	Shanghai Club ... ..	1886
Wallberg, B. ... ..	Messrs. Kirchner & Büger, Shanghai	1887
Washbrook, W. A. ... ..	Custom House, Chinkiang ... ..	1881
Watters, T., M.A. ... ..	British Consulate, Newchwang ... ..	1865
Wicking, H. ... ..	Club Chambers, Hongkong ... ..	1877
Wilcox, R. C. ... ..	Daily Press, Hongkong ... ..	1877
Williams, Rev. E. T. ... ..	Nanking ... ..	1889
Wood, A. G. ... ..	Messrs. Gibb, Livingston & Co., Shanghai	1879
Zedelius, C., M.D. ... ..	18, Kiangse Road, Shanghai ... ..	1885

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CHINA BRANCH  
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ROYAL ASIATIC SOCIETY  
FOR THE YEAR 1889-90.

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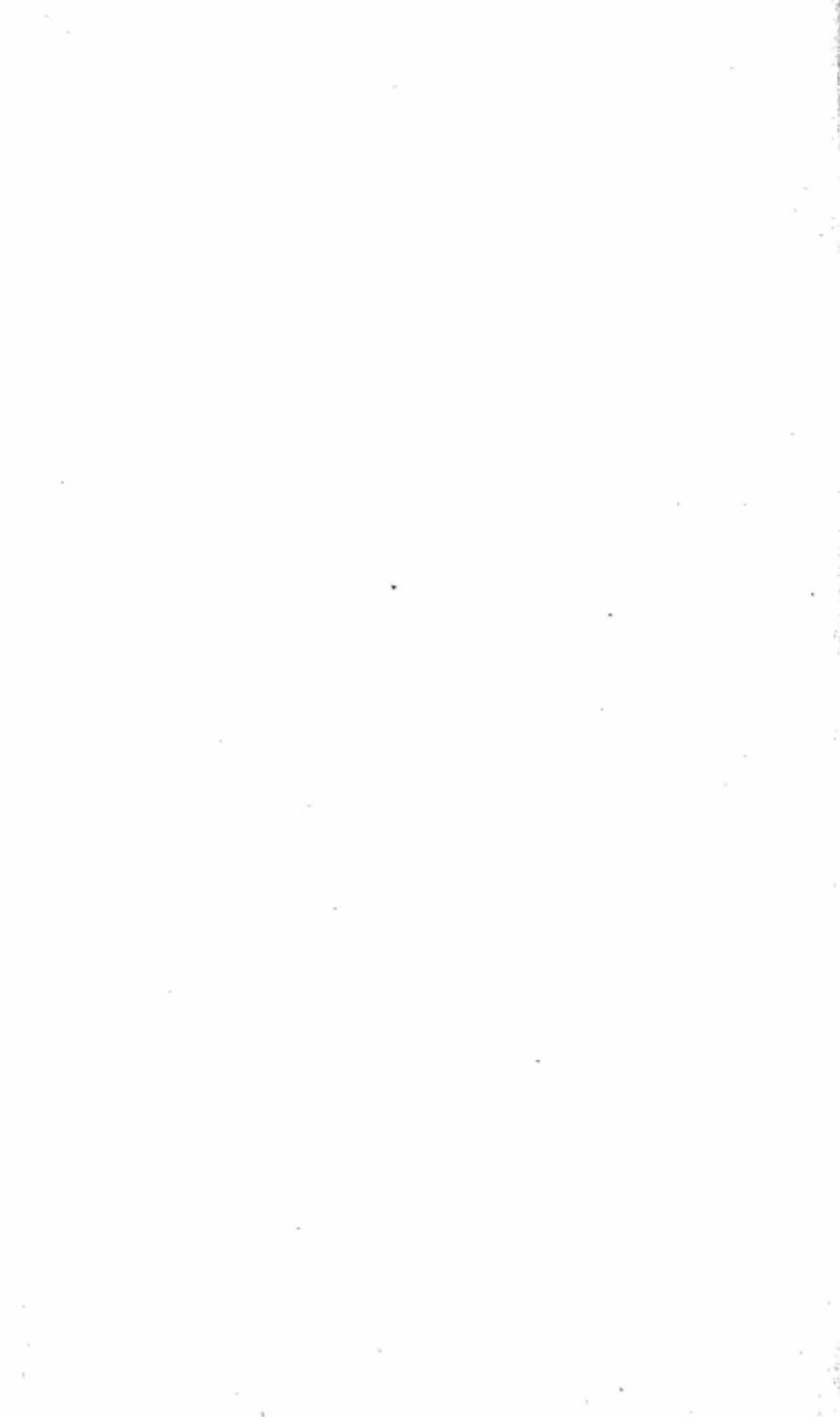
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The names of those Members whose subscriptions are two years in arrear will for the future be printed in *italic* in the annually published "List of Members."

It is requested that Subscriptions be sent to the Treasurer at the beginning of each year.

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## ESSAY ON MANCHU LITERATURE.

By P. G. VON MÖLLENDORFF.

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Since the appearance of the “*Elementa linguæ tartario-mantchuricæ*” in THÉVENOT’S *Relation de diverses voyages*, Vol. III (1696), a European literature of considerable dimensions has been published on Manchu. The missionaries of the 17th century, who spoke Manchu at Kienlung’s court, transmitted original Manchu works and translations to Europe, and everything known of the Manchu language and literature up to the beginning of this century originated either directly or indirectly with them. KLAPROTH, and especially H. C. VON DER GABELENTZ, are alone in having undertaken new and independent researches.

Père AMIOT and his colleagues in their works reported that the language was infinitely easier to acquire than Chinese, that the principal works in Chinese literature were translated into Manchu, and that therefore a knowledge of Manchu opened an easy access to Chinese literature. LANGLEËS,<sup>1</sup> whose knowledge of Manchu was limited, frequently repeated these remarks of the missionaries (*Alphabet mandchou*, 3rd edition, preface p. viii, p. 3, etc.); subsequently, KLAPROTH, in his *Mémoires relatives à l’Asie*, Vol. III, p. 7 *sqq.*, published the *Lettres sur la littérature mandchou, traduites du Russe de M. A. L. LÉONTIEW*, in which he contradicted the missionaries and LANGLEËS, without, however, being able to give anything positive himself.

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<sup>1</sup> The editor of Amiot’s Dictionary.

Nobody has as yet tried to give a description of the Manchu literature, and while undertaking the task myself, I feel conscious how defective this first essay must be.

The following notes will serve to indicate the sources from which I have drawn my information:—In the introduction to his translation of the *T'sing-wên k'i-mung* (Shanghai, 1855), A. WYLIE has compiled a list of 69 works, unfortunately without any reference whatever.<sup>2</sup> KLAPROTH's *Verzeichniss der chinesischen und mandschuischen Bücher*, etc. (Paris, 1822), describes the twelve Manchu works in the Berlin Library, to which Prof. SCHOTT, in his *Verzeichniss*, 1840, has added two others. A manuscript catalogue of the Library of the Imperial Russian Legation at Peking shows 62 works. Further, we find 61 Manchu works mentioned in the Catalogue of the Library of the Asiatic Department in St. Petersburg; others are given in the auction catalogues of the libraries of LANGLEL (1825), KLAPROTH (1839) and THONNELIER (1880). TRÜBNER's *Am. and Oriental Record* and the catalogues of Messrs. MAISSONNEUVE and LECLERC, in Paris, contain the titles of some Manchu works, with prices. Bibliographical notes are found in G. VON DER GABELENTZ's "Anzeige," *Zeitschr. der D. Morg. Ges.* XVI, p. 540; in the *滿州名臣傳* (*Man-chou-ming-ch'én-chuan*), Vol. III, fol. 21 *sqq.*, Vol. VIII, fol. 28 *sqq.*; in the *東華錄* (*Tung-hua-lu*), Vol. I, fol. 22, Vol. III, fol. 3; and in the prefaces of some of the Manchu works. Besides my own library, I have had occasion to consult several private collections in Peking, and during repeated visits to the capital have hunted through the bookstalls and visited the fair at the 隆福寺 (*Lung-fu-ssü*),<sup>3</sup> where I inspected all the Manchu books I could find. In all, I have noted 249 works, which

<sup>2</sup> See also his letter in *Zeitschr. der D. Morg. Ges.*, XIX, p. 308.

<sup>3</sup> See BASTIAN, *Die Völker des Oestl. Asiens*, Vol. VI, p. 81.



represent the literature in Manchu, classed in the following way :—

	No. of Works.
1.—Aids for learning the language, dialogues, etc.	29
2.—Dictionaries ... ..	17
3.—The canonical books ... ..	23
4.—Philosophy, ethics, essays, etc. ... ..	47
5.—Religion... ..	25
6.—History, geography ... ..	26
7.—Laws, edicts, treaties, regulations ... ..	53
8.—Military sciences ... ..	6
9.—Mathematics, medicine ... ..	6
10.—Novels, poetry, etc. ... ..	17
Total ...	249

Of these works—

The Library of the Imperial Russian Legation at Peking possesses ... ..	62
The St. Petersburg Library possesses ... ..	61
The Berlin Library possesses ... ..	14

Nothing is known of Manchu works in the public libraries of Paris and London, excepting occasional remarks in JULIEN's works, and the price lists in TRÜBNER's *Record* and the catalogues of MAISONNEUVE FRÈRES and CH. LECLERC in Paris. But few will be added to the above number. Some older work might be found, especially in Palace editions, of which little is known. New works are not to be expected. At present scarcely anyone speaks Manchu at Peking, and the language is learned only by those who intend to enter official service as interpreters. But even these just learn enough to be able to translate documents to be laid before the

emperor. In official phraseology these men are well versed, but rarely one of them takes any interest in other than official work. Within the Imperial family, a merely artificial knowledge of Manchu is kept up by introducing servants, and especially amahs, from Kirin into the palace.

The beginning of Manchu literature dates from 1599. In that year the Manchu chief Nurhacu (drinker), who from 1616-27 called himself emperor, under the title of reign of 天命 (T'ien-ming), M. *Abkai fulingga* (heavenly decree),<sup>4</sup> gave orders to adapt the Mongol letters to the Manchu pronunciation. The officials Erdeni and Hokai carried out this imperial order, and the alphabet proposed by them was improved by Dahai.<sup>5</sup> The latter then received instructions to translate<sup>6</sup> into Manchu the 明會典 (*Ming-hui-tien*), the statutes of the Ming dynasty, the 素書 (*Su-shu*), and the 三略 (*San-liao*). Dahai finished these translations in 1632, under the second emperor, whose title of reign was 天聰 (T'ien-tsung), M. *Sure han* (heavenly intelligence, the intelligent emperor).<sup>7</sup> Dahai died in the year 1633,<sup>8</sup> and left unfinished translations of the 通鑑 (*T'ung-chien*), general history (printed 1665); 六韜 (*Liu-t'ao*), the six military rules; 孟子 (*Mêng-tzū*), the philosopher Mencius (printed 1677); the 三國志 (*San-kuo-chih*), the records of the three Kingdoms (printed 1646); and the 大乘經 (*Ta-ch'êng-ching*), the (Buddhist) book of the great development. To his colleagues Erdeni and Hokai we find no translations attributed.

<sup>4</sup> Canonised as 太祖高皇帝 (*T'ai-tsu-kao huang-ti*), M. *Taidou dergi hūwangdi* (great ancestor, high emperor).

<sup>5</sup> *Ming-ch'ên-chuan*, Vol. VIII, fol. 28-30.

<sup>6</sup> *Tung-hua-lu*, Vol. I, fol. 22; *Ming-ch'ên-chuan*, Vol. III, fol. 21.

<sup>7</sup> Canonised as 太宗文皇帝 (*T'ai-tsung wen huang-ti*), M. *Taidung genggingen hūwangdi* (the great founder, the serene emperor).

<sup>8</sup> *Ming-ch'ên-chuan*, Vol. III, fol. 21.

In the year 1634 the emperor decreed the institution of examinations in Manchu.<sup>9</sup> The Manchu dynasty in China begins in 1644 with the emperor Shunchih, and with the settling of the Manchus commences their more intimate contact with the rich literature of China. Up to 1662, the year of Kanghi's accession to the throne, we find, besides the eight translations of Dahai already mentioned, the History of the Liao and the Kin (1644), of the Yuen (1646), the 大清律例 (*Ta-ch'ing lü-li*), or Penal Laws (1644), the Instructions of Hung-wu (1646), the Instructions of T'ien-ming, the 三皇帝聖訓 (*San-huang-ti-shêng-hsün*), the Sage Instructions of the Three Emperors (1739), and several minor works; altogether, 18 publications.

The great Kanghi (1662-1723) took special care of his mother tongue, and ordered translations and dictionaries to be prepared. He himself, however, wrote much Chinese, to emulate the learned of China. In his reign were published the beautiful editions of the 古文淵鑑 (*Ku-wên yüan-chieh*), a collection of standard essays; the 通鑑綱目 (*T'ung-chien kang-mu*), the history of China, by Ssü-ma Kuang; the 性理精義 (*Hsing-li-ching-i*), an abstract of the metaphysical writings of the Sung scholars; the canonical books, and the Manchu national dictionary, explained in Manchu. In all, 41 works were printed during his reign. But already under his successor, the energetic Yungchêng (1723-36), it was seen that not only was the Manchu language not accepted by any Chinese, but the Manchus themselves were forgetting their language, and were gradually being merged into the Chinese population. The emperor in his edicts made it an obligation for all Bannermen to learn Manchu, in order to preserve the language; but in vain. Only 17 works appeared during his period.

<sup>9</sup> *Tung-hua-lu*, Vol. III, fol. 3.

The able Kienlung (1736-96) continued the work of his predecessors, and himself took an active part in the publications called forth by him. The great Mirror of the Manchu language, the polyglot dictionaries, and the enormous Buddhistic polyglot (in Chinese, Manchu, Mongol and Thibetan) are the principal of the 69 works which appeared under this emperor. The remaining 80 works occupy the period from 1796 till now, and comprise all those in three languages (Chinese, Manchu, Mongol, 三合 (*San ho*), M. *Ilan hacin i kamcibuha*).

Under the first three emperors, when Manchu was still spoken, only the Manchu text was published. Such editions cease under Kienlung, and give place to bilingual prints, 合璧 (*Ho pi*), 滿漢 (*Man han*), M. *Manju nikan hergen kamciha* or *Manju nikan hergen i kamcihe suhe*.

All Manchu works are printed at Peking. Nearly all are translations of Chinese originals; the few works originally written in Manchu contain entirely Chinese conceptions.

After each work enumerated below I have added the library or place where, according to my knowledge, a copy exists. Berlin, means the Royal Library in Berlin; Paris, either the house of MAISONNEUVE or one of the great libraries; Peking, the Imperial Russian Legation; St. Petersburg, the library there; v.d.G., Prof. VON DER GABELENTZ, in Leipzig; v.M., my own library.

### *I.—Aids for Learning the Language, Dialogues, etc.*

1.—清文啟蒙 (*Ch'ing-wên ch'i-mêng*), M. *Ching wen ki meng bithe*—Elements of Manchu. 4 vols., 1780, 8vo. Written by 舞格 (*Wu-ko*), edited by 程明遠 (*Ch'êng Ming-yüan*). The work (the only Manchu grammar, therefore the best; see KLAPROTH, *Verzeichn.*, p. 121) contains a Manchu-Chinese preface, and in Vol. I the syllabary, with rules for pronouncing and writing; in Vol. II, Manchu-Chinese dialogues; in Vol. III, all affixes (*de, be, i, ni,*

ger, go, ge, ningge, etc.), altogether 254 articles, with examples—the real grammar; in Vol. IV, a list of words similarly written, like aga and aha, menggun and munggun, and a list of synonyms, like bithe and hergen.

Vide RÉMUSAT, *Recherches sur les langues tartares*, Vol. I, p. 99; G. VON DER GABELENTZ, in *Zeitschr. der d. Morg. Ges.*, XVI, p. 539; A. WYLIE, Translation of the *T'sing Wan K'e Mung*, a Chinese grammar of the Manchu-Tartar language, with introductory notes on Manchu literature (Shanghai, 1855, 8vo; ii, lxxx, 310 pp.) Vol. II has been translated into Russian by A. VLADYKIN. G. HOFFMANN, *Grammatica Mancese Compendiata dall' Opera Cinese Zing wen ki mung*, 1883. 36 pp.

[Libraries:—Berlin, Peking, v.d.G., v.M., Paris.]

2.—三合便覽 (*San-ho-pien-lan*), M. *Ilan hacin i gisun kamci-buha tuwara de ja obuha bithe*—Handbook of the three languages, Manchu, Mongol and Chinese. 12 vols., imp. 8vo, 1780. Vol. I contains (a) a preface in three languages, (b) the Manchu syllabary, (c) a Mongol grammar, (d) a Manchu grammar; Vol. II–X, a collection of words in three languages; Vol. XI–XII, short sentences in three languages.

H. O. VON DER GABELENTZ, in the *Zeitschr. f. d. Kunde des Morgenl.* I, p. 255–286, III, p. 88–104, has translated into German the articles (c) and (d) of Vol. I.

[Libraries:—Paris, Peking, v.d.G., v.M.]

3.—蒙文晰義 (*Mung-wén-ch'i-i*), M. *Monggu hergen i jurgan be faksalaha bithe*—Compendium of Mongolian. 4 vols., imp. 8vo, 1848. Author, Saishangga (the praiser), with the assistance of others. Manchu words or short phrases in the order of the syllabary, with Chinese and Mongol translation underneath. Below these, and unconnected, Chinese words with Mongol translation.

[Library:—v.M.]

4.—清文虛字歌 (*Ch'ing-wén-hsü-tzü-ko*)—A Poem on the Manchu Particles. A much-used little book on the use of the affixes in verse. Not printed. 16mo. Without year or author's name.

[Library:—v.M.]

5.—*Tongki fuka akū hergen i bithe*—the Book on Letters without diacritical points (like the point to distinguish *t* and *d*, *k* and *g*, and like the ring on *h*). 3 vols.

LANGLÈS, *Alph. mandchou*, 3rd ed., p. 59, calls it, "livre des lettres qui n'ont ni point ni accent." WYLIE, Transl., p. xlix.

6.—欽定清漢對音字式 (*Ch'in-ting ch'ing-han tui-yin tzu-shih*)—Proposal for Transcribing Manchu and Chinese sounds. 1836. 8vo, 62 leaves.

Published in accordance with an imperial edict of 1772. Contains the Manchu syllabary, with Chinese transcription; transcription of Manchu words of two syllables into single Chinese characters; transcription of Manchu words of two syllables into two Chinese characters; list of geographical names in Manchu and Chinese; thus introducing a uniform system of transcription.

SCHOTT, *Verz.* p. 51, note.

[*Libraries*:—Berlin, v.M.]

7.—原音正考 (*Yuan-yin ch'eng-k'ao*)—Researches into original initials. 1743, 8vo. New edition, 1830, 16mo. Contains 1,923 Chinese characters, classed under 96 Manchu syllables, commencing with *k'*, *k* and *h*, as 圖 *t'uan* surd and *t's*, *ts* and *s*, as 尖 *chien* sonant.

[*Library*:—v.M.]

8.—音韻逢源 (*Yin-yün feng-yüan*)—On Chinese sounds. With Manchu transcription. 1840. 8vo.

[*Library*:—v.M.]

9.—正字通 (*Ch'eng-tzu-t'ung*)—A Chinese dictionary. First edition, 1670. Contains the Manchu syllabary with Chinese pronunciation.

### Vocabularies.

10.—清文典要 (*Ch'ing-wên-tien-yao*)—Important Manchu expressions noted. 4 vols., 1739, 8vo. New edition, 1878. Contains about 6,500 Chinese sentences, consisting of four characters each,

with Manchu translation, arranged, according to the first character of each sentence, under 180 classes.

Vide *Zeitschr. der d. morg. Ges.* XVI, p. 538.

[Libraries:—Paris, v.d.G., v.M.]

11.—**萬寶全書** (*Wan-pao-ch'uan-shu*)—Complete book of all preciousities. 7 vols., 1739, 8vo.

According to WYLIE, Translation, p. xlvi, the 7th vol. contains a Chinese-Manchu Vocabulary, but SCHOTT, *Verz.*, p. 82, where he mentions this work, says nothing of it, nor was it in a modern edition which I saw.

[Library:—Berlin.]

12.—**繙譯類篇** (*Fan-i-lei-p'ien*), M. *Fan i lei biyan bithe*—Translated miscellanies. 4 vols., 1749, 8vo. Author, **冠菊窗** (*Kuan Ch'ü-ch'uang*). Chinese sentences of two and four characters, classed under the headings heaven, seasons, geography, etc., with Manchu translation.

Vide WYLIE, Translation, p. xliii.

[Library:—v.M.]

13.—*Yargiyan kooli be tuki yeme fe manju gisun i bithe*—The book of old Manchu speech to keep up good custom.

[Library:—Peking.]

14.—**滿漢六部成語** (*Man-han liu-pu ch'êng-yü*)—The business expressions in use in the Six Boards (of the Peking Government), in Manchu and Chinese. 4 vols., 1843, 8vo.

[Libraries:—Peking, v.M.]

15.—A Chinese-Manchu vocabulary. In manuscript, large 8vo.

[Library:—v. M.]

16.—**欽定金史語解** (*Ch'in-ting-chin-shih-yü-chieh*)—The native words occurring in the history of the Kin dynasty (1115–1234), explained with the help of Manchu. 4 vols., imp. 8vo; no year.

[Library:—v.M.]

### Dialogues.

---

17.—*Tanggū meyen*. 100 chapters, 4 vols., in 12mo. Only Manchu, manuscript of the latter part of the 17th century. The same printed in 2 vols, large 8vo, no year, but about 1700, with occasional Chinese characters. New edition in 4 vols., 1810, 8vo, in Manchu and Chinese. 清文指要 (*Ch'ing-wén-chih-yao*), *M. Manju gisun i oyonggo jorin i bithe*—Important explanation of Manchu speech.

*Vide* WYLIE, Translation, p. xl. The Chinese text forms the basis of "The Hundred Lessons" in WADE's Colloquial Series (London, 1867; new edition, 1886).

[Libraries:—v.d.G., v.M.]

18.—*Deki meyen*, 清話問答四十條 (*Ch'ing-hua-wén-ta ssü-shih-t'iao*). 40 chapters, 57 leaves, 1759, 8vo. Author, Yunggui. Preface, Manchu; the dialogues, Manchu and Chinese. The same in manuscript, older than the printed edition, without Chinese.

[Libraries:—Berlin, v.d.G., v.M.]

19.—*Buyarame gisun*—Everyday talk. 2 vols., 12mo, no year; only Manchu, manuscript.

[Library:—v.M.]

20.—滿漢成語對待 (*Man-han ch'êng-yü tui-tai*), *M. Manju nikan fe gisun be jefoho acabuha bithe*—Manchu and Chinese sentences. 4 vols., 8vo, no year; Manchu preface.

[Library:—v.M.]

21.—Dialogues in Manchu, manuscript.

[Library:—St. Petersburg.]

22.—三合語錄 (*San-ho-yü-lu*)—Dialogues in Manchu, Mongol and Chinese. 1 cover, 1830.

[Library:—St. Petersburg.]

23.—滿漢初學清語 (*Man-han ch'u-hsio ch'ing-yü*)—Manchu sentences with Chinese translation. 8vo, manuscript.

[Library:—v.M.]



24.—初學啟蒙話條 (*Ch'u-hsio-ch'i-mêng-hua-t'iao*)—Short sentences in Manchu for beginners, with Chinese translation. 8vo, manuscript.

[Library:—v.M.]

25-29.—Five manuscripts, 8vo, of one volume each, containing Manchu-Chinese dialogues.

[Library:—v.M.]

## II.—*Dictionaries.*

30.—大清全書 (*Ta-ch'ing ch'üan-shu*)—A complete work of the Great Ch'ing (language). About 16 vols., 8vo, no year. Author, 沈啟亮 (*Ch'ên Ch'i-liang*). New edition, *Tai cing gurun i yooni bithe*. 14 vols, large 8vo, 1682. Chinese preface, general disposition of the work (凡例), table of contents; the dictionary arranged according to the Manchu syllabary. With Chinese translation.

[Library:—2nd ed. and vols. 4 and 5 of the 1st, v.M.]

31.—清文廣彙全書 (*Ching-wên-kuang-hui ch'üan-shu*)—A comprehensive collection of Manchu, complete; 4 vols, 8vo, 1703. Authors, 劉順 (*Liu-shun*) and 桑格 (*Sang-ko*). Chinese preface. Dictionary in four parts, divided into 44 chapters, on heaven, seasons, earth, mountains and rivers, palace, offices, etc. Chinese, with Manchu equivalents underneath.

[Library:—v.M.]

32.—欽定清語 (*Ch'in ting ch'ing yü*, *M. hesei toktobuha manju gisun*)—Manchu expressions compiled by Imperial order, 6 vols., 8vo, no year, Manuscript. Chinese with Manchu equivalents underneath. Arranged according to categories.

[Library:—v.M.]

33.—滿漢同文分類全書 (*Man han t'ung wên fên lei ch'üan<sup>o</sup> shu*)—A dictionary in Manchu and Chinese, arranged according to categories. 8 vols, 8vo, 1706. Author: Sangge (he who understands). Preface (dated 1701) first Manchu, then Chinese. Manchu with Chinese translation underneath.

[Library:—v.M.]

34.—*Manju monggu gisun i buleku bithe*—Mirror of the Manchu and Mongol language, 21 vols, large 8vo, 1708. Manchu with Mongol translation.

[Libraries :—Peking, Paris, Trübner.]

35.—御製滿文鑑 (*Yü chih man wên chien*), *M. han i araha manju gisun i buleku bithe*—Mirror of Manchu. Composed by order of Kanghi by a number of lettrés. Manchu words with Chinese translation. 1708.

[Library :—Peking.]

36.—御製增訂清文鑑 (*Yü chih tseng ting ch'ing wên chien*), *M. han i araha nonggime toktobuha manju gisun i buleku bithe*. 48 vols., large 8vo, 1771. Improved edition of the preceding work. Each Manchu word with Chinese translation and Chinese transcription, the Chinese translation with transcription in Manchu, then follows an explanation of the meaning of the word in Manchu. Vol. I, preface of the Emperor Kienlung; Vol. II, preface of the Emperor Kanghi; Vol. III, the Manchu syllabary. 1st division, 32 vols., in 36 chapters with 292 subdivisions according to categories (heaven, time, earth, etc.). 2nd division, 8 vols, index of all Manchu words alphabetically with reference to the subdivisions. 3rd division, 5 vols, new-made words with index.

Vide Kienlung's preface in LANGLET'S Alphabet Mandchou; Klaproth, *Verz.* p. 61. The latter author reprinted (p. 97–105 and p. 107–117) the list of the subdivisions. Descriptive catalogue of the Chinese and Manchu books in the India Office, by Rev. J. SUMMERS, 1872, p. 9. Extracts by C. DE HARLEZ in *Zeitschr. d. D.M. Ges.* 38 (1884) p. 634–41.

[Libraries :—Peking, Paris, Berlin, London, v.d.G., Trübner, v.M.]

37.—*Han i araha manju gisun i buleku bithe*—16 vols, large 8vo, 1709. All in Manchu, without Chinese. Preface and table of contents 1 vol., 20 divisions 10 vols, tables 1 vol., supplement 4 vols.

[Libraries :—Paris, Trübner, v.M.]

38.—音漢清文鑑 (*Yin han ch'ing wén chien*), in Berlin also with Manchu title (KLAPROTH, *Verz.* p. 118): *nikan hergen i ubaliyambuha manju gisun i buleku bithe*—A new edition of the dictionary No. 35, with Chinese explanatory remarks added. Compiler, Mingdo.

[*Libraries*:—Berlin, Trübner, v.M.]

39.—清文彙書 (*Ch'ing wén hui shu*), *M. manju isabuha bithe*—A Manchu-Chinese dictionary, alphabetically arranged in 12 chapters according to the syllabary; 12 vols., 8vo, 1751, also with new title-leaf dated 1807 and 1815. This formed the foundation of AMIOT's *Dictionnaire Tartare-Mandchou-Français*; Paris, 1789-90. 3 vols., 4to.

[*Libraries*:—Paris, Peking, v.d.G., Trübner, v.M.]

40.—清文補彙 *Ch'ing wén pu hui*, *M. manju gisun be niyeceme bithe*. Supplement to No. 39, in 8 chapters; 8 vols., 8vo, 1786. New edition: *manju gisun be niyeceme isabuha bithe*, 1802.

[*Libraries*:—Paris, Peking, v.d.G., Trübner, v.M.]

41.—*Manju nikan isabure bithe*.

[*Library*:—v.d.G.]

42.—*Manju gisun i yongkiyame toktobuha bithe*. 1722. *Vide* ZAKHAROFF, Dictionary, p. xvi.

[*Library*:—Peking.]

43.—御製滿珠蒙古漢字三合切音清文鑑 (*Yü chih man-chu meng-ku han tzu san ho ch'ieh yin ch'ing wén chien*, *M. manju monggo nikan hergen i ilan hacin i mudan araha buleku bithe*—Mirror of the Manchu language with Mongol and Chinese translation and pronunciation; 24 vols., large 8vo. Preface in three languages, dated 1772, a Manchu-Chinese preface dated 1780 (taken from the great dictionary No. 36), the general disposition of the work (凡例), list of compilers. Table of contents as in dictionary No. 36. The words of the three languages stand in the same line, each with the pronunciation in the two others,

*Vide* THONNELIER's catalogue, p. 532, No. 4015, where the commencement of an edition of this work by KLAPROTH is mentioned.

[Library:—Paris.]

44.—四體合璧文鑑 (*Ssü t'i ho pi wén chien*), M. *duin hacin hergen i kamciha bithe*—Manchu dictionary with Mongol, Tibetan and Chinese translation, the Chinese with Manchu transcription. Arranged in categories.

[Libraries:—St. Petersburg, Peking, Paris.]

45.—滿漢西番集要 (*Man han hsi fan chi yao*), about 1760. A dictionary of Buddhist terms in Sanscrit (in Tibetan characters), Tibetan, Mongol, Manchu and Chinese.

*Vide* AMIOT, *Mémoires*, xl, p. 516; RÉMUSAT, *Mél. As.*, I, pp. 153-84; II, p. 264.

[Library:—Paris.]

46.—清漢文海 (*Ch'ing han wén hai*)—Ocean of Manchu and Chinese; 20 vols., 8vo, 1821. Author, Kua-erh-chia-pa-ni-hun (perhaps *guwere gaba ni hun*—he with a clashing armour), native of Kirin; editor, his son 普恭 (*P'u-kung*). A Chinese dictionary with Manchu translation arranged according to five tones and 106 finals, extracted from the great 佩文韻府 (*P'ei wén yün fu*), (WYLIE, *Notes*, p. 11).

[Libraries:—Peking, v.M.]

### III.—The Canonical Books.

47.—日講四書 (*Jih Chiang ssü shu*), M. *inenggidari giyang-naha sy s'u i jurgan be suhe bithe*. 12 vols., 8vo, 1677 and 1683. The four books with Chuhi's commentary, Manchu and Chinese.

The transliterated Manchu text of the four books in VON DER GABELENTZ, *Sseschû, Schuking und Schiking in Mandsch. Ueber*. Leipzig, 1860, p. 1-149.

For translations see *Manual of Chinese Bibliography*.

[Libraries:—St. Petersburg, Peking, v.M.]

48.—**滿漢四書** (*Man han ssü shu*), M. *manju nikan hergen i sy s'u*. 6 vols., 8vo, 1691. The text of the four books in Manchu and Chinese. The same, new edition, 5 vols., 8vo, 1846.

[Libraries:—v.d.G., Trübner, v.M.]

49.—**御製繙譯四書** (*Yü chih fan i ssü shu*), M. *han i araha ubaliyambuha duin bithe*. The text of the four books, Manchu and Chinese, a new translation ordered by the emperor Kienlung; 6 vols., 8vo, 1756.

[Libraries:—Paris, v.M.]

50.—**合璧四書** (*Ho pi ssü shu*). 6 vols., 8vo. The text of the four books, Manchu and Chinese.

[Library:—v.M.]

51.—**滿漢字合璧四書集註** (*Man han tsü ho pi ssü shu chi chu*). 13 vols., large 8vo, no year. The text of the four books, with commentary, in Manchu and Chinese.

[Libraries:—v.d.G., v.M.]

52.—**御製清文大學衍義** (*Yü chih ch'ing wên ta hsio yen i*), M. *da hio i jurgan be badarambuha bithe*. 32 vols., about 1700. Amplification of the Great Learning (the second of the four books), vide WYLIE, *Notes*, p. 69.

Vide second preface fol. 2 of **三合吏治輯要**, where this work is quoted under the title: *han i araha manju gisun i amba tacin i jurgan be badarambuha bithe*, and said to have been published under Kanghi.

[Library:—St. Petersburg.]

53.—**日講易經** (*Jih Chiang i ching*, M. *inenggidari giyangnaha i jing ni jurgan be suhe bithe*. 1683. The I-king.

[Libraries:—St. Petersburg, Peking.]

54.—**御製繙譯易經** (*Yü chih fan i i ching*), M. *han i araha ubaliyambuha jijungge nomun*. 4 vols., 8vo, 1766. The I-king, Manchu and Chinese.

[Libraries:—Peking, Paris, Trübner, v.M.]

55.—滿漢合璧易經 (*Man han ho pi i king*), *M. manju nikan jeo gurun i jijungge nomun*. 4 vols., large 8vo, no year. The I-king, Manchu and Chinese.

[Library :—v.M.]

56.—日講書經 (*Jih Chiang shu ching*), *M. inenggidari giyang-naha s'u jing ni jurgan be suhe bithe*. 15 vols., 1681. The Shu-king, with commentary, Manchu and Chinese.

[Libraries :—St. Petersburg, Peking, v.d.G., v.M.]

57.—御製繙譯書經 (*Yü chih fan i shu ching*), *M. han i araha ubaliyambuha dasan i nomun*. 6 vols., 8vo, 1760. The Shu-king, Manchu and Chinese, without commentary.

The transcribed text in VON DER GABELENTZ, pp. 151–220.

[Libraries :—Peking, v.d.G., Trübner.]

58.—清漢合璧書經 (*Ch'ing han ho pi shu ching*). The Shu-king, Manchu and Chinese, 4 vols., 8vo, no year.

[Library :—v.M.]

59.—日講詩經 (*Jih Chiang shih ching*), *M. inenggidari giyang-naha s'i jing ni bithes*. 2 covers, 1654. The Shi-king, Manchu and Chinese, with commentary.

[Libraries :—St. Petersburg, Peking.]

60.—御製繙譯詩經 (*Yü chih fan i shih ching*), *M. han i araha ubaliyambuha irgebun i nomun*. 4 vols., 8vo, 1769. The Shi-king, Manchu and Chinese.

The transcribed text in VON DER GABELENTZ, pp. 221–304.

[Libraries :—v.d.G., Trübner, v.M.]

61.—清漢合璧詩經 (*Ch'ing han ho pi shih ching*). 4 vols., 8vo, no year. The Shi-king, Manchu and Chinese.

62.—滿漢經文成語 (*Man han ching wên ch'êng yü*), *M. manju nikan ging bithe toktoho gisun*. 1737. Selections from the Shu-king and Shi-king in Manchu and Chinese.

Vide KLAPROTH, *Verz.*, p. 141.

[Library :—Berlin.]

63.—御製繙譯禮記 (*Yü chih fan i li chi*), M. *han i araha ubaliyambuha dorolon i nomun*. 12 vols., 8vo, 1784. The Li-ki in Manchu and Chinese.

[Libraries:—v.d.G., v.M.]

64.—*Niengniyeri bolori i bithe*. Manuscript, the Ch'un-ch'iu in Manchu. 48 vols. *Vide* WYLIE's translation, p. xxxviii; printed (?), *vide* TRÜBNER's Record I, p. 391.

65.—御製繙譯春秋 (*Yü chih fan i ch'un ch'iu*), M. *han i araha ubaliyambuha s'ajingga nomun*. 48 vols., 8vo, 1785. The Chun-chiu, Manchu and Chinese.

[Library:—v.M.]

66.—孝經 (*Hsiao ching*), M. *siyoo jing ni bithe*—The Book of Filial Piety.

[Library:—St. Petersburg.]

67.—欽定孝經 (*Ch'in ting hsiao ching*), M. *han i araha hiyoos'ungga nomun*. 1727. The Book of Filial Piety, Manchu and Chinese.

*Vide* KLAPROTH, *Verz.*, p. 140.

[Library:—Berlin.]

68.—繙譯忠孝二經 (*Fan i chung hsiao erh ching*), M. *ubaliyambuha tondo hiyoos'ungga juwe nomun i bithe*. 2 vols., 8vo, 1851. The Book of Loyalty (*see below* No. 87) and the Book of Filial Piety, Manchu and Chinese, translated by 孟保 (Mêng Pao).

[Library:—v.M.]

69.—Preface to 孝經 (*Hsiao ching*), by Emperor Hsüan-tsung (A.D. 713–56). Manuscript, Manchu. Another translation exists printed in *Ku-wên-yüan-chien*, chap. 29.

[Library:—v.M.]

IV.—*Philosophy, Ethics, Essays, etc.*

70.—朱子節要 (*Chu tzü chieh yao*). 5 vols., 8vo, 1676. Extract from the philosophical writings of 周 Chou, 張 Chang and the two 程 Ch'êng with Chuhi's commentary (1130-1200), in Manchu and Chinese. The original is 近思錄 (*Chin-ssü-lu*), which Chuhi together with Lû Tsu-ch'ien wrote in 1175, vide WYLIE, *Notes*, p. 68; LEGGE, *Classics*, I, p. 25; MEADOWS, *The Chinese*, ch. 18; DE HARLEZ, French translation of some extracts in *Journ. As.*, IX, (1887), pp. 39-71; MAYERS, *Reader*, pp. 25, 146.

[Libraries:—Paris, Berlin, v.M.]

71.—清文古文淵鑑 (*Ch'ing wên ku wên yüan chien*), M. *han i araha gu wen yuwan giyan bithe*. 48 stout vols., large 8vo, 1686. A standard collection of model writings, in Manchu only. The Chinese original was published at the same time by order of Kanghi in 40 vols., Translator, Ming-kung. Contains extracts from the Ch'un-ch'iu, 戰國策 (*Chan kuo tsé*), and from the chief writers from the Han to the Sung (1278).

Vide WYLIE, *Notes*, p. 194.

[Libraries:—Peking, Paris, v.M.]

72.—繙譯古文 (*Fan i ku wên*), M. *ubaliyambuhu julgei s'u fiyelen*. 16 vols., 8vo, 1851. Another collection like the foregoing, chiefly from historical works, in Manchu and Chinese. Translator, Mêng Pao.

[Library:—v.M.]

73.—小學 (*Hsiao hsio*), M. *siyoo hiyo*. 8 vols. Chuhi's "Little Learning." Written in 1176.

Vide KLAPROTH, *Verz.*, p. 140; WYLIE, *Notes*, p. 68.

[Library:—v.d.G.]

74.—*Han i araha ajige tacikü bithe*. 4 vols., 8vo, 1727. The same as foregoing, only Manchu.

[Libraries:—Berlin, Peking, v.M.]



75.—**滿漢合璧小學** (*Man han ho pi hsiao hsio*), M. manju nikan hergen kamcime araha ajige tacikū bithe. 8 vols., 8vo, 1727. The "Little Learning" with commentary, Manchu and Chinese.

[Library :—Paris.]

76.—*Tondo unenggi fan gung ni wen ji bithe*. 8vo, 1708. (**忠貞范文集** *Chung chên fan kung wên chi*). 8vo, 1708. Manchu translation of 19 memorials to the throne by 范承謨 (Fan Ch'êng-mo), who died 1679.

Vide SCHOTT, *Verz.*, pp. 96, 97; also *China Review*, IX, p. 97.

[Libraries :—Berlin, Peking, v.M.]

77.—**薛文清公先生要語** (*Hsüeh wên ch'ing kung hsien shêng yao yü*), M. siowei wen cing gung siyan s'eng ni oyonggo gisun i bithe. 4 vols., 8vo, 1714. Manchu and Chinese. First preface by 徐枋 (Hsü Shih), 1561; 2nd preface by 胡松 (Hu Sung), 1564; 3rd preface by 谷中虛 (Ku Chung-hsü), 1564. The work, divided into two books (**內篇** *Nei pien*, **外篇** *Wai pien*), contains philosophical extracts from the **讀書錄** (*Tu shu lu*), of the Ming dynasty. Translator, Fudari, Captain in the Imperial Life Guards.

[Libraries :—St. Petersburg, v.M.]

78.—**三字經** (*San tzü ching*). 2 vols., 8vo, 17th century. The Three Character Classic, with commentary, Manchu and Chinese. Author 王應麟 (伯厚) Wang Ying-lin (Po-hou), 1223-1296.

[Library :—v.M., (2nd vol.).]

79.—**滿漢合璧三字經** (*Man han ho pi san tzü ching*), M. manju nikan hergen i kamcime suhe san dsy ging bithe. 2 vols., 8vo, 1795. The Three Character Classic with commentary, Manchu and Chinese.

Vide KLAPROTH, *Verz.*, p. 146; VON DER GABELENTZ, *Zeitschr. der d. morg. Ges.*, XVI, p. 541.

[Libraries :—Berlin, Paris, v.d.G., v.M.]

80.—**滿蒙合璧三字經註解** (*Man méng ho pi san tzu ching chu chieh*), M. *manju monggo hergen i kamcime suhe san dsy ging ni bithe*. 4 vols., large 8vo, 1833. The Three Character Classic with prefaces and commentary in Manchu, Mongol and Chinese. Translators: Sung-yan, Fugiyün and Inggüyün, revised by Urgujab and Fukiyan.

[Libraries :—Peking, Paris, v.M.]

81.—*Han i banjibuhā sing li jing i bithe*. 8 vols., 8vo, no year. In Manchu alone. Translation of the **性理精義** (*Hsing li ching yi*), which is an extract of the great metaphysical work **性理大全** (*Hsing li ta ch'üan*), published in 70 books in 1415 (*vide* WYLIE, *Notes*, p. 69).

Translations of parts by VON DER GABELENTZ and GRUBE.

82.—**欽定性理精義** (*Ch'in ting hsing li ching yi*), M. *han i araha sing li jing i bithe*. 12 vols., large 8vo, 1717. Only in Manchu. A revised translation of the foregoing.

[Libraries :—Peking, Paris, v.M.]

83.—**滿漢合璧性理** (*Man han ho pi hsing li*), M. *manju nikan hergen kamciha sing li bithe*. 4 vols., 8vo, 1732. Contains, in Manchu and Chinese, the **太極圖說** (*T'ai chi t'u shuo*), **通書** (*t'ung shu*) and **西銘** (*hsi ming*), (*vide* WYLIE, *Notes*, p. 69), i.e., only the first three books of the *Hsing li ta ch'üan*.

[Libraries :—v.d.G., v.M.]

84.—*Sing li jen jiyan bithe i hes'en*. 3 vols., 1753, 1763. Extract from **性理真詮** (*Hsing li chên chuan*). The latter is a philosophical work, published in 1753 by Hsün Teh-chao, in favour of Confucianism against other creeds.

*Vide* SCHOTT, *Verz.*, p. 44-46. Translation of Vol. I, by von DER GABELENTZ, in *Zeitschr. fuer die Kunde des Morgenl.*, III, (1840), pp. 250-79.

[Library :—v.d.G.]

85.—忠經 (*Chung ching*), M. *tondo nomun*—The Classic of Loyalty. Author 馬融 (Ma Yung), 79-166. First embodied in the 小學 (*Hsiao hsiao*)—Little Learning, (*vide* No. 73).

86.—合璧忠經 (*Ho pi chung ching*). 55 leaves, no year. The Classic of Loyalty, with commentary, Manchu and Chinese.

[Library :—v.M.]

87.—忠經 (*Chung ching*). New edition of the Classic of Loyalty in Manchu and Chinese, translated by Mêng Pao, together with 孝經 (*Hsiao ching*), *vide* No. 68.

88.—*Tondo be temgetulere bithe*—Loyalty as Model.

[Library :—v.d.G.]

89.—*Han i araha gucu hoki i leolen*. 8vo, 1724. Discourse on Friendship. Manchu only.

[Library :—v.M.]

90.—聖諭廣訓 (*Shêng yü kuang hsün*), M. *enduringge tacihiyan neileme badarambuha bithe*—Large 8vo, 1724. The Sacred Edict, consisting of 16 maxims written by the Emperor Kanghi, of which his son Yung-cheng, 1724, wrote an amplification. Manchu and Chinese.

*Vide* KLAPROTH, *Verz.*, p. 144. The Manchu translation published by Nocentini, Firenze, 1883; the 13th maxim in MEADOWS' translations, Canton, 1849; WYLIE, *Notes*, p. 70. C. DE HARLEZ in *Mém. de la Soc. des Études Jap., Chin., etc.*, 2<sup>e</sup> Livr, 1885.

[Libraries :—Berlin, Paris.]

91.—三合聖諭廣訓 (*San ho shêng yü kuang hsün*), M. *ilan hacin i gisun kamcibuha enduringge tacihiyan be neileme badarambuha bithe*. 4 vols., large 8vo, 1873, with preface of 1724. The sacred edict in Manchu, Mongol and Chinese.

[Libraries :—v.d.G., v.M.]

92.—*Enduringge tacihyan be neileme badarambuha bithe*. 2 vols., 1725. The Sacred Edict in Manchu and Mongol.

*Vide* REMUSAT, *Notices et Extraits*, Vol. XIII, where the first three maxims are published in both languages.

[Library:—Paris].

93.—*Ci hiyün?*

[Library:—v.d.G., (3rd vol.).]

94.—**聯珠集** (*Lien chu chi*). 61 leaves, 1728. "Collection of strung pearls," Ideas on ethics, geography, history, natural history, etc., in Manchu, Mongol and Chinese.

*Vide* VON DER GABELENTZ, *Zeitschr. der d. morg. Ges.* XVI, p. 540.

[Library:—v.d.G.]

95.—*Sheng deu gūsin káwangdi i booi tacihyan i ten i gisun*. 2 vols., large 8vo, 1730. Only Manchu. Domestic Teachings of the Emperor Kanghi.

Translated in *Mémoires*, Vol. IX; *vide* WYLIE, Translation, p. xl.

[Libraries:—Peking, Paris.]

96.—*Jun jeu ba i erdemungge niyalma i kimcin*. 1 vol., manuscript.

[Library:—St. Petersburg.]

97.—**一學三貫清文鑑** (*Yi hsio san kuan ch'ing wén chien*), *M. emu be tacifi ilan be hafu kiyara manju gisun i buleku bithe*. 4 vols., 8vo, 1746. By one study to attain three, viz., Chinese language, Manchu translation and instructive contents. Information on astronomy, geography, etc., in Manchu and Chinese.

[Libraries:—Peking, v.d.G., v.M.]

28.—**四本簡要** (*Ssü pên chien yao*), *M. duin fulehs oyonggo s'os'ohon i bithe*. 4 vols., 8vo. First preface by Fu Ming-liang, 1652; second by Fu Ming-an, 1746; third by Fu Hsüen, (three generations). Rules of Wisdom. In four books (the last in verse),

discussing in 53 chapters the subjects of study, of being reverent and cautious, of moderation of purpose, of refinement and liberality, etc. In Manchu and Chinese.

[Library:—v.M.]

99.—事箴言繙譯六 (*Fan i liu shih chén yén*), M. *ubaliyambuha ninggun baita targabun gisun bithe*. 4 vols., 8vo, 1816. Preface, Manchu and Chinese. Author 王鼎 (Wang Ting). New edition 1851, translated by Mêng Pao. Rules of Life on Six Subjects: (1) to take care of one's self, (2) to govern one's house, (3) to do one's official duties, (4) to live in the country, (5) to do one's business, (6) to inquire into men's character.

[Libraries:—As. Soc. Shanghai, v.M.]

100.—繙譯童諺 (*Fan i t'ung yén*), M. *manju ubaliyambuha buya jusei muwa gisun i bithe*. 32 leaves, 8vo, 1845. Translated by Hiyán. Manchu and Chinese. Author of the Chinese original 秀楚翹 (Hsiu Ch'u-ch'iao). An elementary book for children.

[Library:—v.M.]

101.—繙譯論 (*Fan i lun*). Manuscript in Manchu only. Essays.

[Library:—v.M.]

102.—辦事總論 (*Pan shih tsung lun*). 1 cover. Discourse on the management of affairs. In Manchu and Chinese.

[Library:—St. Petersburg.]

103.—繙譯試策法程 (*Fan i shih t'sê fa ch'êng*), M. *ubaliyambuha sinnehe bodon i durun kemun i bithe*. 8 vols., 8vo, 1845. In Manchu and Chinese. Compiler and translator 穆齊賢 (Mucihyan Joifan). A collection of the best examination essays. Manuscript.

[Library:—v.M.]

104.—繙譯考試題 (*Fan i k'ao shih t'i*), M. *sinnehe timu bithe*. 2 vols. 8vo, no year; one vol. Chinese, one Manchu. Contains 33 examination essays.

[Library:—v.M.]

105.—*Ubaliyambume sinnehe timu bithe*. 68 leaves. Examination essay.

Vide *Zeitschr. der d. morg. Ges.* XVI, pp. 542-43.

[Library:—v.d.G.]

106.—*Ubaliyambume sinnehe timu bithe*. 8vo, 1853. Manchu with Chinese separately. Examination essay.

[Library:—v.d.G.]

107.—*繙譯課文條* (*Fan i k'io wên t'iao*). Manuscript, only Manchu. Essays, corrected in red ink.

[Library:—v.M.]

108.—*滿漢名賢集* (*Man han ming hsien chi*), M. *manju nikan hergen kamcime araha ming liyan ji bithe*. A collection of 174 maxims.

Vide WYLIE, Translation, p. xl. The Manchu text in KLAPROTH'S *Chrestomathy*, pp. 3-23.

109.—*三合名賢集* (*San ho ming hsien chi*), M. *ilan hacin gisun i kamcibuha gebungge saisa isabuha bithe*. 4 vols., large 8vo, 1879. The same as the foregoing, in Manchu, Mongol and Chinese.

[Library:—v.M.]

110.—*百家姓* (*Pai chia hsing*), M. *be giya sing*. The Book of Family Names.

Vide WYLIE, Translation, p. xli.

111.—*千字文* (*Ch'ien tzu wên*). The Thousand Character Classic. In Chinese transcribed in Manchu.

Vide WYLIE, Translation, p. xlii.

112.—*滿漢合璧幼學須知* (*Man han ho pi yo hsio hsü chih*). 2 vols., 8vo, 1822. Preface dated 1771. What young students ought to know. An elementary book in Manchu and Chinese.

[Library:—v.M.]

113.—*Jao min wên ch'üan*. 1 cover, manuscript. Essays in prose and verse.

[Library:—St. Petersburg.]

114.—**臨雍御論** (*Lin yung yü lun*). Manchu and Chinese; Imperial essays written when visiting the College. Appears periodically.

*Vide* WYLIE, Translation, p. xlii.

115.—**Emu tanggū orin cakda (?) i gisun sarkiyān**. 1 cover, manuscript. Philosophy. In Manchu and Chinese.

[Library:—St. Petersburg.]

116.—**繙譯醒世要言** (*Fan i hsing shih yao yēn*), M. *uḡali-yambuha jalan de ulhibure oyonggo gisun i bithe*. 8vo, 1876. An important Scripture to awaken the world. Translated by Mêng Pao.

[Library:—v.M.]

## V.—Religion.

117.—**大乘經** (*Ta ch'êng ching*). A Buddhist sūtra, either the Mahāyānā sūtra or all the sūtras of the mahāyānā. Translated by Dahai in 1633, *vide* Ming ch'ên chuan, III, fol. 21.

118.—**感應篇** (*Kan ying pien*), M. *acabume karulara bithe*. 1673. The best known book of the Taoists, not, however, by **太上** T'ai shang (Lao-tzū), but of the time of the Sung dynasty. Innumerable editions in Chinese (WYLIE, *Notes*, p. 179).

*Vide* WYLIE, Translation, p. xxxix. The Chinese text in TURRETINI'S *Bai zan sao* and in the Chinese Chrestomathy published in Paris. The Manchu in KLAPROTH'S Chrestomathy, pp. 25-36.

119.—**太上感應篇** (*T'ai shang kan ying pien*), M. *tai s'ang ni acabume karulara bithe*. 1759. The same as No. 118.

*Vide* WYLIE, Translation, p. xli; SCHOTT, *Verz.*, p. 35.

[Libraries:—Paris, Berlin, v.d.G., v.M.]

120.—Same title as foregoing number. The same work, illustrated by 400 short tales. In Manchu and Chinese.

*Vide* SCHOTT, *Verz.*, p. 47. One tale in KLAPROTH's *Chrestomathy*, pp. 48-62; the same in French in St. Julien, *Livre des Récompenses et des Peines*. Paris, 1835, pp. 18-27.

[Library:—Paris.]

121.—**心經** (*Hsin ching*), *M. niyaman i nomun*. In Manchu, Chinese, Tibetan (with Manchu transcription). 8vo.

*Vide* THONNELIER's Catalogue, p. 517, No. 3946. Is perhaps an abstract of the *pradjna pâramitâ hridaya sûtra*.

[Library:—Paris.]

122.—**四十二章經** (*Su shih erh chang ching*). The *sûtra* of 42 sentences.

*Vide* *Journal As.*, XI, (1848), pp. 535-57 for French translation by GABET and HUC.

123.—*Fucih i nomulaha (?) deli juwe fiyelen nomun*. The *sûtra* of 42 sentences. In Manchu, Mongol and Chinese. 1 cover, manuscript.

[Library:—St. Petersburg.]

124.—*Hian kie ch'ien fo hao*. The names of the 1,000 Buddhas, in five languages—Tibetan, Sanscrit, Manchu, Mongol and Chinese. 2 vols., 4to. The *Kalpa* of the sages (*bhadrakalpa*).

[Library:—Paris.]

125.—*Guan s'eng di giyûn i iletuleme acabuha bithei urgen be targabure bithe*. 1728. Kuan-shêng's discourse on the giving up of the desire of rewards. A Taoist tract.

*Vide* WYLIE, Translation, p. xl.

126.—**諸聖帝君訓誡世人之經** (*Chu shêng ti chün hstün chieh shih jên chih ching*), *M. geren enduringge di giyûn i jalan i niyalma be tacihyan targabure nomun*. One leaf, 8vo. A Taoist tract: Warning and Injunction to the men of this world.

*Vide* WYLIE, Translation, p. xxxix.

127.—*Geren enduringge di giyûn i jalan de tutabuha boobai tacihyan i nomun bithe*. 1 leaf, 8vo. A Taoist tract. Precious Teachings left to the world. In Manchu and Chinese.

[Library:—v.M.]



128.—關聖帝君覺世寶訓經 (*Kuan shêng ti chün chiao shih pao hsün ching*), *M. enduringge di giyün kuwan mafai jalan de ulhibure boobai tacihiyän i nomun bihe*. 5 leaves, 8vo. A Taoist tract. Precious Teachings for the instruction of the world. In Manchu and Chinese.

[Library:—v.M.]

129.—文昌帝君陰騭文 (*Wên ch'ang ti chün yin chih wên*), *M. wen cang di giyün enduri i butui erdemui bihe*. 4 leaves, 8vo. A Taoist tract. On secret virtues. In Manchu and Chinese.

[Library:—v.M.]

130.—戒淫文 (*Chieh yin wên*), *M. hayadara be targabure bihe*. 6 leaves, 8vo. A Taoist tract. Warning against debauchery. In Manchu and Chinese.

[Library:—v.M.]

131.—梓潼帝君感應陰騭文 (*Tzû t'ung ti chün kan ying yin chih wên*), *M. dsy tung di giyün i butui sain de karulame acabume bihe*. A Taoist tract. On rewards and secret good actions.

*Vide* WYLIE, *Notes*, p. 180; Manchu in KLAPROTH'S *Chrestomathy*, pp. 87-47.

132.—欽定清文祭祀條例 (*Ch'in ting ch'ing wên chi ssü t'iao li*), *M. hesei toktobuha manjusai wecere metere kooli bihe*. 6 vols., large 8vo, 1765. In Manchu only. The Sacrificial Ritual of the Manchus; Vol. I-IV, describing the ceremonies and prayers during the sacrifices; Vol. V enumerates the different sacrificial vessels and utensils, of which Vol. VI gives 118 drawings.

*Vide* LANGLÈS, *Rituel des Tartars-Mantchoux*, Paris. 1804, 4to, 74 pp. and 10 plates; reprint from *Notices et Extraits*, VII, pp. 241-308. C. DE HARLEZ, *La religion nationale des tartares orientaux, mandchous et mongols; avec le Rituel tartare, traduit*. Bruxelles, 1887. 8vo, 216 pp. and 8 plates.

[Libraries:—Peking, Paris, v.M.]

133.—*Wu pan jo king* (?). The Manchu version of a Buddhist sūtra. 16 vols., folio, 1820.

[Library:—B. Quarritich, London.]

134.—The *Kandjur* and *Tandjur*, i.e., the Buddhist *tripitaka*, the three collections (三藏 *San t'sang*):—sūtra (經 *Ching*), the sacred texts; *vinaya* (律 *Lü*), works on discipline; *śāstra* (論 *Lun*), philosophical treatises. The catalogue of the *Kandjur* (三藏聖教法寶標目錄, *San t'sang shêng chiao fa pao p'iao mu lu*, vide *Shên-i-tien*, chap. xcv, in the collection *Ku-chin t'u shu*), has been edited by SCHIEFNER, *der Index des Gandschur tibetanisch herausgegeben*. St. Petersburg, 1845, 4to, and Oxford, Clarendon Press, 1883. Vide JULIEN, *Mélanges de Géographie*, p. 94; also the works of S. BEAL, on Buddhism.

This great collection was printed by order of the Emperor Kien-lung, in four languages—Chinese, Manchu, Tibetan and Mongol, each language in 348 vols. folio (*Kandjur* 108 vols., *Tandjur* 240 vols.), together 1,392 vols.

[Library:—St. Petersburg.]

135.—萬物真原 (*Wan wu chên yuan*), *M. tumen jaka unenggi segiyen*. 8vo. The true origin of all things. Written in 1628 by the Missionary J. ALENI. Vide WYLIE, *Notes*, p. 140, and Translation, p. xliv.

Catalogue of Sikawei (near Shanghai), p. 26, P. JULIO ALENI, S.J. *Probatur imprimis Dei existentia, etc., dein demonstratur absurdum esse philosophorum sinensium sententiam qua asserunt omnium rerum principium esse Li 理 (rationem) et Yuen-ki 元氣 (primam materiam)*. 1 vol., 28 fol., 8vo, 50 sap. (cash).

[Library:—Paris.]

136.—教要序論 (*Chiao yao hsü lun*). Written by P. FERDINAND VERBIEST, S.J. (南懷仁 *Nan Huai-jen*), 1677. Prohibited by Imperial Edict of 1805, vide WYLIE, Translation, p. xliii. *Rudimentorum fidei ornata expositio*. Explicantur in hoc libro

mysteria fidei, qualia sunt Dei existentia, S.S. Trinitas, immortalitas animæ, symbolum Apostolicum, Decalogum, Oratio dominica, etc. 1 vol., 75 fol., 8vo, 100 sap. (cash), *vide* Catal., p. 67.

137.—Brevis relatio eorum, quæ spectant ad declarationem Sinarum imperatoris Kam-hi circa cœli, Confucii et avorum cultu, datam a. 1700, accedunt primatum, doctissimorumque virorum et antiquissimæ traditionis testimonia opera P.P. soc. J. Pekini pro Evangelii propagatione laborantium. Large 8vo. Printed in the Imperial Palace, 1701. In Manchu, Chinese and Latin. 61 double leaves.

[Library:—Paris.]

138.—聖年廣益 (*Shéng nién kuang yi*). By P. J. F. MOYRA DE MAILLAC, S.J., 1738. New edition 1815. Prohibited by Imperial Edict 1805. Annus sacer seu vitæ Sanctorum totius anni. Hoc opus vitas continet Sanctorum quorum festa singulis anni diebus, in Martyrologio adnotantur. Post quamlibet vitam habetur brevis meditatio tribus constans punctis et oratio cujusque Sancti propria. 4 vols., 12 libr., 16mo, 2,000 sap. (cash). Cat. p. 11.

139.—天主實義 (*T'ien chu shih yi*), M. *abkai ejen i unenggi jurgan*. Vera de Deo doctrina, by P. MATTH. RICCI, S.J. 4 vols., 1758. Auctor multis ac variis argumentis probat Dei existentiam, dein metempsychosin aliosque istiusmodi refutat errores, et tandem diversas de coelibatu et abstinence solvit quæstiones. Cat. p. 14.

[Library:—St. Petersburg.]

140.—*Mussi ejen isus heristos i tutabuka ice hese*. 8 vols., 4to, St. Petersburg, 1835. The New Testament, translated under the direction of LIPOWZOW.

*Vide* SCHOTT, *Verz.*, p. iii.

[Libraries:—St. Petersburg, London, (Summers' Cat. p. 70), Paris, v.M.]

141.—The Old Testament, translated into Manchu. Manuscript. *Vide* WYLIE, Translation, p. xlvii.

[Libraries:—St. Petersburg, London.]

On Christian literature in Manchu, *vide* LANGE, *Alphabet Mantchou*, pp. 71, 72; *Lettres édifi. et cur.* Nouv. édition, Paris, III, p. 330; MEADOWS, *Essay on the Manchu Language*, p. 11.

## VI.—History.—Geography.

142.—大遼史 (*Ta liao shih*), M. *dai liyoo gurun i suduri*. 8 vols., 8vo, 1644. In Manchu only. Author of the Chinese original the Mongol 脫脫 (*T'o T'o*), translation commenced by Dahai and Erdeni, completed under direction of Hife by a number of scholars. History of the Liao dynasty, comprising 307 years up to 1125. Presented to Emperor Shunchih, 1644, who ordered 300 copies of the Liao history, 300 of the Kin, and 600 copies of the Yuen, to be printed.

Toto's histories are not authentic, as the Liao (the Khitans) left no documents.

Translated into German by VON DER GABELENTZ. St. Petersburg, 1878, 8vo, 225 pp. *Vide* KLAPROTH, *Verz.*, p. 90.

[Libraries:—Paris, v.d.G.]

143.—金史 (*Chin shih*), M. *aisin gurun i suduri*. 9 vols., 8vo, 1644. In Manchu only. History of the Kin (1115–1234). Author and translators are the same as those of No. 142. The Tungusic tribes, which under the name of 女直 (*Ju chih* or *Nü chih*), lived in Manchuria, founded 1116, under Aguda, an independent kingdom, which they called 金國 (*Chin kuo*), M. *aisin gurun* Golden Kingdom. This (1234) was conquered by the Mongols.

*Vide* KLAPROTH, *Verz.*, p. 33. The Kin words in the Chinese original are explained in No. 16.

Translated into French by C. DE HARLEZ, Louvain, 1887.

[Libraries:—St. Petersburg, Berlin, Paris.]

144.—**大元史** (*Ta yuan shih*), *M. dai yuwan gurun i suduri bithe*. 13 vols., 8vo, 1644. In Manchu only. Translators the same as those of No. 142. History of the Mongol dynasty (1206–1367), by 宋濂 (*Sung Lien*), (1310–81) and others.

*Vide* WYLIE, *Notes*, pp. 13 and 19.

[*Library*:—Peking.]

145.—**綱鑑輯覽** (*Kang chien chi lan*), *M. hafu buleku bithe*. 1665. A compendious history of China, up to 1368, in Manchu. Left incompletely translated by Dahai (1633), completed and edited by order of the Emperor Kanghi in 1665. The Chinese original by 袁黃 (*Yuan Huang*), latter part of 16th century.

*Vide* KLAPROTH, *Verz.*, p. 41.

[*Library*:—Berlin.]

146.—*Hafu buleku bithe ci oyonggo s'os'oho bithe*. 2 covers. Abridgment of No. 145.

[*Library*:—St. Petersburg.]

147.—**通鑑綱目** (*T'ung chien kang mu*), *M. tung giyan gang mu i bithe*. 48 vols., large 8vo, 1691. In Manchu. A translation of the history of China, written by Ssü-ma Kuang and changed and abridged by Chuhi.

*Vide* WYLIE, *Notes*, p. 20; SCHOTT, *Verz.*, pp. 1–3.

[*Libraries*:—Peking, v.d.G., v.M.]

148.—*Wargi amargi babe necihiyeme toktobuha bodogon i bithe*. 1709. On the pacification of the West and the North.

[*Library*:—Peking.]

149.—*Junggar babe necihiyeme toktobuha bodogon i bithe sirame bithe*. 1761–65. On the Pacification of the Djungars.

[*Library*:—Peking.]

150.—**欽定西域同文志** (*Ch'in ting hsi yü t'ung wên chih*), *M. wargi aiman i hergen be emu obuha ejetun bithe*. 8 vols., large 8vo, 1766. Description of the Western Countries, by order of the Emperor Kienlung. A geographical dictionary in Manchu, Mongol,

Chinese, Tibetan, Olot (Djungar-Kalmuc) and Chagatai. In 24 chapters, enumerating the places, mountains, rivers, lakes and historical persons of Central and Western Asia, in all 3,111 articles.

*Vide* Preface to the Great Dictionary (No. 36) fol. 2; St. JULIEN, *Journal Asiatique*, X, (1840), p. 380. THONNELIER published part of it (Cat. p. 524, No. 3977).

[Library :—Paris.]

151.—異域錄 (*I yü lu*), M. *lakcaha jecen de kakūraha babe ejehe bithe*. 2 vols., 8vo, 1723, manuscript. Also printed, in Manchu. Notes on the countries on the far frontier, with a chart. Translated from the Chinese.

[Libraries :—Peking, v.M.]

152.—清字欽差大臣記在外夷論 (*Ch'ing tzu ch'ien ch'ai ta ch'ên chi tsai wai i lun*). 2 vols., 8vo. Notes of an Ambassador on the Outer Barbarians. In Manchu. Manuscript.

[In a private collection in Peking.]

153.—西域聞見錄 (*Hsi yü wên chien lu*), M. *wargi jecen i bade bist donjihi sabuha bithe*. 1777. What I heard and saw in the Western Countries. A description of Eastern Turkestan and part of Central Asia. By the Manchu 七十一 (*Ch'i shih i*).

*Vide* WYLIE, *Notes*, p. 52.

[Library :—v.d.G.]

154.—Mukden ging hecen i cergi bai nirugan. Names of Cities, etc., in the Province of Mukden. *Vide* WYLIE, *Translation*, p. xxxix.

155.—A description of the Chinese Embassy to the Turguts. *Vide* WYLIE, *Translation*, p. xxxix.

156.—Kalkai dulimbi cugun gūsa. The Banners of the Kalkas Tribe. *Vide* WYLIE, *Translation*, p. xxxix.

157.—八旗通誌 (*Pa ch'i tung chih*), M. *jakūn gūtai tung jy sucungga weilehe bithe*. About 200 vols., large 8vo, 1739, in Manchu only. The History of the Eight Banners.

*Vide* KLAPROTH, *Verz.*, p. 90; WYLIE, *Notes*, p. 57.

[Libraries :—Peking, v.M. (4 vols.).]

158.—欽定八旗姓氏族譜 (*Ch'in ting pa ch'i hsing shih tsu pu*), *M. han i araha jakūn gūsai manjusai mukūn hala be uheri ejeri bihe*. About 45 vols., large 8vo, 1744. Genealogy of the Manchu families of the Eight Banners, in Manchu only. First preface by Kienlung, 1744; second by Yungcheng, 1735. In 80 chapters.

[*Libraries*:—Peking, v.M., chap. 1-18, in 10 vols.]

159.—清字宗室王公表傳 (*Ch'ing tzü tsung shih wang kung piao chuan*), *M. uksun i wang gung sai gungge fas's'an be iletulere ulabun*. 6 vols., folio, 1765. In Manchu only. Biographies and Genealogies of Manchu Princes of the Imperial Clan.

For the Chinese original, *vide* WYLIE, *Notes*, p. 28.

[*Library*:—v.M.]

160.—欽定滿洲源流考 (*Ch'in ting man chou yuan liu k'ao*). In 20 chapters, 1777. Antiquities and Geography of the Manchus. For the Chinese original, *vide* WYLIE, *Notes*, p. 36.

161.—欽定盛京通志 (*Ch'in ting shêng ching t'ung chih*). Description of the Province of Mukden, 1736. Author 王河 (Wang Ho), *vide* WYLIE, *Notes*, p. 36.

162.—繙譯名臣傳 (*Fan i ming ch'ên chuan*). 8vo, manuscript. Biographies of famous men. In Manchu and Chinese.

[*Library*:—v.M.]

163.—*Chin lien s'an alin i ice ji bihe*. Description of the Chin-lien (?) mountains.

[*Library*:—Peking.]

164.—*Janla cucin babe necihiyeme toktobuha bodogon i bihe*. 12 covers, 1784. The pacification of the Kinchuan; *vide* WYLIE, *Notes*, p. 23.

[*Libraries*:—St. Petersburg, Peking.]

165.—*Hesei toktobuha tulergi monggo hoise aimani wang kung sai iletun ulabun*. 60 vols. Biographies of Mongol and Turkish Princes. Translated from the Chinese.

[*Library*:—St. Petersburg.]

166.—**皇朝開國方略** (*Huang ch'ao k'ai kuo fang lio*). 6 vols., 1786. History of the conquest of China by the Manchus, in chronological order, from Nurhachu to Shunchih (1584–1644). Preface by Kienlung. Compiled by a number of scholars.

167.—**讀史論畧** (*Tu shih lun lio*), M. hūlahā suduri i s'os'ohon be leolehe bithe. 2 vols., 8vo, 1849. On the study of History. In Manchu and Chinese. By 興德 (Hingde). Also 三合 (San ho) in Manchu, Mongol and Chinese.

[Library:—v.M.]

#### VII.—*Laws.—Edicts.—Treaties.—Regulations.*

168.—A tablet erected by the King of Corea to the Manchu Emperor Tsungteh, 1639, in Chinese, Manchu and Mongol; see W. R. CARLES in *J. of C. B. of R. A. S.*, XXIII (1888), pp. 1–8.

169.—*Monggo fafun i bithe*. 4 vols. Translated from the Chinese.

[Libraries:—St. Petersburg, Peking.]

170.—**明會典** (*Ming hui tien*). Description of the Chinese Government under the Ming dynasty (1368–1644). Published in Chinese in 1509 by 徐溥 (Hsü P'u); in 1632 translated into Manchu by Dahai.

*Vide* WYLIE, *Notes*, p. 56; *Ming ch'ên chuan*, III, pp. 21–22.

171.—**大清律例** (*Ta ch'ing lü li*), M. dai cing gurun i fafun. 12 vols., folio, 1646; new edition, 1766. The penal code of China, in Manchu. First translated under Taitsung (1627–44), 1646, published. The Chinese text revised 1670, with additions 1723, revised 1740 and 1829, *vide* WYLIE, *Notes*, p. 57.

[Libraries:—Peking, v.M.]

172.—*Ming gurun i hung wu i tacihyan*. 1646. "Homilies on themes relating to the Government." By the Ming Emperor Hung-wu (1368–99).

[Library:—Peking.]



173.—Diploma for P. ADAM SCHALL, 1651, in Manchu, *vide* KLAPROTH, *Verz.*, p. 59.

[Library:—Berlin.]

174.—*Han i araha ambasai mujilen be darabure bithe*. 1655. The Emperor's Address to the Officials on Morality; *vide* WYLIE, Translation, p. xxxviii.

175.—*Dasan de tuwangga oyonggo bithe*. 1 cover, 1655. On Government.

[Libraries:—St. Petersburg, Peking.]

176.—*Dorgi durun i jwgan be badarambuha bithe*. 1656. The ministry of the Imperial Household.

[Library:—Peking.]

177.—The treaty between Russia and China concluded in 1675 by Spafari. Manchu text in WASSILYEFF's Chrestomathy, pp. 82–120.

178.—*Jalan jalan i hafu buleku*. General mirror for all generations; *vide* WYLIE, Translation, p. xxxix. This is perhaps a translation of the 世緯 (Shih Wei), by 袁襄 (Yuan Chih), intended "to rectify abuses which had crept into the Government;" WYLIE, *Notes*, p. 70.

[Library:—St. Petersburg.]

179.—The treaty between Russia and China concluded in 1689, in Nipchu (Nerchinsk) by Golowin. Manchu text in WASSILYEFF's Chrestomathy, p. 166; English in MAYERS, *Treaties*, p. 96.

180.—欽定大清會典 (*Ch'in ting ta ch'ing hui tien*), *M. dai cing gurun i uheri kooli*. 1694. New edition, 1764. The Statutes of China. Published in Chinese the same year, revised 1727, again 1771; *vide* WYLIE, Translation, p. xlii, *Notes*, p. 57.

[Library:—Peking.]

181.—The treaty between Russia and China concluded in 1727, in Manchu, Russian and Latin by Sawa Wladislawich. Manchu text in KLAPROTH's Chrestomathy, pp. 101–120, and in WASSILYEFF's Chrestomathy, p. 171. English in MAYERS, *Treaties*, p. 96. *Vide* WYLIE, Translation, p. xli.

182.—上諭入旗 (*Shang yü pa ch'i*), *M. dergi hese jakün gūsade wasimbuhenge*. Manchu text 14 vols. Chinese text 12 vols., large 8vo, 1723–35. The edicts of Emperor Yungcheng addressed to the eight banners. *Vide* KLAPROTH, *Verz.*, p. 58; DE HARLEZ, *Manuel*, p. 4. *Zeitschr. d. d. morg. G.* XLI, (1887), pp. 311–18. *Mém. de la Soc. des Et. Jap.* 2<sup>e</sup> Livr, 1885.

[*Libraries*:—Berlin (5 vols.), Peking, Paris, v.d.G., v.M.]

183.—諭行旗務奏議 (*Yü hsing ch'i wu tsou i*), *M. hesei yabubuha hacilame wesimbuhe gūsai baita*. Manchu text 13 vols., Chinese text 4 vols., large 8vo. Reports of the Eight Banners to the Emperor Yungcheng, on military and other matters.

[*Libraries*:—Paris, v.M.]

184.—上諭旗務議覆 (*Shang yü ch'i wu i fu*), *M. dergi hesei wasimbuhe gūsai baita be dahume gisurefi wesimbuhenge*. Manchu text 13 vols., Chinese text 11 vols., large 8vo. Rescripts of the Emperor Yungcheng in answer to the reports of the Eight Banners.

[*Libraries*:—St. Petersburg, Paris, v.M.]

185–187.—Three scrolls in Manchu, being patents of nobility given to Manchus. Time of Emperor Kienlung.

[*Library*:—v.M.]

188.—太祖高皇帝聖訓 (*Tai tsu kao huang ti shêng hsün*), *M. dai dsu dergi hūwangdi i enduringge tacihian*. The homilies of Nurhachu (1584–1616), who from 1616–27 reigned under the title of 天命 (*T'ien ming*).

[*Library*:—Peking.]

189.—三皇帝聖訓 (*San huang ti shêng hsün*). 1739. The homilies of the three Emperors Shunchih, Kanghi and Yungcheng.

[*Library*:—Peking.]

190.—聖祖仁皇帝聖訓 (*Shêng tsu jên huang ti shêng hsün*), *M. s'engdsu gosin hūwangdi i enduringge tacihian*. 1741. Homilies of the Emperor Kanghi, (1662–1723).

[*Library*:—Peking.]

191.—*Jakūn gūsai kooli hacin*. 1 cover, 1742. The regulations for the Eight Banners.

[Library:—St. Petersburg.]

192.—*Da se i jurgan be badarambuha bithe*. The Board directing the affairs of the Tartars (?) at Peking.

[Library:—Peking.]

193.—*Ukanju be kadalame jafara kooli*. 2 vols., 8vo, 1748. Regulations for the capture of deserters. In Manchu only.

[Libraries:—Peking, v.M.]

194.—*Uheri kooli i kooli hacin i bithe*. 1747. General regulations.

[Library:—Peking.]

195.—*Dai dsu han i yargiyan kooli bithe*. Nurhachu's customs. Quoted by AMIOT, *Éloge de la ville de Moukden*, p. 21, Note a.

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This work, the *San kuo chih*, (No. 232), the *Shui hu chuan*, (No. 243), and the *Hsi yo chi* (西遊記) are called 四大奇書 (*Ssü ta chi shu*), the four Wonderful Books. See WYLIE, *Notes*, p. 162.

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ABSTRACT OF INFORMATION  
ON  
CURRENCY AND MEASURES IN CHINA.

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THIS Abstract has been compiled by Mr. H. B. MORSE from the replies received in answer to the Society's Circular issued in January 1889. The Council observe that the information is in some cases partial or defective, and that no replies have been received from many of the recipients of the Circular. It is therefore hoped that this publication may not be definitive, but that those who are able to supplement what is here set forth will communicate with the Honorary Secretary, the Council's desire being to publish at some future date a second edition of this paper.

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## INTRODUCTION.

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ALL nations have passed through the stage of chaos in their currency and measures. In western countries modern legislation has done much to reduce irregularity to order, though even there the old special units still linger on in common usage. In China some spasmodic efforts have been made from time to time to secure uniformity, but they have never gained much support, and, as will be seen from the following tables, chaos reigns supreme through the whole of the Empire. In many of the following contributions reference is made to the difficulty of finding any standard, even local.

An apology is due to the various contributors to this inquiry for not printing their papers as received; it is hoped, however, that they will recognise the utility of presenting the information in summarised tables, rather than giving detached information under all heads for each place. Where any contributor has given special information, it has been appended in the shape of notes under the proper head.

I have not attempted to prepare any general summaries. The reason for this will be obvious, when, on referring to the tables, it is remarked that many provinces are unrepresented, many others only covered at a few points, and two only (Kansu and Kiangsu, the latter fairly completely) are adequately reported on. The apathy of the mercantile residents in China on this subject, which so closely affects their interests, is remarkable, not one paper having been

received from any member of that influential body ; and were it not for the efforts on their behalf made by the missionaries, Catholic and Protestant, this inquiry would have had no result.

An earnest appeal is made to all residents in China, whether members of the Society or not, to contribute further information on this important subject. There are three points to be kept in view :—

- 1°.—To check and (if wrong) rectify the statements made in the tables now submitted ;
- 2°.—To send full information on the lines of this paper regarding places not now reported on ;
- 3°.—To thus collect the material for an intelligent summary of the Currency and Measures of China by some competent hand.

The paper now presented is only preliminary, and it is hoped that the Society may soon be enabled to publish tables covering every part of China.

H. B. MORSE.

PAKHOI, 11th January 1890.

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## CIRCULAR ON CURRENCY AND MEASURES IN CHINA.

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CHINA BRANCH OF THE ROYAL ASIATIC SOCIETY,  
*Shanghai, January 1889.*

*The Council of the China Branch of the Royal Asiatic Society are desirous of collecting information regarding the currency and measures in use in all parts of China, and request the favour of a short paper from you embodying information on the points given below. The papers when received will be summarised; and the summaries, together with the papers on which they are based, will be read at one of the open meetings of the Society, or printed in the Journal, at the discretion of the Council.*

*The points on which information is sought, are as follow :—*

### CURRENCY.

1.—*What are the kinds of Tael (兩) of Silver (the Haikwan or 關平 Tael excluded) known in your district? Please give names in full, thus 湘平化寶銀 (Hsiang-p'ing Hua-pao Yin), together with the colloquial name.*

2.—*What is the actual weight in grains ( $487\frac{1}{2}$  grains equal to one ounce avoirdupois) of the Tael of each 平?*

3.—*What is the touch or fineness of each of the several kinds of Silver (pure silver being taken as 1,000 fine)?*

4.—*In each Tael of currency weighing (so many) grains, how many grains are there of pure silver (1,000 fine)?*

5.—*How many Taels of each of the currencies mentioned by you, are considered to be the equivalent locally of 100 K'u-p'ing Taels of pure silver (庫平足紋銀)?*



6.—What relation do Mexican Dollars bear to the Tael commonly used locally? (100 Taels = ? Dollars).

7.—What kinds of Copper Cash are used in your district? What is a Tiao, and what its value?

8.—What relation do Copper Cash bear to the Mexican Dollar and [or] the local Tael?

9.—To what extent are Cash Notes (paper money) used locally? If used at all, please give some account of them.

10.—Are Bank Notes (or Bankers' cheques) for Silver used in your district otherwise than as cheques?

#### WEIGHTS.

11.—What weights of Catty (斤) are known in your district? Please give the equivalent in ounces avoirdupois or in grammes. Which is the one generally used?

12.—What weights of Picul (石 or 擔) are known in your district? Please give the equivalent in pounds avoirdupois or in kilos. Which is the one generally used?

13.—What variations are known from the table—

16 Taels (兩) = 1 Catty (斤).

100 Catties (斤) = 1 Picul (石).

14.—Does the Tael (兩) of Currency bear any exact relation to the Catty (斤) of commerce?

#### CAPACITY.

15.—What is the weight in lbs. or kilos of dry rice contained in the Peck (斗) known in your district? What is its capacity in English cubic inches or in cubic centimètres?

#### LENGTH.

16.—What lengths of Foot (尺) are known in your district? Please give equivalent in English standard inches (and decimals) or in decimals of a metre. What are their names or use?

17.—What variations are known from the table—

10 Inches (寸) = 1 Foot (尺).

10 Feet (尺) = 1 Chang (丈).

18.—What is the length of a Pace (步)?

19.—What is the length of a Li (里)?

#### AREA.

20.—What is the area of a mow (畝) known in your district? Please give the equivalent in English square feet or in square mètres.

21.—How is the area of land under one mow designated? Please give a table.

#### GENERAL.

22.—Please give any other information regarding these measures not covered by the above questions.

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- 5.—Rev. GILBERT REID. Notes on Chi-nan-fu (濟南府), Shantung.
- 6.—Mgr. FERD. H. HAMER, Vicar Apost. of Kansu. Notes on Lan-chou-fu (蘭州府), Liang-chou-fu (涼州府), Kan-chou-fu (甘州府), and Su-chou-fu (肅州府), Kansu.
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- 16.—Dr. S. P. BARCHET. }
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- 19.—Rev. C. BONE. Notes on Canton (廣州府), Hsin-hui (新會縣), and Shao-chou-fu (韶州府), Kwangtung.
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- 22.—Rev. C. F. HOGG. Notes on Shansi, Shensi and Kansu.
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NOTE BY DR. MACGOWAN  
ON THE METROLOGY OF CHINA.

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UNDER 斤, WILLIAMS, in remarking on its variations, ranging from three to twenty-one taels, the highest being the weight by which coal is sold in Honan, and the lowest being the catty of tea in Peking, justly ascribes the discrepancies to "an effort to equalise an apparent price at the expense " of the quantity given."

It cannot be said that the Imperial Government has failed in duty in the important function of providing standard weights and measures. More than two score centuries ago (2255 B.C.) that duty was discharged by the illustrious Shun, who rectified balances and co-ordinated weights and measures; successive dynasties have enacted statutory regulations to prevent metrological anarchy, but, as we see, they have been impotent in attempting their enforcement.

*Metrological Policing.*—No supervision is exercised by the Mandarinate in respect of weights and measures; statutable measures exist in the yamên, to which those in use by the people more or less correspond, the people in this as in commercial and municipal affairs being guided by rules of their own—consuetudinal law enforced by guilds generally or by extemporized organizations.

In the all-important matter of rice measuring, public vigilance suffices in most cities—as Wênchow, for example—to maintain uniformity. So well do the consumers of this

comestible know how many bowls of rice a given measure should contain, that the least fraud would be detected and the dealer lose custom—a matter that never happens.

In larger cities, however, for example as at Ningpo, rice-guilds exercise strict control over all rice-dealers, each one being obliged to be a member of the Association, among whom attempts at fraud are easily detected and the guilty are severely mulcted. Semi-monthly every dealer is required to send his measures to the guild to be tested. Care is taken to provide against the expansion and shrinkage which is consequent on the hygroscopic condition of the season, chunam being added or removed from the corners of the measure so as to adapt it to atmospheric vicissitudes; measures not taken for the public weal, but that dealers shall be able to obtain advantage over their fellow-tradesmen.

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## GOLD.

Rev. P. HOANG (1) states:—

Gold ingots are not in common use in trade, but only for hoarding. Hoarded gold is generally in one of two forms. One is in ingots shaped like a small boat, about 0·09 mètre [3·6 inches] long, 0·02 mètre [0·8 inch] wide, and weighing 360 grammes [5,555 grains=11·575 oz. troy]; this is called 金條. The other is in the form of gold-leaf, measuring about 0·2 mètre [8 inches] square, and weighing about 30 grammes [463 grains]; this gold-leaf is called 金葉子. The unit of value of gold is called 換; *e.g.*, if one ounce of gold is worth eighteen ounces of silver, it is quoted 十八銀換. The relative value of gold to silver was in the beginning of the Ming dynasty (1375) four times greater; under the Emperor Wan-li (1574) of the same dynasty, seven to eight times greater; at the end of the Ming dynasty (1635) ten times; under the Emperor Kang-hsi (1662) of the present dynasty, ten and more times; under the Emperor Kien-lung (1737) twenty times and more; in the middle of the reign of Tao-Kwang (1840) eighteen times; at the beginning of the reign of Hien-fung (1850) fourteen times; and at present (1882) generally eighteen times.

Rev. G. PARKER (7) states:—

A *liang* of gold is worth [in Kansu]  $17\frac{1}{2}$  *liang* of silver. When the late Governor Tan was superseded, he required such a quantity of gold that the price rose to  $21\frac{1}{2}$ , or 4 *liang* above the normal price.

Dr. S. P. BARCHET (16) states :—

Gold is now seldom found in silver, since the natives have learned the wet process of extracting it.

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PLACE.			Authority.	NAME OF TARE.	WEIGHT OF TARE.	
Province.	Prefecture.	Town.			15.4325--1	
					Grains.	Grammes.
...	...	...	...	Haikwan ... 關平	583.3	37.79
Shêng-king	Fêng-tien	Newchwang	29	Ying-tzŭ ... 營平	578.3	37.47
Chihli	Peking ...	...	...	Ching-p'ing ... 京平	...	...
			...	Erh-liang-p'ing 二兩平	...	...
	Tien-tsin	Fu ...	3	Hang-p'ing ... 行平	560.0	36.29
			3	Hsiang-p'ing ... 湘平	559.0	36.22
Shantung	Chi-nan ...	Fu ...	5	Chi-p'ing ... 濟平	568.75	36.53
			5	K'u-p'ing ... 庫平	573.0	37.13
	Lin-ch'ing	Chou ...	4	...	...	...
	T'ang-chou	Chefoo ...	3	Ts'ao-p'ing ... 漕平	561.7	36.40
Shansi	Lu-an ...	Fu ...	20	Lu-p'ing ... 潞平	...	...
	T'ai-yuen	Yang-ch'ü ...	20	Yang-ch'ü ... 陽曲平	...	...
Shensi	Hsi-an ...	King-yang	7	King-pu-p'ing 涇布平	558.15	36.17
			22	"	574.0	37.19
Kansu	Lan-chou	Fu ...	7	Lan-pu-p'ing ... 蘭布平	562.6	35.81
			6, 7	Lan-p'ing ... 蘭平	551.0	35.70
	Liang-chou	Fu ...	6	Liang-p'ing ... 涼平	554.3	35.91
	Kan-chou	Fu ...	6	Kan-p'ing ... 甘平	559.7	36.27
	Su-chou...	Fu ...	6	Su-p'ing ... 肅平	558.7	36.20
Honan	Nan-yang	Fu ...	9	Shih-p'ing ... 市平	557.5	36.12
			9	K'u-p'ing ... 庫平	564.7	36.59
Hupeh	I-chang...	Fu ...	3	...	550.0	35.00
	Han-yang	Hankow ...	3	...	554.7	35.94
Kiangsi	Kiu-kiang	Fu ...	3	Ts'ao-p'ing ... 漕平	565.6	36.65
			3	Hang-p'ing ... 行平	555.5	35.82



SILVER IN TAEI.				EQUIVALENT VALUE		Local Taela 100 equal Silver Dollars	COPPER CASH.			NOTES.
NAME.	Fine- ness.	Fine Silver in each Tael.		Haikwan Taela 100 equal	Kuping Tls. 100 equal		De- nomi- nated in Tiao.	Actual number in Tiao.	Tiao in one Tael.	
		Grains.	Grammes.							
足紋銀	1,000	583.3	37.79	...	98.384	152.778				
化寶	992	573.7	37.17	108.50	108.550	142.86	1	160	10	
...	...	...	...	...	...	...	} 10=20	50	10 to 14	
...	...	...	...	...	...	...				
化寶	992	554.4	35.92	{ 105.00 106.05 }	108.515	142.860	1=2	500	3.150	Note 1.
”	992	554.5	35.93	105.20	108.500					
...	...	...	...	103.27	101.600	148.000	1=2	490	3.166	
...	...	...	...	...	...	...	1=2	490	3.100	
...	976	548.2	35.52	106.40	104.681	...	...	...	...	Note 2.
...	...	...	...	...	102.800					{ Tls. 100 equal S'hai Tls. 108.30
...	...	...	...	...	100.529	...	...	...	...	
...	970	...	...	...	101.456	...	...	...	...	Note 3.
...	?	...	...	...	...	...	...	...	...	Note 4.
...	970	...	...	...	102.470	...	} 1=2	485	3.180	Note 5.
...	? 985	...	...	...	104.500	...				
...	? 993	...	...	...	...	...				
...	...	...	...	...	101.317	...	1	980	1.600	
...	? 967	532.0	34.47	109.65	107.879					
...	967	536.4	34.76	108.75	106.993					
...	990	560.0	36.29	104.16	102.484					
...	988	559.0	36.22	104.36	102.674					
...	988	548.8	35.56	106.29	104.573					

PLACE.			Authority.	NAME OF TAEI.	WEIGHT OF TAEI.		
Province.	Prefecture.	Town.			15.4325=1		
					Grains.	Grain-meas.	
Anhui	Wuhu ...	Fu ...	3	Ts'ao-p'ing ... 漕平	565.6	36.65	
	Liu-an {	Chou ...	10	"	...	...	
		Huo-shan ...	10	"	...	...	
	Ying-chou	Huo-ch'iu ...	10	"	...	...	
Kiangsu	Kiang-ning (Nan-king) {		17	K'u-p'ing ... 庫平	575.0	37.26	
			17	Ts'ao-p'ing ... 漕平	563.7	36.52	
			17	Hsiang-p'ing ... 湘平	552.4	35.79	
			17	...	...	...	
	Chin-kiang	Fu ...	3	Ts'ao-p'ing ... 漕平	565.6	36.65	
			3	Hang-p'ing ... 行平	563.5	36.51	
	Soochow...	Fu ...	1	Ts'ao-p'ing ... 漕平	565.0	36.61	
	Hsü-chou	Sui-ning ...	11	"	...	...	
	Sung-kiang	Shanghai {	1	"	565.3	36.63	
			1	K'u-p'ing ... 庫平	575.9	37.32	
			1	"	577.5	37.42	
			3	Kuei-p'ing ... 規平	560.0	36.29	
	Chekiang	Ning-po ...	Fu ...	3, 15, 16	Kiang-p'ing ... 江平	546.9	35.44
				15, 16	Ts'ao-p'ing ... 漕平	558.0	36.16
16				K'u-p'ing ... 庫平	569.1	36.88	
13				Kuei-p'ing ... 規平	...	...	
16		Ssü-ma-p'ing ... 司碼平	574.6	37.23			
18		Kiang-p'ing ... 江平	560.0	36.29			
18		Ts'ao-p'ing ... 漕平	573.1	37.13			
18		K'u-p'ing ... 庫平	580.8	37.63			
18		Kuei-p'ing ... 規平	520.0	33.69			
18		Hsiang-p'ing ... 湘平	564.4	36.57			
18	Hsiang-p'ing ... 餉平	579.7	37.56				
Wenchow	Fu ...						

NAME.	SILVER IN TAEI.		EQUIVALENT VALUE		Local Tael 100 equal Silver Dollars	COPPER CASH.			NOTES.
	Fine- ness.	Fine Silver in each Tael.		Hankwan Tael 100 equal	Kuping Tls. 100 equal	De- nomi- n.	Actual number in Tiao.	Tiao in one Tael.	
{ ...	990	560.0	36.29	104.17	102.484				
	994	562.1	36.42	103.77	102.093				
	...	...	...	...	102.041	...	1	980	1.250
	...	...	...	...	103.093	...	1	980	1.200
	...	...	...	103.093	...	...	1	1,000	1.550
雪花銀									
紋銀	...	...	...	...	...	146.86	1	974	1.550
底潮銀									
杭銀	...	...	...	...	...	...	1	974	0.700
...	990	560.0	36.29	104.16	102.484				
...	988	556.7	36.07	104.782	103.089				
...	{ 960 to 990	...	...	...	105.840	135.32	1	1,000	1.530
...	...	...	...	...	...	...	...	...	Note 7.
...	...	...	...	...	...	...	...	...	Note 8.
...	985	523.6	33.92	111.40	109.600	136.00			
...	...	...	...	105.83	{ 104.500 104.120 104.000 102.252 101.970 }	{ 144.10	1	990	1.555
元寶銀	998	...	...	...	...	...			
顆子銀	997	568.0	36.80	102.70	...	...			
圓絲銀	991	...	...	...	105.451	136.15			
條頭銀	988				104.400				
...	...	...	...	...	104.400				
...	...	561.7	36.40	103.88	102.200	140.00	1	1,000	1.470
元寶銀	1,000								Note 9.
土銀	980	...	...	...	110.000				
洋錢銀	930	...	...	...	103.700				
...	...	...	...	...	101.800				

PLACE.			Authority.	NAME OF TAEI.	WEIGHT OF TAEI.	
Province.	Prefecture.	Town.			15.4325—1 Grams.	Grams.
Fukien	Foochow	Fu ...	3	Ssü-ma-p'ing ... 司碼平	581.7	37.69
			21	Hsin-i-p'ing ... 新議平	...	...
			21	Hsiang-p'ing ... 湘平	...	...
			21	Wên-kwang ... 紋廣	...	...
Taiwan	Ch'uan-chow	Amoy ...	3	Shih-p'ing ... 市平	573.3	37.15
	Tai-pai ...	Tamsui ...	3	...	575.7	37.30
	Tai-nan ...	Takow...	3	...	576.9	37.38
			26	K'u-p'ing ... 庫平	580.0	37.58
Kwangtung	Ch'ao-chow	Swatow ...	23	Guild ... 會館平	575.0	37.26
			3	Ssü-ma-p'ing ... 司碼平	576.7	37.37
			23	Market ... 市平	580.0	37.58
	Shao-chow	Fu ...	19	Ssu-ma-p'ing ... 司碼平	...	...
	Kwang-chow	Canton ..	3, 19	"	581.0	37.65
					576.0	37.32
	Kiang-chow	Hsin-hui ...	19		575.0	37.26
					574.7	37.24
Kwangsi	Lien-chow	Hoihow ...	3, 30	...	...	...
			3	K'u-p'ing ... 庫平	583.3	37.79
			3	Pu-p'ing ... 部平	575.7	37.30
			3	Ssü-ma-p'ing ... 司碼平	580.0	37.58
Yunnan	Tai-p'ing...	Yeong-kong	30	...	...	...
		Mui-luk ...	30	...	...	...
		Hai-on ...	30	...	...	...
		Lungchow...	28	Shih-p'ing ... 市平	580.0	34.34
	Lin-an ...	Mêng-tzü ...	25	... 蒙自平	574.5	37.22

SILVER IN TAEI.				EQUIVALENT VALUE		Local Tael 100 equal Silver Dollars	COPPER CASH.			NOTES.	
NAME.	Fino- ness.	Fine Silver in each Tael.		Haikwan Tael 100 equal	Kuping Tia. 100 equal		De- nom'n.	Actual number in Tiao	Tiao in one Tael		
		Grains.	Grammes.								
Dollar	900	523.5	33.91	110.28	108.498					} Note 10.	
...	1,000	...	...	...	102.459	...	1	1,000	1.405		
...	1,000	...	...	...	103.413						
...	...	...	...	...	...	...	1	1,000	0.800		
Dollar	900	516.0	33.43	111.75	109.945						
Dollar	900	518.1	33.57	111.32	109.522						
"	900	519.2	33.64	111.114	109.319						
"	900	522.0	33.82	111.37	...	...	1	1,000	1.700		
"	900	517.5	33.53	112.715	...	...	1	1,000	1.500	{ Note 11.	
"	900	519.0	33.63	111.145	109.350						
"	900	522.0	33.82	111.75							
...	...	...	...	...	...	152.00	1	1,000	1.500	{ Note 12.	
Dollar	900	522.9	33.90	110.40	108.616					{ Rice and Wood Guild	
"	900	518.4	33.59	112.526	...	...	...	...	...		
"	900	517.5	33.53	112.715							
"	900	517.2	33.52	112.80							
...	...	...	...	...	...	153.00	1	1,000	1.500	{ Note 13.	
...	...	...	...	113.762	...	...	...	960			
Dollar	900	522.0	33.82	110.572	...	138.89	1	1,000	1.470		
...	...	...	...	...	...	...	...	912			
...	...	...	...	...	...	...	...	922			
...	...	...	...	...	...	...	...	936			
...	980	519.4	33.65	...	102.612	138.89	1	994	1.425	{ Note 14.	
牌房銀	980	563.0	36.48	103.546	...	{ 153.84 selling 142.85 buying }	{ 1 1 1 }				
母雞頭銀	980	563.0	36.48	103.546	...				730	1.500	{ Note 15.
老槽紋銀	990	568.8	36.86	102.500	...						

## CURRENCY TABLE.

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10 Hsü 須	= 1 Hsün 巡	10 Hsien = 1 Wei 微
10 Hsün	= 1 Chün 逡	10 Wei = 1 Hu 忽
10 Chün	= 1 Ai 埃	10 Hu = 1 Ssü 絲
10 Ai	= 1 Mo 漠	10 Ssü = 1 Hao 毫
10 Mo	= 1 Miao 渺	10 Hao = 1 Li 厘 (cash).
10 Miao	= 1 Chên 塵	10 Li = 1 Fên 分 (candarin).
10 Chên	= 1 Sha 沙	10 Fên = 1 Ch'ien 錢 (mace).
10 Sha	= 1 Hsien 纖	10 Ch'ien = 1 Liang 兩 (tael).

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## NOTES.

NOTE 1.—*Note on Tientsin Currency:*

Of the two equivalent values given for the Hang-p'ing Tael at Tientsin, the first (Hk. Tls. 100=T'u Tls. 105.00) is the rate at which foreign merchants pay duties, the second (Hk. Tls. 100=T'u Tls. 106.05) is the rate fixed for Chinese merchants in paying duties.

NOTE 2.—*Note on Chefoo Currency:*

Foreign merchants pay duties at the rate of Hk. Tls. 100=Ts'ao p'ing Tls. 104.40, instead of the rate given here, Ts'ao p'ing Tls. 106.40.

## NOTE 3.—Rev. G. PARKER (7) states:—

Our remittances from Hankow are received in King-p'ing, and weigh in the street shops *nearly* three per cent more. The discrepancy of one or two mace is caused by the two slight squeezes at Bank and Cash-shop. The reason for the use of the King-yang scale at Lan-chou is that King-

yang in Shensi (but since the Mahomedan rebellion San-yuen 三原縣) is the chief commercial centre in the north-west. The Lan-chou silver, in the shape of "fowls' kidneys," is melted at the Pu-chêng-ssü Yamên and is considered the very worst in use; old lumps and Szechuen silver are better; silver from Honan is the best. In re-casting the silver after former alloy has been removed, three per cent copper is added to ninety-seven per cent purified silver to make one hundred Taels. At Ch'in-chou 秦州, the chief city in the south-east of the Province (Kansu) this quality is difficult to change except at a loss.

NOTE 4.—Rev. C. F. HOGG (22) states:—

涇市平 (called Ching-pu-ping. Pu=布?)

This scale takes its name from 涇陽縣 in 陝西, which was formerly the commercial capital of the province, but after its sack during the Mahomedan rebellion, the business was transferred to 三原縣. The latter city is the great wholesale mart for the north-western provinces. The Ching-yang scale is in ordinary use there and is also used by bankers in Kan-su and Shen-si and perhaps elsewhere. Drafts drawn in Hankow on Si-rgan and Lan-chou banks are written in this scale, though the currency of both these cities differs considerably from it.

NOTE 5.—Mgr. HAMER (6) states:—

La balance de Lan-tcheou a une différence avec le Scen-con-fa 申公砵 de 24 par mille; 1,000 Tls. Scen-con-fa est 1,024 à Lan-tcheou.

NOTE 6.—Rev. E. T. WILLIAMS (17) states:—

1.—*The Tael.*

There are three kinds of Tael commonly used in Nankin: the "K'u-p'ing," known also as "Süeh-hwa Yin" (雪花銀),

the "Ts'ao-p'ing" (砵平), called "Wǎn Yin" (紋銀) and the "Siang-p'ing" (湘平) or "Ti-ch'ao Yin" (底潮銀).

As a matter of fact, however, these are three methods of reckoning rather than three kinds of Tael. The "Ts'ao-p'ing" is the standard and the Tael commonly used in Nanking. In "Ts'ao-ping" 100 Taels are 100 Taels, but if a transaction is conducted in "K'u-p'ing," to every 100 Taels 2 Taels must be added; that is, 100 "K'u-ping" Taels are equal to 102 "Ts'ao-ping." 100 "Siang-ping" are but 98 "Ts'ao-ping." The "Ts'ao-ping" Tael contains 563.72 grains. The "Siang-ping" is used in paying the army and the prizes awarded students at the semi-monthly examinations, although the latter are supposed to be paid in "K'u-p'ing" Taels. My Chinese teacher says, it is a common saying among students that the prizes are awarded in "K'u-p'ing," the examining official pays them in "Ts'ao-p'ing," the minor officials distribute them in "Siang-p'ing," and by the time it reaches the student the Tael has become a Mexican dollar, which, on being exchanged, is found to be bad.

I have not been able to discover the fineness of the various kinds of silver or the number of grains of pure silver in each Tael. To every such question the bankers I have asked answer that they do not know. They determine the relative value by touch and colour, but say there is no established ratio. No doubt they are wrong, but I have not been able to push my inquiries farther.

A Mexican Dollar by weight is said to be .74 Tael, but it does not of course exchange at this rate. At present it is worth but .68 Tael. A hundred Taels are equal to 146.86 Dollars.



## 2.—Cash.

All the Cash used in this region are of one denomination—about  $\frac{1}{1500}$  of a Tael; but there is a large quantity of bad Cash and small Cash in circulation.

A Tiao consists of 10 strings or 974 good Cash reckoned as 1,000. Each string contains nominally 100, but in reality only 98 or 95. The 95 Cash string is called a “Ti-tsz,” (底子) and is indicated by a knot on the end of the string. In every Tiao there are two “Ti-tsz.” In three strings or more one may be a “Ti-tsz;” in seven or more two “Ti-tsz” are allowed.

On every string of good Cash there may be two or three small Cash or counterfeit Cash,—as a matter of fact, there are many more.

These spurious Cash are called by various names: “Ts’ing-pau” (青板), “Hiao-p’ien-p’ien” (翳片片), “Shui-shang-p’iao” (水上飄), a light, thin variety, said to float on water, the “Sha-tsz-tsz” (沙子子) which contains a great deal of sand, and the “Ngo-yen” (我眼) in which the hole is very large and the coin very small. This is not to be confounded with an ancient coin of the same name. Other names are: “Sui-ts’ien” (碎錢) and “Lü-cheu-kw’an” (盧洲寬), so-called because much of this counterfeit Cash was formerly made at a place of this name in Anhwei.

There is still another variety of small Cash, known as “Hung-ts’ien” (紅錢), because made of red copper. It is of ancient manufacture, and, although spurious, passes as good coin, on account of the quality of the copper. As many as five of this variety may be found on each string.

A Mexican Dollar exchanges for 1,030 good Cash in summer and 1,080 in winter. A Tael exchanges for from 1,500 to 1,600.

There are strings, however, known as "Yih-kiu-tih" (一九的), "Rh-pah-tih" (二八的) and "San-ts'ih-tih" (三七的), containing 10, 20 or 30 small to 90, 80 or 70 large Cash. One can, of course, exchange at a much higher rate for this sort of Cash.

At the pawn-shops a Tiao is 1,000 in reality as well as nominally. No shortage is allowed. This is true, too, in the payment of taxes and of bank discount.

I presume it was not your purpose to inquire as to the dates of the coins or the inscriptions they bear. There is great variety in this respect, though most of the Cash belongs to the present dynasty, by far the larger part bearing the style of Kien-lung (乾隆). It is quite common, however, to find coins of the Sung dynasty, and there are many varieties issued by old-time rebel kings. It seems strange to a foreigner to find coins two hundred years old in general circulation, but to be able to handle coins of the tenth century in this matter-of-fact way is simply marvellous. To the Chinese collector, of course, with his coins of two thousand years ago, these seem quite modern. Most of the light, thin cash mentioned above as the "Shui-shang-p'iao" (水上飄) bear the style "Kwang Chung T'ung Pao," are of unknown date, and are said to be of foreign coinage.<sup>a</sup>

In using large quantities of these small Cash, 1,000 "Hung Ts'ien" best quality will pass for 900 Cash; of medium grade 1,000 are equal to 800, and of poorest quality 1,000 are reckoned but 700 good Cash. Of the "Ts'ing-pau" there are three grades, rated respectively at 600, 700 and 800 Cash per 1,000. There are three grades of the "Hiao-p'ien-p'ien" also which pass for 450, 500 and 550 per 1,000, and two grades of the "Sha-tsz'-tsz'" which command 400 and 500 cash per 1,000.

<sup>a</sup> These are Annamite.—H. B. M.

4.—*Spanish Dollar.*

In addition to the varieties of currency just mentioned, the Spanish Dollar is also very commonly used, its value compared with that of the Mexican Dollar being as 10 to 8, that is, 8 Spanish Dollars are equal to 10 Mexicans. The Spanish Dollar exchanges here for from 1,200 to 1,300 Cash. Going north from Nanking into the interior it is difficult to use the Mexican. Its exchange value falls as low as 900 Cash, but the Spanish Dollar is in demand in these districts.

5.—*Hang Yin.*

A variety of silver used here, though for certain special purposes only, is the "Hang Yin" (杭銀).

This too, however, is simply a method of reckoning. A Tael of the "Hang Yin" is but 700 Cash. Its use seems confined to the payment of marriage and funeral directors and yamên runners.

NOTE 7.—Rev. P. GAIN (11) states:—

Voici la valeur réelle du Tiao dans la préfecture (Sui-ning):—

au Tong-shan-hien 1 tiao vaut 988 sapèques

Soei-ning-hien	„	„	994	„
Sou-tsien-hien	„	„	992	„
Pei-tcheou	„	„	992	„
Fang-hien	„	„	988	„
Pei-hien	„	„	988	„
Tang-shan-hien	„	„	992	„

NOTE 8.—Rev. P. HOANG (1) states:—

The Provincial Treasurer's paying weight for the K'u-p'ing Tael is 37.32 grammes, and his receiving weight 37.42 grammes.

One Ts'ao-p'ing Tael of silver in 1736 was worth 700 copper cash, in 1780 was worth 900 cash, in 1796 was worth

1,400 cash, in 1853 was worth 2,000 cash, and is now worth from 1,500 to 1,700 cash.

Traders travelling to other regions on business usually take with them a balance 天平 of their own district, or a small steel-yard 戥子, or a hundred cash previously weighed by the scales of their own district, for the purpose of comparison with the weights in vogue elsewhere.

NOTE 9.—Dr. D. J. MACGOWAN (18) states:—

Ts'ao-p'ing Tael is used in markets and all ordinary transactions.

K'u-p'ing Tael     ,,     ,,     ,,     paying taxes.

Hsiang-p'ing 湘平 Tael     ,,     ,,     ,,     volunteers — called *hsiang*, because Hupeh furnishes the greater portion of China's extemporised forces.

Chiang-p'ing Tael is used in dealings with Ningpo merchants.

Knei-p'ing Tael (*Kuei*=usage) used in the Shanghai trade; the "usage" consists in discounting 98 taels=100.

Hsiang-p'ing 餉平 Tael (*Hsiang*=rations) is used to pay regular troops.

NOTE 10.—Mr. E. H. PARKER (21) states, respecting Foo-chow:—

The Hsin-i-p'ing Tael is worth 2.4 per cent and the Hsiang-p'ing Tael 3.3 per cent less than the K'u-p'ing Tael. The K'u-p'ing Tael being a definite weight in avoirdupois, any one can calculate for himself the weight of the others. The Hsiang-p'ing was introduced during the Rebellion and is only used for paying the soldiers. For sales of land only, an imaginary tael, called Wên-kwang, is used, and is always worth 800 large cash; this is to guard against variations in the silver market, and has no other practical exchange significance.

NOTE 11.—Rev. J. C. GIBSON (23) states, respecting Swatow :—

No distinction is made among the various foreign dollars in circulation as to the fineness of the silver. The Japanese Yen is now the popular favourite, on account of its uniformity in weight. In small transactions it is sometimes accepted as equal to Taels 0.72 without weighing. But the Japanese Yen, Mexican, Carolus, and American trade dollars, and the French Piastre de Commerce are all taken alike by weight without distinction as to purity.

It is impossible to answer this question (No. 6) because all dollars here are chopped, and no two are alike in weight. The standard \$1 Mexican = Taels 0.723 or upwards is only in use with foreigners. In native transactions the Swatow standard is \$1 = Taels 0.70 according to the 會館直秤, but there is also another standard in use, called the 市秤, according to which Taels 0.694 is taken as one dollar. In the country, Taels 0.68 is a common standard weight for the dollar.

NOTE 12.—Rev. C. BONE (19) states, respecting Shao-chou :—

At present the Tael is 994 ; an old scale was 992 ; but now those who sell pork, wood, paper and tobacco use a Tael worth only 991. If 1,000 equal pure silver, the silver in general use equals 900, and 100 must be added if it were to be melted *fine*, and given to the mandarins. But there is a silver said to be in use which, if 1,000 equal perfect, can be reckoned at 960, so that it will be perfect if 40 only is added. If K'up'ing is worth 100, and that is perfect, the general currency must add from 6 to 10 Taels according to its pureness.

NOTE 13.—Rev. C. BONE (19) states, respecting Hsin-hui :—

I have not been able to ascertain that there are any special names for the different Taels, except the perfect Tael, which is called 足司碼. This is the ancient Tael and the ideal. In business, Mexican dollars are used or broken dollars, and the

"touch" of the silver will of course depend on the touch of the original dollars. There are however three kinds of Tael in general use, and called after the business-people among whom they obtain:—

- a. In banks, warehouses, and retail shops in which corn, oil and rice are sold, the Tael is reckoned at 997 instead of 1,000.
- b. The tobacconist's Tael is 998 instead of 1,000.
- c. In purchase of land or houses the perfect Tael 足司碼 is used, which is 1,000 or even slightly over.

About 10 Taels (sometimes a little more, sometimes a little less) must be added to local Taels 100 to make them equal to the Government or ideal Tael.

NOTE 14.—Mr. A. AGASSIZ (28) states:—

French dollars, which occasionally find their way to Lungchow from Tonkin, are worth from five to eight cash each more than the other dollars. [N.B.—The weight given for the Lungchow Tael seems doubtful, but I have no means of checking it.—H.B.M.]

NOTE 15.—Mr. A. P. HAPPER (25) states, respecting Mêngtzŭ:—

(1) The sycee most current in Mêngtzŭ is the *Chieh Ting* (解錠), more commonly known as the *Pai-fang* (牌坊) ingot. When laid flat on a sheet of paper and traced with a pencil, it has eight curvilinear lines—a figure not unlike certain brass pieces inserted in wood to protect key-holes in foreign articles of furniture. The thickness of the ingot, at the two ends, is considerably reduced by the impression of the smelter's *chop* stamped on the face of it, so in that aspect of it, the ingot might be likened to Faber's double-ended erasers with the corners of the rubber worn round. The same stamp is lightly impressed on the middle section too. In weight the pieces vary from two taels up to five taels.

(2) *The Hsi ssü hsiao k'o ting* (細絲小鏹錠), called colloquially the *Mu chi k'o* (母雞鏹), is a small ingot weighing from a few mace up to nearly two taels. In shape it is like a narrow oblong cup with spiral lines on the top, not unlike the lines in the skin of the fleshy part of the human thumb.

(3) In shape like No. 2, but purer in the quality of the silver, and cast in ingots of five taels and fifty taels weight, is the *Hsi ssü hsiao pao yin* (細絲小寶銀), called also the *Lao ts'ao wên yin* (老槽紋銀). These two kinds of sycee have a limited circulation in Mêngtzu, but they are known throughout the province. The latter is much sought after by the aborigines because of its purity.

(4 to 6) The *Ch'uan* (川) *Kuang* (廣) and *Mo* (墨) ingots are seen here occasionally. The *Mo* ingot is Tonkinese sycee, and is so called because it resembles, in shape, a stick of India ink.

As each province has its own *K'u-p'ing* tael of pure silver, I give as the standard of comparison the *Kwan-ping* (關秤). On our *Kwan-ping* scales, brought from Canton, Hk. taels 100=Mtz. taels 101.4775. The equivalent in *value* depends upon the touch of the silver. The figures, as given, are only approximate, because the scales in the city differ.

Mtz. Tls. 100=\$153.84 when selling dollars, but only \$142.85 when buying them. In other words, \$100.00 will only exchange for Mtz. Tls. 65.00 of *Pai-fang* silver when parting with them, but it will take Mtz. Tls. 70.00 to repurchase them.

The same rates are quoted for the French Tonkinese dollars, but neither they nor the Mexican are current here.

NOTE 16.—Mr. T. E. HALLIFAX (27) states of Seoul, Corea:—

The only coin in currency amongst the natives is the bronze cash, and the value of this in Mexican or Japanese

dollars varies every day, from 1,200 to 2,000 cash per dollar. Amongst the higher class of traders, the Japanese silver dollar is a favourite, while owing to having been largely taken in with spurious Mexicans by Chinese adventurers, the Mexican dollar is looked upon with great suspicion and disfavour, and is consequently most difficult to pass. Chinese sycee is also current in Corea, but the precise value in exchange is difficult to state, owing to the variation in the value of cash. Very recently Japanese Bank notes and Government notes have come into favour among the higher class of Corean merchants in Seoul and the ports *only*. Some time ago the Corean Mint succeeded in coining a few Corean silver dollars, but these first specimens (a few thousand) went into the Palace, probably for ornaments for the King's wives, and then the coining was stopped. So that at present we have in Corea as native coins only the common cash, and as a foreign medium, Japanese silver dollars and paper money. Mexican dollars are now rarely seen. Eight or ten years ago the Corean Government coined a limited quantity of pure silver coins of three denominations, the intrinsic value of the set of three coins being about \$1.10. These, however, in 1883 and 1884, were mostly bought up by the Japanese Bank, sent to Osaka, and recoined. The few remaining were bought by private individuals as curiosities.

NOTE 17.—Rev. F. P. GILMAN, having recently made an overland trip from Macao to Hainan, through Yan-ping, Yeong-kong, Tin-pak, Mui-luk, Liu-chow, crossing the straits opposite Hoihow, writes (November 1889):—

“At Yeong-kong a dollar sold for only 912 cash. At Mui-luk a dollar brought 922 cash. The dollar increased in value as we neared Hainan. At Hai-on, opposite Hoihow,



it was 936 cash, and at Hoihow about 960 cash. Everywhere they said the dollar had fallen in value, from 100 to 200 cash during the previous eight months."

NOTE 18.—Regarding SHENSI and KANSU, Rev. C. F. Hogg (22) states:—

Only the ordinary 銅錢 in Shensi and Kansu. Sometimes 當十 cash are found, but they are used simply as common cash. In Lanchou 蘭州 a *tiao* is=1,000 cash. 九六錢 (i.e., 96 per 100), each thousand cash being short 6, (六個底子) extra. The number of *ti tsz* varies with the *hsiens*.

In Si-ngan (西安府) 對板兒錢 is used, i.e., one *tiao*=500 cash. In 西甯府 (Kansu) the *tiao* has this value.

In 岐山縣 (Shensi) 二八錢 is used, i.e., one *tiao*=800 cash. In 漢中府 (Shensi) and 秦州 (Kansu) the *tiao*=1,000 cash. The 1,000 cash *tiao* is known as 老, 大, or 銅錢. The 500 cash *tiao* as 毛, 小, or 對板. 毛 and 小 are sometimes used of the poorer, small cash, but they are used in this case with reference to quantity. In some other districts in Shensi (寶雞縣, for instance) the *tiao*=700 cash. The 吊 of whatever kind, is also called 串. From experience in several provinces, I should say that the local tael averages 1,500 cash in value all the year round. In Han Chung it has sunk to 1,100 odd, and risen to close on 1,900. The demand for cash at the New Year increases its value. In Han Chung and Si-ngan the price of silver is usually between 1,500 and 1,600 cash. In Lanchou from 1,450 to 1,550. Rain, examinations, and the opium season increase the demand for cash and so raise its price.

The following note by Mr. W. S. EMENS, of the U.S. Consulate-General, Shanghai, was received after the tables on pp. 58-63 were printed:—

The name of the tael current in SHANGHAI is 規銀 or 規. Each tael contains .98 pure silver. Shanghai Tael 1.1114 is equivalent locally to one K'u-p'ing or Hai-kwan tael.

The relation of the Mexican Dollar to the local tael is a fluctuating one, the rate of exchange being fixed at the 錢業公所 daily.

The average value of a Mexican Dollar may be put at Taels .73. The "cash" current at Shanghai are from the various provinces with a percentage, probably, 10 per cent, of Japanese cash.

The term *tiao* is not usually employed, but the word for *thousand* is used in its stead. In ordinary business transactions 99 cash are counted as 100. Only in a 當舖 is a full string of one hundred cash given. One Mexican Dollar buys from 1,020 to 1,200 *cash*, according to the market demand for one or the other.

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## PAPER MONEY.

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Cash notes are common in many parts of the Empire, and are extensively used from their convenience. See especially the memorials of the Governor of Kirin given in the *North-China Herald*, Vol. XLII, page 175, and Vol. XLIII, page 50. Silver notes, except those of the foreign banks, are not used at all. The remarks of the various contributors on this subject are abstracted as follows:—

SHÊNG-KING:—Newchwang. Mr. W. B. RUSSELL (29) states:—

Cash notes are in circulation to the amount of about 3,000,000 *tiaos* or 300,000 taels. The reason why they are

so cheerfully accepted in the market, is because they are convenient to be carried and no exchange of debased cash is to be made.

No Bank notes or cheques are used locally.

CHIHLI:—Peking and Tientsin:—

Cash notes are in common use.

SHANTUNG:—Chi-nan-fu. Rev. G. REID (5) states:—

Cash notes may be used within a distance of 100 li, being accepted by salt-dealers and some of the shop-keepers. In the city they are accepted, if from reliable shops.

Supposing that by "Bank Notes" is meant something other than "Cash Notes," I would say that such are used as cheques only. In this city there are large exchange-shops, where cheques from Shanghai, Peking, and other parts of the country may be exchanged for silver, or where such cheques may be purchased for other places.

SHANSI:—Lu-an-fu. Rev. M. POELL (20) states:—

Cash notes are used of denominations from 500 to 5,000 cash; they are the same as those I have seen in other provinces. Silver notes are not used.

SHENSI }  
KANSU } Rev. C. P. HOGG (22) states:—

In Si-ngan, paper notes, value 1,000 (*i.e.* 500) and 2,000 (*i.e.* 1,000) cash, are issued and largely used. Spurious notes are afloat in quantities, so that neighbouring money-shops are usually appealed to before the notes change hands. In Lanchow, paper notes equivalent to 1,000 cash (actual value) are largely used also.

In Han Chung, oil-cloth notes are used,—value 1,000 cash. Different hsiens and large towns in this and other fus also issue

notes. The Han Chung fu notes present quite a creditable appearance, are stout, of a yellowish brown color, and are oiled after signature or rather after value and cipher have been inserted; these appear to be the equivalent of the "signature" in Chinese bank notes. Banks sometimes shut their doors, but the notes of established houses are readily accepted without reference. Silver drafts may be given in payment for goods. They are always payable to bearer (認票不認人, 照票發銀) notwithstanding that there may be no intimation of the fact in the document itself and that the payee's name may be inserted in full. A special clause has been added at times by some of the Hankow bankers, in drafts made payable to foreigners. 足紋銀 is interpreted relatively, the standard being the 街市銀 of the place on which the draft is drawn.

Rev. G. PARKER (7) states:—

Both oil-cloth and paper cash notes are used. No official control is exercised as to their issue.

Panics sometimes occur at the closing of several money-shops. The first from swindling, others in consequence of the run on their bullion in cashing notes. For the issue of silver drafts, 協同慶, 天成亨, 蔚豐和 are the three Chinese bankers that have agencies in Kansu; Lanchou all three, Kanchou two, Liangchou and Suchou one each. Chinchou formerly had an office, but it has been closed since the Rebellion.

Mgr. F. H. HAMER (6) states, respecting Kansu:—

Pas en usage dans la plus grande partie de la province.  
(Cash notes).

Negative. (Silver notes).

KIANGSU:—Nanking. Rev. E. T. WILLIAMS (17) states:—

The use of paper money is very common in Nanking, especially of the 300, 400, 500 and 1,000 cash notes, called "P'iao-tsz," (票子). These are very well engraved, and printed on good, strong paper in red and blue inks. A note of ordinary size is  $7\frac{7}{8}$  inches long and  $4\frac{1}{2}$  inches wide. The design consists of a border, usually made up (largely) of human figures. One before me, as I write, has a border composed of characters and scenes from some ancient drama. Within this is a second border, consisting of an extract from the classics in very small type. Inclosed by these borders is an oblong space containing the name of the bank, its location, the value of the note, its number and date and the mark or style (號) of the bank. Before being put in circulation the note must also bear the great seal of the bank upon its face. Each person too, as the note passes through his hands, adds his private mark, so that it soon becomes defaced. There are also 2,000, 5,000 and even 100,000 cash "p'iao-tsz," but these are not so common. Notes for 50, 100 and 200 cash, printed upon red paper and called "T'iao-tsz" (條子) are used at New Year, chiefly for presents to children and servants. At other times they are rarely seen. The small foreign silver pieces are slowly taking the place of these. Silver notes are used in trade, but not to any great amount. Their use is almost wholly confined to merchants in their dealings with one another.

SHANGHAI:—Mr. W. S. EMENS writes:—

Cash notes or paper money promising to pay copper cash are not used in Shanghai. Mexican Dollar notes and Tael notes issued by the European Banks are used extensively by natives.

HSÜ-CHOU-FU. Rev. L. GAIN (11) states:—

Les billets de banque abondent. Les principaux bourgs en émettent tous des différents qui n'ont cours que dans un rayon assez restreint et perdent de leur valeur en passant dans une autre localité. Ils ont la valeur nominale d'un *tiao* ou *Tchoan*, 串, toujours payable en grandes sapèques.

On ferait une belle collection des ces billets de banque, vrais petits chefs-d'œuvre d'imprimerie. J'en ai plus de 50 espèces entre les mains.

CHEKIANG: Ningpo. Mr. T. F. PETTUS (15) states:—

Cash notes issued by firms whose credit stands high are in general use among the merchants for all amounts, and in many cases preferred to silver. When cashed a premium of  $\frac{1}{2}\%$  is generally charged, and in some cases  $1\%$  to  $2\%$ .

Dr. S. P. BARCHET (16) states:—

Paper money, as a universal and unquestioned tender, is unknown in Ningpo, but wholesale dealers (*e.g.* fishmongers) will give notes, 鹹貨票, payable 10 days after issue, which are readily taken instead of money, for they can be cashed by bearer at any time. Shops also issue cash or promissory notes, but these will not be paid till they fall due (usually from 10 to 40 days). Cash notes issued by small firms are risky in proportion to the length of time before they fall due. The greatest risk is incurred where parties borrow the name and credit of other firms, issuing cash notes in their name. It often happens that when such cash notes fall due they are not even then paid in hard cash but in cash notes on somebody else and again on somebody else till the last holder finds himself the loser. It is probably owing to such experience that cash notes are endorsed or verified, and when cash notes change hands reference is made to the original party

issuing them, to have them again verified. This involves a great loss of time and makes most people prefer cash. When it is wished to have the amount paid into a bank or other firm, a small deduction is made (from 5 to 10 cash in the dollar). Bank notes are not used otherwise than as cheques.

WÊNCHOW. Dr. MACGOWAN (18) states :—

Paper money circulates to a very limited extent. Cash notes are issued by a few traders, and cheques by bankers, yet they can hardly be said to perform the function of money as a circulating medium.

FUKIEN: Foochow. Mr. E. H. PARKER (21) states :—

Cash notes or *ch'ien-p'iao*, 錢票, for 100, 200, 300 cash are called *p'iao-t'iao*, 票條; for 400, 500, 600 they are called *hsiao-p'iao*, 小票. There are no others but for thousands, from one to ten, called *ta-p'iao*, 大票.

A cheque is called *chi-ch'ien*, *tsz-t'iao*, (支錢, 字條). Bank notes range from one tael to two thousand taels, and are called *yin-p'iao*, 銀票.

TAIWAN: Takow. Mr. MAK SZECHÉ (26) states :—

No cash notes or paper money of any kind used here. Bank notes are not used by natives. They all use dollars in silver.

KWANGTUNG: Swatow. Mr. L. GRUNAUER (24) states :—

There is no paper money in Swatow representing cash. Bank notes are a new invention; their use commenced certainly not before last year. The circulation is not large, and is restricted to the port.

SHAO-CHOW-FU. Rev. C. BONE (19) states :—

Bankers' cheques are used as money orders to and from the Provincial city 省城 (Canton).

HSIN-HUL. Rev. C. BONE (19) states :—

Paper money not used now, but said to have been used during the Ming dynasty.

Hongkong Bank notes are used, and will pass at par in business transactions, but if changed at a money-changer's or a bank, one fan (100 fan=1 Leung) will be deducted.

PAKHOL.—Paper money, Chinese or foreign, not used.

KWANGSI : Lungchow. Mr. A. AGASSIZ (28) states :—

Cash notes and bank notes not used.

YUNNAN : Mêngtzu. Mr. A. P. HAPPER, jr. (25) states :—

There are no cash notes in Mêngtzu. There is no bank in the city.

## WEIGHTS.

*Catty* 斤

PLACE.			Authority.	NAME OR USE.		WEIGHT	
Province.	Prefecture.	Town.				1= 28.35 Ounces avoirdu- pois	Grammes.
...	...	...	...	British Treaty	...	21.33	604.90
...	...	...	...	French "	...	21.32	604.53
Chihli	Peking	...	2	Tea ...	...	4.00	113.41
Shantung	Lin-ch'ing	Chou	4	"Thirty-four"	三十四的	19.95	565.60*
			4	"Thirty-five"	三十五的	19.40	550.00*
			4	"Thirty-six"	三十六的	18.85	534.50*
	Chi-nan	Fu	5	"Three-catty"	三斤秤	22.00	623.75*
			5	"3 catties 4 taels"	三斤四兩秤	20.00	567.10*
			5	"3 catties 6 taels"	三斤六兩秤	18.70	530.20*

\* Note 1.



## Catty 斤

PLACE.			Authority.	NAME OR USE.		WEIGHT	
Province.	Prefecture.	Town.				1 = 28.35 Ounces avoirdupois	Grammes.
Honan	...	...	2	Coal	...	28.00	793.88
	Nan-yang	Fu ...	9	...	...	20.40	578.40
	Lan-chou	Fu ...	7	...	...	20.20	572.75
Kansu	Liang-chou	Fu ...	6	...	...	21.70	615.33*
	Lan-ch'ing	Chou ...	7	...	...	21.45	608.20
Hupeh	Han-yang	Hankow	22	...	...	20.20	572.75
Kiangsu	...	...	1	Ts'ao-p'ing	{ 漕平 天平秤 }	20.66	585.79
	...	...	1	T'ang ...	塘秤	27.25	773.25
	...	...	17	Ts'ao-fa	漕法	20.60	601.00
	Kiang-ning	(Nanking)	17	Su-fa	蘇法	{ 18.55 19.70 23.20	{ 525.90† 558.50† 657.72
	Yang-chou	Hai-mên	1	Chêng-sha	正紗秤	25.55	724.90
	Tai-tsang	Tsung-ming	1	Chê-chuang	折庄秤	24.90	706.60
	Soochow...	Fu ...	1	Chê ...	折 秤	19.75	560.16
	Sung-kiang	Shanghai	1	Guild ...	會館秤	18.60	527.21†
	...	...	1	Foreign trade	來洋秤	20.40	578.47
	...	...	15,16	Official ...	官 秤	20.44	579.47
Chekiang	...	...	15,16	{ Chê ... Tiao-ku ...	{ 折 秤 羅穀秤 }	19.10	541.48
	...	...	15,16	Shui-kuo	水菓秤	{ 16.00 16.44	{ 453.50 466.07
	Ningpo ...	Fu ...	16	Tsu ...	租 秤	19.78	560.76
	...	...	16	Medicines	藥物秤	21.33	604.90
	...	...	15,16	Family ...	家 秤	21 to 42	{ 595 to 1,190
	...	...	16	Ssü-ma	司碼秤	22.00	623.70
	Wênchow	Fu ...	18	...	...	21.28	603.15

\* Note 2.

† Note 3.

‡ Note 4.

## Catty 斤

PLACE.			Authority.	NAME OR USE.	WEIGHT.	
Province.	Prefecture.	Town.			1—28.35 Ounces avoirdu- pois.	Grammes.
Fukien	Foochow	Fu ... ..	21	{ General ... ..	16.00	453.60*
				{ Rice ... ..	21.33	604.90
				{ Fish ... ..	26.67	756.10
Taiwan	Tai-nan ...	Takow... {	26	{ Fruit ... ..	18.67	529.20
				{ General ... ..	21.33	604.90
Kwangtung			23	General ... ..	21.33	604.90†
	Ch'ao-chou	Swatow ... {	23, 24	Wholesale ... ..	26.67	756.10
			24	Various ‡		
	Shao-chou	Fu ... ..	19	General ... ..	21.33	604.90
	Kwang- chou	Canton {	19	General ... ..	21.33	604.90
			19	Metals & Fruit	20.00	567.00
		Hsin-hui {	19	General ... ..	21.33	604.90
			19	Country use ...	34.67	982.80
	Lien-chow	Pakhoi ... {	3	Ssü-ma ... ..	21.22	601.60
			3	Raw Hides ...	31.83	903.40
Kwangsi	T'ai-p'ing	Lungchow...	28	Market ... ..	20.90	593.00
Yunnan	Lin-an ...	Mêng-tzū ...	25	{ Hill products	23.50	666.66
				{ Po-fu ... ..	21.90	621.60§

\* Note 5.

† Note 6.

‡ Note 7.

§ Note 8.

For information relating to Ning-kuo-fu and Kwang-tê-chou in the province of Anhwei

See Note 10, page 89.

## WEIGHT TABLE.

16 Liang 兩 (tael) = 1 Chin 斤 (catty).

100 Chin = 1 Tan 担, 擔 (picul).

For weights in subdivision of Liang, *see* CURRENCY.

## NOTES.

NOTE 1.—Rev. H. P. PERKINS (4) states:—

The common one [in Lin-ch'ing-chou] about which everyone knows is the catty of 16 taels, and called the thirty-five (三十五的), because using this catty ten strings of cash weigh 35 catties 斤. The cash has 49 coins for one hundred, which gives 490 coins to the tiao or string. Using my weighing pole (which is as likely to be right as any other, for I can find no standard) I find that this string of cash weighs 54 taels=65.5 U.S. oz., which gives one catty =19.41 U.S. oz. There are also at least two other catties, *i.e.*, the 34 and 36, of which the explanation is as of the 35. I find that in the cotton hong they use the 34 (which they call the 架子) for buying and the 35 for selling.

Rev. GILBERT REID (5) states:—

In Chi-nan-fu there are three kinds of weight for catty in common use, one called the "three catty four tael scale" (三斤四兩秤), one the "three catty scale" (三斤秤), and the third the "three catty six tael scale" (三斤六兩秤). These names are given by weighing one tiao [490] of the Chi-nan-

fu cash, this being taken as a basis or standard of comparison. Of these, one catty of the first, or "three-four" weight, is equal to 20 ounces avoirdupois; the catty of the second, or "three-catty" weight, is equal to 22 ounces; and the catty of the third, or "three-six" weight, is equal to 18.72 ounces. The one generally used is the first named, or "three-four" weight.

[N.B.—In connection with these two notes, the fact is notable that according to the Imperial Decree of 1886 ordering new coinage of cash, the weight of the cash is one mace, and this weight was adhered to in Shantung. On this basis 10 cash weigh 1 tael, and 490 cash weigh 49 taels, equal to 3 catties 1 tael. Of what scale this was, I do not know (K'u-p'ing I suppose)—and it is left to the reader to make his deductions.—H.B.M.]

NOTE 2.—Mgr. HAMER (6) states:—

Ici [Kansu] on compte pour un tan 担 la charge d'une mule, 240 livres [catties]. Un char transporte 5 tan.

NOTE 3.—Rev. E. T. WILLIAMS (17) states:—

1. *Kin*.—The ordinary Catty or *Kin* used in Nanking consists of 16 Liang (兩), 1 Liang being equal to 1.2885 ounces avoirdupois. This is known as "Ts'ao Fah" (曹法). We have also the "Su Fah" (蘇法) in which either 14.4 Liang or 15.3 Liang equal 1 kin. The "Su Fah" is used in buying raw cotton, metals, certain kinds of fruit and bread. Another sort of kin contains 18 Liang, and is used in sale of certain oils as the "Ma yiu" (麻油) and the "Teu yiu" (豉油) and other articles.

3.—*The Liang*.—The Tael or Liang (兩) of commerce is identical with the Tael of currency, and although the *Kin* varies, the *Liang* remains the same.

Additional weights are:—

5 Sz' (絲) = 1 Sheh (緡).

A double Sheh = 1 Shing (升), not the same as the measure of capacity which is known by this character. This is used in weighing yarns.

80 Threads (縷) also equal 1 Shing or Skein.

24 Scruples (銖) = 1 Liang.

1.5 Liang = 1 Tsieh (捷).

Double Tsieh = 1 Kū (舉).

Double Kū = 1 Ts'iang (鐙).

or 1 Hwan (銓).

6 Liang also = 1 Chw'en (川).

1 Great Half-ounce (半兩) = 1 Kiün (鈞).

10 Kiün = 1 Hwan (銓).

2 Hwan 4 Kiün = 1 Kin.

24 Liang = 1 Yih (鎰).

Many of these weights are used only in the yamên.

NOTE 4.—Rev. P. HOANG (1) states:—

This catty [Hui-kuan, or Guild catty, of 527.21 grammes] is in use in Shanghai, in the Guild House of which place is kept a mass of copper, called 糖砵, the weight of which equals 122 catties of the said scale, and which serves to rectify steelyards of this scale.

NOTE 5.—Mr. E. H. PARKER (21) states with respect to Foochow:—

The scale of commerce is three-fourths that of the standard, for all articles but rice. The standard is the K'u-p'ing ounce of silver. Thus 100 catties of anything but rice are 75 catties weight in silver. This is called the Hung-hua-ch'êng 紅花秤, and is always used unless you ask for the standard and pay prices in proportion.

NOTE 6.—The Rev. J. C. GIBSON, of Swatow (23) states :—

There is a considerable variety of standards. The usual one for small transactions is the 司馬秤 of 16 taels to the catty. For larger dealings the 汕頭簪秤 is used, according to which the catty weighs 20 taels.

Formerly there were at least three standards in use by small dealers in Swatow, making the catty = 12 taels, 14 taels, and 16 taels respectively. The local petty Mandarin, a number of years ago, fixed a uniform scale of 16 taels to the catty, and provided standards for reference. This reform has fallen into abeyance and the old variety has re-appeared with more uncertainty than before as to the scale sanctioned by usage for each kind of transaction. The usage also varies in the different market-towns, and different standards are used for different classes of produce. In some scales two taels or thereby are taken as one. Thus, in the market-town of Mien-fu, 棉湖, 60 miles west of Swatow, I noted the following scale :—

For Ducks and dried cuttle-fish, 1 Catty = 40 Taels

„ Fowls	„ „	= 36 „
„ Pork and salt fish	„ „	= 32 „
„ Sweet potatoes	„ „	= 28 „
„ Tea and tobacco	„ „	= 18 „
„ Vegetables, charcoal & fruit	„ „	= 16 „
„ Hemp and flax	„ „	= 15 „

This is a specimen of what holds with endless variation elsewhere.

The Picul (担) weighs 100 catties. Its weight therefore varies with that of the catty, but as the 汕頭簪秤 is the usual standard for large transactions, the standard picul weighs 125 of the normal catty of 16 taels. The 石 is a measure of capacity containing 10 Pecks (斗) and is not used as a standard of weight.

NOTE 7.—Mr. GRUNAUER (24) states :—

There are 4 different kinds of weight used in Swatow ; none is used more than the other, as each is used for a different kind of cargo or business ; they are the—

汕頭針秤, which is equal to 125 catties Customs weight, *i.e.*, one of these piculs, if weighed on Customs scales, gives  $1\frac{1}{2}$  picul.

漳林針秤 on the same bases as above is 4% more.

糖針秤       ,,       ,,       ,, 30% —

冰菓秤       ,,       ,,       ,, 25% less.

This last weight is used by petty shop-keepers and is practically a squeeze.

NOTE 8.—Mr. A. P. HAPPER, jr., (25) states :—

Two catties are in use in Mêng-tzŭ : one, the Hill Products (山貨) or Tavern (店) catty, for weighing cotton, fungus and certain kinds of produce, not numerous. It equals 18 *Mêngtzŭ p'ing* taels in weight, and is supposed, consequently, to weigh 666 grammes, but I could not obtain any exact weights.

The other catty is that of the *Po-fu* (百福), or, Canton (廣) steelyard, which is the one in common use. It should weigh 621.6 grammes.

The same steelyard is used for both kinds of catties, as there are two sets of scales marked on it.

NOTE 9.—The Rev. F. P. GILMAN states that at Yeong-kong he was informed that a catty was made up of 60 taels. At Mui-luk the catty is 20 taels.

NOTE 10.—The Rev. Père DEBRIX states with regard to Ning-kuo-fu and Kwang-tê-chou, that the usual weight of the catty is 16 ounces, but a 14 oz. catty is employed to weigh iron, and one of 18 ounces for various other things. The Peck of dry rice contains 16 kin at Ho-li-k'i, but in other places  $14\frac{1}{2}$  or 15 kin.

## CURRENCY AND MEASURES IN CHINA.

斗  
 升

PLACE.			Authority.	CONTENTS.				CAPACITY.	
Province.	Prefecture.	Town.		Grain.	Local Catties.	2.2046 = 1		61.027 = 1	
						Lbs. av.	Kilo.	Cubic inches.	Litre.
...	...	...	2	Rice	10.0	...	...	452.0	7.41
...	...	...	2	"	6.5	...	...	309.6	5.07
...	...	...	2	"	13.0	...	...	587.5	9.63
...	...	...	2	"	14.0	...	...	632.7	10.37
Sheng-king	Fêng-t'ien	Newchwang	29	"	38.0	50.67	22.980	2,475.0	40.56
Hansi	Lu-an ...	Fu ...	20	"	18.0				
Shantung	Lin-ch'ing	Chou ...	4	{ Millet	24.0 22.0	28.70 27.00	13.018 12.247	876.4	14.36
	Chi-nan...	Fu	5	Rice	...	42.50	19.278	1,618.8	26.53
			5	"	...	38.75	17.577	1,485.1	24.34
Kansu	Liang-chou	Fu ...	6	"	40.0				
	Lan-chou	Fu ...	6	"	120.0				
			7	Wheat Flour	70.0				
Honan	Nan-yang	Fu ...	9	Rice	40.0	...	...	1,049.2	17.19
Anhui	Ying-chou	Huo-ch'iu ...	10	"	35.5				
Kiangsu	...	...	1, 2	...	...	...	...	629.2	10.31*
	Kiang-ning	(Nan-king)	17	Rice ...	14.0	18.04	8.183	558.3	9.15
			17	Melon-seeds	15.5				
				Rice ...	28.0				
				Wheat...	28.0				
				Barley...	15.0				
				Rye ...	12.0				
	Hsü-chou	Sui-ning ...	11†	Malze ...	20.0				
				Sorghum ...	22.0				
				Beans ...	25.0				
				Peas, green	29.0				
				" yellow	24.0				

\* Note 1.

† Note 2.



## CURRENCY AND MEASURES IN CHINA.

Tou 斗

PLACE.			Authority.	CONTENTS.				CAPACITY.	
Province.	Prefecture.	Town.		Grain.	Local Catties.	2.2046=1 Lbs. av.	Kilo.	61.027 = Cubic Inches.	Lt.
Kiangsu	Hsü-chou	Sui-ning	11*	Peas, black	25.0				
				Petits pois	26.0				
				Sesamum	14.0				
				Colza... ..	18.0				
				Melon-seeds	15.0				
	Tai-tsang	Tsung-ming	1	...	...	...	...	767.1	15
			1	...	...	...	...	640.8	12
		Fu	1	...	...	...	...	646.6	12
			1	...	...	...	...	649.3	12
			1	...	...	...	...	636.5	12
	Soochow	Country	1	...	...	...	...	651.1	12
			1	...	...	...	...	673.1	12
			1	...	...	...	...	692.0	12
		Chên-tso	13	...	...	...	...	622.5	
		Changshou	1	...	...	...	...	662.7	
			1	...	...	...	...	671.3	
	Kia-ting	Fu ... ..	1	...	...	...	...	670.1	
	Chang-chou	Wu-hsi	1	...	...	...	...	640.8	
			1	...	...	...	...	644.5	
			1	...	...	...	...	648.1	
	T'ung ...	Chou ...	1	...	...	...	...	751.2	
			1	...	...	...	...	888.5	
		Fu ... ..	1	...	...	...	...	412.7	
	Sung-kiang	Hsi-king	1	...	...	...	...	757.3	
		Shanghai	1	Rice ...	...	...	...	728.6	
			1	Beans ...	...	...	...	655.4	
			13	...	...	...	...	678.0	

\* Note 2.

## CURRENCY AND MEASURES IN CHINA.

斗  
 升

PLACE.			Authority.	CONTENTS.				CAPACITY.		
Province.	Prefecture.	Town.		Grain.	Local Cattles.	22046 = 1 Lbs. av.	Kilo.	61.027 = 1 Cubic inches.	Litre.	
Chekiang	Ningpo	Fu ...	}	15	Rice	14.0	18.30	8,300	591.3	9.69
				16	"	16.0	...	...	565.0	9.26*
				16	Maize	15.0				
				16	Millet	13.0				
	Wenchow	Fu ...	18	Rice	11.75	15.63	7,090	502.2	8.23	
Taiwan	Tai-nan	Takow ...	26 {	Coarse rice	14.25	19.00	8,620	617.5	10.12†	
				Fine "	11.25	16.00	7,258	529.3	8.67‡	
Kwangtung	Ch'ao-chou	Swatow	}	23	Rice	14.5	...	...	731.0	11.98
				23,24	"	...	24.00	10,886	768.8	12.60
				24	"	...	20.00	9,072		
				24	"	...	25.33	11,490		
	Shao-chou	Fu ...	}	19	Rice (soldiers')	12.5	...	...	488.4	8.01
				19	" (people's)	9 to 10				
	Kwang-chou	Canton ...	19	" ...	6.25§					
		Hsin-hui ...	19	" ...	6.25					
	Lien-chow	Pakhoi ...	3	{ Rice ...	22.5	29.75	13,490	952.5	15.61	
				{ Paddy ...	18.0	...	...			
Kwangsi	T'ai-p'ing	Lungchow...	28	Rice	6.25	8.17	3,704	264.0	4.33	
Yunnan	Lin-an ...	Mêngtzu ...	25	"	60.0	82.10	37,300	2,598.5	42.58	
Corea	...	...	14	"	...	40.00	18,144	1,303.0	21.36	

\* Note 3.

† Square.

‡ Round.

§ Note 4.

|| Note 5.

## CAPACITY TABLE.

10 Ho 禾 = 1 Hsi 稊	10 Su = 1 Kuei 圭
10 Hsi = 1 Pi 粃	10 Kuei = 1 Tso 撮
10 Pi = 1 K'ang 糠	10 Tso = 1 Ch'ao 抄
10 K'ang = 1 Chi 稭	10 Ch'ao = 1 Shao 勺
10 Chi = 1 Shu 黍	10 Shao = 1 Ko 合
10 Shu = 1 Li 粒	10 Ko = 1 SHÈNG 升
10 Li = 1 Kuo 稞 稞	10 Sheng = 1 Tou 斗
10 Kuo = 1 Su 粟	10 Tou = 1 SHIH 石

## NOTES.

NOTE 1.—Rev. P. HOANG (1) states:—

The measures in common use for measuring grain are of three kinds:—

1st.—The Hu, 斛, which is half the Shih, 石, (or 5 Tou, 斗);

2nd.—The Tou, 斗, a tenth of the Shih, 石;

3rd.—The Shêng, 升, a hundredth of the Shih, 石.

The Chih-hu, 制斛, or Ts'ao-hu, 漕斛, is the legal measure of capacity by which the Tribute Rice, 漕米, is measured. By this measure one Shih, 石, equals about 103.1 litres [6,292 cubic inches]. That this measure may be uniform throughout the Empire, the Board of Revenue, 戶部, keeps a Hu made of iron, and sends a corresponding specimen to each official, 漕督 and 糧道, in charge of the Tribute Rice. The District Magistrates send their wooden Hu to the 糧道, who compare them with their iron Hu, seal them and then return them. In the 28th year of Kien-lung (1763) an attempt was made by a Censor to secure uniformity in the measures of capacity, but the innovation was reported against by the Imperial Council.

NOTE 2.—REV. P. GAIN (11) gives an interesting note of the price of various cereals in February, 1889, at Hsü-chou in Sui-ning-fu, Kiangsu:—

1 shih of rice	of 280 catties,	value 7,600	cash.
1 „ wheat	„ 260 „	„ 4,500 „	
1 „ barley	„ 150 „	„ 3,200 „	
1 „ rye	„ 120 „	„ 2,600 „	
1 „ maize	„ 200 „	„ 4,000 „	
1 „ sorghum	„ 220 „	„ 3,800 „	
1 „ beans	„ 250 „	„ 3,800 „	
1 „ petits pois	„ 290 „	„ 4,000 „	
1 „ yellow peas	„ 240 „	„ 4,600 „	
1 „ green peas	„ 260 „	„ 4,200 „	
1 „ black peas	„ 250 „	„ 4,000 „	
1 „ sesamum seed	„ 140 „	„ 5,200 „	
1 „ colza	„ 180 „	„ 3,800 „	
1 „ melon-seeds	„ 150 „	„ 7,000 „	
1 „ ground-nuts	„ 100 „	„ 220 „	
1 „ taro	„ 100 „	„ 350 „	

NOTE 3.—DR. S. P. BARCHET (16) states:—

We find considerable difference in the peck of the city and the peck used up-country. As a rule, the peck increases in size in large shops where business is done for ready cash, and decreases where the credit system prevails.

NOTE 4.—REV. C. BONE (19) states:—

The Tou, 斗, of rice is 6.25 catties. In some cases, however, grain-selling guilds use a tou of 10 or 13 and even 14 catties.

NOTE 5.—*Note on Pakhoi Tou.*

I have made no attempt to reconcile discrepancies. As to the Pakhoi Tou, I may say that I measured the tou in common use, and weighed on foreign scales its contents in rice.—H. B. M.

## CURRENCY AND MEASURES IN CHINA.

9

Foot 尺

PLACE.			Authority.	TAILOR'S FOOT		CARPENTER'S FOOT.		OTHER FEET.		
Province.	Prefecture.	Town.		39.37 Inches	1 Mètre	Inches.	Mètre.	Use.	Inches	Mèt
...	...	...	...	...	...	...	...	British Treaty	14.10	0.35
...	...	...	...	...	...	...	...	French "	13.98	0.35
Shêng-king	Fêng-tien	Newchwang	29	...	...	...	...	General	13.50	0.3
Shantung	Lin-ch'ing	Chou	4	...	...	12.55	0.319	Bricks	11.15	0.2
								Land	12.20	0.31
								Farmer's...	13.95	0.3
								Cloth	23.75	0.6
	Chi-nan	Fu	5	13.20	0.335	13.50	0.343	Land	14.95	0.3
		Lo-an	5	...	...	...	...	Cloth	21.40	0.5
Shansi	Lu-an	Fu	20*	...	...	...	...	Land	14.95	0.
Shensi	Han-chung	Fu	22	13.95	0.354	...	...	.....	...	...
Kansu	Liang-chou	Fu	6	...	...	12.60	0.320	Cloth Silk—shorter than Carpenter's.	14.55	0.
	Lan-chou	Fu	8, 22	14.35	0.365	13.05	0.332	General	14.50	0.
Honan	Nan-yang	Fu	9	...	...	13.00	0.330	Official	13.75	0.
								"Native" 土	10.95	0.
								Silk	8.25	0.
Anhui	Liu-an	Chou	10	14.15	0.360	12.75	0.324	Official	13.55	0.
		Huo-shan	10	...	...	13.30	0.338	Market	13.90	0.
	Ying-chou	Huo-ch'iu	10	13.90	0.353	13.25	0.337	.....	...	...
	Ning-kuo	Fu	12	...	...	13.25	0.337	.....	...	...
	Ssü-chou	Wu-ho	12	...	...	13.50	0.343	.....	...	...

\* Note 1.

## Foot 尺

PLACE.			Authority.	TAILOR'S FOOT		CARPENTER'S FOOT.		OTHER FEET.			
Province.	Prefecture.	Town.		39.37 = 1 Inches	Mètre	Inches.	Mètre.	Use.	Inches	Mètre	
Kiangsu	...	...	1	...	...	...	...	Land*	...	12.10	0.307
	Kiang-ning	(Nanking) ...	{ 1, 12 17 }	13.75	0.350	{ 12.60 12.50 }	0.320 0.318	{ Satin weaver's Timber }	{ 14.05 13.82 13.50 }	0.357 0.351 0.343	
	Chin-kiang	{ Fu ... Tan-yang ... }	{ 1, 12 12 }	{ 13.45 14.00 13.75 }	{ 0.342 0.356 0.350 }	{ 12.60 12.40 }	0.320 0.315	Timber	...	13.45	0.342
	Soochow	{ Fu ... Chang-shou ... }	{ 1 1 }	{ ... ...	{ ... ...	10.85	0.276	{ Official Timber }	{ ... ...	13.40 13.35	0.341 0.340
	Tai-tsang	Tsung-ming	1	...	...	...	...	Official	...	13.80	0.351
	Hsü-chou	Sui-ning ...	11	13.75	0.350	13.25	0.337	{ Land Cloth }	{ ... ...	14.00 19.95	0.356 0.507
	Sung-kiang	{ Fu ... Shanghai ... }	{ 1 { 1, 3 12, 13 }	{ ... ...	{ ... ...	...	...	{ Land " } { " † " † Timber Official }	{ ... ... ... ... ... ...	13.30 13.95 13.20 12.40 13.25 14.00	0.338 0.354 0.335 0.315 0.336 0.356
	Ningpo	Fu ...	15, 16	{ 14.10 13.50 }	{ 0.358 0.343 }	{ 10.95 }	0.278	{ Land Family†	{ ... ...	12.25 15.50	0.311 0.394
	Wên-chou	Fu ...	18	14.00	0.356	11.00	0.279	...	...	...	...
	Foochow	Fu ...	21§	...	...	...	...	...	...	...	...
	Tai-nan	Takow	26	14.50	0.368	9.33	0.237	Cloth	...	11.62	0.295

\* Official.

† See Table of Mow.

‡ Note 2.

§ Note 3.

## Foot 尺

PLACE.			Authority.	TAILOR'S FOOT		CARPENTER'S FOOT.		OTHER FEET.		
Province	Prefecture.	Town.		29.37 = 1 Inches Mètre		Inches.	Mètre.	Use.	Inches	Mètre
Kwangtung	Ch'ao-chou	Swatow ...	23, 24	...	...	{ 11.50 12.00	0.292 0.305	{ Cloth (Shops) } { Cloth (Family) } General ...	12.69 18.00 14.87 15.00	0.322 0.330 0.378 0.381
	Kwang-chou	Canton ...	2, 19	{ 14.80 14.75	{ 0.376 0.375	14.10 14.00	0.358 0.356	{ Land ...	14.00	0.356
		Hsin-hui ...	19	14.80	0.376	13.67	0.347	General ...	14.10	0.358
	Lieu-chou	Pakhoi ...	3	14.20	0.361	13.80	0.350	{ Land ... "Standard"	10.00 14.70	0.254 0.374
Kwangsi	T'ai-p'ing	Lungchow ...	28	13.30	0.333	15.50	0.394	Land ...	10.50	0.267
Yunnan	Lin-an	Mêng-tzu ...	25	14.00	0.356	13.75	0.346	{ Cloth† ... Stone-mason's† } Land† ...	14.25 13.60 12.10	0.359 0.342 0.305
		...	14	...	...	12.55	0.317	{ Cloth ... Land ...	20.75 11.85	0.527 0.301
Korea	...	...	14	...	...	12.55	0.317	{ Cloth ... Land ...	20.75 11.85	0.527 0.301

\* Note 4.

† Note 5.

## LENGTH TABLE.

10 Hsien 纖	= 1 Wei 微	10 Li 里	= 1 Fên 分
10 Wei	= 1 Hu 忽	10 Fên	= 1 Ts'un 寸 (inch).
10 Hu	= 1 Ssü 絲	10 Ts'un	= 1 Ch'ih 尺 (foot).
10 Ssü	= 1 Hao 毫	10 Ch'ih	= 1 Chang 丈
10 Hao	= 1 Li 厘	5 Ch'ih	= 1 Pu 步 or Kung 弓
1,800 Ch'ih = 360 Pu = 1 Li 里 (considered $\frac{1}{3}$ mile).			

*N.B.*—The length of 5 *Ch'ih* is called indifferently *Pu* (pace) or *Kung* (bow), but it seems more common to call the length a *Kung*, and the square of 5 *Ch'ih* a *Pu*.

The *Li* is theoretically 1,800 of the *land* foot, the length of which may be seen on reference to the Table of Area of the *Mow*. Practically it is usually one-tenth of an hour's march 塘, which will vary according to the nature of the ground.

### NOTES.

NOTE 1.—Rev. P. M. POELL (20) states:—

The carpenter uses a foot of 9 inches, the tailor of 10 inches, and others of 15 inches. [These are proportions only.]

NOTE 2.—Dr. S. P. BARCHET (16) states:—

The “family” foot is used by families for buying cloth, etc., which they sell by the “tailor’s” foot, hence the “family” foot varies considerably in length.

NOTE 3.—Mr. E. H. PARKER (21) states of Foochow:—

The tailor’s foot 裁尺 is 20 per cent larger than the cloth foot 店尺 or builder’s foot 木尺. The official *Kung* 弓 of land is in length 5.6 of the latter. The other calculations can be made by any one.

NOTE 4.—*Note on Pakhoi foot:*

The “standard” foot appears to be used only in making flooring-tiles, which are exactly a “standard” *Ch'ih* square. The tailor’s *Ch'ih* is called “nine-seven” 九七, and the carpenters’ *Ch'ih* “nine-five” 九五, being respectively  $\frac{97}{100}$  and  $\frac{95}{100}$  of the “standard” *Ch'ih*.—H.B.M.

NOTE 5.—Mr. HAPPER (25) states respecting Mêngtzü:—

Peddlers in the country are said to carry several foot-rules with them, and when offering cloth for sale, give the prices according to the measurement of each foot.



## Mow 畝

PLACE.			Authority.	LENGTH OF KUNG OR PU.		Number of Pu. to Mow.	AREA OF MOW.	
Province.	Prefecture.	Town.		English inches.	Mètres.		English Square Feet.	Square Mètres.
Shêng-king	Fêng-tien ...	Newchwang ...	29	67.50	1.715	240	7,594	705.9
Shantung	Lin-ch'ing ...	Chou ...	4	61.10	1.552	240	6,320	578.1
						360	9,480	867.1
						480	12,640	1,156.2
	Chi-nan ...	Fu ...	5	73.92	1.877	240	9,327	866.4
						360	13,991	1,299.6
Kansu	Liang-chou ...	Fu ...	5	73.92	1.877	720	27,982	2,599.2
						840	32,684	3,032.4
Honan	Nan-yang ...	Fu ...	6	63.00	1.600	240	6,615	614.4
						240	7,877	731.6
						240	16,320	1,518.0
Anhui	Ying-chou ...	Huo-ch'iu ...	§	69.50	1.765	240	8,050	745.2
Kiangsu	Kiang-ning ...	(Nanking) ...		62.50	1.587	240	6,510	604.6
	Tai-tsang ...	Tsung-ming ...	**	67.70	1.720	240	7,643	710.0
	Hsü-chou ...	Sui-ning ...	...	70.10	1.780	240	8,190	760.4
	Sung-kiang	Fu ...	1, 13	66.50	1.690	240	7,430	690.3
				69.70	1.770	240	8,094	751.9
				60.50	1.537	240	6,105	567.2
				66.00	1.676	240	7,260	674.5
	Shanghai		2, 3, 13	62.00	1.575	240	6,600	613.1
				70.50	1.790	240	8,284	767.0
Chekiang	Ningpo ...	Fu ...	15	61.25	1.556	240	6,232	581.0
				60.50	1.537	240	6,105	567.2
	Wên-chow ...	Fu ...	18	55.00	1.397	240	5,042	468.4

\* Note 1. † Note 2. ‡ Kung of 7.2 chih.

§ Note 3. || Note 4.

\*\* Note 5.

## Mow 畝

PLACE.			Authority.	LENGTH OF KUNG OR PU.		Number of Pu to Mow.	AREA OF MOW.	
Province.	Prefecture.	Town.		English inches.	Mètres.		English Square Feet.	Square Mètres.
Fukien	Ch'uan-chou...	Amoy ...	2	74.00	1,880	240	9,138	848.3
Kwangtung	Ch'ao-chou ...	Swatow ...	* 23	57.50	1,460	240	5,510	511.6
	Kwang-chou...	Canton ...	† 19	70.00	1,780	240	8,167	761.4
	Lien-chou ...	Pakhoi ...	3	50.00	1,270	240	4,167	387.1
	T'ai-p'ing ...	Lungchow ...	28	52.50	1,335	240	4,594	427.7
Kwangsi	T'ai-p'ing ...	Lungchow ...	28	52.50	1,335	240	4,594	427.7
Yunnan	Lin-an ...	Mêngtzū	‡ 25	60.05	1,525	240	6,000	558.1
Corea	...	Fusan ...	§ 14	71.20	1,808	240	8,449	784.5

\* Note 6.

† Note 7.

‡ Note 8.

§ Note 9.

## AREA TABLE.

10 Hsien 織 = 1 Wei 微

10 Wei = 1 Hu 忽

10 Hu = 1 Ssü 絲

10 Ssü = { 1 Hao 毫  
(0.24 Pu 步) }

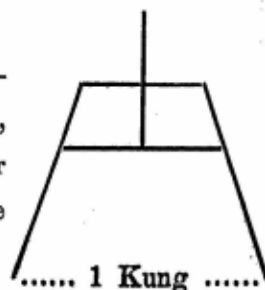
10 Hao=1 Li 厘 (2.4 Pu).

10 Li =1 Fên 分 (24 Pu).

10 Fên=1 Mow畝 (240 Pu).

100 Mow=1 Ch'ing 頃.

The common instrument for measuring land is of this shape and proportion, measuring 5 local *ch'ih* = 1 *kung* or 1 *pu*; 240 square *pu* legally make 1 *mow*.



## NOTES.

NOTE 1.—Rev. GILBERT REID (5) states :—

There are three kinds of *mow*. One consists of 240 square local *pu*, another of 360 square local *pu*, and the third of 720 square local *pu*. The *mow* seems to vary somewhat according to the soil. For example, outside of the South suburb gate of Chi-nan-fu the small *mow* is used, outside the West the next larger, and outside the East the largest. The smallest is the official standard.

[N.B.—The Rev. G. REID gives the *pu* at 73.92 inches. It would be worth inquiring if the *pu* at Chi-nan-fu is not more correctly 62.81 inches English.—H.B.M.]

NOTE 2.—Mgr. HAMER (6) states :—

Ici [Lan-chou, Kansu] pour les terres on ne compte pas par *mou* mais par *teou* 斗; personne ne sait dire au juste la mesure d'un *teou*; cela dépend des terres et des endroits. Une telle terre est vendue pour autant, une autre pour autant de *teou*. Il me semble qu'un *teou* équivale à  $2\frac{1}{2}$  *mou*.

NOTE 3.—A priest at Liu-an, Anhui (10) states :—

Ici le peuple ne connaît pas le nom *mow*, on compte la grandeur des terres par le nombre de *tan* qu'on paye de *tsou* [rent] et on dit, "Je cultive 5, 6, etc., *tan* de terre."

NOTE 4.—Rev. E. T. WILLIAMS (17) states as regards Nanking :—

After sending to the Hien six or eight times I have finally obtained a complete table :—

TABLE OF LINEAR MEASURE.	{	10 Fān (分)	= 1 Ts'un (寸) or Inch
		10 Ts'un	= 1 Ch'ih (尺) or Foot
		5 Ch'ih	= 1 Pu (步) or Pace
		2 Pu	= 1 Chang (丈)
		180 Chang	= 1 Li (里)
		200 Li	= 1 Tu (度)
		360 Tu	= 1 Cheu-Tein (周天)

The foot in this table is what is called the Kiu-cheh-ch'ih (九折尺), or Carpenter's Foot, nine-tenths of the ordinary foot. It does not measure exactly this according to my measurement as reported in the paper sent you. I ought to say, however, that I have had no access to any official standard, and have had to measure a number of those in actual use by carpenters and merchants, but as both the carpenter's rules measured by me were a little more than nine-tenths of the longest Ts'ai-ch'ih measured, I considered they could not be far wrong.

According to this, the foot in the above table is twelve and one-half inches in length (English). This will make the Pu, or Pace, equal to 62.5 Inches (English) and the Li equal to 1,875 English Feet.

TABLE OF AREAS.	{	100 Square Ts'un (𠀎)	= 1 Square Ch'ih (尺)
		25 „ Ch'ih	= 1 „ Pu (步)
		4 „ Pu	= 1 „ Chang (丈)
		6 „ Chang	= 1 Fān (分)
		10 Fān	= 1 Mow (畝)
		100 Mow	= 1 Ch'ing (頃)
		540 Mow	= 1 Square Li (里)

It will be seen by this that 240 Square Pu make one Mow. The Ch'ih is of same length as in the table of length, i.e., 12.5 Inches (English), so that a Square Pu will equal 27.126 Square Feet (English) and a Mow 723.36 Square Yards (English).

NOTE 5.—Rev. P. HOANG (1) states:—

The legal measure *kung* 弓 containing 5 營造 *ch'ih* equals 1.537 mètres (60½ English inches). This measure was a few years ago [prior to 1882] legally prescribed for the measurement of land formed thereafter by alluvial deposit; while for old land the use of the measure traditionally employed in each district is permitted. The traditional measure, judicially admitted in the district of Shanghai, equals 1.676 mètres (66 inches). [*N.B.*—This gives 1 acre = 6 *mow* exactly]. This measure was a few years ago sent by the Shanghai Taotai to the British Consul. In the country two other measures are in use, one = 1.690 mètres, one = 1.770 mètres.

In Tsung-ming 崇明, where measurement is frequent on account of continual accretion by alluvial deposit, the traditional *kung* equals 1.720 mètres. During the Ming dynasty a stone of this dimension was erected in front of the Magistrate's Yamên, for standard comparison. There the common instrument of measurement is a thin strip of bamboo, called *Chang-po* 丈帛, measuring 10 *kung* = 17.2 mètres.

NOTE 6.—Rev. J. C. GIBSON (23) states respecting Swatow:—

The "pace" is not in practical use here and its length is not known. Theoretically it should equal about 5 feet, the pace being measured not between right and left foot when stepping, but between successive positions of either foot, which is twice the distance.

The *Li* is often used, but its length is very indefinite. It is used here (also in the Amoy region and Formosa, and in the Hak-ka country) chiefly as a fractional part (one-tenth) of the league (鋪), and the length of the latter varies greatly. It represents about an hour's moderate walking on level ground. If the "pace" be taken at 5 feet, then 360 paces

to the *Li* would give 1,800 feet as its length, which would be a fair average here.

No one seems to know the area of the Mow, and it is said to vary not only in different districts, but to be variously reckoned on fields contiguous to each other.

The Mow is divided into tenths (分). Land is commonly described by its average yield reckoned in Piculs (担) of ripe grain unshelled, 5 Piculs to the Mow being a fair yield in good seasons. This is the standard for rice-fields. These give two crops annually, the winter being the heavier (5 Piculs to the Mow) and the summer lighter (4 Piculs to the Mow). For the winter crop, a peck and a half per Mow is allowed for seed, and each Mow is supposed to contain 120 plants. For the summer crop, the allowance of seed is 3 pecks per Mow. For "dry" ground (園) the usual reckoning is in terms of the number of plants reckoned in thousands, of potatoes or sugar-cane which it can carry. [N.B.—Mr. GIBSON gives no length for the pace, and I base the area of the Mow on his length for the carpenter's (and land) foot.—H.B.M.]

NOTE 7.—Rev. C. BONE (19) states regarding Canton:—

A pu 步 is 2 Chinese feet, but in some cases it is 2.2 Chinese feet. [N.B.—I have disregarded this statement, and in estimating the area of the mow have taken Mr. BONE's further statement that the land foot is 14 English inches.—H.B.M.]

NOTE 8.—Mr. A. P. HAPPER, Jr. (25) states respecting Měngtzu:—

The *Mu* (畝) is not known here. This is stated on good authority. When land is transferred, it is paced off, or delimited by giving the boundaries. The value is calculated on the rent it will bring, or on the quantity of grain it will

yield per year. The pace is said to be the ordinary step of a man walking at an ordinary gait. The *kung* 弓 lent measured 1.525 mètres.

NOTE 9.—Mr. J. H. HUNT (14) states:—

The *mow* (*irang* 畝) is the area on which taxes are paid [in Corea]. The people do not buy and sell land by this measure. The price of a field or plot of ground is regulated by the time occupied in ploughing it, or by its average yield of grain per year.

NOTE 10.—Mr. MAK SZE CHE (26) states respecting Takow:—

Natives speak of the *kap* (甲), not the *mow* (畝) of land; the latter measurement is not known.

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With regard to Shanghai weights and measures, the following letter from the Chairman of the General Chamber of Commerce to H.B.M. Consul-General, conveys all the information of which the Chamber could dispose:—

SHANGHAI GENERAL CHAMBER OF COMMERCE,

SHANGHAI, 31st July 1885.

To P. J. HUGHES, Esq.,

*H.B.M. Consul-General, Shanghai.*

SIR,

I have the honour to acknowledge the receipt of your letter of 28th July, asking for information as to the denominations and equivalents of the weights and measures in use at this Port, for communication to the Board of Trade, and in reply I have the pleasure to hand you the following particulars:—

The subject is dealt with at length in Dr. S. WELLS WILLIAMS' *Commercial Guide*, chapter 5, sections 3 to 6, but as only a small number of the weights and measures indicated are in use between foreigners and natives, it is perhaps unnecessary to give details of those which are confined to native use alone.

*Weights.*—The weights in use for general purposes are

the Tael =  $1\frac{1}{3}$  oz. Av.,

the Catty =  $1\frac{1}{3}$  lb. „ = 16 Taels,

the Picul =  $133\frac{1}{3}$  „ „ = 100 Catties,

the former being used for precious metals and the two latter for the ordinary purposes of market stuff and produce.

The usual instrument for market use is the Steelyard, which will weigh up to a picul, while larger quantities are usually treated by Beam or Fairbank scales of foreign manufacture.

*Measure of Length.*—The measure of length is the “Chih,” which is equal to 14.1 inches English.

*Measure of Distance.*—The measure of distance is the “Li,” which is equal to 360 paces or 1894.12 feet English.

*Land Measure.*—Land is generally measured by the “Mau” = 26.73 square Poles English, the subdivisions being decimals: 100 mau = 16.7 acres.

There does not appear to be any reliable standard for either weights or measures, the initial element in both cases being a grain of millet-seed, the equivalent of the English Barleycorn, while there is also a difference in both weights and measures varying with the article to which they are applied. Thus in Shanghai the ordinary Measures of Capacity are the Koh = 6.103 litres

the Shing = 1.031 „

the Tau = 10.31 „

which are commonly used for retailing market commodities such as rice, peas and grain generally, but the smaller measures are usually made of bamboo joints, and vary in size according to what the retailer considers will give him a fair profit.

The “Tau” is made of wood like an inverted pyramid with the top cut off, and holds generally  $6\frac{1}{2}$  catties.



For retailing oil and spirits there are measures which contain 1, 2, 4 and 8 Taels weight respectively, and indeed almost all articles are sold by weight, whether solids or liquids, and there does not appear to be any genuine standard of capacity.

It may further be noted that both weights and measures differ in different provinces, though as far as the open ports are concerned the proper equivalents were arranged by the Treaties, but even in this the French and English do not exactly agree, though they do so nearly enough for practical purposes.

As regards measures of length again the "Chih," or Chinese foot, varies with the different trades, and in Shanghai we have the following:—

Eng. Inches & Decimals.

Junk-builders' chih	=	15·769 to 15·69
Custom House	„	14·098
Tailors'	„	14·05 to 13·85
Board of Revenue	„	13·181
Artisans'	„	12·569
Carpenters'	„	11·14
Masons'	„	11·08 to 10·9

while they differ again at most of the open Ports.

Trusting that the above information may be of service to you,

I have the honour to be,

etc., etc.,

(Signed) J. J. KESWICK,  
Chairman.

## APPENDIX.

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[EXTRACTS FROM "NORTH-CHINA HERALD" FOR 1889.]

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### *Remittances to Peking from Shantung.*

"Chang Yao reports the transmission of the following sums on various accounts to Peking: the sixth instalment of the Peking subsidy, Tls. 50,000, forwarded to the Board of Revenue by the Financial Commissioner: Tls. 6,250 transmitted by the Salt Commissioner to the Board of Revenue as interest on funds lent to the province, together with Tls. 156.25 for difference in weight and Tls. 50 for portorage; Tls. 6,250 to the Imperial Household for interest on borrowed capital, with similar allowances for portorage and loss by exchange; Tls. 20,000 sent by the Grain Intendant as the second instalment towards defraying the outlay on frontier defence; and Tls. 20,000 from the four-tenths of the receipts of the foreign Customs' duties at Chefoo as a contribution to the Tientsin Arsenal."—*Vol. xlii., p. 146.*

### *The Currency Question in Kirin: Excessive Issue of Paper Money.*

"January 17th.—The Governor of Kirin states that the currency system of the town of Kirin is carried on on a most pernicious system, and as a remedy for the great inconvenience and suffering which it entails upon the people, he suggests that a portion of the subsidy which the province receives yearly from Peking should in future be remitted in copper cash. Cash, he states, is the proper standard for the monetary requirements of the people, and paper money is only to be resorted to when it proves insufficient. If the latter could be made to circulate freely and the price of commodities, whether paid in cash or paper, could be equalised, it would prove a real convenience for the people, to which no objection could be raised, as in the other provinces where paper money is used to supplement the ordinary currency. In Kirin, however, the case is quite different. Here the notes no longer represent a cash value, and, being inconvertible, have given rise to

abuses greater than any ever resulting from the financial expedients of the Sung dynasty. The commercial transactions of the town are all based on a gigantic system of credit, against which prohibitions have been issued from time to time without effect. The notes of the system lay in its convenience for use in the market where money was required to pass rapidly from hand to hand, and in course of time its use was extended until it assumed its present dimensions and afforded facilities to dishonest merchants for fraudulent practices and overtrading. The notes were put on the market without any regard to the capital possessed by the establishment issuing them, and people seeing that they could buy sycee or goods with mere paper, naturally preferred to hide away their cash, and make gain without employing money at all. Merchants who came to the city to trade, observing the high price of silver and articles of commerce, feared that they would lose heavily on any goods purchased there, and took their cash to other places where they could invest it better. The consequence was that there is an unusual scarcity of cash in Kirin, and that prices have gone up to an enormous height. The soldiers and officials suffered more than any other part of the population. By an old regulation a part of their salary was paid out of the local revenue, and to begin with was issued at a discount of twenty per cent. The chief source of revenue is a tax upon distilleries paid in inconvertible paper, of which it took considerably over four *tiao* to make a Tael, but which was issued to the officials and soldiers at the rate of three *tiao* to the Tael. But this did not represent the total loss. The other cities in the province would not accept the inconvertible paper of Kirin, therefore the soldier was obliged, if he wished to return home, to exchange his paper money for silver at the current high market rates. When he reached home he had to convert his silver into cash, and as the price of silver was lower than in Kirin he again sustained a heavy loss. The country people who brought produce into town found themselves unable to sell it unless they took the price in paper money, and as this was utterly useless in the country they were obliged to exchange it at a ruinous loss before returning. Vendors of firewood, and other poor creatures who had carried heavy burdens from a long distance into the city, would often want a few cash to buy food to appease their hunger, and would find themselves unable to obtain it, to such a pitch had the abuses of the currency system attained. After a consultation with the local, civil and military authorities, Memorialist drew up a set of regulations for reducing the price of silver, and placing the copper and paper money on a uniform basis, and took steps to have them enforced among the mercantile community. During a specified period, when outstanding notes were presented for payment, at least 20 per cent. of the

amount was to be given in cash, and after the third moon of next year, the further issue of inconvertible paper was to be entirely discontinued. It is feared, however, that in making such a radical change, a difficulty might at first be experienced in obtaining cash to meet the requirements of trade. The late Governor proposed to open a local mint for the coinage of cash, but the difficulty of procuring copper renders this scheme unsuited to the exigencies of the case. Kirin draws from the Board of Revenue in Peking quarterly subsidies for defence purposes, and half-yearly allowances for the maintenance of a drilled force in the province. It is suggested that of each of these payments, Tls. 10,000 should be issued in copper cash at an exchange of 3,000 cash to the Tacl, and be forwarded in carts to Kirin along with the remittances in silver. Or if it is thought better, the Board might direct one of the provinces which coins copper cash and has communication by sea with Manchuria to forward a similar amount of cash by steamer to Newchwang, whence it could be sent overland to Kirin, where it might be used in the payment of salaries instead of a direct remittance from the Board.—Referred to the consideration of the Board of Revenue.”—*ibid.*, p. 175.

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*Coinage of Cash in Shensi stopped through want of  
Foreign Copper.*

“February 21st.—About eighteen months ago steps were taken for the erection of a mint to coin copper cash in Shensi. Chên-an is the only district in the province which produces copper, but the quality is so poor that for coinage purposes it can only be used in combination with the foreign metal, and supplies of the latter had to be procured from Shanghai. During the time that the mint has been working, eleven castings have been turned out, representing a total of 19,800 strings of cash. The supply of foreign copper is nearly exhausted, and the officers who were sent to Shanghai to make further purchases report that owing to the stoppage of the Japanese copper works and other causes the price of the article has so gone up as to place it out of their power to procure any more. Under these circumstances, and in view of the fact that the experiment of using the native copper alone has not proved a success, the Governor asks permission to be allowed to postpone further coinage operations until foreign copper can be procured at reasonable rates.”—*ibid.*, p. 311.

*Currency and Public Works in China.*

"Our readers will have noticed that some of the correspondents whose reports on the condition of the distressed districts we have published, have at times referred to the losses incurred in the exchange of silver for copper cash. Those who distributed relief after the Yellow River inundations, some two years ago, had similar experiences, and we suppose it would be the same anywhere in the empire where foreign commerce has not increased the working capital of bankers and merchants. The rise in the price of cash caused by the sale of the few thousand taels of sycee that have been sent to Shantung and Manchuria this year, may have partly arisen from the exactions of the money-changers, but we are inclined to think that it has been chiefly brought about by what we may call natural causes. Money-changers are seldom possessed of more than a few thousand taels of capital and very often they have only a few hundred. The influx into a district of a quantity of sycee which would have no effect on the money market of even a second or third rate open port, would very soon exhaust the resources of all the cash bankers in the inland districts. We are aware that in some places the native bankers have behaved very liberally in their dealings with the missionaries who have been distributing the relief funds, but where capital is very limited and business almost at a standstill, from the condition of the country, it could not be expected that the most generous conduct of bankers would have much effect on the market price of copper cash. But the probability is that the bankers were able to do very little to prevent losses in exchange from lack of means. Even if they bought sycee at prices considerably under those ruling in the other provinces, they have not the means of transporting it which would enable them to realise a profit, and it is evident that the supply of cash and the amount of sycee used in the districts we are referring to, are both limited. The writer of *Chinese Characteristics* very graphically described the other day the state of the currency, if we can apply this term to the wretched cash of the country, and the troubles which await all those who have to use it. We were all more or less acquainted with these evils, which we take to be about the most serious which injure China. The condition of the cash in use in all the provinces becomes almost periodically so bad that the *Peking Gazette* is stuffed with Memorials and Edicts on the subject, from which but little good results. The truth is, as we have said before, that there are too many people, of all ranks and degrees, throughout the empire, some of whom are enriched by, and others live upon, the badness of cash and the inequalities of sycee, for any great improvement in either to be attempted by the Govern-

ment. No doubt, some of the higher officials would be glad to see the evils abolished and even a coinage introduced, but reform in this direction, like other western improvements, must come slowly. It is a matter of regret that the mint which the Viceroy of Canton procured from England for the coinage of cash is not to be worked, but if His Excellency's change of plan is owing to the advance in the price of copper which took place last year and in 1887, we hope that the recent decline in the value of the metal may induce him to change his mind again.

"We suggested some time ago that the Viceroys and high officials in the afflicted provinces should employ the people in road-making, the repair of waterways and other public works. If these have been undertaken to any great extent they will be of great service to the country, but we confess that we are not sanguine of anything of consequence being done in these things. Yet nothing would, under the circumstances, be of greater service to the country and the people, for the latter would be provided with some means of subsistence while commerce and the movement of troops would be facilitated. Such improvements could not be objected to by the most conservative Chinese, for they would be in accordance with old ways and the patriotic spirit which is supposed to animate the policy of the Government. No doubt the rulers of China know perfectly well that they must meet the criticism of the outside world, which their predecessors neglected and despised. When, therefore, the country suffers, as unfortunately it has suffered, great distress in recent years, and foreigners are appealed to for aid, the Government should know that the amount of subscriptions from other countries will be greatly affected by the manner in which the officials have discharged their duties or are discharging them. We noticed not long ago that the *Spectator* questioned the wisdom of English people subscribing to the Lord Mayor's fund, and we have no doubt that its remarks on the subject have caused at least some people to withhold their money. Not only Heaven but men help those who help themselves; and if foreigners see that the Government of China does not take effectual steps to mitigate the evils from inundation or drought, much less practical sympathy will be shewn by them on the next recurrence of such disasters. And as a proof of the critical attitude of Englishmen to this country, to which we have referred, and which the Government must meet, we mention the fact that the news of the outbreak at Chinkiang had an immediate and considerable effect in diminishing the subscriptions to the Relief Fund. We commend to those who have the ear of the great officials, if any such foreigner there be, the advocacy of useful public works and currency reform."—*ibid.*, p. 399.

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"The subject of Chinese currency demands not a brief paragraph, but a comprehensive essay, or rather a volume. Its chaotic eccentricities would drive any Occidental nation to madness in a single generation, or more probably such gigantic evils would speedily work their own cure. In speaking of the disregard of accuracy we have mentioned a few of the more prominent annoyances. A hundred cash are not a hundred, and a thousand cash are not a thousand, but some other and totally uncertain number, to be ascertained only by experience. In wide regions of the empire, one cash counts for two, that is, it does so in numbers above twenty, so that when one hears that he is to be paid five hundred cash he understands that he will receive two hundred and fifty pieces, less the local abatement, which perpetually shifts in different places. There is a constant intermixture of small or spurious cash, leading to inevitable disputes between dealers in any commodity. At irregular intervals, the local magistrates become impressed with the evil of this debasement of the currency, and issue stern proclamations against it. This gives the swarm of underlings in the magistrate's *yamên* an opportunity to levy squeezes on all the cash shops in the district, and to make the transaction of all business more or less difficult. Prices at once rise, to meet the temporary necessity for pure cash. As soon as the paying ore in this vein is exhausted, and it is not worked to any extent, the bad cash return, but prices do not fall. Thus the irrepressible law by which the worse currency drives out the better, is never for an instant suspended. The condition of the cash becomes worse and worse, until, as in some parts of the province of Honan, everyone goes to market with two entirely distinct sets of cash, one of which is the ordinary mixture of good with bad, and the other is composed exclusively of counterfeit pieces. Certain articles are paid for with the spurious cash only. But in regard to other commodities this is matter of special bargain, and accordingly there is for these articles a double market price. That enormous losses must result from such a state of things, is to any westerner obvious at a glance, although the Chinese are so accustomed to inconveniences of this sort, that they seem almost unconscious of their existence, and the evils are felt only as the pressure of the atmosphere is felt. Chinese cash is emphatically 'filthy lucre.' It cannot be handled without contamination. The strings, of five hundred or a thousand (nominal) pieces, are exceedingly liable to break, which involves great trouble in re-counting and re-tying. There is no uniformity of weight in the current copper cash, but all is both bulky and heavy. Cash to the value of a Mexican dollar weigh not less than eight pounds *avoirdupois*. A few hundred cash are all that anyone can carry about in the little bags which are suspended for

this purpose from the girdle. If it is desired to use a larger sum than a few strings, the transportation becomes a serious matter. The losses on transactions in ingots of sycee are always great, and the person who uses them is inevitably cheated both in buying and in selling. If he employs the bills of cash-shops, the difficulty is not greatly relieved, since those of one region are either wholly uncurrent in another region not far away, or will be taken only at a heavy discount, while the person who at last takes them to be redeemed, has in prospect a certain battle with the harpies of the shop by which the bills were issued, as to the quality of the cash which is to be paid for them. Under these grave disabilities the wonder is that the Chinese are able to do any business at all; and yet, as we daily perceive, they are so accustomed to these annoyances, that their burden appears scarcely felt, and the only serious complaint on this score comes from foreigners."—*ibid.*, p. 411.

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#### *Resistance to Change of Currency in Kirin.*

26th June.—“A memorial from the high authorities of Kirin states that it has long been the practice in the provincial capital to make use of irredeemable bank notes instead of money. The custom having proved to be injurious to the Government, the army and the people alike, the memorialists obtained permission from the Emperor to put a stop to it altogether. On the promulgation of a notice to this effect unbounded joy was manifested by the public. At the same time six months' warning was given to those concerned, and arrangements were made for carrying out the change gradually. The utmost consideration was thus shown to the merchants, who, notwithstanding, in their greed and covetousness swore an oath not to obey. As a first step they bribed certain unworthy gentlemen, who drew up for them a general petition full of bad arguments and concealed threats; but the memorialists refused to be influenced by this. Finally one house, the Jui-shang Bank, has now suddenly closed its doors for no cause. Unavoidable bankruptcy is a common enough occurrence and would call for no special remark. But in the present instance the pretended insolvents had only four days previously received twelve thousand taels on account of one Government department and ten thousand taels on account of another. Their action can therefore only be regarded as a deliberate swindle conceived with the object of putting pressure on the authorities. The enormity of the offence is moreover aggravated by the fact that they have long been the busiest of traders and have made immense profits at the expense



of other people. The memorialists have ordered the prefect to imprison both the proprietors of the bank and their assistants, and to take measures to recover the moneys owed by them. Even if they discharge all their liabilities in full, they must still be punished severely, in order that others may be warned by their example. It is further requested that one of the officers from whom they received the Government money may also be made a defendant in the case, in order that it may be discovered by a rigorous investigation whether he acted in collusion with them or not.—*Approved.*—*Vol. xliii., p. 50.*

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*Paper and Silver Currency.*

“The use of seals had extended much in China about two centuries after Christ, and this led gradually to stamping silk and skin for various purposes. Just at that time the manufacture of paper was introduced from the West and it was found to be an article capable of many common uses. This led the Taoists, for example, to multiply charms rapidly by stamping them on paper to sell to the superstitious, either to hang on their doors or to carry with them when travelling. Commercial accounts were written on paper for convenience, and merchants and shopkeepers provided themselves with seals for stamping. They came into the habit also of stamping the paper before or after they wrote their figures upon it. This was the state of things when the establishment of the Caliphate on the Euphrates gave an impetus to Eastern trade. The Chinese in the eighth and ninth centuries made much more silk than before for foreign countries. The spread of the silk manufacture in Western regions did not put an end to the demand for the silk goods of China or for the unwoven silk. Neither Europe nor Western Asia could manufacture enough of their own silk to meet the demands of the market. The historian ROBERTSON says of this period that the silk of China was purchased in Shensi, the westernmost province of that empire, and conveyed thence by caravan in a march of eighty or a hundred days to the banks of the Oxus, where it was embarked and carried down the stream of that river to the Caspian. After a dangerous voyage across that sea and ascending the river Cyrus as far as it is navigable, it was conducted by a short land carriage of five days to the river Phasis, which falls into the Black Sea. Thence it was taken by ship to Constantinople. While such was the activity of trade by land there would naturally be a corresponding expansion

of seaborne traffic from the seaports of China to India and farther west. The three centuries of the Tang dynasty at the same time gave opportunity to home commerce to grow in proportion. Trade flourishes when an empire is at peace. It was these circumstances combined which led to the invention of paper money in the Tang dynasty, and it was to the Chinese merchants and statesmen, particularly of the ninth century, that the credit is due in the first instance of employing paper money in the form of drafts payable at certain cities.

"Those who wish to master this subject will find much to interest them in VISSERING's work, which received the Julien prize a few years ago. During the present year the Peking Oriental Society has published a paper (taken chiefly from a work by Wang-liu, published in 1881) by the lamented Japanese Minister to China, Shioda Saburo, on the same subject. This paper is of very great value. It brings out clearly the point that silver was not employed as money before the Tang dynasty, and that it was then introduced. Reference is here made to the work called *Ji Chilu* by Ku Yen-wu,\* who died two centuries ago, where it is said that before the Tang dynasty copper cash was the medium of exchange between Government and people, and silver had never come into use. At that time silver was already introduced in South China, meaning by that term Canton and Kuangsi. It is a curious fact that at about A.D. 500, according to Chinese history as examined by Ku Yen-wu, there were in regard to money circulation three belts of country. In the extreme south, gold and silver were in use, Canton being the centre of trade. In middle China, all along the Yangtse into Szechuan, copper cash were used everywhere as the medium of exchange. All this belt of territory, with Canton, Kuangsi and Tongking, was then ruled from Nanking as the centre. In the North, which was under Tartar administration, copper cash and grain were employed as a double medium of exchange. The effect of Tartar control was to favour barter and keep back the onward advance of monetary conveniences. Even now soldiers are paid in grain when they are upon the old régime, but the new drilled troops are paid in silver. It is noticeable here that silver began to be a currency in South China first and at a time when China sent her prefects regularly to rule in Cochin-Chinese and Cambodian cities. Gold in ancient China was much used on account of its great abundance. But silver began to enter China because it is produced abundantly in Burma and because it was a circulating medium in India and farther west. The silver which circulated by weight in Canton in A.D. 500 would be partly

\* See Wang Zin's work 鈔幣芻言 *Ch'au-pi-chau-yen*.

Burmese and partly what Arabian merchants and others brought from distant ports. The Arabian trade would certainly have a share in the introduction of silver by weight into the commerce of China in its southern provinces. We find many proofs of the activity of the Arab merchants from the Han dynasty downwards. This is probably another instance of it. The Mei-ling mountains, on the north of Canton province, at that time separated the belt of country which traded by weight from the belt of country which traded with the help only of copper coins, and this was noticed by the celebrated author Han Wên-kung in a memorial he sent to the Emperor about A.D. 800. Yuen Chen, another great statesman, mentioned at about the same time that salt and pieces of silk were used as money in Szechuan. Cinnabar and quicksilver, he added, were used as money in Kuangsi, as also pieces of cloth and silk. At that time any valuable article which had a known price in the market could be bartered like coins elsewhere. It was in this way that silver came into extensive use. It was of a fixed value according to weight, and the silver mines of Burma made it very convenient when the influence of the Chinese Government extended to that region. Another step in the use of silver was taken when in A.D. 1035 it was commanded that the provinces of the empire should not in future be expected to pay taxes in the same form. Most portions of the empire would pay in copper cash. Fukien, Canton, and Kuangsi might send silver, Kiangsu and Chêkiang could contribute silk. This is the first instance of the payment of taxes in silver being recognised in an edict, and it was 854 years ago. Since that time the influence of silver has been increasing to the present day, for during this century the change of grain to silver in the contributions of the people to the expense of the Government has in many localities been made for the first time. A change back again from silver to grain or from silver to copper is never known.

"For eight centuries the use of silver by weighing it, as a circulating medium, has been increasing in China, and it has known no check but the introduction of the dollar. The dollar, however, has only perhaps represented in the amount of its circulation a contemporaneous growth of new trade. The sycee in use as money has certainly not diminished in quantity on account of the large import of Mexican dollars which China now requires, for these dollars, when cheap, are often melted down into sycee. A thousand years ago the people in Central China kept their accounts in copper cash, which at that time would in the market procure a much larger amount of clothing and provisions than now, and the inconvenience of copper, on account of its relative weight, would not be so much felt. They did not then change cash into silver

in totalling up their daily and annual entries, because the change from copper to silver as a standard of value had not yet been made. Arabian trade brought to China the use of silver by weight as European trade at a later period brought the dollar. In both cases the flow of silver has been traceable from south to north in successive zones of country. The convenience of a paper currency made itself felt much sooner in China than in any other country because of the early use of engraved seals, the immense internal trade, and the commercial instinct of the people."—*ibid.*, p. 139.

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### *Want of Control over the Circulating Medium.*

"About sixty years ago a student of Chinese history in Soochow made some deep researches into the question of the currency. The currency was then becoming more and more out of the reach of Government control. Foreign trade was increasing. The Government had for nearly two centuries left silver to work its own way as money paid by weight, and received it in payment of taxes from each *arrondissement*. Only the copper cash were issued by the Government. For silver there was no mint and never had been but once, and that for a short time, yet this metal had grown to be one of the most important elements in domestic as well as foreign trade. It was the same with paper. Paper notes representing money were issued by private capitalists in all large cities, and the Government had no interest in them. Their success as a circulating representative of silver was entirely at the risk of the native bank. Silver and paper both represented money in all the large transactions of trade. The small market negotiations in copper cash which belong to the daily life of the people, and which, while as transactions they are counted by millions, are always small in bulk, were the only trading operations of which the Government issued the circulating medium. How strikingly different was this state of things from that which exists in the West, where gold, silver, copper, nickel, and stamped paper are all issued by the Governments as money. Our author knew nothing of this, of course, but he was still able to cast his eye over a wide range of financial facts. China had had a long history of financial experiments and a succession of prosperous and disappointing experiences. With the national annals before him, each dynasty having its special chapter on finance, it never struck him that China was, or could be, deficient in financial knowledge or unable to meet the new conditions of the time. He attempted to shew that a change in policy was required in finance, and the

conclusion he arrived at, and which he tried to prove by argument, was that a Government paper currency ought to be again issued and the use of silver prohibited. The people should attend to agriculture rather than to trade. This was their proper occupation, and would lead them to a spirit of contentment. The circulating medium of trade ought to be in the hands of the prince as a source of revenue.

"The reasons, he said, why the monarch cannot easily control the currency or derive revenue from it are fivefold. Coppersmiths melt coin because they wish to use the copper in making wash-basins, tea-kettles, and images of the gods. This is the first interference with the monarch's authority. In addition to this, lead and spelter are employed to make spurious coin in the furnaces of law-breakers aiming at a little profit. This is the second interference; and the third is the extending use of foreign dollars. (It is worthy of remark that through the whole of his book the author, writing in 1831, makes no allusion to opium; yet it is unquestionable that the spread of Spanish dollars first and American dollars afterwards was very much connected with the opium trade. At the same time he makes no allusion to the silk or the tea trade. His point is simply that it is a loss to the Chinese Government not to have the profit arising from the control of the currency. As to commercial questions he seems to have no information, nor did he seek any.) His fourth reason why the Government fails to derive benefit from the circulating medium is that the market price of silver is entirely in the hands of the merchants. He would like the Government to regulate the currency by authority—not knowing that it is disastrous and vain for official authority to attempt to modify prices. China has learned many lessons since the day when this author lived. The fifth cause of the feebleness of the Government in regard to the control of the money market is the fact that bank notes and bills of exchange are issued by private capitalists.

"Our author's advice to the Government was to make a law prohibiting the use of silver in money payments and at the same time restore the issue of Government bank notes which had been so long discontinued. In his opinion this was the only policy by which the five evils from which the Government suffered could be eradicated and the country made prosperous. In support of this view he appeals to the history of money in China. Ancient statesmen saw the propriety of drawing a revenue of cereal products from one locality, of textile fabrics from another, and of coined money from a third. They did not see the need of a large issue of coins, except occasionally, when floods and drought compelled the adoption of this expedient. Nor did finance minis-

ters in very early times limit money to silver or to copper. Pearls and jade, tortoise-shell and cowries, bundles of silk and grass-cloth, served as money in China's ancient markets. About B.C. 800 an old poem says: "A simple-looking lad, you were carrying cloth to exchange it for silk." The official master of the market, says the comment, stamped the cloth for use in barter, and it was two inches in width and 16 inches long. The author adduces this as classical authority for an issue of Government bank notes. But as the poem mentions merely barter, and the explanatory remark is that of an author of A.D. 200, how can we know whether the market officer stamped the cloth or not? It may have been a simple case of barter. Whatever is meant it would scarcely be by stamping, for this mode of giving official validity was hardly in use so early. Why, for example, do we find that the cash of the Ch'in dynasty, B.C. 220, were issued without any inscription upon them? Books tell us that the Han dynasty monarchs were the first to direct characters to be inscribed upon their coins. This practice commenced about B.C. 200 and was never afterwards neglected. He refers to another example—that of painted squares of white deer skin, which in the reign of Han Wu-ti were used as money. They were priced at four hundred thousand cash each, and were presented to the Emperor by the high nobility or by his relatives at the daily audiences or at high festivals, after which they could pass into circulation for the amount mentioned. At that time there was also a silver coinage, the silver being mixed with tin as an alloy, on account of the whiteness of that metal. This alloy of tin was doubtless intended to prevent all attempts at melting the imperial coins. The melter could only lose by the act, and if it was not worth his while he would not place the coins in his melting-pot. This seems to be a clear historical instance of silver coinage lasting for a very short time. Neither the silver coins of Han Wu-ti nor the painted squares of white deer skin remained long in use; and the high value assigned to the deer skin would suggest that it was something like the million pound bank note of Samuel Rogers, which he displayed in the chimney-piece of his breakfast parlour. It was more an object of admiration than of utility, in an age of luxury and gaudy show. As to the origin of paper currency in China, we must look to an age later than the Han dynasty."—*ibid.*, p. 171.

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*Ten Reasons for a Paper Currency.*

"In the Ming dynasty, about A.D. 1600, when the Board of Revenue was desirous to return to the use of paper money, the

Governor of one of the provinces stated in a memorial what appeared to him to be the ten advantages of paper money. The first was that it could be manufactured at the capital of each province for use in that province. The second was that it could circulate widely. The third was that it could be carried with ease, being light. The fourth was that it could be readily kept in concealment. The fifth was that it was not liable to division like silver into different grades of purity. The sixth was that it did not need weighing, as was the case with silver, whenever it was used in a commercial transaction. The seventh advantage was that silversmiths could not clip it for their own nefarious profit. The eighth was that it was not exposed to the peering gaze of the thief's rapacity. The ninth was that if paper took the place of copper, and copper ceased to be used for making cash, there would be a saving in the cost of this metal to the Government, or the copper saved could be used in manufacturing arms for the troops. The tenth advantage would be that if paper were used instead of silver, the silver might be stored up by the Government.

"Our author in citing these ten reasons for adopting a paper currency adds that the last two are defective. In adopting paper for the mercantile classes the copper coins would remain in use to meet the necessities of the common people. So also silver should continue to be used in making ornamental articles and head-gear of various kinds. It would be a mistake to shut it up in the Government treasury and prevent its being accessible to silversmiths. There is a fallacy lying hidden in our author's reasoning. He thought that the authority of the Government was all that was essential to the successful establishment of a circulating medium, not reflecting that if paper were so employed there was need of a corresponding store of gold or silver in readiness to pay value for the notes if the people lost confidence in them and wished for their metallic equivalent. It did not strike him that the financial credit of the Government bank can be sustained only by payment in gold or silver to discontented holders of paper. He thought only of supplying the demand for ornaments and not of a run on the treasury. In fact, China is too large a country and the merchants as a body too powerful by their numbers for the Government to attempt successfully the prohibition of silver, nor can it refuse to allow the issue of paper money by private banks. The difficulty in establishing a national bank is found in the fact that the Government cannot take better care of the interests of the mercantile classes than each private capitalist can do for himself, and in the difference which exists in the commercial conditions of the various provinces.

"In the ten reasons for adopting a paper currency, when it is suggested that each treasurer of a province should issue bank notes,

it may well be asked, why not leave native banks in possession of this privilege, which is not only a benefit to themselves but to trade generally? It is certainly a great advantage to travellers that through the wide business connections of the Chinese bankers, bills of exchange may be bought in Shanghai and cashed in any of the provincial capitals of the empire. Both to native and foreigner this is an unquestioned benefit, and renders travelling ten-fold easier than if the silver had to be carried in the traveller's trunks. In the fifth and sixth reasons alleged for Government paper currency the Chinese writer touches upon two patent and unanswerable objections to the present system. The silver is weighed at each transaction, and it is circulated in varying states of purity. The scales at which silver is weighed differ in each locality and the traveller feels himself outwitted. His money becomes less at each new point in his journey, and a general feeling of dissatisfaction with the currency grows upon him on his return; however, he would naturally become more reconciled to the tyranny of the scales had he silver left to weigh, for when he arrived again at places of large trade, his sycee weighs as much in proportion to bulk as before. The scale differs to allow the money-changers in towns of small trade to pay their expenses, and when this is understood the indignation of the traveller sinks somewhat. But there is a worse trouble than the variation in scales. It is the variations in the purity of the silver. It becomes alloyed in many ways and is reduced to purity only by re-melting. Blacksmiths melt the silver, and in all places of large trade there are assaying offices which certify the purity of silver for a small sum. Silver sent to Peking to represent taxes has cut into it by the treasurer of the province, the name of the *arrondissement* from which it comes, and of the blacksmith who melted it. Only silver of first purity is allowed to be sent to Peking. In this way the Government indirectly aids in rendering the silver which is in circulation as money much more pure than it would otherwise be, but the introduction of new silver into the money market is the work of merchants alone. Also the law does in a direct way by statute undertake to protect silver from the incessant efforts of the unprincipled who for private profit in every possible way try to diminish its purity. But it is so hard to discover the evil-doer that statutes are promulgated in vain and the owner of the metal is in fact only protected by the shroff and the assaying office. When it is considered how much impure silver is in circulation there does seem strong reasons for a silver coinage. This would at once improve the standard and raise the average of purity. To reject the precious metals as currency because their purity is tampered with, in favour of paper, would be a mistake. The cure for the evil is to maintain the efficiency of



the statutes which aim at the punishment of crimes against the currency. Mexican dollars are now much more uniform in value than sycee silver, and the convenience of a coin is so great that it is remarkable that the Chinese Government does not follow Japanese example and establish a mint."—*ibid.*, p. 203.

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*The Origin of Paper Currency in Seals.*

"The introduction of paper currency in China is very closely connected with the ancient history of printing. Those native authors who have referred to early passages which speak of the employment of seals by officers to give a money value to certain articles as the real commencement of paper currency have done quite right. Grass cloth, silk, and paper all admit of an impression being made on them with ink or with vermilion. In fact, vermilion mixed with oil was perhaps the oldest printer's ink, and the impression of the seal made of jade, copper, silver, gold or wood was, if we allow the word block to include stone and metal, the oldest block printing. The Chinese saw seals from Western Asia and they made them themselves with their own writing cut upon them, to be used in giving validity to official documents, as also to employ them as amulets to protect them from imaginary evils. The seal was not only used to stamp charms, but the handle was a tortoise, a tiger, or some other emblem of longevity or power, in order that it might have a defensive effect against evil. These ideas imported from Western Asia with the seals were as willingly adopted by the Chinese for imitation as the more reasonable idea of employing the seal as a manifest proof of the genuineness of documents. Among the more important of the improvements introduced and additions made to the Chow legislation by the founder of the Ch'in dynasty was the extensive use of seals. The progressive spirit of that dynasty is unquestionable. This is shewn by the fact that many features of the Ch'in legislation were adopted by the Han Emperors. Among them was that of giving a seal to every officer. The silver seals now called Kuan-fang of officers of the 1st and 2nd rank, and the copper seals of Taotais are the continuation of an old rule which has come down from B.C. 221. The system has been found most useful because the seal was the sign of delegated authority, and of the fact that the viceroy instead of being himself a monarch was the representative of the imperial head of the state. The seal was the visible sign of the change from feudalism to centralisation. From that time it gradually became a

fixed idea with the Chinese that they must have a seal impressed on every writing as a proof of property or genuineness. All scholars and firms at the present time have a seal, and seals are placed on books, drawings, and letters, to an extent which is quite remarkable. Since this custom can be traced back to the Han dynasty it becomes easy to understand that the way was open whenever any one chose to extend a seal, by cutting it in relief instead of internally, into any one kind of blank form and into the printing of books. The multiplication of copies by stamping followed readily from the use of a stamp to give validity, and a stamp of four or eight or ten characters might readily be expanded into twenty or fifty. So then we have in the early use of seals the ideas of official validity, of superstitious efficacy and of the possible multiplication of copies, beside the use of the seal, as given to every official appointed by the Emperor.

"Some one may ask what have superstitious observances to do with the origin of printing and of paper currency? To this the reply may be given that superstition makes a custom popular and often helps a good notion to spread rapidly. The Taoists were accustomed to cut seals of the wood of the jujube tree four inches square, or three-and-a-half of our inches, and circulated them among the people to check evil influences. They taught the people to believe that there were evil influences in the air always ready to affect them mischievously, and then they provided them with guardian charms to secure them from the harm which they themselves had taught them to fear. They are not alone in thus acting, for in other countries it has happened that superstition has been ingeniously made a source of pecuniary profit by not a few. The occasions when the use of seals as proof of genuineness were required were of course very numerous. It is mentioned for instance that generals had their orders cut on seals for rapid circulation among the troops under their command. In such a case in the third and fourth centuries the writing in camp orders would be white while the ground was black or red. All the seal cutting and the circulation of charms and of mirrors with lucky sentences and animal shapes engraven on them were in every case so much preparation for the success of paper currency when the time should come. Not only does the credit rich men possess contribute to that success, but also the invention of blank forms rapidly multiplied by printing. The blank form saves time in writing and it also makes the document more uniform, more easily tested and more readily accepted as valid when presented to a third person. The dynasty of Ch'in Shi-huang gave the use of seals to China and from that time forward the possession of an official seal became essential to each office. The Han dynasty simply followed the Ch'in dynasty rule. When this came to be the

case the seal impressed with vermilion was attached by regulation to every document issuing from each officer, metropolitan or rural.

"If then the Chinese in the Han dynasty had the common use of seals large and small, and if paper was introduced about A.D. 200 as we know, how long a time might be expected to elapse before the use of paper money, and the era of the printing of books? In fact, seven centuries passed before books were commonly printed, and eight centuries before paper currency was adopted systematically by the Government. The Chinese, intelligent as they certainly are, and lovers of every practical improvement as they plainly are, were not at all in a hurry to print books to save the expense of copying, or to issue Government paper money to save the expense of copper or silver. What the Chinese highly appreciate when adopted they are usually very slow to adopt. This is true of gunpowder, which they only began to use about the twelfth century, although they had fireworks in the sixth century. A small cause often retards the adoption of remarkable inventions. In this case it seems to have been the habit among workmen of cutting into the material of the seal instead of cutting the inscription in relief. When once the thought occurred to some one that relief cutting would leave a white ground with a red or a black inscription, the path would be open for the invention of blank forms first, and for the printing of books afterwards. What Chinese authors tell us is that seals in the Han dynasty and later left the characters white when impressions were taken from them, and further that in the Tang dynasty the characters in the impressions from seals became red. The meaning of this statement appears to be that the old seals were all or almost all cut in *intaglio* and that about the beginning of the Tang dynasty cameo cutting or cutting in relief became common. This casual remark of a Chinese author throws light on the fact that paper currency began in the Tang dynasty and at the same time the period of printing books was brought so much nearer because the artisans of that age began to engrave in relief. There was in fact Government paper money about A.D. 806 and there were printed books about A.D. 920."—*ibid.*, p. 265.

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#### *The History of Paper Currency.*

"The first attempt at paper currency in China of which any record remains was in A.D. 806, when bills of exchange were called 'flying money.' Merchants in the capital could by an ordinance then first made receive Government bills in return for the merchants' copper money. On arrival at any provincial capital

they could receive from the provincial treasurer the amount stated on the bill. There was a return to this system, which was a sort of banking facility offered to the merchants by the Government, about the year A.D. 960. A bureau was instituted in Kai-feng-fu, then the capital, for the transaction of this business.

"In 1023 Szechuen was suffering from the iron cash coinage which the Government from scarcity of copper was forcing on the people there. The paper notes then put in circulation at Chêng-tu by the Government were meant as a relief. They were to be returned once in three years. The idea sprang up among the rich merchants and was accepted by the Government, and the merchants conducted the business. The limit of capital represented by the notes was 1,255,300 strings, a string being a thousand copper cash. In A.D. 1150 the Golden Tartars had just conquered North-China, and about this time they adopted a currency in paper because they found copper scarce. Copper, silver and gold have always been chiefly found in South China. A North-China kingdom finds it convenient to use paper so far as possible, to prevent its being dependent on a southern neighbour. From this time forward, during a century of the Golden Tartars and another century of the Mongol domination, strenuous efforts were made to maintain a paper currency. Colonel YULE, Dr. BUSHELL and others have printed fac-similes of the notes of these periods. They are found, for example, in YULE's *Marco Polo* and in the *Journal of the Peking Oriental Society* published this year. All the efforts of the Government did not secure the credit of the notes at par. On the contrary, they became depreciated to an extreme degree. This, however, did not prevent the Government of the Ming dynasty, which acquired the sovereignty in A.D. 1368, from continuing for a time paper currency which was finally abandoned as silver flowed into the country through the foreign trade which brought to the southern ports a portion of the products of Mexican and Peruvian mines. It was American silver that gave the death-blow to paper currency in China. The arrival of sufficient silver was the real relief which Chinese trade required. Notes were finally abolished about A.D. 1620. Thus the conquest made by silver over paper occupied about a century or a little more, from the commencement of the trade of the Spaniards and Portuguese with Canton."—*ibid.*, p. 292.

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#### Gold in 1889.

"Gold has kept its price well in China during recent years. The constant demand from Europe to meet the needs

of the countries that have lately established a gold coinage has had its effect on the gold market in China. Germany began to absorb eighty million pounds sterling fourteen years ago. It was done in the following manner. There were in 1875 in circulation 640 million marks of small notes, equal in English currency to 32 millions sterling. They were replaced by notes of 100 marks or above 100 marks in value, that is, £5 notes and £10 notes, and by gold and small coins. Between the middle of 1875 and the end of that year notes had been exchanged for coin to the extent of £15,000,000. Paper gave place to coin in Europe just as in the Ming dynasty in China silver increased in quantity and the Government found that it would be better not to issue any more paper notes. The new love for gold in Europe has influenced the most distant money markets. Consequently Peking, Chefoo and Corea are now every year sending gold to Shanghai for transmission to Europe. They are sending all they can and as fast as they can get it ready. Take for instance the export of gold from Tientsin. The following figures appear in the Customs' Reports, and it must be remembered that it is Peking gold chiefly that is here entered :—

## EXPORT OF GOLD FROM TIENSIN.

1882	...	...	...	...	Tls.	574,414
1883	...	...	...	...	"	610,022
1884	...	...	...	...	"	112,238
1885	...	...	...	...	"	1,781,337
1886	...	...	...	...	"	1,875,976
1887	...	...	...	...	"	1,706,864
1888	...	...	...	...	"	1,898,264
1889 (six months)	...	...	...	...	"	1,044,459

"The rich families in Peking are parting with their hoards of gold because of the good price at Shanghai. Silver is cheap and all the rich property-holders of China count their treasures in taels of silver. They are attracted by the gain which they can acquire by an increase in the number of taels of silver which is paid them at Shanghai for hoarded gold, since the price of silver went down. This table shews how steady on the whole the outflow now is year after year. It went on increasing till 1886. Then it declined a little. Now it is rising again. In Chinese life it is quite common for rich families to become poor. In such cases gold ornaments will be exchanged for silver. The thick needles round which women's hair is bound, their bracelets, rings, and other

ornaments, if of gold, will, when poverty comes in at the door, be exchanged for silver. Gold thus sacrificed may go far to pay a husband's debts. Men who are not poor will give their gold to make profit by exchange. In Peking there are likely to be many rich men who have acquired wealth in the provinces and who have for convenience carried it to Peking in the form of gold. From their hoards much of the present stream is probably supplied. They see a sufficient reason when they read in the Chinese newspapers that they can obtain perhaps Tls. 23.6 of silver for one tael of gold in the Shanghai market.

"The gold sent from Chefoo to Shanghai is gradually increasing in quantity as may be seen in the following table :—

#### EXPORT OF GOLD FROM CHEFOO.

						Value in Hai-kuan Taels.
1881	...	...	...	...	...	58,848
1882	...	...	...	...	...	68,448
1883	...	...	...	...	...	48,893
1884	...	...	...	...	...	47,457
1885	...	...	...	...	...	69,520
1886	...	...	...	...	...	164,648
1887	...	...	...	...	...	140,970
1888	...	...	...	...	...	233,000
1889 (six months)	...	...	...	...	...	66,260
						<hr/> 897,544 <hr/>

"The export rose until 1882. Then it declined during two years. In 1885 it rose again during three years. Now it is falling. The highest amount it has reached has been about the value of £60,000 sterling a year. Books say little about Shantung gold. In the Book of History, lead is the only metal found there, in the section known as the 'Tribute of Yu.' In those days, four thousand years ago, gold, silver and copper came from Southern China as tribute to the emperors, the last two coming from Southern China alone. The great source for receiving gold was, however, the tribes who inhabited Tartary. War with these tribes in the first and second centuries before Christ brought to China immense amounts of gold. History mentions gifts made to victorious soldiers at one time of more than 200,000 catties. Of course it was a very small catty which was in use then. This was after a battle in which 19,000 of the Hing-nu were killed. The gold

would be taken from the captured tents and the armour of the slain warriors. All the gold then used as ornaments by Tartar men and women would naturally be brought from Siberia or the mountainous parts of Tartary.

"The gold of Corea partly is forwarded to China, but most of it goes to Japan. In both cases it is probably sooner or later sent to Europe to meet the present demand:—

## EXPORT OF GOLD FROM COREA.

					Value in Dollars.
1885 ...	...	To China ...	...	46,100	
1886 ...	...	" ...	...	218,748	
1887 ...	...	" ...	...	210,294	
1888 ...	...	" ...	...	348,564	
1889 (six months)	...	...	...	115,014	
					<hr/> 938,715 <hr/>
1885 ...	...	To Japan ...	...	388,269	
1886 ...	...	" ...	...	911,745	
1887 ...	...	" ...	...	1,177,975	
1888 ...	...	" ...	...	1,025,401	
1889 (six months)	...	...	...	339,448	
					<hr/> 3,836,838 <hr/>

"There seems to be no probability of a rapid increase in the yield of Chefoo gold or that of Corea. The native apathy in regard to the existence of gold in various parts of Shantung promontory is noticed by Dr. WILLIAMSON in his *Journeys in North-China*. Yet there is a sufficient yield of the most precious of metals to warrant the expectation that after a time Shantung may produce gold in greater abundance. The legal prohibition to search for gold has led to the surface only being scratched. To dig beneath the surface is to deprive the land of its prosperity. This belief has influenced both the people and the Government. The consequence is that more is left for the men of coming ages. In Australia the abundance of gold does not diminish as the works become deeper, and it is expected that they may be continued for a depth of two thousand feet, and gold still be found. If this view is correct, China must have a good prospect of obtaining large

quantities of gold in future years, not only in Shantung but in many parts of the southern provinces and on the southern slopes of the Altai mountains in particular. The present drain of gold from Shanghai does not alarm the Chinese much, but it must later produce an effect on them. The following table shews the present condition of the export:—

EXPORT OF GOLD FROM SHANGHAI.

					Value in Haikuan Taels.
1886 ...	...	...	...	...	1,746,248
1887 ...	...	...	...	...	3,449,853
1888 ...	...	...	...	...	2,018,899
1889 (six months)	...	...	...	...	862,875

"The maximum was as appears from these figures about eight hundred and thirty thousand pounds sterling in 1887. The amount of export is now declining. This is not because the demand in the west is less, but more probably because there is a limit to the quantity of gold which the holders are willing to convert into silver at the current price."—*ibid.*, p. 437.

*Customs Duties at Newchwang.\**

23rd September.—"The Viceroy Li submits a return of the duties received by the Foreign Customs at Newchwang during the quarter ending 30th September 1888. The accounts have been audited by the Commissioner of Customs and a *Wei-yuan* acting under the direction of the Taotai at the port, and the total collection for the period in question is shown to be Tls 110,155.2.2.9.4, of which a sum of Tls. 72,340.9.2.7.8.5 has been appropriated for the payment of troops and miscellaneous expenditure. The balance remaining over from the present and previous quarters is Tls. 74,511.7.0.6.9.3.6."—*ibid.*, p. 445.

*Silver in China.*

"The silver used in China as a circulating medium in her commerce has been increasing, in quantity especially, for four hundred years, and most rapidly of all during the present

\* Note the six places of decimals in the totals.



century. Each industrious Chinaman represents so much wealth by his labour, that is, so much silver, for silver has now for several centuries been the standard of money value in this country. The increase of population means an increase of wealth wherever there is scope for industry; and in localities where opportunity is wanting, it leads to emigration. At the beginning of the Ming dynasty, in the latter half of the fourteenth century, the public currency had fallen into a most unsatisfactory state through the Government not being able to maintain the credit of the paper notes then used. Yünnan was conquered, and it contained many silver mines, and these were worked to increase the quantity of silver then rapidly coming into use as a medium of exchange. We are told that in 1578 the Government received from Yünnan 13,764 taels in paper money, 944 piculs of grain and 5,769 strings of shells. Two hundred years later the amount received in hemp, cloth and silver amounted to 14,801 taels of this last metal. The strings of shells used as money had disappeared. The cumbersome grain tribute in heavy bags had become changed for silver. But hemp and cloth were still received by the Government tax-collector because they could be exchanged for silver, and the expense of conveyance of these articles was not very great. Yet after a few more decades this mode of paying taxes will again be exchanged for silver, which in a country like China has proved to be the most economical form of tribute. The Government in these circumstances began to prize silver very highly. It keeps its value as an article in great request for ornamental work. It is cheaper to convey than other kinds of tribute. It is acceptable in trade, and the merchant is far more willing to part with his goods for silver than for paper money. Hence the Government made efforts to obtain more of it. They set criminals to work in the mines of Yünnan. This was in 1460; and they do not seem to have allowed Chinese employers of labour to manage mining operations. They considered it good policy to keep the mines in their own hands, and they ordered the high officers to report fully on any failure in the working or diminution in the yield of metal. Then in 1463 the works were suddenly ordered to be stopped, probably because of earthquakes, for a few years later, in 1511, the Governor of Yünnan sent up a memorial advising that all the mines should be stopped, on account of fresh earthquakes; but they were opened again in 1514, notwithstanding other objections which were pressed at the time, such as the gathering of a rough-spirited population at the mines, and the neglect of agriculture in the province leading to want of food to supply the needs of immigrants. At this very time American silver began to enter the country through foreign trade at Canton and Amoy. More silver was thus introduced and a real need

supplied, for it enabled Government to abandon both the shell currency in the south-west and the paper currency everywhere, and the merchants were very glad to see the last of the Governments, (*sic*) and to have in their place this shining metal. Silver was now wanted by every one, to keep in store or use in buying as he pleased.

"The value of silver in copper cash has gone through great vicissitudes. It has been three thousand and it has been one thousand per tael. In A.D. 1696 a tael of silver was worth 1,750 cash, and it is now, A.D. 1889, worth 1,380 in the Shanghai market. In the reign of Yung Cheng, about A.D. 1730, thirty-six taels of silver were paid for a month's maintenance to twenty-one workmen at cash foundries in Yunnan. That is to say, one ounce and three-fourths of silver would then support an able-bodied workman for a month. In 1555 the casting of cash in Yunnan was commenced, on account of copper being produced there in abundance. The disuse of paper made a new supply, both of silver and of copper cash, a necessity, and from that time forward both metals have been needed; and when the growth of population is remembered they must still continue to be required in increasing quantity. Two centuries ago the workman could live for 100 cash a day. Now more is required, because prices have risen and every one who carries on his shoulder his baskets of market-produce from his little farm to the adjoining local centre of merchandise, expects more money for it than his grandfather did. The old currency needs to be modified to meet the new conditions. Copper cash are not enough for the uses of common life. Silver is required to do what the cash, through gradual sinking in value, cannot do. Two hundred cash are wanted to buy that amount of food and clothing for which in former times one hundred would have been enough. That is to say, the man who goes to market to buy must carry with him twice as much weight in copper as his great-grandfather did. It is more convenient in these circumstances to have small silver coins, and this is our convenience in the west, or small notes issued by native banks and properly stamped and inscribed may be used, as they still are in Peking.

"Yet small silver coins could not now in China take the place of copper cash. Copper must continue to rank in China as the most widely useful of all currencies, because of the disproportion in the expense of living in large cities and in country districts, and the wide differences in climate existing between the north and the south and between mountain and plain in so large a country as China. That coin is most adapted to China which has the most minute divisibility. A dollar which is now worth  $3/3d.$  is divisible into a thousand separate coins composed of a mixture of copper and

zinc. It suits the prices of marketable articles and the incomes of the people to retain this sub-division in current coins. Even silver is circulated in very small lumps as well as in large ones, and the small hand steelyard used in weighing it is sub-divided into hundredths of an ounce. Such a steelyard is part of the kit of every traveller, as a check on the weighing of the money-shops."—*ibid.*, p. 584.

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### *Copper Cash.*

"The older books written by Chinese archæologists on the history of *cash* contain at the beginning examples of money professing to come down from the primitive ages. Some of them belong to Fuhí and others to Shennung. The foreign collector of *cash* ought to know if he has such coins in his cabinet that this immense antiquity is given to them by mediæval mythmakers. The best modern numismatists do not recognise such a claim. Yet they appear in a book of so much authority as *Hsi Ch'ing Ku Chien*, compiled by an imperial commission and published A.D. 1749. Seven hundred years ago, when the capital was at Hangchow, the first complete book on Chinese coins was published. Since that time archæologists have been numerous and a persistent effort has been made to collect newly-found coins. Builders of houses and walls, countrymen at work in the fields, restorers of bridges, and diggers of canals in any part of China, from time to time meet with old cash which are added to the current coins in circulation or are sold or presented to local numismatists. There never has been a law against the use of old cash mixed with the new, nor has there been any official effort made to collect them, and in consequence it is an everyday occurrence to meet with coins made a thousand years ago. The traveller in China does not know, unless he examines carefully, how many relics of distant centuries constantly pass through his hands or through those of his 'faithful Achates.'

"The chief interest attaches to coins of a time anterior to the bookburning—B.C. 211. That was the period when literature and the arts and sciences took a mighty spring upward. It was the time when great books were written, destined to be ever after preserved by a grateful nation as those precious heirlooms which a mad conqueror in his enmity against the sages failed to destroy. The coins of that time are indicators of progress in commerce and the arts in various localities of Northern China. We may consider it as proved that bronze casting and the manufacture of iron implements as well as goldsmith's and silversmith's work were

well advanced long before Confucius. The history known as *Kwo yü* shews that this was the case in regard to work in bronze. But cash were cast before B.C. 524, for it is recorded in that year that larger coins than had been before made were then cast in Honan on the banks of the Yellow River by order of the Chow emperor. From the collections of the numismatists it appears that a square hole in the middle and a legend of two characters were in use as early as this in Chinese coins. *Hwo* was the word for 'money,' meaning that which is changed (*hua*) for something else. *Pao*, 'valuable,' was prefixed to it. But coins must have existed before this, and in the Han dynasty it was fully believed that Kiang Tai-kung, the chief minister of Wên Wang in the 12th century before our era, introduced them in Shensi when in office and afterwards in Shantung when he retired to his principality. His special repute is for advancing commerce, and it was under his fostering care that the salt trade of Northern Shantung came to exercise a decided influence on the development of internal commerce in ancient China. The history of Pankoo ascribes to Kiang Tai-kung the origin of round coins as distinguished from knives and pieces of cloth. We may adopt this view and may connect it with improvements in metallurgy and new acquisitions of foreign knowledge at the beginning of the Chou dynasty. If Kiang Tai-kung is rightly credited with the origination of round cash, the period of that improvement is then fixed to the 12th century before our era. Yet it may be that he is credited with it because he promoted trade and was possessed of political sagacity shewn in other useful measures. If at any time between the eleventh and fifth centuries before our era the coins called *cash* were introduced by any statesman in Northern Shantung, whose name did not shine out with lustre in history, it was very likely that the improvement would be attributed to Kiang Tai-kung. It would be by a suggestion from the strings of sea-shells then used as money that the idea of a hole for stringing the new copper coins would be most probably derived. Further it would be before the time of Kwan Chung, the great administrative statesman of the seventh century, for in the book purporting to be written by Kwan Chung, there are several references to the coining of cash, but the compiler does not attribute the invention to Kwan Chung himself. Perhaps in these circumstances it may be best to assign the first round metal coinage to about the ninth century, the age of Sinen Wang, when the country was prosperous and wars were conducted successfully. But this may be too late, and there is really no very strong reason based in the old literature of China why to Kiang Tai-kung the honour of introducing a copper currency should not be assigned. The remarkable old work *Chowli*, in describing the

administration through all its departments mentions among them a cash office for the manufacture and issue of cash. But this book was probably small at first, and its bulk increased from one period to another, and this particular statement may have been inserted, we know not when, by some unknown official. We must wait for more discoveries from underground. The railway from Peking to Hankow will in Chihli and Honan proceed through a country occupied by a people who for four thousand years at least have ploughed and sown the land, carried the produce to market, exchanged it for something necessary for use or ornament, and returned to their homes with their new possessions. The railway works may anywhere in that region, 'rich with the spoils of time,' yield interesting treasures which will throw light on the past. Should there be a line made from the city of Confucius, or from Taishan to the north of it, to Tientsin, it would bisect the very territory which belonged as a feudal fief to the traditional founder of the copper currency of China. As about many other ancient matters, so on the question of the origin of this currency, our successors will know with certainty what now cannot be determined.—*ibid.*, p. 745.

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## CORRESPONDENCE.

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### THE PRESERVATION OF THE NESTORIAN TABLET AND OTHER ANCIENT MONUMENTS AT SI-AN-FU.

The following correspondence on this subject has passed between the President of the China Branch of the Royal Asiatic Society and the *doyen* of the Diplomatic Body at Peking :—

CHINA BRANCH OF THE ROYAL ASIATIC SOCIETY,  
SHANGHAI, 24th February 1890.

SIR,

In accordance with a resolution lately passed at a meeting of the Council of the China Branch of the Royal Asiatic Society, I have the honour to bring to Your Excellency's notice the condition of the interesting monument at Si-an-fu known as the Nestorian Tablet. Your Excellency will see from the accompanying photograph that it is now entirely exposed to the weather. When it was seen some years ago by the Rev. A. WILLIAMSON, who has handed me this photograph (taken by a recent visitor) for transmission to Your Excellency, it was supported by a brick wall. This wall has now been removed, and the monument, being quite unprotected, is likely to suffer rapid deterioration. There are several other tablets in its vicinity of great historical interest to China, and it is thought that the high officials at Peking might possibly be induced, on Your Excellency's representation, to take steps for the protection of all these monuments. On behalf of the Asiatic Society, I venture, therefore, to beg that Your Excellency will be good enough to mention the matter in the proper quarter, with a view to the

conservation of these monuments, and especially of the Nestorian Tablet, which has so long attracted the attention of all interested in the history of the ancient relations between China and Western countries.

I have, etc.,

(Signed) P. J. HUGHES,  
*President of the China Branch  
of the Royal Asiatic Society.*

To H.E. Herr M. VON BRANDT,  
*Minister of the German Empire,  
Doyen of the Diplomatic Body,  
PEKING.*

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GESANDTSCHAFT DES DEUTSCHEN REICHS ZU PEKING,  
PEKING, 15th March, 1890.

SIR,

I have the honour to acknowledge the receipt of your letter dated 24th February, referring to the Nestorian Tablet at Si-an-fu, and to inform you, in reply, that my colleagues and myself have had great pleasure in forwarding the request of the China Branch of the Royal Asiatic Society for the preservation of this interesting relic of ancient times and Christianity to the Tsungli Yamên, and in recommending it most warmly to the attention of His Highness Prince CH'ING and their Excellencies the Ministers.

I have, etc.,

(Signed) M. VON BRANDT,  
*Minister of the German Empire.*

P. J. HUGHES, Esq.,  
*President of the China Branch  
of the Royal Asiatic Society,  
SHANGHAI.*

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GESANDTSCHAFT DES DEUTSCHEN REICHS ZU PEKING,  
PEKING, *March 25th*, 1890.

SIR,

Referring to my letter of 15th inst., I have the honour to bring to your knowledge that the Tsung-li Yamên have informed my colleagues and myself that they have written to the provincial authorities of Shensi to see that the local authorities take the necessary steps for the protection and preservation of the Nestorian Tablet at Sianfu.

My colleagues and myself would feel very much obliged if the members of the learned Society whose President you are would let us have from time to time such information as they may be able to get as to the efficacy of the measures adopted by the local authorities.

I have, etc.,

(Signed) M. VON BRANDT.

P. J. HUGHES, Esquire,

*President of the China Branch of the*

*Royal Asiatic Society,*

SHANGHAI.

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CHINA BRANCH OF THE ROYAL ASIATIC SOCIETY,  
SHANGHAI, *2nd April*, 1890.

SIR,

I have the honour to acknowledge the receipt of your Excellency's letters of 15th and 25th March on the subject of the protection and preservation of the Nestorian Tablet.

The members of our Society, to whom I shall take an early opportunity of reading your letters, will be much gratified to learn



that the provincial authorities of Shensi have been instructed by the Tsung-li Yamên to take the necessary steps for the protection of the Tablet.

On behalf of the Society I beg your Excellency and your colleagues to accept my sincere thanks for the interest which you have shown and the trouble you have taken in this matter.

I have, etc.,

(Signed) P. J. HUGHES,  
*President.*

To His Excellency

Herr M. VON BRANDT,

*Minister of the German Empire,*

*Doyen of the Diplomatic Body,*

PEKING.

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## LITERARY NOTE.

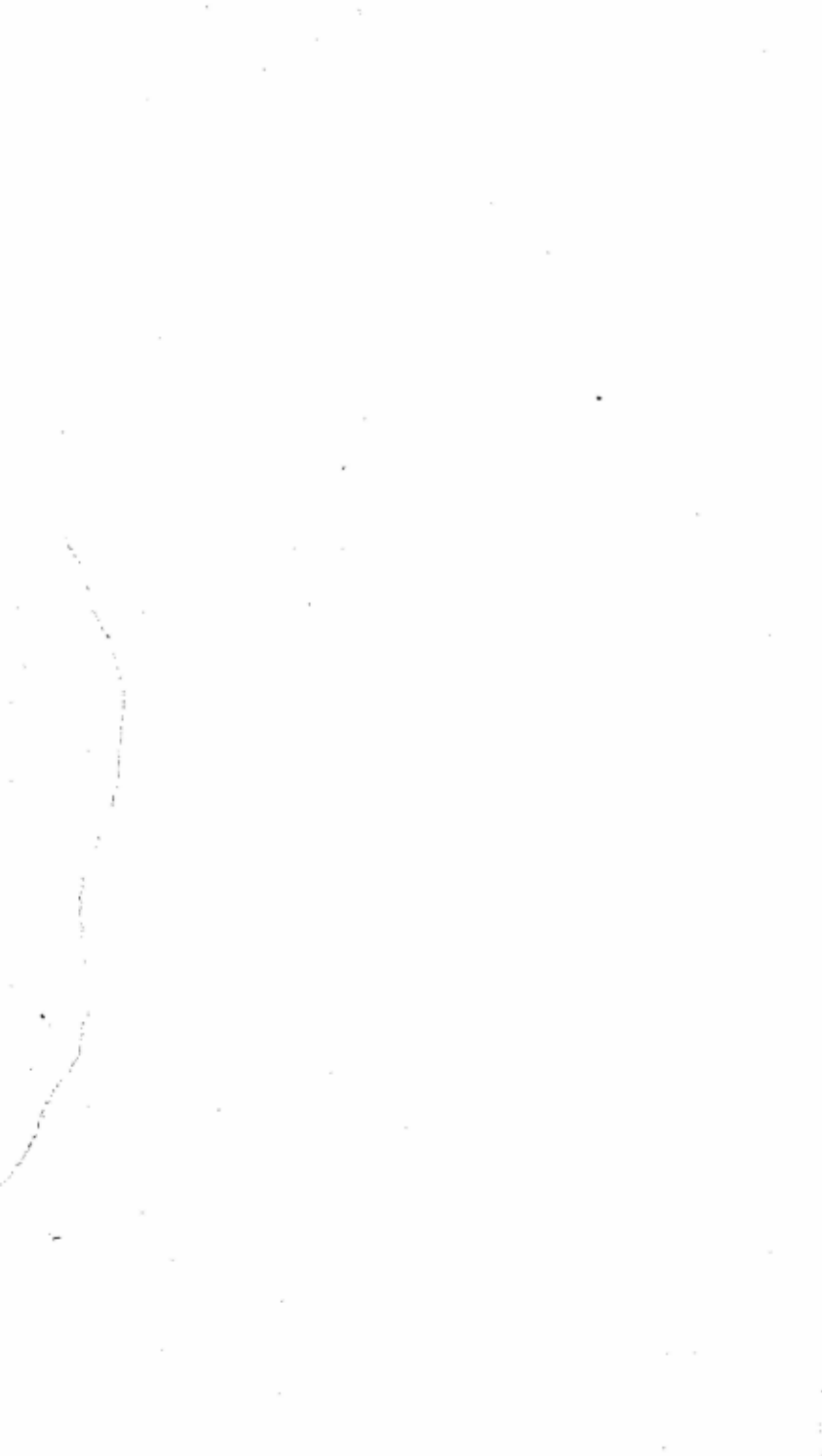
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We hear that Prof. LÉGER of Oxford is engaged in preparing a new English version of the Chinese philosopher Chuang-tzū. In order to be quite independent in his renderings, the learned translator proposes to take no cognizance of Mr. GILES' translation of the same work.

It will be interesting to observe to what extent the two authorities will agree or disagree.

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# PREHISTORIC CHINA.

By ERNST FABER, DR. THEOL.

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## INTRODUCTION.

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Prehistoric China! Prehistoric means "before history." Not that we should suppose China had ever been without a history. Life, and especially human life, means history. Wherever there is life there are changes of various kinds, and there is development of some kind. We have, therefore, to take the word "history" in a narrower sense, as "Writing on History." Prehistoric China, then, means China as it existed before *reliable* historical records were written about its state and the events of life within its boundaries.

Chinese history begins with the Annals of the feudal state of Lu, 722 B.C., published by Confucius 240 years later. Though even this work has suffered somewhat by the doctrinal tenets of Confucius, still we find in it a statement of facts and a natural order of events. There are also other records of that period preserved by which many statements of the Confucian text can be verified and others rectified. Of the time before the eighth century B.C. we find no such trustworthy historical records in China. Although there are still a number of documents in existence supposed to belong to earlier periods, we have no unquestionable evidence of their authenticity, but strong arguments to the contrary. The safest position that can be taken under such circumstances is to regard all documents of such earlier literature of China as productions of the time of Confucius and succeeding ages. Many of those works, are, we admit, based on earlier traditions and, it may be, even on earlier written memoranda, but facts

and legends, truth and imagination, original statements and later enlargements are deplorably mixed together. We need a trustworthy guide to lead us through such labyrinths. The same is true of other traditions and folk-lore preserved by later writers. There are also ancient monuments and other relics of antiquity found in China, all of which should be examined and compared, but we have no access to them. No Chinese museum is at our disposal where we could find antiquities of all ages, well arranged for comparative study. Thus it seems almost hopeless to arrive at anything reliable in regard to the earliest history of Chinese life.

There is, however, fortunately enough, still a rich mine of solid historical metal unworked at our feet—I mean the Chinese written characters. Much has been written on Chinese Writing, but the written characters have not yet been used as guides into the remotest antiquity of China. This is the purpose of the present paper. Every written character, taken in its isolated value, without reference to the composition and meaning of sentences, is a *historical monument*. But some characters are of an earlier, some of a later, date. By applying a truly scientific method we are enabled to follow the stream of Chinese writing upward to its source, from the myriads of written characters of the present day to its one hundred elementary characters of about 4,000 years ago. These 100 elementary characters, each of which is a sketch of an object out of the scenery of Chinese life 4,000 years ago, will reveal to us Prehistoric China in an astonishing comprehensiveness of detail.

In opening thus a new path of research it can, of course, not be expected that every step should be smooth at once as on well-trodden ground. But the path is leading to a summit, and the view from there over many important questions relating to Chinese antiquity will more than repay

the outlay of time and labour. The results will be decisive in some respects. May qualified scholars improve on the imperfections of this rough-hewn attempt.

For an easier understanding of the paper with all its detailed arguments, a short statement of its method and a brief summary of its results will be welcomed by the student. The attribute of "truly scientific" is claimed for the method. *Facts* and *evidence* are alone the materials it works with. The facts are the myriads of Chinese written characters of the present day. Most of these characters are composite forms. By analysis we reduce them to their component parts of simple characters, *i.e.*, into forms still recognizable as characters and not further reducible. Thus we arrive at about 100 Elementary Characters. I say *about* 100, without giving a definite number, because the ancient forms of some characters are undecipherable. A few examples may suffice for illustration:—**蝌** from the classifier **虫** and the primitive **科** a compound of **禾** and **斗**. Thus we find the three elementary characters **虫**, **禾** and **斗** as component parts of the character **蝌**. The meaning of each component part is, beginning at the left side, "worm," "grain," "peck." As, however, the two latter characters form a primitive, and as such only indicate the pronunciation, which is in this case *k'o*, we arrive at the meaning—a worm called *k'o*, or a tadpole.

**葆** is composed of **艸** and **保** = **亻** or **人**, **口** and **木**, altogether of four elementary characters.

**厯** of **木** and **厯** = **厂**, **日**, **月**, **犬**, five elementary characters.

**歡** of **欠** and **藹** = **十**, **口**, **隹**, four elementary characters, the last being the figure of a bird in ancient writing.

**麤** of **火** and **糜** = **广**, **木**, **米**, (the latter probably derived from **木**); thus we get either three or four elementary characters.

興 of 目 and 吳 = 匕, 乚, 人, four elementary characters.

衢 of 行 (which is a composite classifier) and 瞿 = 目, 隹, three elementary characters.

羸 of 女 and 羸 = 亡, 口, 月, 凡, five elementary characters.

夷 of 大 and 弓, two elementary characters.

Examples of characters not decipherable are 也 and 帝.

Analysis of the modern Chinese written characters leads to the following facts :—

- (1.)—The whole multitude of Chinese characters can be divided into two natural groups—*phonetic* and *non-phonetic* ;
- (2.)—All phonetic characters are composed of a classifier and one other character, simple or compound, called primitive ;
- (3.)—The non-phonetic characters are also either simple or compound ;
- (4.)—All characters are reducible to about 100 simple characters ;
- (5.)—Most of these simple, or elementary, characters are contained in the list of 214 classifiers ;
- (6.)—Every elementary character is a rude outline of an object ;
- (7.)—The form of the elementary character contains no indication of its pronunciation ;
- (8.)—We meet with elementary characters modified by turning or by simple additions which are not characters ;
- (9.)—We find two or more elementary characters combined into a new character without indication of pronunciation ;
- (10.)—We find simple, or more frequently compound, characters used to indicate pronunciation ;



The facts formulated in these ten paragraphs are beyond dispute. From them we draw two conclusions with mathematical exactness :—

- 1.—*Elementary characters must have been in existence before compound ones ;*
- 2.—*Compound characters existed before they were used to indicate sound, (i.e., as primitives).*

By these two conclusions three periods of writing are established in logical order :—

- 1.—Elementary characters, or Period of Pictorial Writing ;
  - 2.—Their modifications and combinations, or Period of Ideographic Writing ;
  - 3.—Their use to indicate pronunciation, or Period of Phonetic Writing.
-

## HISTORY OF CHINESE WRITING.

The facts are taken from Pan Ku's *History of the Han Dynasty* (前漢書) and from the writings of Tuan Yü-ts'ai (段玉裁), a famous writer under the present dynasty (*see* 皇清經解, Books 567-666). The *Imperial Encyclopædia*, (古今圖書) has been compared, but to no advantage. Other works will be mentioned in the course of the essay.

The earliest attempt at making records was by knotted cords. (Notice the striking similarity in the English word record). The invention of these Quipos is attributed to Sui Jen (魃人), by other traditions to Shen Nung (神農). Both of them are legendary Beings. The early use of quipos is, however, a fact, as they can still be seen among the Tu-fan and Si-fan in Tibet and among the Miao Tsz in Kweichow Province. "When making a contract they bind cords on pieces of wood, the number of knots showing the number in the agreement."—(WUTTKE, *Geschichte der Schrift*, p. 243.)

Fuh Hi ordered Flying-dragon (飛龍氏) to draw the eight trigrams. In the *I-king* (*see* Dr. LEGGE's translation, App. III, Chap. ii, 11) it is said:—"Anciently, when Pao-hi (=Fuh Hi) had come to the rule of all under heaven, looking up he contemplated the brilliant forms exhibited in the sky, and looking down he surveyed the patterns shown on the earth. He contemplated the ornamental appearances of birds and beasts and the [different] suitabilities of the soil. Near at hand, in his own person, he found things for consideration, and the same at a distance, in things in general.

On this he devised the eight trigrams, to show fully the attributes of the spirit-like and intelligent [operations working secretly], and to classify the qualities of the myriads of things."

This passage exhibits fine imagery and beautiful style, but goes far beyond any possible meaning of the eight trigrams. If it could be applied to the elementary characters of Chinese writing, which will be treated in the following pages, we should praise this passage as an excellent description of them. As it stands, it is nothing more nor less than an example of first-rate composition from the school of Confucius.

Hwang Ti (2700 B.C.) ordered Ts'ang Hieh (倉頡) to observe the course of stars and note down the traces of dragons and birds. Thus were formed the tadpole characters (蝌蚪). It is also stated that another minister of the same emperor, the court-recorder Tsü Sung (沮誦), (MAYERS, *Chinese Reader's Manual*, 747), assisted Ts'ang Hieh. Certain it is, that the two together are worshipped as the "Gods of Writing" (字神). That Ts'ang is commonly mentioned alone is explained as "brevity of style" (文略也). As Ts'ang is described as having had four eyes, we have to take all tradition about him as myth.

From Hwang Ti we have to pass over at least 1,500 years without finding another notice on writing. After the establishment of the Chow dynasty, (commentators say during the reign of king Ching, 1115-1079 B.C., but the first commentator lived 1,200 years later) some officers, called Pao Shi (保氏), used the *Six Scripts* (六書) to teach their royal pupils. (See *Chow Li* 地官, xiii, 27, of the small Imperial edition). This statement may be true, though we regard the *Chow Li* as a later compilation (about 200 B.C.) of everything known about official duties, to their latest development during the Chow dynasty. The idea that Duke Chow should have written all those details at the very commencement of

the dynasty is too absurd for refutation. The great prominence given to categories, or short formulas, into which all theoretical as well as technical knowledge is reduced, points to repeated teaching by masters of the art. A few such categories may have become formulated in remoter antiquity, but the *Chow Li* shows such a remarkable perfection in this line, that it can only have been the result of those great schools of Taoism and Confucianism which flourished from the sixth century B.C. to the close of the Chow period.

The text of the *Chow Li* says nothing of the contents of the *Six Scripts*. In the commentaries we find Cheng K'ang-sheng's (A.D 127-200) description:—first, figures; second, ideas; third, inversions; fourth, relations; fifth, of metaphorical meaning; sixth, phonetic characters. This appears to be a record of ancient tradition. The historian Pan Ku gives the six forms in another order, as: first, 象形; second, 象事; third, 象意; fourth, 象聲; fifth, 轉注; and sixth, 借假. Though Pan Ku lived earlier than Cheng K'ang-cheng, his statement must be of a later origin. We can easily discover the reason why the order was altered,—merely to put together all the 象, pictures of forms, pictures of affairs, pictures of ideas, pictures of sounds; these four categories exhausted whatever the author considered expressible by pictures. It is a theoretical arrangement, and even as such not quite adequate, as the fifth group contains figures of the first simply turned around, pictures of changes. We see, however, from these different statements that the forms of the written characters were an object of study in China a few centuries before the beginning of the Christian era. Taking everything into consideration, we have to place the *Six Scripts* AFTER the invention of the Great Seal characters. The Pao-shis of the Chow dynasty were probably the first teachers of Chinese writing. They brought the whole number of characters, for their own and their pupils' convenience sake, into six groups.

This was the first attempt at a systematical arrangement of all known characters, and an improvement on Chow's work on the Great Seal characters. These six groups were well adapted to the characters then in existence, as the greater part were elementary or ideographic, only a few being phonetic. But these phonetic characters multiplied so much during the classical period, about 550-300 B.C., that in the revival of letters during the Han time the old system of six groups, which had already fallen into disuse, was found impracticable, and a new method had to be adopted. No work on the *Six Scripts* was published till some centuries after the *Shwoh Wen*. This *Shwoh Wen* brought the new method of arrangement by Classifiers to light, which gave it the most decisive success. It is an artificial system compared with the natural system of the *Six Scripts*. But the *Six Scripts* were practicable only for a small number of characters. The very existence of its arrangement is a proof that the number of characters was limited to some hundreds in one class, most probably not much exceeding one thousand as sum total.

In Pan Ku's Catalogue of the Han Library, twelve works dealing with the subject of Written Characters (小學) are mentioned, the first of which is that by the historiographer Chow (太史公). He lived under the Emperor Suen, 827-782 B.C., and was the inventor of the Great Seal characters (大篆). He wrote fifteen slips called "Chow's Book;" six of them were lost in the Kien Wu time, A.D. 25-55, and, consequently, nine were then still in existence. The total number of Chow's Great Seal characters may have been about one thousand. The proof of this calculation will be seen below. During the time of the Contending States, when China was divided into seven quasi-independent kingdoms, every one of them had its own agricultural method, its own width of carriage-wheels, its own criminal law, its own fashion of dress, its own language and its own writing.

After the Emperor of Ts'in, Shi Hwang, had united the states into one absolute monarchy, his prime minister Li Sze (李斯), (MAYERS, 368), treated with scorn any writing which did not agree with the letters (文) of Ts'in. He published a book on the subject (227 B.C.) Two other scholars, Chao Kao (趙高) and Hu-wu King (胡毋敬) also wrote independently. A village teacher (officer), 閭里書師, of the Han dynasty (probably between 200-150 B.C.) united these three works into one, with the title 蒼頡一篇. He put sixty characters into one chapter and obtained 55 chapters, which gives a total of 3,300 different characters. These are the Small Seal characters (小篆), and are meant whenever *Chuen shu* are quoted by the *Shwoh Wen*. The Great Seal characters were from that time commonly quoted as "Old Style" (古文).

The scholar Ch'eng Miao (程邈), (MAYERS, 110), during ten years' imprisonment, improved on the Great Seal characters in another way, and produced the form called 隸 or 隸書 (Li shu), (200 B.C.) Yü-ts'ai does not mention Ch'eng, but says that this form of characters was invented by officers of prisons who had much writing to do. It became official business style. Yang Hung (楊雄), (MAYERS, 883), republished the village-teacher's work (A.D. 1), and added 34 chapters, i.e., 2,040 new characters. His work, entitled *Huen-tswan* (訓纂), contained altogether 5,340 different characters in 89 chapters. Not one character was repeated (一無重複也).

Kia Fang (賈魴) added to Yang Hung's work 34 chapters, including 13 chapters written by Pan Ku (班固). Thus his work contained in all 7,380 different characters, in 123 chapters. None of the above-mentioned works have been preserved. Hsi Shen (許慎), however, digested all works that existed in his time, and finished his great *Shwoh Wen* (說文) in the year 100 A.D. It contains 9,353

different characters and 133,441 characters for explanation. To the original number of different characters the author afterwards added 重, 1,163, including 396 ancient forms, 145 forms from Chow and 622 doubtful forms (*see* 說文管見). As the work had suffered more or less in the course of time, Ta Tsü (大徐), (A.D. 986) revised it. All modern editions follow Tsü's text. It contains 9,431 original characters, *i.e.*, 78 more than Hsü's, and 1,279 additional characters, *i.e.*, 116 more than Hsü's. The explanatory characters, however, are 10,742 less than Hsü's.

Hsü in his work explains first the sense (義) of each character; secondly, its form (形); and, lastly, its pronunciation (音). The *Shwoh Wen* has remained a standard work among the Chinese. As it contains not only a repository of the ancient form of so many characters, but also a summary of the current meanings attached to them about 2,000 years ago, its value among Chinese scholars is even on the increase, especially among the Han school of Confucianists.

The Confucianists are, and have been during 600 years, divided into two contending parties—the Sung school, with Chu-fu-tsz as head, which is the dominant party, with Imperial sanction for the State examinations, and the Han school, which attempts a grammatico-historical understanding of the Classics. The controversy is still going on, not without heat and bitterness. Several new editions of the *Shwoh Wen* have appeared during the last few years, and a number of critical essays on its contents have been published separately. The introduction of Classifiers was of the greatest benefit to Chinese students. Though Hsü Shen is not mentioned as their inventor, his *Shwoh Wen* is the first work known of that makes use of them. After the invention of paper and of the hair-pencil (about 300 A.D.) the elegant forms of writing, 楷書 and 行書, came into use, and after the invention of cutting blocks and printing from them (about 10th century A.D.), the present form used in printing, called Sung pan (宋板), first made its appearance.

Several kinds of fanciful characters were already known to Pan Ku. In the Han Catalogue he mentions a work (八體六技). The commentary explains the 8 *t'i* as (1) Great Seal, (2) Small Seal, (3) Puzzle (刻符), (4) Animal style (蟲書), (5) for Stamps (摹書), (6) Court style (署書), (7) Spear style (殳書), (8) Business style (隸書). Nothing is said of the *six chi*. The numbers 3, 4, 5 and 7 were fancy-styles, and should serve as a warning against the supposition that inscriptions showing characters of uncommon forms should be considered as very ancient. Many varieties of the Seal characters are brought together in a recent Shanghai publication (孫鳳居先生百體篆書千字文).

The number of written characters had already increased to nearly 25,000 during the Sung dynasty. A further increase is known from K'ang Hi's Dictionary, which contains about 45,000. A list of dates and numbers will be interesting, and cannot but corroborate my conclusions respecting Chinese writing in the beginning of the Chow dynasty:—

Authority.	Period.	Number of different characters.	
	B.C. 2000?	100?	Beginning of elementary characters.
	" 1200	500?	Beginning of ideographic characters.
Chow	" 800	1,000?	Beginning of phonetic characters.
Village Scholar	" 200	3,300	(Increase of 2,300 characters in 600 years).
<i>Shwah Wen</i>	A.D. 100	9,353	(Increase of 6,053 characters in 300 years). Beginning of the use of classifiers.
Ching Ts'iao	" 1150	24,235	(Increase of 14,882 characters in 1,050 years).
K'ang Hi	" 1720	44,449	(Increase of 20,214 characters in 570 years).



This table shows us an increase of 34,000 characters in the course of 1,600 years, or about 2,000 characters for every century. But from the publication of the *Shwuh Wen* back to the historiographer Chow there are nine centuries, and these include the classical period of Chinese literature, and its revival during the Han dynasty, times of the highest mental activity and productiveness. A period of 900 years is certainly quite sufficient to account for the formation of about 8,000 different characters. [Compare the chapter "The Formation of Chinese Phonetic Characters, a Never-Finished Process," given a few pages farther on].

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#### CONCLUSIONS FROM THE HISTORICAL STATEMENTS.

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In looking over this short sketch of the History of Chinese Writing, we notice at once that every item belonging to the time before the beginning of the Chow dynasty is mythical. Attempts may have been made to record important events in one way or another, as by quipos, trigrams, figures, etc. This was, however, not writing in the sense of expressing and fixing thought, but served merely to assist the memory by some incontrovertible marks. As soon as definite reasoning had to be expressed in writing, figures were found insufficient, and speech itself, i.e., the expression of thought in sounds, had to be represented. Sound is to man the medium between his mind and external form. The origin of writing, in the proper sense of the word, is, consequently, the introduction of the phonetic element into some ancient forms of figure-representations,

In combining the evidently reliable statements of ancient Chinese authorities on the invention of the Great Seal characters, about 800 B.C., on the *Six Scripts*, no matter whether we place them before or after the Great Seal characters, though the latter is more probable, and on the small number of written characters at the revival of classical learning during the Han dynasty, 300 years after the revision of the Classics by Confucius, we come to the inevitable conclusion, that the beginning of Phonetic Writing in China must fall within the period of the Chow dynasty, *i.e.*, some time after the year 1200 B.C. It is possible that Chow, the inventor of the Great Seal characters, is the inventor of phonetic writing in Chinese, but it is also possible that he merely brought into general acceptance, through his new form of written characters, what had been of spontaneous growth before his time. There can be little doubt, that it was Chow who commenced Writing, in its proper sense, in China. Chow's fifteen slips are probably the First Book written in Chinese. But this does not exclude the existence of memoranda of various kinds. Even Confucius' edition of the *Annals of Lu* resembles old memoranda. This is a conclusion of very serious import. All monuments of literature, including some very famous portions of the Sacred Books of China, said to be older than the Chow dynasty, are thus pronounced to be later productions. It would have been impossible to compose those documents with characters consisting of figures of objects and ideographic combinations. As all the literary remnants of Chinese antiquity show a predominance of phonetic characters, none can be older than the Chow dynasty; they are, most likely, later than Chow's, (8th century B.C.) A few documents may, however, contain some more ancient matter in a revised form.

There may have been other dynasties before the Chow, such as the Hia and Shang, but their government can have been neither extensive nor powerful. Meagre lists of the names of their kings are perhaps the only genuine records of their times. Any detailed stories such as of Yao, Shun, and Ching Thang, are legends which grew into shape a few centuries before Confucius. Not even the *Book of Odes* contains an allusion to Yao and Shun.

Writing cannot have amounted to much even in the first centuries of the Chow dynasty, till Chow invented the Great Seal characters, about 800 B.C. Of what shape the characters were before that time I have tried in vain to find out from all available Chinese sources. What the Chinese maintain to be the most ancient inscriptions show Seal characters, some of them rather fanciful, others more or less modified, but nevertheless *seal* characters of very uncertain date, it may be a few centuries B.C. or even many centuries A.D. Some other evidence is required to determine their age. Very remarkable is the fact, that the reliable history of China has its beginning with the invention of the Great Seal characters. As the reliability of ancient history is everywhere dependent on the way of its transmission, we are certainly justified in combining these two events. Chinese history became accurate, because Chow's invention enabled the historiographers to give their records a higher finish and to mention also many interesting details which it was before impossible to describe for want of a sufficient number of written characters.

The number of written Chinese characters cannot even then have been more than about 1,000, for the first compilation of written characters at the beginning of the Han dynasty, about 600 years later, contained only 3,300 different characters as the sum of three different works based on Chow's. Chow had, however, started the phonetic principle and had

by it shown the proper method for further development. Thus the different schools of Taoism [compare "The Historical Characteristics of Taoism," in *China Review*, Vol. xiii.] and Confucius with his school had no difficulties in shaping new characters to suit their literary wants. The five ancient Classics, even in their present form, contain not more than 3,235 different characters under 160 classifiers. We have, however, to remember, that the Classics were revised by Confucius and underwent other changes after their destruction in the fire of Ts'in, before they received their present shape. Ancient quotations in the writings of the philosophers of the Chow period differ considerably, and the readings of those in the *Shwch Wen* are perplexing. All the nine Classics, *i.e.*, the Four Books added to the five above-mentioned older Classics, contain now 4,601 different characters. These facts will convince the most scrupulous scholar, that our estimate of the number of Chow's Great Seal characters, published 300 years before Confucius' revision of the Classics, must be very near the truth. There was in existence only about one fourth of the Classics at the time, and this in a simpler form.

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#### THE FORMATION OF CHINESE PHONETIC CHARACTERS A NEVER-FINISHED PROCESS.

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When phonetic writing was adopted in China, the old figures were not given up, but they became inevitably somewhat modified and adapted to the new method. Though in each character two elements—the classifier and the phonetic—had soon to be distinguished, yet Chinese scholars never showed so much scientific sense as to bring any of the two kinds into a systematic form, and thus achieve the greatest results by the simplest

means. They never made any attempt to reduce the phonetics to an alphabet, in spite of their acquaintance with the alphabetic writings of India. Not even was the pronunciation of words fixed and attached to a definite set of characters,—about 500 would have sufficed,—and simple figures would have best answered the purpose of writing. But the *Shwoh Wen* contains already 883 phonetic elements, or primitives, and K'ang Hi's Dictionary 4,081, many of them being very complicated characters. The classifiers are as bad, if not worse, in their scientific value. Even the 214 of K'ang Hi's might with advantage be reduced to 150 or 100, and some of them better chosen. They should have their place invariably on the left side, or above, according to the nature of the character, and not anywhere according to fancy. We see, that after the Chinese had gained the phonetic principle, they allowed it to grow wild, just as chance might shape it. One who is able to understand the simple and beautiful idea underlying the Chinese mode of writing cannot but feel astonished that the Chinese never should have been able fully to grasp it. Attempts have, however, been made in the *Six Scripts*. Since the first mention of such a digest in the *Chow Li* (see p. 147), between 1100 and 200 B.C., several editions of varying merit followed up to about 2,000 years later. Such dates are instructive in other respects. The best known publication on the *Six Scripts* is the *Luh Shu K'wu* (六書故), 13th century A.D. Its author, Tai T'ung (戴侗) deserves great credit for his valuable researches. He came near to our idea of Elementary Characters in his 188 *Parent Forms*, 45 doubtful and 245 Derivatives (included in our ideographic characters), in all 479 graphic bases. [Comp. *The Six Scripts*, by L. C. HOPKINS]. Very handy for finding all known ancient forms of any Chinese character is the work 六書分類, in 12 vols., published during the K'ang Hi period. It is arranged according to the common 214 classifiers. "Six Scripts," as already shown, means

six classes of written characters. Two different arrangements have already been mentioned. In MAYERS' *Reader's Manual*, p. 326, a third may be found, taken from the 讀書記—a work published in 1707. A fourth, though of an earlier date than the latter, is contained in the famous History, or rather Essays on Historical Subjects, 通志, by Cheng Ts'iao (鄭樵), 1108-1162 A.D. The statistics given by Cheng Ts'iao are of some interest, showing the great increase of characters, especially of the phonetic class, from the Han to the Sung period. The sum total of all characters known at his time he gives as 24,235. Of these, nearly 22,000, or nine-tenths, were phonetic, and all five other classes contained together only 2,425, or one-tenth of the whole. All the characters in K'ang Hi's Dictionary, exclusive of duplicate forms, amount to 41,000; the percentage of phonetic and ideographic characters is unknown to me. Dr. MARSHMAN, however, gives the number of phonetic elements, or primitives, as 4,081. As he calculates the average derivatives as less than 10, we get a total sum of about 39,000 to 40,000 phonetic characters. The greatest number of derivatives from one primitive is 74, but many primitives are used in only one combination (see Dr. WILLIAMS' Dictionary, p. lvii).

Cheng Ts'iao's first class contains 608 characters, which are figures, though not all of objects, as symbols of numbers etc. are included, and not all of them simple figures, for many are composite forms. The second class contains 107 characters, which are indicative of a relation or action, as 上, above, 下, below. The third class, containing 740 characters, consists of composite forms, which indicate ideas, as sun and moon combined, meaning "brightness," or two trees, indicating "a forest." The fourth class of 372 characters are inverted or otherwise modified forms of the first class. The fifth class contains 21,810 phonetic characters. The sixth class of 598 characters, with borrowed meaning, is outside of the principle

of form, and, therefore, rather out of place in this classification. We have seen that in 1,000 years from the publication of the *Shaooh Wen* to Cheng's History, about 12,000 phonetic characters were produced. In the following 600 years, from Cheng to K'ang Hi, about 18,000 were added, and from K'ang Hi to the present year we may guess at 8,000 to 10,000 more. Now the legions of scientific book translators are exhausting all Chinese and Western resources to swell the number of phonetic characters, if not to a million certainly to beyond a hundred thousand, before the last bell of this century shall have chimed. Then the end will come ! if not of the world, certainly of such extravagant industry.

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#### CHINESE PHONETIC WRITING : ITS RESULTS FOR GOOD AND EVIL.

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We have already stated, that with the invention of phonetic writing a new period began in China, not only in writing, but also in history. The Chinese mind loosened somewhat, though it could not altogether shake off, the narrow fetters of pictorial writing, and began to soar on its wings. The great classical period, of which Confucius is the centre, was the immediate result. The ancient memoranda were collected and revised, commentating began, standard works on moral philosophy were written, digests appeared of teachings on political economy, on the military arts, on the theory and practice of medicine, and on other practical subjects. But it seems that the Chinese mind exhausted nearly all its resources in its classical period. Scarcely any productive power is shown thereafter during so many generations to the present day. There is a deal of reproduction, of collecting of old materials, and, alas, of much old rubbish, of commentating, and of antiquarian

research, but the ideal of everything is looked for and found in *sayings* of the classical period. The introduction of Buddhism had little effect, and all efforts to infuse new life into fossilized forms by means of Western science, which have already been going on for three hundred years, have increased confusion and cannot have any other result in the future. New characters and new combinations of characters have to be coined in such numbers that translators find it already more convenient to leave unnoticed what predecessors have done and invent their own terms. Chinese written characters can by the phonetic method certainly be increased to hundreds of thousands, we may even say *ad infinitum*. But of what use is writing when other people are unable to read what is written? Writing can communicate my thoughts to other persons only when they attach the same meaning as I do to the visible signs put in their hands. We cannot here enter into a discussion of the *principles of education* and of the *methods of teaching* which are in close connection with this subject, but may refer to another point. In the *Chow Li*, xxxviii, 26, under the department of the Ta Hing Jen (大行人), who had to receive strangers of the first and second rank paying visits to the Court, a regulation is mentioned, that every seventh year the interpreters were to be summoned to report on the language and fix the form of addresses (諭言語協辭命); and every ninth year the blind [music-masters] and the secretaries were to be summoned to report on the written characters and fix their pronunciation (諭書名聽聲音). If this regulation had been carried out, a standard of writing and of pronunciation would have been the result. It is a painful sight to an intelligent observer to notice the present confusion of Chinese written characters and the toil it causes to millions of people, with immense waste of time and energy to the nation. We are convinced that the present slow progress of China, even the impossibility



of any more rapid movement is to be found in its system of education based on these confused masses of written characters. We are further convinced by the application of established principles of political economy, that this Chinese mode of writing implies a loss to China of hundreds, if not thousands, of millions of dollars a year. We are, moreover, satisfied that Chinese writing and cultivation of Western science cannot possibly go hand-in-hand. Chinese writing in phonetic-pictorial characters should be used exclusively as an excellent means of communication between merchants, and also by officers of government in their proclamations and notices to the people. It might be improved upon and become a *Universal Mode of Writing* in those limited branches, probably better than Volapük. This subject, however, is beyond our present scope.

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#### PERIOD OF PICTORIAL WRITING, OR PRIMARY PERIOD.

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The phonetic principle, as already mentioned, never gained exclusive control of writing in China. It became one element, and soon enough a very important element, but it remained attached to the ancient pictorial writing. This is the peculiarity of Chinese writing. It is not a phonetic system depending on articulate sounds only, but a combination of a new method, indicating pronunciation, with an older method, indicative of figures of things. All the written characters (primitives) used by the phonetic method, to indicate the pronunciation of words, were in existence and in circulation before phonetic writing began in China. These phonetic elements or primitives consequently represent an earlier period of writing. All characters which contain no indication of sound in their

formation belong to this class. As we have found that the phonetic period of writing began during the Chow dynasty, between 1200 and 800 B.C., we get for the earlier period, *i.e.* for Pictorial, or rather Ideographic, Writing, an indefinite time before these dates. Though many characters have changed their forms so much in the course of time that their original shape is no longer recognizable, we can easily convince ourselves that no character once in general use could have been lost. This means, that every character of ancient pictorial writing that was in use more than 3,000, perhaps 4,000, years ago is still preserved in the Chinese written character of the present day.

Leaving alone the phonetic class and directing our attention to the earlier period of writing, we again discover without difficulty two distinct periods of pictorial writing. The first and earliest must have been the formation of certain simple figures, primary characters, which I shall call "Elementary Characters." They form the basis of all Chinese written characters, and are of a limited number, only about a hundred. It is possible that a person called somewhat like *Tsang Hieh* made the first attempt at writing such characters about 4,000 years ago, but other persons must have followed in his line. After the inventors had produced as many elementary characters as they conveniently could, and when the need of expressing more in writing was felt, the period of manipulating them, *i.e.*, of modifications and combinations, began. This is the period of the formation of secondary characters. The elementary characters are analogous to the roots of other languages; all secondary characters are derivations. These secondary characters, which I call ideographic, combine three groups of the Six Scripts into one. We are, however, not sure that all ideographic characters found in K'ang Hi's Dictionary have originated in the time before 1200 B.C., some may be much later. I should accept as ancient primitives only such as entered

the list of phonetics as early as the time of the *Shwoh Wen*. Their use in the *Shwoh Wen* is a proof that such modifications, or such combinations, were already recognized in their meaning and pronunciation some time before the *Shwoh Wen* was written. We have now, as the result of our investigations, three important facts :—(1st). That all the written Chinese characters form three layers—a primary of elementary characters, a secondary of ideographic, and a tertiary of phonetic characters ; (2). That the tertiary, or last formation, far outnumbers the other two ; (3). That all Chinese literature, without even one exception, belongs to the tertiary period.

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#### PERIOD OF IDEOGRAPHIC CHARACTERS, OR SECONDARY PERIOD.

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Ideographic writing may have been in use for several centuries, perhaps even for ten or fifteen centuries. We are unable to determine the length of its reign as we have no reliable facts to guide our reasoning. We are, however, quite sure that such a period existed, and that there must still be remnants of it in the form of inscriptions in stone and in metal. If excavations were begun and scientifically prosecuted in China as in Egypt and other ancient countries, we might soon get plenty of materials to shed light on the prehistoric period of China. The only accessible mine open to the study of ancient Chinese writing since A.D. 100, is the dictionary *Shwoh Wen*, already referred to. We may suppose that in the *Shwoh Wen* all ideographic characters still in currency at the time became incorporated. It is even most probable that no ideographic character was allowed to be forgotten, because the Chinese phonetic system was not at all inimical to such forms, and ideographic writing is more pleasing to human fancy, and cannot be forgotten as easily as other forms

of writing. Though the *Shwoh Wen* furnishes plenty of materials, yet we have to deplore one serious deficiency. All the ideographic characters are isolated; we do not find a sentence composed of such characters. It may be that a few such sentences are incidentally contained in the *Shwoh Wen* or in other ancient writings, but we have so far not had the good fortune to discover them. A discovery of that kind would be of great interest in several respects. A complete list of all ideographic characters would also be of value, and might be the preliminary step to more important discoveries.

We can give here only a few examples of simple forms. The ninth classifier 人 is meant as a representation of "man." The ancient figure 𠤎 is not much better, though useful in tracing the different derivations. This figure of man 𠤎 turned round in this way 𠤎 is the twenty-first classifier, now written 匕, meaning "a spoon," perhaps originally "fed with a spoon." When put on its back (𠤎) it becomes classifier 44—a corpse—now written 尸. When put on its head (𠤎)—hands and feet turned up and decomposing—it means "change," now written 化. The same turned round (𠤎) means "self-destruction," now written 殄. Then we find a simple line added, as in classifier 34, present form 𠤎, ancient form 𠤎—a man's two legs pushed on from behind—slowness. The same reversed (𠤎)—a man using all the power of his legs—wide steps, overstriding—now written 跨. Further we find 𠤎—representing a man driven on from behind, therefore, enduring, continuing—now = 久. The classifier 35 𠤎, old style 𠤎, represents a man calmly walking, dragging a staff.

• There are a still larger number of combinations with other simple figures. For example, 𠤎—a man under shelter, reduced to straits, inclining—now written 仄 or 側. Then the reverse of it 𠤎, now written 丸—to turn round. 𠤎, now 完, from "man" and "a burden"—a man carrying a burden,

fatigued. 𦘔, now 貌—countenance, from “face” and “man.” 見=見, classifier 147—to see and already reach it; from “eye” and “man.” 見=見, classifier 138, is the reverse of the former—to see again and again (probably without being able to reach the object). 兒=兒, from “head with bones not yet closed” and “man”—a new-born child. 頁=頁, classifier 181, from “head” and “man”—a head-man. 𦘔=𦘔, from “mortar” and “man”—the momentary rest in working at the mortar: a moment. 𦘔=向—two men making compliments with their hands one to the other—face-to-face. 日=日, from “sun” and “one” (*i.e.*, horizon)—the rising sun. 日=易, the sun and moon rising and setting—to alternate, exchange. 日=易, the male principle (the sun), the mate of the female (the moon). 日, the light of the sun and moon united—splendid, bright. 日=晴, from the moon and a star, clear sky—because they are seen after rain. 日=日, the sun seen above the trees—bright. 日=東, the sun seen in the midst of trees—east. 日=杳, the sun seen under trees, indicating the evening near sunset—obscure. 日=晶, three suns—the brilliancy of crystal or gems. 日=日, the sun sinking into the ocean and becoming lost to vision; total loss (*Untergang*).

In order to show the difficulty of analysing some of the complicated characters, one example may suffice. The character 響 (*hiang*) means “a noise.” It is composed of the classifier 180—sound—and the phonetic *hiang*, meaning “village.” The character itself thus belongs, as a phonetic, to the tertiary period. Its component parts, however, both belong to the secondary or ideographic period. 鄉 is from 邑, classifier 163, also written 邑, and this is repeated back-to-back, as 乡 is nothing but 邑 turned round in ancient writing. 邑 is composed of 邑, classifier 31—an enclosure, and 邑, classifier 26—a seal—referring to the patents given to feudal princes. The middle portion of the character, 邑 is read *p'i* and composed of 白—white, and 匕—a spoon.

K'ang Hi explains it by "fragrant grain," "fragrance," "one grain." Thus we arrive at the original meaning of this ideographic combination of primitives—a space between two towns, filled with the fragrance of meals from both sides. The classifier 音 of the character under examination is composed of 言—words, placed over 含—to hold in the mouth; both these characters are contracted or amalgamated. 言 is composed of 口—mouth, and 辛, old form for 愆—crime. 辛 is composed of 干—a shield and 一—one. 含 is from 口—mouth, and 今—now, above it. 今 is formed of 亼—men, coming into 一—one place (=集—collected together) and 及—up to, contracted. 及 is composed of the classifier 29 (又)—hand or having, and 人—man, which means, to follow a man till he is taken. Thus we are brought into a meeting of rioters where rebellious speeches are delivered till the arm of the police reaches the culprits; the noise is, of course, like that of a yelling Chinese mob, resounding from the hills—that is "sound" in Chinese ideographic writing, and has become the classifier for all noises, and even of softer voices, in the Flowery Kingdom.

This one example may suffice to show that for an analysis of Chinese ideographic characters their present form is useless, and their most ancient form is required. Even ancient forms are not in every case perspicuous, therefore a dangerous field is left to imagination; contractions are supposed to have taken place, which may be referred to a dozen or more different characters.

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THE CLASSIFIERS.

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Another difficulty we meet with in analysing Chinese written characters is caused by the classifiers. They only came into use in, and were necessitated by, the tertiary or phonetic period of writing. There was no need of classifiers in the secondary or ideographic period; the picture explained, or at least indicated, its own meaning. As soon, however, as an isolated sound was conveyed to the reader, he had to receive some more help, as the monosyllabic character of the Chinese language and the limited number of syllables available compelled people to use one and the same syllable to convey different meanings. A glance into any syllabic dictionary will suffice to show the necessity of an addition of classifiers to the phonetics. The classifier then helped to arrange all known characters in the dictionary. But as in the formation of tertiary characters no systematic idea guided the adoption of any character to be used as a primitive, so also no scientific method assisted afterwards the dictionary-makers to select the most significant element of each compound character as its classifier. There are difficulties especially in regard to the ideographic characters which also had to be put under classifiers. The *Shwoh Wen* is the first attempt of this kind we know of, and has kept its ground to the present day. Though K'ang Hi's arrangement under 214 classifiers is an improvement on the *Shwoh Wen* with its 540, still there is room for further improvement. The number of classifiers should be no more than about one hundred, which could be managed without serious difficulty. Mr. WADE considers 47 classifiers as obsolete. As we have, however, already called attention to this point (p. 157), two illustrations will suffice for our purpose. Take,

for example, the common character 眞—true; you will naturally first try to find it under the classifier 人 (10), but find yourself disappointed; you then try 乚 (21), with the same result; and will at last discover it with astonishment under 目 (109). Of another kind is the character 靈—intelligence. This is found under the classifier 雨—rain. The remaining part of the character is not a phonetic, but has to be explained ideographically—sorcerer and three mouths, *i.e.*, three sorcerers praying for rain. In the *Sharoh Wen*, 巫 (sorcerer) is classifier, the remaining portion of the character is then phonetic 霽=零 (*ling*)—a gentle rain—and the explanation is, a sorcerer producing rain by offering gems to the gods. As, however, the character 巫 is no longer used as a classifier, the best choice between 雨 (173) and 口 (30) was certainly the first. Rain is regarded as the result of the magical power of sorcery.

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### THE ELEMENTARY CHARACTERS.

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We have already noticed that the secondary period of writing was ideographic, and that each ideographic character was either a transmutation of a simple character previously in existence, or the combination of two or several of such simple characters into one compound character. This compound character had, as a rule, a different pronunciation as well as a different meaning from any of its component parts. Wherever one part has the same pronunciation as the whole, we cannot be sure that such character does not belong to the tertiary or phonetic period.

We have also to take into account that the classifiers, though all of them in existence during the secondary period, are not all simple characters, but that some are compound, even in a



very complicated way. Still, almost all elementary characters, with very few exceptions, such as 丁—nail, 丹—red, etc., are contained in the present list of 214 classifiers. If they contained such elementary characters *only*, the term “radicals” would be very appropriate, as pointing to the root or origin of written characters. But as more than one-half of their number are not roots, but derivatives, we cannot call them radicals. For this reason the term “radicals” is not used at all in this paper. It might be employed to designate such characters as form simple figures not reducible to a simpler form, but it seemed better to call them “elementary” characters, in order to avoid any confusion. The elementary characters are all simple characters, which may form elements of other (compound) characters, but they themselves do not contain any other element; they are figures pure and simple. Most of our readers will be greatly astonished to learn that the number of such elementary characters, out of which the 50,000 Chinese characters of modern times have been developed, is not more than about 100. We cannot give the exact number, as some apparently simple characters remain doubtful. Some meaningless characters, such as classifiers 8, 11, 23, and a few mere strokes, such as classifiers 2 and 4, of which the *Shuoh Wen* has about a dozen, we may leave out of consideration without making any excuse. Somewhat of a difficulty, however, are—

#### THE SIGNS FOR NUMBERS AND THE CYCLICAL CHARACTERS.

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Four characters designating numbers are still among the classifiers (1, 7, 12, 24), *i.e.*, the characters for the numbers one, two, eight and ten. In the *Shuoh Wen*, all the signs of numbers, from one to ten inclusive, are used as classifiers. These figures for numbers seem simple figures, and are certainly very ancient, perhaps more ancient than most of the

ideographic characters, but, as they are not figures of objects, we have to regard them also as ideographic. Numbers are abstractions, not real things, and as abstractions they cannot belong to a primitive period of human history. As most of the signs for numbers, for example 五, 六, 七, 八, 九, 十, 百, remain inexplicable from Chinese sources, we suppose that they were adopted by the ancient Chinese from somewhere else; probably from Western countries. The same opinion we venture to express in regard to the cyclical characters, *i.e.*, the ten stems and the twelve branches. We doubt much that the second stem 子 (*tsz*) and the classifier 39 were originally identical, as they appear now. All Chinese explanations are unsatisfactory and leave the subject in greater obscurity. Why came there in use two parallel lines of numbers from one to ten, as the ten stems and the symbols for the first ten numbers? To what phenomena in nature do the twelve branches refer? to the twelve months of a year, or to the returnings of Ursa major, as a passage in the *Li-ki* indicates? Chinese tradition mentions that Ta Nao (大撓), a minister of the Yellow Emperor, was the inventor of the cyclical characters. Even this statement leaves undecided the question whether he was regarded as the original inventor of the symbols, which are also ascribed to the Heavenly Majesty (*see below*), or merely as the combiner into sixty of the already existing characters in the ten and twelve lists, so as to give separate marks to each member of a period of sixty.

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#### THE ELEMENTARY CHARACTERS IN NATURAL GROUPS.

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Though we cannot yet construct a complete list of elementary characters, nor can we expect, for obvious reasons, to see such a list finished before the end of this

century, still we venture to proceed with our materials, in the conviction that all future additions will only amount to a very small number, and that none of them will be of such importance as to endanger our conclusions. The numbers refer to K'ang Hi's list of 214 classifiers.

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TABLE OF ELEMENTARY CHARACTERS IN NATURAL GROUPS.

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GROUP I.—*Relating to MAN.*

(Total 23 Characters.)

[The characters marked \* are not included in the number of 214 classifiers. This list contains 14 such characters, some of them of rare occurrence.]

Meaning.	No.	Modern Form.	Ancient Form.	Canton Pronunciation.	Mandarin Pronunciation according to Dr. Williams	Ancient Pronunciation according to Dr. Edkins.
(1.)—To the HUMAN BODY:—						
Body ...	158	身	𠂔 or 𠂔	,shan	shǎn	shin
Head ...	185	首	𠂔	shau	sheu	shut, dut
Eye ...	109	目	𠂔, 𠂔	muk	muh	*mok
Ear ...	128	耳	𠂔, 𠂔	yi	'rh	nip
Nose ...	132 (209)	自	𠂔	pi (tsz)	pi (tsz)	zi, bit

Meaning.	No.	Modern Form.	Ancient Form.	Canton Pronunciation.	Mandarin Pronunciation according to Dr. Williams	Ancient Pronunciation according to Dr. Edkins.
Mouth ...	30	口	𠂔	hau	k'eu	k'u
Whiskers ...	126	而	𦍋	yi	'rh	ni
Front teeth ...	211	齒	𪔐	ch'i	ch'i	ti
Shoulder ...	28	𠂔	乙 (= 肱)	sz'	sz' "	se
Arm and fist ...	64	手	𠂔, 𠂔	shau	sheu	shok
Hand ...	29	又	又, 又	yau	yi'u	ik
Sinews ...	19	力	𠂔, 𠂔	lik	lih	lik
Heart ...	61	心	𠂔	sām	sin	sim
Belly ...	49	己	𠂔	ki	ki	ke
Womb ...	20	𠂔	𠂔	pau	pao	pok
Hip (knee?) ...	60	𠂔	𠂔	ch'ik	ch'ih	trik
Foot ...	77	止	止, 𠂔	chi	chi	tik

## (2.)—To HUMAN SOCIETY:—

Male (man) ...	9	人	𠂔	yau	jān	nin'
Female ...	38	女	𠂔	nui	nū	nok
Child (son) ...	39	子	𠂔	tsz'	tsz'	tsak

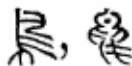





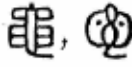
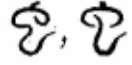


Meaning.	No.	Modern Form.	Ancient Form.	Canton Pronunciation.	Mandarin Pronunciation according to Dr. Williams	Ancient Pronunciation according to Dr. Edkins.
Chief? ...	37	大	𡗗, 𡗘	tai	ta	da
Minister? ...	131	臣	𡗗, 臣	shan	ch'an	din
Family? ...	83	氏	氏, 氏	shi	shi	zhi

GROUP II.—*Relating to ANIMALS.*



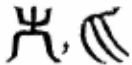
(Total 29 Characters.)

## (1.)—To LIVING ANIMALS:—

Horse ...	187	馬	𠂇	ma	ma	mo
Cow, cattle ...	93	牛	𠂇	ngau	niu	ngu
Sheep ...	123	羊	𠂇	yeung	yang	dung
Pig ...	152	豕	豕, 豕	chi	shi	shi
Dog ...	94	犬	犬, 犬	hün	k'üen	k'on
Deer ...	198	鹿	鹿	luk	luh	lok
Rabbit ...	*	兔	兔	tó	tu	tó
Tiger ...	141	𧆦	𧆦, 𧆦	fu	lu	ko
Crawling beast ...	153	豸	豸	chai	chai	dza
Rodentia ...	208	鼠	鼠	shü	shu	sho

Meaning.	No.	Modern Form.	Ancient Form.	Canton Pronunciation.	Mandarin Pronunciation according to Dr. Williams	Ancient Pronunciation according to Dr. Edkins.
Long-tailed bird ...	196	鳥		niu	niao	nio, tok
Short-tailed bird ...	172	隹		chui	chui	tok
Laughing bird ...	*	鵲		ts'euk	ts'ioh	ts'ok
Crow ...	...	烏		u	wu	u
Tortoise ...	213	龜		kwai	kwéi	ku
Large snake ...	*	巴		pa	pa	po
Toad (frog) ...	205	鼃		man	min	nin
Small animal ...	142	虫		chung	chung	dong
Fish ...	195	魚		yü	yü	ngo
Cowry ...	154	貝		pui	péi	pi

## (2.)—TO PARTS OF ANIMALS:—

Pig's-head ...	58	豕		kai	ki	—
Hair ...	59	彡		shām	sun	sham
Claws ...	87	爪		chāu	chao	tok
Molar tooth ...	92	牙		nga	ya	nge

Meaning.	No.	Modern Form.	Ancient Form.	Canton Pronunciation.	Mandarin Pronunciation according to Dr. Williams	Ancient Pronunciation according to Dr. Edkins
Wings (plumes) ...	124	羽	羽, 翮	yü	yü	yo
Veins of tortoise-shell ... }	25	卜	卜, 𠂔	puk	puh	pok
Silk (floss) ...	120	糸	糸	mik	mih	mik
Flesh ...	130	月(肉)	𠂔	yuk	juh	niok
Raw skin ...	177	革	革	kak	koh	kak

GROUP III.—*Relating to PLANTS.*

(Total 4, excluding two doubtful.)

Sprout ...	45	𣎵	𣎵	ch'it	ch'eh	t'et
Ripe grain standing in stakes * }	210	齊	齊	ts'ai	ts'i	dze
Cucurbitaceæ ...	97	瓜	瓜	kwa	kwa	ku
Bamboo ...	118	竹	竹, 𣏟	chuk	chuh	tok
Tree (wood) ...	75	木	𣏟	muk	muh	mok
Splinter, tree cut in two * }	91	片	片	p'in	p'ien	p'in

GROUP IV.—*Relating to INANIMATE NATURE.*

(Total 21 Characters.)

Meaning.	No.	Modern Form.	Ancient Form.	Canton Pronunciation.	Mandarin Pronunciation according to Dr. Williams	Ancient Pronunciation according to Dr. Edkins.
Sun ...	72	日		yat	jih	at
Moon ...	74	月		yüt	yueh	nget
Earth, soil ...	32	土		tó	t'u	ro
Air ...	84	气		hi	ki	k'ut
Clouds ...	*	雲		wan	yun	gon
Rain ...	173	雨		yü	yü	yo
Water † ...	85	水		shui	shui	shui
Streams † ...	47	川		chün	chwen	ton
Ice ...	15	冰		ping	ping	pang
Fire ...	86	火		fo	hwo	ha
Mountain ...	46	山		shan	shan	shan
Cliff, dwelling ...	27, 53	厂, 产		hon, yim	han, yen	gan
Gem ...	96	玉, 王		yuk	yuh	ngok

† Probably the same.



Meaning.	No.	Modern Form.	Ancient Form.	Canton Pronunciation.	Mandarin Pronunciation according to Dr. Williams	Ancient Pronunciation according to Dr. Edkins.
Veined gem ...	67	文		man	wăn	mun
Red stone ...	*	丹		fān	tan	tan
Protuberance of the ground }	*	凸		tat	tieh, tuh	tot
Indentation of the ground ... }	*	凹		āu	ngao, ao	ok

RESULTS OF HUMAN LABOUR are:—

Mound of earth (?) †	170	阜, 𡵓		lau	feu	pu
Field ...	102	田		t'in	rien	din
Salt-land ...	197	鹵		lô	lu	la
Divided fields ...	*	井		tsing	tsing	tsing

GROUP V.—*Relating to* PRODUCTS OF HUMAN INDUSTRY.

(Total 28 Characters.)

(1.)—WEAPONS:—

A knife, sword ...	18	刀, 刃		tó	tao	to
Shield ...	51	干		kon	kan	kan
Bow ...	57	弓		kung	kung	kong

Meaning.	No.	Modern Form.	Ancient Form.	Canton Pronunciation.	Mandarin Pronunciation according to Dr. Williams	Ancient Pronunciation according to Dr. Edkins.
—	—	—	—	—	—	—
Arrow (with string)	56	弋	𠄎	yek	yih	ik
Halberd (spear) ...	110	矛	𠄎	máu	meu	mu
Javelin (arrow) ...	111	矢	𠄎, 𠄎	ch'i	shü	shü

## (2.)—INSTRUMENTS:—

Axe or hatchet ...	69	斤	𠄎, 𠄎	kan	kin	kin
Compass and rule .	48	工	𠄎, 𠄎	kung	kung	kong
Carving instrument	*	𠄎	𠄎	k'ai	k'i	—
Mortar ...	134	臼	𠄎, 𠄎	k'au	kiu	gu
Nail ...	*	丁	𠄎	ting	ting	tang
Dry measure ...	68	斗	𠄎, 𠄎	tau	teu	tu

## (3.)—UTENSILS:—

Tiles, bricks ...	98	瓦	𠄎, 𠄎	nga	wa	nge
A dish, platter ...	108	皿	𠄎, 𠄎	ming	ming	min
Wine-jar (earthen-ware) ... }	121	缶	𠄎, 𠄎	fau	feu	fu
Bench, low table ...	16	几	𠄎, 𠄎	ki	ki	ke

Meaning.	No.	Modern Form.	Ancient Form.	Canton Pronunciation.	Mandarin Pronunciation according to Dr. Williams	Ancient Pronunciation according to Dr. Edkins.
—	—	—	—	—	—	—
Wooden trencher } (plate) ... }	151	豆	豆, 𣎵	tau	teu	du
Tripod ...	206	鼎	鼎, 𣎵	ting	ting	teng
Incense-cauldron...	193	鬲	鬲	lik	lih	lik
Bottle for fra- } grant spirits... }	*	卣	卣	yau	yiü	—
Wicker basket † ...	*	留	留	tsz	tsz	—
A one-leaved door .	63	戶	戶, 戶	wu	hu	gu
A window ...	*	窗	窗	ch'eung	ch'ang	t'song
Inclosure ...	31	口	口	wui	hwui	gu
A wheeled carriage	159	車	車	kü	kü	ko
Boat ...	137	舟	舟, 𣎵	chau	cheu	tu

## (4.)—CLOTHING:—

A head-cover ...	14	巾	巾	mik	mih	mik
Embroidery ...	204	黼	黼	chi	chi	te.

† Of bamboo, perhaps originally a bamboo-jungle.

## THE ORIGINAL FORMS OF THE ELEMENTARY CHARACTERS.

That the modern forms of Chinese characters are different from the ancient forms preserved in the *Shwuh Wen*, needs only to be mentioned. The Small Seal characters of the *Shwuh Wen*, again, being about 900 years later than Chow's work on the Great Seal characters, differed so much from these, that scholars well acquainted with the later form could not make out the older. There was an interminable controversy going on in China for several hundred years. It was about two different texts of some of the ancient Classics. The first was written in characters used at the time, the Small Seal, by an old scholar, Fuh-sang. Another scholar, K'ung Gan-kwo, proclaimed afterwards the discovery of another set of books in a wall of Confucius' house. This was in ancient characters, tadpole style, and could only be deciphered by the help of Fuh-sang's books and other resources. (See LEGGE, *Chinese Classics*, III, 1, p. 22). This statement is certainly false. Confucius and his disciples wrote in the Great Seal characters, the ancient tadpole writing being altogether out of the question. But it may be that the handwriting was illegible (*tadpolie*), being, perhaps, the hasty copy of a scholar who made it for his own use to assist his memory when lecturing to his pupils. Another discovery of ancient tablets was made in a grave in A.D. 279. They had been buried for 595 years (LEGGE, p. 106). As they are said to have been written in the Small Seal character, which was invented 90 years after the supposed burial of those tablets, we see how unreliable such statements are.

The discovery of the so-called "Tablet of Yu," in the 13th century A.D., about 3,500 years after its supposed origin, LEGGE (*Chün, Cl.*, III, 1, p. 73*ff.*) calls "a romance," with which

I agree for brevity's sake [compare, however, the last section of this paper]. In some editions of the *Sie Scripts* a great variety of ancient forms of characters is collected, but most of these forms are fanciful, and not original. I think, however, that most elementary characters are simple enough, even in the Small Seal form. The original form was certainly nothing but a crude outline of the figure of its object. Of all editions of the *Sie Scripts* one entitled 六書分類, mentioned before, I found most useful. As of many different forms of characters, that of the *Shwoh Wen* is always put first, it seems to indicate that the author considered it the most ancient form of all he could find. There are in circulation a large number of native works on the Antiquities of China, some of them beautifully illustrated. They also contain inscriptions in various forms of ancient characters. Some of them are attributed to periods even before the Chow dynasty, to the Hia and Shang dynasties, 2200-1200 B.C. There is, however, no foundation whatever for such assumption. Chinese authors are too much influenced by their well-known tendency to attach the utmost antiquity to any old relic of uncertain date. Most of the inscriptions in question are written in characters which are apparently but variations of the Small Seal characters. This fact proves that they are not older than the Han dynasty and some of them may be of a still more recent date. We also know of many counterfeits of old things. The trade in relics of antiquity—old cash and porcelain included—is too remunerative not to tempt the ingenuity of artisans. A good museum of articles of Chinese antiquity, where one relic could be compared with a number of other articles of the same period, and one period with other periods, is necessary for satisfactory research. Mere descriptions are insufficient, even when accompanied by drawings.

Thus we have to state, as the result of our examination of the subject, that the Small Seal characters of the *Shwoh Wen* are

the most ancient forms of Chinese written characters accessible with certainty at present, of more ancient forms nothing reliable being known. [Compare the remarks on the "stone drums," on a later page.]

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### THE ORIGINAL PRONUNCIATION OF THE ELEMENTARY CHARACTERS.

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Speech was before writing. All the elementary characters are pictures of objects known to the people and named by the people long before an attempt was made at writing. We may even suppose that speech had already had a history, had passed through changes of sounds and of grammar (construction of sentences). As we have to place the formation of the elementary characters before 1200 B.C., we may say with confidence that the pronunciation of those characters, *i.e.*, the spoken language which their pronunciation represents, must belong at least to the time about 2000 B.C. Neither the elementary nor the ideographic characters, however, indicate in the least a pronunciation, and nothing else is known of that remote age. The case seems hopeless. But there are two ways still open for approaching its solution. One is by examining their use as phonetics (primitives), the other by comparing the ancient rhymes. Though by the rhymes we can only get the final, including the vowel, but never the initial, yet we can find the initials by means of the character's use as a phonetic. The phonetics as such, taken separately from the classifiers, have never been made a subject of study by [native] Chinese scholars. A good deal of attention, however, has been paid to rhymes. The phonetics had no practical interest for the Chinese, but the rhymes had, for writing poetry and gaining

honors. The *T'ang yün* (唐韻) is the earliest dictionary arranged according to tones and final sounds still in existence. It was first published in 750 A.D., but is based on an earlier work—*Tsie yün* (切韻), of the Sui dynasty, 589-618 A.D. All characters are arranged under 206 finals. The *Kwang yün* (廣韻) and the *Tsi yün* (集韻), published in the Sung period, followed the same arrangement. The finals were reduced to 160, and the initials to 36, which made their first appearance in the *五音集韻* during the Kin dynasty, 1115-1234 A.D. Many other varieties of the same system may be found mentioned in WYLIE'S *Notes*.

One modern work of this kind, however, which is almost universally used among the Chinese, deserves more attention. I refer to the *Wu fang yuen yin* (五方元音) by Fan Tang-fung (樊騰鳳), first published in 1710, followed by a revised edition in 1810. All finals (韻) are reduced to 12 categories:—(1), 天, *ieu*, *in*, *ān*; (2), 人, *in*, *ān*, *ām*; (3), 龍, *ung*, *āng*, *ing*; (4), 羊, *āng*, *ong*, *iang uang*; (5), 牛, *iu*, *au*; (6), 獐, *āu*, *ou*, *iau*; (7), 虎, *u*; (8), 駝, *o*; (9), 蛇, *ie*, *e*; (10), 馬, *a*; (11), 豺, *ai*, *iai*, *ai*; (12), 地, *i*, *ui*, *ü*, *ā*. Of initials (字母) only 20 are used:—(1), 柳, *p*; (2), 匏, *p'*; (3), 木, *m*; (4), 風, *f*; (5), 斗, *t*; (6), 土, *t'*; (7), 鳥, *n*; (8), 雷, *l*; (9), 竹, *ch*; (10), 虫, *ch'*; (11), 石, *sh*; (12), 日, *y*; (13), 剪, *ts*; (14), 鵲, *ts'*; (15), 糸, *s*; (16), 雲, *j*; (17), 金, *k*; (18), 橋, *k'*; (19), 火, *h*; (20), 蛙, *w*. Of these, Nos. 2, 6, 10, 14 and 18 are merely aspirates.

The ancient rhymes have been particularly examined by prominent modern scholars. Ku Yen wu (顧炎武) (MAYERS, 281) A.D. 1613-1682, reduced all the rhymes of the *Book of Odes*—i.e., of China before Confucius—to ten, without reference to tones. They are (1), *ung*, *iang*; (2), *i*, *iai*, *ui*, *ūh*, *uh*, *ah*, *eh*, *ih*, etc.; (3), *ā*, *au*; (4), *an*, *on*, *un*; (5), *iu*, *eu*; (6), *o*; (7), *ang*; (8), *āng*, *ing*; (9), *äng*?; (10), *am*, *om*, *im*.

Kiang Yung (江永), 1680-1762, divided Nos. 4, 5 and 10 into two each, thus distinguishing altogether 13 finals. Twan Mow-t'ang (段茂堂), same as Twan Yü-ts'ai (MAYERS, 694), A.D. 1735-1815, distinguished 17 finals:—(1), *e*; (2), *eo*, *ian*; (3), *iu*; (4), *au*; (5), *u*; (6), *äng*; (7), *im*, *ip*; (8), *am*, *ap*; (9), *ang*; (10), *aw*; (11), *ing*; (12), *in*, *it*; (13), *un*; (14), *un*; (15), *ei*; (16), *i*; (17), *o*. He also distinguished three tones observed in rhyming, thus really getting 42 rhymic endings. (LEGGE, Vol. IV, p. 102 ff.)

These researches by eminent Chinese scholars, valuable as they are, show that the Chinese do not yet agree among themselves in regard to ancient pronunciation. They also exhibit one weak point, *i.e.*, they all take the *Book of Odes* as a work uniform in all its parts. This is mere fiction. The different odes were composed in different states of ancient feudal China, and the language of those states differed considerably; there are, besides, centuries between the dates of different odes. We know, further, that in rhyming a deal of poetical license is taken. Another work of the Han dynasty is still preserved, with the title *Fang Yin* (方言), by the famous Yang Hsiung (揚雄), which enters somewhat into the difference of the then existing Chinese dialects. But we should know the language, and especially the pronunciation of the Han period, spoken by Yang Hsiung. We go astray in attaching a modern pronunciation to the Chinese characters used by him and other writers of that period. Some transliterations of Sanskrit terms used in Buddhist translations made at the time may possibly help us out of the difficulty. As, however, I cannot at present give so much time to this subject as would be required to arrive at definite results, I think it wiser to pass it over. I, however, here acknowledge my obligation to Dr. EDKINS for kindly enriching the list of Elementary Characters with their ancient pronunciation. As Dr. EDKINS



has given many years of careful study to Chinese philological questions, his judgment in this line must be of great value to every Chinese student.

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# THE ELEMENTARY CHARACTERS AND COMPARATIVE PHILOLOGY.

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The great importance of this list of Elementary Characters for researches into the prehistoric period of mankind may be illustrated by one example. I select from among the animals the *pig*, as the one found in almost every household all over China from the remotest antiquity to the present day. It is the most appreciated and popular of all mammalia among the Chinese. We know that the reverse is the case among Mahomedan nations. The Mahomedan aversion to the pig is, however, derived from the Mosaic prohibition. The law of Moses, though in other respects diametrically opposed to Egyptian usages, shows in its bearing on the pig a perfect agreement with ancient Egyptian practice. We are told by the best Egyptologists that the pig was not domesticated in the first period of Egyptian civilisation. (See *Die Anfänge der Cultur*, von FRANÇOIS LENORMANT). Egyptian religion regarded the pig as absolutely unclean; even an accidental touch of it subjected the unfortunate person to the strictest purification ceremonies. The pig was domesticated in later periods, especially in Lower Egypt, where foreign tribes had settled.

The ancient Egyptian language has two words for pig, the one—*rer*, Koptic *rir*—is apparently onomatopœic, an imitation of the voice of the pig, the other—*schuan*, Koptic *eschô*—is of foreign origin and is in close connection with the common

expressions for pig in the Arian languages. It is in Greek *σῦς*, *ῥ*; Latin *sus*, Anglo-Saxon *sūg*, Scandinavian *syr*, German *sau*, English *sow*, Swedish *so*, Gaelic, *suig*, Kymeric, *hweh*; Kornic, *hoch*, (English *hog*), Persic *schūk*, Armenic *chou*, Lithuanian *tehtka*, Russian *tehuschka*. The origin of these words may be discovered in the Sanskrit *çākara*—the animal that makes *çā*, which “grunts.” Not without interest is the other fact that the Turanian languages derive their designations for “pig” from the same Arian root. In Finnian it is *ika*, Esthic *sigga*, Tscheremissian *sāsna*, Baschkiric *suska*, Telentic *schoschka*, Kirgisian *tehutchka*, Tshumaic *syana*, Samojedic *soia*. That the Chinese name *chi* or *chu* also belongs to this series needs no demonstration.

If we had a comparative table of the Turanian languages spoken at present, and their ancient pronunciations so far as they can be determined, we might probably discover in the ancient pronunciation of the elementary characters the connecting root of the diverging branches of the Indo-Chinese languages, and perhaps find also a key to the better understanding of the difficult Turanian family in its totality. It is only by methodical study of critically-sifted materials that we can hope to penetrate the darkness of China's remote antiquity. Superficial similarities are always misleading, and mere guesses, though some may be correct enough, cannot dispel doubt and obviate ridicule. There is yet another difficulty too much overlooked. We speak of the Chinese language as if it were the same all over China, and of ancient pronunciation as if there had been only one at any given time. But the fact is, that the differences in language of the various parts of ancient China were greater than at present. There was less mixture of the population, and intercourse was more limited. Further, there are sufficient indications that the people of Hia, of Shang and of Chow were different tribes, if not different nations, that invaded China. Many proper

names in ancient Chinese literature seem of foreign origin, as also some names of places. The language and traditions of the different aboriginal tribes, including Miaotsz, Lolos, Sifan and others, which may be regarded as remnants of the natives of ancient China, are as yet almost unknown. The thought that something could be learned from such sources has never entered the mind of a Chinese scholar, therefore the information obtainable from native literature amounts to nothing.

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STATE OF PREHISTORIC CHINESE CIVILISATION REVEALED  
BY THE ELEMENTARY CHARACTERS.

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From the first group in the list given on p. 171 we learn that human society was already in a settled state. A chief was prominent in the community, and he had officers to support his dignity and carry out his orders. [The character for minister (classifier 83), however, remains somewhat doubtful.] The chief lived in organised family-connexions (clans); these became gradually important factors in Chinese history. All subjects, we may suppose, were considered as mere individuals. Every family- (or better, clan-) name of the Chinese can be traced back to some noble family of ancient China. The characters in the second group contain names for animals of all the great natural orders, and the principal kinds of domesticated animals are specially distinguished. This fact shows that the human mind was already conscious of its power over nature. It was a great step in civilisation to have brute creatures subdued and, by a kind of training, taken into the service of man. It is peculiar that sheep and goats were denoted

by one and the same character. The difference between these two kinds of ruminantia, especially in a wild state, is not so marked in mountainous districts; it may also be an indication that large herds of sheep were not held at the time. Species of wild sheep and goats have been discovered in the north-western provinces of China, as also some of the bovine kind. Wild horses can still be seen on the grassy plains of Tartary, but they may have galloped about the vast uncultivated portions of ancient China. Wild pigs are frequent in all parts of modern China, and the rearing of the domesticated kind is more extensively carried on here than in any other part of the world. Dogs are not only used as faithful guardians of dwelling-houses, but their flesh has been utilized as food from very ancient times. There are, however, indications in ancient Chinese literature that in those days the use of animal flesh [classifier 130] was confined to sacrificial ceremonies. Tigers are still the terror of the southern and middle provinces of China. Other animals of prey are expressed in the general term [classifier 153] "crawling beast." Of fish, the carp is the representative, which proves that the writers lived away from the ocean, else they would certainly have chosen some striking form of sea-fish. Which kind of shell is meant by classifier 154 cannot be determined now; it is probably not the common cowrie. A pig's head, with its snout turned up, is represented by classifier 58. This can be explained only by its use as a sacrifice. To religious usage also points classifier 25, the veins of the tortoise-shell, which were made visible by burning over fire, and served the purpose of divination. The skins of animals were already known to be of particular value. Long hair and feathers were also utilised. The produce of the silkworm was known as "floss-silk." Though the elementary characters give no indication of its use in weaving, still different kinds of silk-manufactures have been known in China from the remotest antiquity.

In the third group, relating to plants, we get only six characters, and even of these, two are better transferred to the ideographic class. Of the four remaining characters, two are of a very general meaning. The "sprout" is most characteristic of the vegetable kingdom; it may be taken as identical with "plant" or may be confined to all plants of the smaller kind, as herbs, grasses, etc. The other character, classifier 75, means "trees with a woody stem, wood," embracing almost all plants of a taller kind. We see that the common botanical distinction between trees and herbs had been noticed and fixed even in prehistoric times. That, however, among the thousands of different kinds of plants growing in China, only bamboo and melon were honoured with special elementary characters, must have been due to some special reason. What species of the cucurbitaceous order is really meant, whether a cucumber, a gourd or a melon, remains undecided, as the flora of the regions along the Yellow River is still insufficiently known. I think *melon* very probable, though the gourd was also known, according to very ancient records, and its hard skull was used as a vessel for drawing water and for similar purposes. The philosopher Chuang mentions one of immense size. We are, however, quite sure on one point, *i.e.*, that the inventors of Chinese writing had no idea that China would ever be called the "Flowery Kingdom!" The bamboo is the real emblem of China. As the greater mass of bamboo is never seen flowering in China, it is impossible to say how many species are growing in different parts of the country. Bamboo appears most luxuriant in the tropical and sub-tropical regions, becoming smaller and scarcer in the northern provinces, and does not reach the northern borders of China (being scarce even on the banks of the Yellow River). It has been used for every imaginable purpose, even from prehistoric times. It is also an article of food, for the bamboo-shoots give a wholesome and agreeable vegetable to myriads of people.

Bamboo-slips were used as perhaps the earliest writing materials in China, till paper was invented. Chinese paper also is made principally of bamboo-fibre. There can be no doubt China is the country of the bamboo!

Remarkable is the meagreness of this group compared with the second—comprising animals. I find in it an unmistakable proof that agriculture was less developed than the breeding of cattle at that time.

In the fourth group the absence of characters for planets and stars in general is conspicuous. Though some authorities give a character, formed of three dots, as the earliest representation of fixed stars, it soon became supplanted by a phonetic form, if it ever was authorised at all. Icicles seem to have been of no unfrequent occurrence, and point to a regular winter-season, as we find it between the Yangtze and Hwang ho. The use of fire was known. As shelters against the inclemency of the weather, tents were not used, but overhanging cliffs, [27-53], which points to a mountainous district where rocks abound. This is confirmed by the very character for "mountain" [45]. There was, however, at least some level ground at the foot of the hills and in the valleys, which could be turned into cultivated fields, with channels for irrigation and drainage. The character for "divided fields," not used now as a classifier, but so given in the *Shwch Wen*, means a division of a piece of ground into nine squares of equal size. I prefer, however, the meaning of "a well" as the original one. It is as such the 48th diagram of the *Book of Changes*. [Only three of the 64 diagrams of the *I-king* are represented by elementary characters—the 48th, the 49th, *i.e.*, classifier 177, "a raw skin," and the 50th, *i.e.*, classifier 206, "a tripod" used for sacrificial purposes]. This digging of wells must have begun as soon as the people settled in fertile alluvial plains where the river was too far off or too muddy for culinary purposes. In

hilly districts in Europe wells are found more serviceable than pure springs and streams of flowing water at an inconvenient distance. The special character for "salt-land" indicates not the sea-shore, but some salt plain away in the interior. The vast ocean would certainly have received a peculiar character for itself, if the inventors had had the grand aspect before their eyes. Their notion of water was expressed by the form of mountain streams, not by the waves of the sea. The characters referring to "gems," 67 and 96, seem to presuppose some human workmanship—cutting, polishing, etc. "Red stone" means probably red sandstone used for building purposes, but it is commonly applied to cinnabar.

The action of the human mind on nature, or, in other words, *nature in the service of mind*, is already visible in Group I, in the characters for chief, minister, and family; and in Group II, in the characters for silk, flesh, skin, veins of tortoise-shell, pig's-head, and perhaps in hair and plumes. In Group III, we meet with a tree cut in two through its whole length. In Group IV there is mentioned the use of fire, of cliffs for dwelling-places, cultivation of fields, arrangement of salt-fields, digging of wells, cutting of sandstone and of gems. The human mind is seen in unceasing activity. Though nature is still prominent, it is made to serve human purposes; though the mind is still bound to nature, it nevertheless regulates the course of nature to a certain extent. The characteristic feature of Group V is not only a partial adaptation of natural objects to human wants, but a more or less complete change of their natural condition into an artificial shape. Nature furnishes only the materials, which by human ingenuity are wrought into such forms as are most suitable to human purposes. Thus the human mind assumes gradually dominion over the realms of nature by expanding the limited powers of the human body through the use of ever-improving instruments. Every instrument is the result of an invention,

and every invention is a victory of Mind over Nature. The weapons, mentioned in Group V, are such as were also in use among other nations in prehistoric times. Of domestic utensils the mortar was used to reduce grain to flour before the easier process of grinding by the millstone was discovered. The artisan's rule with a crosspiece at right angles at one end, the other cross-piece probably moveable to be used as a compass, indicates considerable progress in workmanship. Houses were already made more secure by doors and cheerful by windows. Benches to lean on when sitting on the covered floor added to personal comfort. Enclosures were made for the domesticated animals as a protection against the attacks of beasts of prey.

It having been observed that after the burning of fires a certain kind of mud became as hard as stone, this discovery was utilised to make bricks and tiles for building purposes. Another step was taken by manufacturing different kinds of household utensils of this waterproof material. We find already vessels used in eating, wine-jars (which implies that some sort of wine was prepared at the time), tripods for cooking and to offer sacrificial meat, incense-cauldrons (implying the preparation and use of fragrant materials). Working in wood was already so far developed that not only rough building was executed, but handy utensils for use on the table and in sacrificing were made. There were even vehicles for locomotion on water, and others for use on dry ground. It was no more a primitive state of civilisation when the ancient Chinese could boast of wheeled carriages and of boats as means of conveyance by land and by water. That wicker-work of bamboo, and perhaps also of grass and of other materials, was manufactured at this period is not surprising. We also find the first traces of fine arts in the instrument for carving wood. Carving was the beginning of ornamentation, embroidery (classifier 204)



combined figures and colours, therefore painting cannot have been unknown, as it is the precursor of embroidery. Thus we see even a practical people, as the Chinese are, exhibiting a sense of the beautiful.

That only two articles of clothing are mentioned may be explained by their use as marks of distinction between the different classes or ranks of society. It is also possible that classifier 145 was originally an elementary character, the figure of a suit of clothes, consisting in a lower garment or a pair of covers for the legs, and in an upper garment with a neckpiece and two sleeves. Towards the end of the Chow dynasty this character was used only for upper garments, called *yi*; the lower garments were called *shang* and represented by a phonetic character. As material for their garments the ancient Chinese had at their disposal skins [177], long hair of animals [59], feathers [124], and silk [120], possibly hemp also.

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#### CHINESE RELIGION IN PREHISTORIC TIMES.

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That the Chinese were not without religion, even in those early days, is shown by some of the elementary characters. It may be that the classifier of religious terms [113] belongs to this period, but as it is rather ideographic and could not be otherwise, referring to something invisible, I did not include it in my list. Certain it is that some of the vessels mentioned in Group V were only used for sacrificial purposes. The same must have been the case with the pig's-head [58], as the custom has survived to the present day.

It is not the place here to enter into a discussion of the deeper meaning of sacrificing. The very act demonstrates

that the human being acknowledges a higher personal power above him. The term *personal* is used deliberately, as it would be mere nonsense to offer a sacrifice to an impersonal force. The act of sacrificing also indicates that man considers the higher Being as capable of being influenced in his favour by such action, and is anxious to avoid divine displeasure.

Another unmistakable proof of Chinese religion at this early period is the character for "divination" [25]. By means of divination historic Chinese, just as their prehistoric ancestors did, inquire into the will of the Divine Being. Men must have felt their deep dependence on divine favour for the prosperity of their doings, so that in order to ensure success they first enquired about the divine will and pleasure regarding every undertaking of any importance, private or public.

Divination and offering of sacrifices have their Christian equivalents in doctrine and worship. They will for ever remain manifestations of genuine religious life. May its forms change ever so much, the two religious motives will remain unshaken: first, to learn the divine will; second, to seek divine favour.

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#### CHINESE ACCOUNTS OF THE HISTORY OF THEIR EARLIEST CIVILIZATION.

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As the *I-king*, or *Book of Changes*, is the highest authority for everything relating to human affairs among the Chinese, I shall begin with the few statements contained therein. In the Great Appendix (Part ii, Sect. ii; Dr. Legge, p. 382) we read, (1) that in ancient times Pao Hi (commonly placed in the 29th century, B.C.) invented—

*a.*—The eight trigrams.

*b.*—The knitting of strings into nets of various kinds for hunting and fishing.

(2) That Shin Nung (28th century, B.C.) fashioned wood to form the share, and bent wood to make the plough handle. The advantages of ploughing and weeding were then taught to all under heaven.

(3) That he caused markets to be held at mid-day, thus bringing together all the people, and assembling all their wares in one place. They made their exchanges and retired, every one having got what he wanted.

(4) That Hwang Ti, Yao and Shun (27th to the 23rd centuries, B.C.) simply wore their upper and lower garments [as patterns to the people], and good order was secured to all under heaven.

(5) That they hollowed out trees to form canoes; they cut others long and thin to make oars. Thus arose the benefit of canoes and oars for the help of those who had no means of intercourse with others. They could now reach the most distant parts, and all under heaven were benefited.

(6) That they used oxen [for carts] and—

(7) Yoked horses [to chariots], thus providing for the carriage of what was heavy, and for distant journeys, thereby benefiting all under the sky.

(8) That they made the defence of double gates; and—

(9) the warning of the clapper, as a preparation against the approach of marauding visitors.

(10) That they cut wood and fashioned it into pestles; they dug into the ground and formed mortars. Thus the myriads of the people received the benefit arising from the use of the pestle and mortar.

(11) That they bent wood by means of string so as to form bows, and sharpened wood so as to make arrows. This conferred

the benefit of bows and arrows, and served to produce everywhere a feeling of awe.

(12) That in the highest antiquity men made their homes [in winter] in caves, and [in summer] dwelt in the open country. In ages subsequent to these the sages substituted houses with the ridgebeam above and the projecting roof below, as a provision against wind and rain.

(13) That when the ancients buried their dead, they covered the body thickly with pieces of wood, having laid it in the open country. They raised no mound over it, nor planted trees around, nor had they any fixed period of mourning. In subsequent ages the sages substituted for these practices the inner and outer coffins.

(14) That in the highest antiquity, government was carried on successfully by the use of knotted cords [to preserve the memory of things]. In subsequent ages the sages substituted for these written characters and bonds. By means of these [the doings of] all the officers could be regulated, and the affairs of all the people accurately examined.

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#### CONTRADICTORY ACCOUNTS OF PREHISTORIC TIMES.

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Although the appendix to the *I-king* is not so ancient as the text of the classic itself, and cannot, from internal evidence, even be ascribed to Confucius, still its author must have been a first-class disciple of Confucius. This appendix is a masterpiece of style and as such highly valued among the literati of China. Its contents, however, are more philosophical than historical, showing the Confucian construction of history. To Yao and Shun many inventions

are ascribed which in other accounts are put to the credit of other persons. The fact is, that scarcely any two ancient Chinese traditional records agree one with the other. Ancient Taoist writings are full of traditional matters. A very curious account of prehistoric times is found in the 18th book of the Mountain and Sea Classic (山海經.) Other statements are found in the works of the philosophers Lih, Chuang, Lü, Wei Nan, etc. It would be waste of time to enter into an examination of their differences, as we have not yet even a clue to these ancient mythological names.

Almost all traditions relating to Chinese prehistoric times are collected in the work called 路史, in 16 vols. More fantastic, and different in other respects, is the 神仙通鑑, in 22 vols., with many illustrations. More generally known among men of letters are the statements in modern compilations of Chinese History called 綱鑑. A well-known compendium of this kind is the *Tung chow kang kien t'sinen pien* (WYLIE, p. 21; see VON FRIES, *Geschichte Chinas*). From the latter work I extract a few items bearing on our subject:—

Tien Hwang named the Ten Stems and Twelve Branches.

Ti Hwang, who defined Sun, Moon and the Stars as the three lights (三辰), distinguished day and night and determined a month as thirty days.

Yen Hwang founded cities.

Under Yu Chao the former peace between men and animals ceased. Men killed them, drank their blood and ate their hair. The animals then used their natural weapons against men.

Sui Yen taught how to produce and use fire. He knotted cords to remember things, established markets and commercial exchange.

Fuh Hi taught fishing with nets, the domestication of the six kinds of animals (horse, cattle, sheep, chicken, dog, pig) and their use as food. He received the book of the Loh river on the back of a dragon (or horse), from which originated the

eight Trigrams. The art of writing was invented by his minister Ts'ang Hieh.

His sister Nü Kwa invented the Pan-pipe. Shang ordained matrimony, and presents to be sent to the girl by her lover as the definite form of engagement.

Shen Nung taught agriculture. He made implements of wood, distinguished the five sorts of grain, taught other industries, examined medicinal plants and taught their use.

Hwang Ti introduced the cycle of sixty days, investigated the five elements, the twelve tones of music, the stars and planets. He had an officer to superintend pottery, and another to look after the production of wooden utensils. Two of his ministers made boats of trees which they hollowed out, fixing masts in them. He distinguished the five colours, he received the plan (arithmetical figures) from the Ho (Yellow river). He took the Great Bear (constellation) as his model and made chariots, he sacrificed to God (上帝) and to the spirits, and taught the people to do so. He melted gold (perhaps metal in general) and used it as a precious article. He built an Imperial palace, wrote a treatise on the medical art, and laid down the theory of the pulse. His wife Si Ling (西陵) cultivated the silkworm, and taught how to make clothes from silk. He introduced the agrarian system of the *tsing* (井) and other divisions of the country derived therefrom.

Yao ordered an intercalary month every third year, determined the five punishments (branding, cutting of the nose, of the feet, castration, and death), and chose a successor, passing over his own unqualified son.

Shun organized the administration of government and made the low lands habitable by regulating the water-courses.

Yü, the Great, held the first assembly of feudal princes (諸侯) and made his son his successor, though against his own wish.

Thus hereditary succession commenced in China, which was never afterwards interrupted, except by rebellion and with much bloodshed, about fifty times in 4,000 years, including all the partial successes which lasted only for a few years.

Here we find attributed to Hwang Ti or the Yellow Emperor almost all the most important inventions of Chinese prehistoric times. The principal features of the gradual advancement of Chinese civilization, however, remain the same in the different accounts, and may be taken as representing historical facts. The most striking fact to our readers will be the perfect agreement of these Chinese statements of their earliest civilisation with our deduction of Chinese prehistoric civilisation from the Elementary Characters. This is an incontrovertible evidence of the general correctness of both of them.

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CIVILIZATION IN ANCIENT CHINA ACCORDING TO  
THE TRIBUTE OF Yü.

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(See *LIKGE* III, A, pp. 92 ff.).

First province\* *K'e*, the present Shansi and parts of Chihli (but the provinces cannot be determined exactly. Chinese commentators disagree among themselves considerably):—Wild people of the island brought dresses of skins.

Second province, *Yen*, South-Western Shantung and a small portion of Chihli:—Varnish, silk, baskets filled with woven ornamental fabrics.

Third province, *Tsing*, North Shantung:—Salt, fine grass-cloth, various products of the sea, silk, hemp, lead, pine trees, strange stones, wild silk.

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\*The term "province" is rather misleading; "circuit" would be better.

Fourth province, *Sa*, one department of Shantung, parts of Kiang-su and Ngan-huei, North of the Yangtze :—Earth of five different colours, variegated feathers of pheasants, solitary dryandra (*tung*), floating sounding stones, oyster pearls, fish in baskets, deep azure silks, and other silken fabrics, chequered and pure white.

Fifth province, *Yang*, sea-coast, South from the Yangtze :—Metal of three kinds (gold, silver, copper), *yao* and limestones, bamboo, small and large, ivory, hides, feathers, hair, and timber, garments of grass, woven ornamented silks, oranges and pumeloes.

Sixth province, *King*, Central Hu-kuang :—Feathers, hair, ivory, hides, three kinds of metal, the *ch'ao* tree, wood for bows (*kan*), cedars, cypresses, grindstones, whetstones, arrow-head stones, cinnabar, two kinds of bamboo, *U* tree, a kind of rush, deep azure and purple silken fabrics, strings of pearls, great tortoise.

Seventh province, *Yu*, Honan and a small portion of Hupeh :—Varnish, hemp, fine and coarse hempen cloth, fine silken fabrics, fine floss silk, stones for polishing, sounding stones.

Eighth province, *Liang*, Sze-chuan and part of Kan-su :—Musical gem stones, iron, silver, steel, stones for arrow-heads, sounding stones, skins of bears, great bears, foxes, and jackals, articles woven with their hair.

Ninth province, *Yung*, Shensi, Kan-su and portions of Sze-chuan :—*Ken* and *lin* gem-stones, *lung-kan* precious stones, hair-cloth and skins.

This so-called Tribute of Yü shows such an advanced state of civilization that, on this account, we find it impossible to allow it to pass as a description of the period 2200 B.C. It may be correct for the time at the beginning of the Chow dynasty, a thousand years later, but certainly not earlier. In addition to the articles already mentioned as belonging to



the prehistoric or earliest period of Chinese civilisation, which we have followed from its beginning to the days of Yao and Shun, the immediate predecessors of Yü the Great, and to Yü himself, we find here mentioned :—skins of two kinds of bears, of foxes and jackals, and articles woven with their hair ; varnish from two provinces, Shantung and Honan, fine grass-cloth, garments of grass, wild silk, hemp, fine and coarse hempen cloth ; pine trees, cedars, cypresses, *tung* tree, *U* tree, four kinds of bamboo, rush. Arrows were made in primitive times of wood or of bamboo, but here we find mentioned arrow-head stones from Hu-kuang and Szechuan, besides a large number of other stones. Metal [gold] had been mentioned only for its value in exchange, but here we find metals of three kinds [gold, silver and copper] from the sea-coast province, south of the Yangtsze, and from Hu-kuang, while special names are given to lead from Shantung, and to iron, silver and steel from Sze-chuan. Various productions of the sea are also mentioned, but only from Shantung.

Of colours five belonging to the mineral class are mentioned, of dyes, deep azure [indigo ?] and purple. The manufacture of silk seems to have centred in Shantung ; Hu-kuang, Honan and the islands of Chekiang participating.

During the Chow dynasty the laws and government of the feudal states became developed, ceremonies were multiplied and literature flourished, but the general features of civilisation remained almost the same as the Tribute of Yü describes them, even to the end of that dynasty—225 B.C'. Those who wish to go more into details in regard to the period just mentioned may read with advantage the admirable essay, by EDOUARD BIOT, "Researches into the Manners of the Ancient Chinese, according to the She-king," published in LEGGE'S *Chinese Classics*, IV. A, pp. 142 ff.

## THE NINE CIRCUITS ACCORDING TO THE CHOW LI.

The term "circuit" is used here instead of the common translation of 洲 by "province." China had no provinces, in the modern sense, in those early days. The term "circuit" is chosen with reference to the tours of inspection made by some of the ancient rulers of China.

Chinese critics do not regard the *Chow Li* as a genuine work of the Chow dynasty, but as a production of the Early Han period. The famous Sung scholars Cheng and Chu already noticed the discrepancies between the *Chow Li* and Mencius. [See *Canton Miscellany*, 1831, p. 13.] The views of the best authorities of modern times may be seen in the Imperial Catalogue of the K'ien Lung period, the 欽定四庫全書總目, 120 vols.

The *Chow Li*, Book xxxiii, which treats of the duties of the Surveyor-General, 職方氏, as a department of the Summer-officers, contains a description of the "Nine Circuits" similar to that in the Tribute of Yü.

First circuit, *Yang*, [identical with Yü's fifth]. Its source of wealth [利, BIOT translates "merchandise"] is gold, tin and bamboo arrows [according to commentaries, two kinds of bamboo.—BIOT.] Inhabitants, five males to two females. Birds and animals are reared, and rice is grown.

Second circuit, *King*, [Yü's sixth]. Its resources are cinnabar, silver, ivory, hides. Population, one male to two females. Birds and animals are reared, and rice is grown.

Third circuit, *Yu*, [Yü's seventh]. Its resources are bamboo-timber, varnish, silk, hemp. Population, two males to three females. The six kinds of domesticated animals are reared, and the five kinds of grain are cultivated.

Fourth circuit, *T'sing*, [Yü's third and the fourth, *Sä*, united with it]. Its resources, rushes [matting grass?] and fish. Population, two males [two probably for three] to two females. Fowls and dogs are reared, and rice and wheat are grown.

Fifth circuit, *Yen*, [Yü's second]. Its resources, rushes and fish. Population, two males to three females. Six kinds of animals are reared, and four kinds of grain are grown.

Sixth circuit, *Yung*, [Yü's ninth, and the eighth, *Liang*, united with it]. Its resources, jade and stones. Population, three males to two females. Cattle and horses are reared, Shu and tsieh millet grown.

Seventh circuit, *Yen*, [portion of Yü's first]. Its resources, fish and salt. Population, one male to three females. Four kinds of animals are reared, and three kinds of grain are grown.

Eighth circuit, *K'e*, [Yü's first]. Its resources, pines and cypresses. Population, five males to three females. Cattle and goats [sheep?] are reared, and two kinds of millet are grown.

Ninth circuit, *Ping*, [portion of Yü's first]. Its resources, cloth and silken fabrics. Population, two males to three females. Five kinds of animals are reared, and five kinds of grain are grown.

That silk should be mentioned as a principal article of value in the most northern province is very strange. Native produce is out of the question there, and trade in this article could not have amounted to much with the barbarian inhabitants of Mongolia. The order of the circuits is also unintelligible. Why is *Yung* the first? Then the jump from Kan-suh [vi] to the Gulf of Pechili [vii] and back again to Shensi [viii]. The account in the Tribute of Yü is superior in every respect. The status of civilisation which it represents is certainly higher than what the *Chow Li* exhibits. To maintain that

the tribute of Yü is a record written about 2,000 years before the *Chow Li* appears to me simply impossible. The few changes in the circuits can be easily understood. The division, for example, of Yü's first, or northern, province into three—*Yen*, *K'ie* and *Ping*—as described in the *Chow Li*, is ascribed to the Emperor Shun, [see LEGGE, III a, 32]. Why the four western provinces or circuits were united into two, and when, remains to be explained. It is to be noted—and we call special attention to it—that neither iron, steel nor lead, is mentioned in the record of the *Chow Li*, though all three figure in the "Tribute of Yü" as revenue from several provinces. Thus we declare without hesitation the record in the *Chow Li* to be an earlier document than the present text of the Tribute of Yü. Further, the modern text of the Tribute of Yü must have been unknown to the compiler of the *Chow Li* and *vice versa*. We are justified, by a comparison of both works, to draw the conclusion that they are independent enlargements of a common ancient tradition, consisting almost exclusively of geographical names and statistical notes. But, as the settlement of this question is of little consequence to the subject before us, I leave it for future treatment.

There are only four other complete tables of the productions of China, in detail for each province, as far as I have been able to find out. The next in order of time belongs to the T'ang dynasty, probably of the 8th century A.D. The absurdity of a gap of almost 3,000 years, between the table in the so-called Tribute of Yu and this, needs no further remark. About 1,000 years is all we can allow. Then we find a table from the Sung dynasty, about the 11th century. Another is from the Ming dynasty, 15th century, and the last is given in the 大清一統志, the statistical account of China under the Manchu rulers, published in 1744. A résumé of the latter can be seen in *La Chine Moderne*, by

M. G. PAUTHIER. An intelligent comparison of these different lists would furnish us with a history of both the natural and the industrial productions of China during at least 2,000 years. Another list brought up to date would increase the interest and value of such a comparison.

A LIST OF NINETY-ONE SO-CALLED ANCIENT WORKS  
WHICH ARE REJECTED BY CHINESE SCHOLARS  
AS NOT AUTHENTIC.

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This list is taken from a work in one vol., 古今僞書考, by Yao Shao-yuen (姚首源), of the K'ang Hi period. His views are largely supported by quotations from other scholars. Many more works could be added by going through the 120 volumes of the Imperial Catalogue (K'ien Lung) 欽定四庫全書總目. There is as much forgery of ancient books going on in China as of coins, bronze, porcelain, etc. The Imperial Catalogue, however, shows that Chinese scholars of some eminence are not so credulous as a few foreign Chinese students appear to be. The Roman numbers refer to the Imperial Catalogue, as far as I succeeded in finding these works mentioned therein. The Arabic numbers follow Yao's book.

A.—*Classical Works*, 經類.

(1).—易傳, the ten appendices to the *Yi-king*, are essays, not by Confucius, but handed down and altered through generations.

(2).—子夏易傳, not mentioned in the Han Catalogue;—made its first appearance in the Sui Catalogue. [1, 3.]

(3).—**關朗易傳**. Mentioned neither in the Sui nor in the T'ang Catalogue;—fabricated during the T'ang dynasty.

(4).—**麻衣正易心法**. A production of the Sung dynasty.

(5).—**焦氏易林**. After the Eastern (Later) Han. (From A.D. 25–200). [cix, 13.]

(6).—**易乾鑿度**. A compilation of the Sung dynasty. [vi, 53.]

(7).—**古文尚書**. 25 chapters, included in the sacred text of the *Shu King*, manufactured during the time of the Eastern Tsin, (A.D. 317–419). [s. xii, 25 ff.]

(8).—**尚書漢孔氏傳**. The same as No. 7.

(9).—**古三墳書**. A production of the Sung period. [x, 42.]

(10).—**詩序**. Not mentioned in the Han Catalogue;—came to light during the Later Han period from the school of Mou 毛. [xv, 2.]

(11).—**子貢詩傳**. [xvii, 11.] and

(12).—**申培詩說**. Produced by an author of the Ming dynasty (A.D. 1368–1643).

(13).—**周禮**. Appeared at the end of the Western Han (B.C. 206–A.D. 24). [s. xix, 2 ff.]

(14).—**大戴禮**. The present work is not *Tai's* but a later compilation. [xxi, 30.]

(15).—**孝經**. Not taught by Confucius, and its teaching differs from that of Mencius. [xxxii, 23.]

(16).—**忠經**. Doubtless not written by Ma Yung, as asserted. [xev, 4.]

(17).—**孔子家語**. The present work is not the original, but a compilation by its commentator of the T'ang dynasty. [xci, 3.]

(18).—**小爾雅**. The present work is not what is mentioned in the Han Catalogue, but a modern compilation. [xlili, 1.]

(19).—**家禮儀節**. A production of recent times. [xxv, 30.]

B.—*Historical Works*, 史類.

(20).—竹書紀年. [xlvi. 1.]

(21).—汲冢周書, and

(22).—穆天子傳. These three works, and some others, are said to have been found in a grave in A.D. 281, where they had been deposited for 595 years. Their contents, however, show that they were written *after* the Han dynasty, probably not long before their discovery. [cxlii. 3.]

(23).—晉史乘 [lxvi. 33.] and

(24).—楚樛机 are compilations by a scholar of the Yuen dynasty (A.D. 1206–1367).

(25).—漢武故事. Ascribed to Pan Ku, with whose writings the contents do not agree. It was made by a T'ang scholar. [cxlii. 7.]

(26).—飛燕外傳. Ascribed to a Han scholar, but it is the compilation of one of the Ming period. [cxlii. 2.]

(27).—西京雜記. Mentioned in the Sui Catalogue, without the name of the author. It is a doubtful work.

(28).—天祿閣外史. Ascribed to a Han scholar, but written by one of the Ming period. [cxxxiv. 2.]

(29).—元經. Said to be written by a Sui scholar, but referred to one of the Sung dynasty. [xlvi. 9.]

(30).—十六國春秋. The old work is long lost, and the modern is a compilation by two Ming scholars. [lxvi. 9.]

(31).—隆平集 is not by the Sung author to whom it is ascribed.

(32).—致身錄. A doubtful Taoist production of the Ming period.

C.—*Philosophical Works*, 子類.

(33).—鬻子. Mentioned in the Han Catalogue. The modern work, however, does not agree with the two works described there. The contents show that it is not earlier, and it is probably later, than the Han period. [cxvii. 1.]

(34).—**關尹子**. Though mentioned in the Han Catalogue, it is not in the Sui, T'ang, etc., Catalogues; thus lost long ago. The present work savours of Buddhism. [cxlvi, 16.]

(35).—**子華子**. This is probably a Sung falsification, feeble and mean. [cxvii 5.]

(36).—**亢倉子**, not mentioned by the famous Han scholars, contains extracts from a number of Han publications, but nothing original. [cxlxi, 46.]

(37).—**晏子春秋**. The number of parts does not agree with the work mentioned in the Han Catalogue. It is probably a biography compiled by later writers. [lvii, 5.]

(38).—**鬼谷子**. First mentioned in the Sui Catalogue. It contains dangerous doctrines, ruinous to Family and State. [cxvii, 12.]

(39).—**尹文子**. A few historical allusions show that it is false, and a later fabrication. The work mentioned in the Han Catalogue cannot be the same. [cxvii, 6.]

(40).—**公孫龍子**. Mentioned in the Han, but not in the Sui Catalogue. The modern edition is a later production. [cxvii, 10.]

(41).—**商子**. Mentioned in the Han Catalogue, but the modern edition is by later hands. [ci, 6.]

(42).—**鵲冠子**. Mentioned as a Taoist work in the Han Catalogue, but the modern edition is shallow and commonplace. [cxvii, 9.]

(43).—**慎子** is described as being of different sizes in the various catalogues, and the present editions differ from them all. [cxvii, 7.]

(44).—**於陵子**. Produced by a Ming scholar. [cxxxiv, 1.]

(45).—**孔叢子**. Mentioned neither in the Han, Sui nor T'ang Catalogue, but first in the Sung. The work contains historical statements which are wrong. It is probably a compilation by its Sung publisher. [xci, 7.]



(46).—**文中子**. It is doubtful whether such a person ever lived. The work is probably a production of its Sung publisher.

(47).—**一六韜**. First mentioned in the Sui Catalogue. The work shows a misunderstanding of the meaning of 陰符, which is ridiculous. [xcix, 3.]

(48).—**司馬法**. According to the Han Catalogue, it consists of 155 parts, in the Sui Catalogue only three are mentioned, and the modern edition has scarcely five, which proves that the original was lost long ago, and the present is a later compilation. [xcix, 6.]

(49).—**吳子**. The Han Catalogue mentions 48 parts. The modern work in six parts is an imposture. [xcix, 5.]

(50).—**黃石公三略**. First mentioned in the Sui Catalogue, without name of author, except that it was written by a half-god, which is ridiculous. [xcix, 8.]

(51).—**尉繚子**. Two works are mentioned in the Han Catalogue, with which the modern edition does not agree. The contents prove it to be an imposture. It should be destroyed. [xcix, 7.]

(52).—**李衛公問對**. On military art. There was no complete work in existence, but only an outline in the 通典, from which a Sung author concocted this edition. [xcix, 12.]

(53).—**素書**. Falsely attributed to Hwang Shih-kung (s. 50), but really the work of its publisher and commentator. Sung dynasty. [xcix, 10.]

(54).—**心書**. Falsely ascribed to Koh Liang. [c, 5.]

(55).—**風后握奇經**. A work of modern times.

(56).—**周髀算經**. First mentioned in the Sui Catalogue. The first two characters of its title are not intelligible. It is folly to refer it to Chow Kung. [cvi, 2.]

(57).—**石申星經**. The modern edition is an imposture. [cvii, 34.]

(58).—**續葬書**. Ascribed to Kwoh Poh. It is a vulgar forgery. [s. cix, 1.]

(59).—**撥沙經**. A forgery, though said to be a work from the T'ang dynasty.

(60).—**黃帝素問**. First mentioned in the Sui Catalogue. It is a product from the time after the Han. [ciii, 1.]

(61).—**靈樞經**. Belongs to the same period as No. 60. [ciii, 3.]

(62).—**神農本草**. Not mentioned in the Han Catalogue. The name **本草** first occurs in the history of P'ing-ti of the Han. The work is a production of the Eastern Han; later generations added to it. [civ, 36.]

(63).—**秦越人難經**. First mentioned in the Sui Catalogue, and afterwards in the T'ang Catalogue. Nothing more can be found out. [ciii, 4.]

(64).—**脈訣**. Ascribed to a writer of the Tsin, but it is a later imposture, probably from the five dynasties. [civ, 18.]

(65).—**神異經** [cxlii, 4.] and

(66).—**十洲記**. Both works, ascribed to a Han scholar, are forgeries. [cxlii, 6.]

(67).—**列仙傳**. Ascribed to Liu Hsiang, but not mentioned in the Han Catalogue, where the works of this author are enumerated; the style also differs. [cxli, 32.]

(68).—**洞冥記** is an imposture from the time of the six dynasties. [cxlii, 10.]

(69).—**博物志**. Ascribed to a scholar belonging to the Wei and Tsin dynasties, who is said to have read 30 cart-loads of books, and produced a work in 400 books, which he afterwards reduced to 10. This is incredible. The work is a forgery by the commentator, who lived during the T'ang dynasty. [cxlii, 39.]

(70).—**杜律虞註**. This is also falsely ascribed to another author.

*D.—Authentic Works wherewith False Portions  
are intermingled.\**

(71).—**三禮考註**. Contains many later additions. [By 吳澄 of the Yuen dynasty.] [xxv, 1.]

(72).—**文子**. A pupil of Lao Tsz, contemporary of Confucius, may be doubted. The book is in the style of Lao Tsz, but contains also much taken from Mencius and other sources. It has, however, a genuine kernel in it. [cxlvi, 28.]

(73).—**莊子**, especially four chapters, are found objectionable. [cxlvi, 21 ff. and cxlvii, 7 ff.]

(74).—**列子**. Said to be forged out of Chuang Tsz with later additions. [cxlvi, 18 ff. and cxlvii, 6 ff.]

(75).—**管子**. It is not the work of one man's pen.

[ci, 1 and 13 ff.]

(76).—**賈誼新書**. The author's name is famous among the Han scholars. The name of this book appears first in the Sui Catalogue. The [present] work is certainly not the original work of Yi. [xci, 11.]

(77).—**傷寒論**. A medical work by a Han scholar, but so confused that it is difficult to get a clear idea out of it.

(78).—**金匱玉函經**. Ascribed to the author of No. 77, but it is an imposture by a later person.

(79).—**爾雅**. Neither the Han nor the Sui Catalogue mentions its author. In the T'ang dynasty it is first ascribed to Chow Kung, which is wrong. The book was composed after *Li Sou* (離騷), to which elegy it alludes. It may belong to the Han time. It serves to explain the Classics, but cannot be classed among their number. [xi, 5.]

(80).—**韻書**. The older work is lost, and this is by a Sung scholar.

(81).—**山海經**. The Han Catalogue does not mention the author. The idea that it is the work of Emperor Yü is

\* The *Li-ki* and *Yi Li*, of the Classics, belong to this class.

ridiculous. It was written by somebody between the Ts'in and Han dynasties, *i.e.*, about B.C. 250-200. [exlxi, 1 ff.]

(82).—**水經**. The Sui Catalogue mentions two different works without their authors' names, which cannot be determined now. [exix, 1 ff.]

(83).—**陰符經**. Published by a Tang author. To ascribe it to Hwang-ti, etc., is not worth refutation. [exlvi, 2 ff. and exlvii, 1 ff.]

(84).—**越絕書**. It first occurs in the Sui Catalogue. To ascribe it to 子貢 or to 子胥 is wrong. It is from a person of the Eastern Han. [lxvi, 3.]

(85).—**吳越春秋**. It is ascribed to two different authors, and it is impossible now to decide the question. [lxvi, 1.]

#### E.—*Authentic Works with False Titles.*

(86).—**春秋繁露**. The Han Catalogue contains two works by the author Tung Chung-shü, one on the Spring-Autumn, the other doctrinal, 儒家. Of these, some parts were lost, and the remaining portions were collated into one work, of which several chapters, out of the 82, have nothing to do with the Spring-Autumn.

(87).—**東坡志林**. A ridiculous confusion between two different works. [cxx, 21.]

#### F.—*Works by Unknown Authors.*

(88).—**國語**. The Han Catalogue mentions no author. The *Sz Ki* gives 左丘明, but this is doubtful. [ii, 1.]

(89).—**孫子**. The *Sz Ki* mentions this author and his work, but Tso Chuen is silent. Then there is a difference between the *Sz Ki* and the Han Catalogue. [xcix, 4.]

(90).—**劉子新論**. There is a choice between four Lius.

(91).—**化書**. A Taoist work. [cxvii, 26.]

The Chinese volume from which this list is taken bears no date, but it cannot be less than 200 years old. Since that time antiquarian research has been going on among the Chinese with much ardour. But the results of their critical labours have not yet been collected into one work like Yao's. The Imperial Catalogue, mentioned already, was completed in the year 1782, more than 100 years ago. As it exhibits very fair judgment, we regret that it is not brought up to date. The large collection of works on the Classics, called **皇清經解**, in 360 volumes, and a supplement to it of about the same size, embody much of the latest researches on the 13 classical books, including the different readings of the text. Of other ancient works only such are taken into consideration as have a direct bearing on the Classics. A great deal of valuable criticism is still scattered through writings published privately, or in collections of miscellaneous writings, which are commonly expensive and sometimes difficult to obtain. I feel sure that the critical tendency among many highly accomplished native scholars is due to Western influence on the Chinese mind. On the other hand, an unscholarly dependence on the writings of the earlier Jesuits, with a corresponding neglect of recent publications, as also absence of independent research into the modern literature of China, betray an antiquated state of sinology under which only the conservative views of Chinese authors, mostly of ancient times, are brought forward as the Chinese opinion of the question.

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## APPENDIX (A).

[Quotations from T. WATERS' *Essays*.]

A few weeks after the manuscript of my paper on "Prehistoric China" had been in the hands of the Council of the C.B.R.A.S. the new work, *Essays on the Chinese Language*, by T. WATERS, Shanghai, Presbyterian Mission Press, 1889, appeared. This is a most valuable contribution to Chinese Philology. Its masterly treatment of the subject, the richness of information it gives from original sources, and the rays of light it throws on many difficult questions, will repay a careful study of its contents. Though the scope of the work differs from what is aimed at in "Prehistoric China," though our methods vary and our results may appear as not of the same nature, or as belonging to different departments, still there are many points where we touch one another. The student will, therefore, probably welcome a few extracts.

(p. 21) "But it is to be noted that the passages in the 'Shu-ching' just referred to" [on the character for writing, 書] "have been condemned as spurious by some critics, and there is some doubt as to their genuineness. (p. 22) Among the official class, writing seems to have been in common use under the early rulers of the Chou dynasty. (p. 23) In this period colleges existed at all official centres, and schools of various kinds were to be found generally throughout the country. Books were written and libraries formed, though, it must be presumed, only on a small scale. *The written characters were few and insufficient*, much time was wasted in the process of writing, and the materials used were rude and clumsy." [Comp. p. 155 of this essay.]

(p. 25, Note). "Chu Fu-tzu writes to a friend that the 'Urhi-ya' was a compilation of the explanations and definitions given by the scholars of former and contemporary times made into a book, but that it has inaccuracies and *cannot be regarded as old*." [See Works rejected No. 79, p. 211.]

(p. 25) "But Chow's invention had the effect of producing a considerable number of new characters, and of restricting to a small extent the applications of those already existing." [Comp. pp. 155 & 149.]

(p. 27) "It is from this period of Ch'in Shi Huang Ti that the use of the term *tsu* (字) or 'character' dates, and the change in name

from *wên* (文) or *shu* (書) is said to have been brought about by the modes of writing invented by Li Ssü and Ch'êng Mao. Hitherto, all inscriptions and engravings had been mainly pictorial or symbolic, expressing, as their chief office, only objects or ideas, but now sounds also began to receive attention." This puts the beginning of phonetic writing about 600 years later than my estimate of the period of "Chow's invention." I consider the classical period 600-250 B.C. as inconceivable without phonetic writing. [Comp. p. 153.]

(p. 31) "But the book which has given Yang Hsiung [B.C. 52-A.D. 18] his chief fame in later times is the 'Fang-yen.' [See p. 184 of this.] Native scholars have tried in vain to find out how and why the authorship of this treatise came to be ascribed to him. It is not mentioned in the list of books in the 'Han-shu' nor in the life of Yang Hsiung in that work, nor, so far as is known, does Hsü Shên or any other of Yang's contemporaries refer to the book by name." This should be added to the list of rejected works, under E. p. 212.

(p. 33) "For the making of his 'Shuo-wên' Hsü Shên studied, with the help of Chia K'uei, one of the greatest of the Han scholars, all the accessible literature in the old characters and in those invented in later times. He compared the texts of the recovered tablets, collected inscriptions on ancient vases, and examined the writings of his predecessors, such as Shi Chow, Li Ssü, and Yang Hsiung." [Comp. pp. 150, 151 of this.]

(p. 37) "The Buddhist missionaries had come from India and settled down in China . . . They tried to introduce their own alphabet and have it brought into use in China, but in this they completely failed. They succeeded, however, in teaching the Chinese, or at least in giving popularity among them, to an art of spelling, which, though rude and inaccurate, is better than none. This is the procedure known as Fan-ch'ie (反切)." [Comp. pp. 156 ff. & 160]

(p. 54) "In the year 744 an Imperial order was given to have the 'Shu-ching' transcribed in the characters in common use at the time. The Emperor, Ming Huang, disliked the *li* characters in which the 'Shu' and other classics continued to be written. Moreover, these characters had become obsolete, hard to learn, and liable to confusion, and only professional scholars could read the canonical books . . . The editions of the classics in the vulgar writing soon superseded the others." [Comp. the final sentence of Appendix B, p. 218.]

(p. 57) "Neither of these two brothers [Hsü, who re-edited the Shwuh-wên in the Sung period to form the basis of the modern editions] gave much study to the phonetics of the language, and later scholars object to them that they overlooked the changes which had passed over the sounds of characters between the Han and T'ang dynasties." [Comp. p. 151.]

(p. 66) "Chêng Ch'iao, 1104-1162, [see p. 158 of this] one of the most erudite and renowned men of letters of the Sung dynasty, distinguished by almost universal knowledge . . . He produced also a book in three *chuan* 'Shi-ku-wên' (石鼓文) in which he argued against the supreme antiquity of the 'Stone Drums.' From the resemblance of the characters on these to characters found on objects of the Ch'in dynasty (B.C. 255 to 206) he concluded that the Drums also belong to that period." [Journal N.C.B.R.A.S. Vol. viii, p. 134.] [Comp. Appendix B.]

(p. 69) "Wu" [吳棫, 12th century] "argued that the political ballads and other poems of early times were at first sung, or chanted, or recited, and that they were not committed to writing but preserved in memory. He held that the minstrels and poets used the sounds current in their several districts at the time, and that words of different tones in the 'Shi' were interchanged and rhymed together." [Comp. p. 184.]

(p. 100) "It must be admitted that the investigation of the language is seldom pursued by native scholars as an independent study. It is always an 'inferior science,' and gains importance only as a help to the understanding of the orthodox canonical literature. From the 'Shuo-wên' down to the latest dictionary, all etymological treatises have been composed with the express design of aiding in the settling of texts, clearing up the meaning, or ascertaining the sounds of characters in the old Confucian writings or in the works composed to teach, illustrate or continue those writings." [Comp. pp. 182-187.]

(p. 120) "Carving in wood seems to have been practised in China from a remote period, and to have been employed for various purposes. In the seventh century B.C. the projecting beams of the roofs of temples and palaces were sometimes elaborately carved and colored. . . . But such rude appliances as knotted cords and carved sticks could not long suffice to meet the requirements of a growing society. The Chinese, accordingly, represent themselves as having at an early period of their history learned to cut, and afterwards paint, in wood



and stone and metal, figures or outlines of objects. These were practically the first beginning of writing for them. All the earliest characters seem to have been either pictorial representations or rough symbols of natural objects and phenomena. That is, they were either drawings which presented an outline of an object, or drawings which by their composition pointed to the meaning intended." [Comp. pp. 192-193.]

(p. 123) "At first only material objects and their relations, dealings of business, and affairs of government, were depicted in outline or symbol. The chief aim which the inventors and first improvers of the graphic art had in view was to make a record which could be appealed to as evidence. It was in matters of government, according to some native writers, that the use of writing began, the design of the inventors being to facilitate intercourse between the ruler and his servants, and between these and the people, and to register transactions of importance. Thus, when in old times the prince of one state invaded the territory of another, slew the inhabitants, and carried off the booty, he caused the event to be recorded. It was written on bamboo or silk, and engraved in metal and stone to be inscribed on sacrificial vessels for the information of posterity. . . . 'Tadpoles' became the name of a certain whimsical style of written characters." [Comp. p. 162.]

(p. 124) "Dr. EDKINS also has stated that 'the phonetic characters appear to belong to the same era as those that are hieroglyphic. They are found together among the earliest remains of Chinese literature. According to the uniform national tradition, they must, therefore, be dated about B.C. 2700.' But this can scarcely be set down as the prevailing opinion among native students of the language. It may be true, however, of written characters, strictly so-called. The earlier transcript of language, which was called *wên* (文), is defined as the visible representation of objects arranged according to categories (or classes). It is also stated that *wên* is the source of object-picturing or delineation."

(p. 126) "One of the marks whereby a barbarian is known is, that he writes from left to right, another being, that he takes his food without using chop-sticks . . . The Buddhist scholars, whether native or foreign, taught moderation and even modesty in the comparison between Chinese and Sanskrit."

## APPENDIX (B).

## [THE STONE DRUMS.]

"On the Stone Drums of the Chou Dynasty," an able paper by S. W. BUSHELL, B.Sc., M.D., was read before the Society on November 18th, 1873, and is printed in Vol. VIII. of the Journal. I can here give only a short extract and refer the reader to the article itself.

"The Stone Drums were discovered in the province of Shensi, lying half-buried in the ground. The earliest accounts of them were written during A.D. 627-649. From intrinsic evidence the inscriptions have been referred by the large majority of authorities to the period of Hsuan Wang (B.C. 827-782). They record a hunting expedition in the writing invented by Chou-shih (Ta-ch'uan). There is, however, no mention of the fact in the historical records of this reign.

"Under the Sung, the celebrated writer Ou-yang Hsiu was the first to question their authenticity. He says: '*In my collection of ancient inscriptions, there is not one so old as these.*' Yet there are three doubtful points which suggest themselves to me. First, their good preservation compared with other inscriptions less old. Second, that they are the only remains of that period beside the Shih and Shu. Third, that no mention is made of them in any early record."

The answers by Chinese authors are not satisfactory, nor is Dr. BUSHELL's summing up: "If we accept the train of reasoning of Ou-yang we must reject all the sculptured monuments of Egypt, Assyria and Persia which have been brought to light in such profusion of late years." As neither the material used in China is the same, nor the climate in the countries referred to, we cannot compare the durability of the monuments here and there. To me the most suspicious feature appears to be that characters of the ancient style should have been so easily decipherable as is the case with all the characters on the Stone Drums.

## APPENDIX (C).

## [CHINESE ASTRONOMY.]

Dr. LEGGE's view in the *Sacred Books of the East*, Vol. III, Oxford, 1879, differs from the opinion he expressed in the *Chinese Classics*, Vol. III, Hongkong, 1865. The only new argument brought forward is a chart, by Professor C. PRITCHARD, of the stars as they were visible in China in B.C. 2300. In a pamphlet—*Die Schu-King-Finsterniss*, von Dr. G. SCHLEGEL und Dr. FRANZ KÜHNERT, Observator der K. K. Gradmessung in Wien,—which was published at Amsterdam in 1889, a new attempt is made to calculate the date of the Eclipse of the Sun mentioned by LEGGE (*Shoo King*, I, 167). It will be interesting to take a glance at the history of this astro-sinological experiment.

The Jesuit GAUBIL fixed the date at October 11th, 2154 B.C., in accordance with the Chinese T'ang astronomers and the accepted chronology of the Chinese.

According to the Chinese Bamboo-books (see LEGGE's *Chinese Classics*, Vol. III), it would be the 28th of October 1948 B.C.

LARGETEAU found, in the year 1840, that this eclipse occurred during the night, before sunrise, at *Ngan-yih* (安邑), and was, therefore, not visible. Dr. CHALMERS came independently to the same conclusion and adopted the date October 12th, 2127, "without fear of its being hereafter proved invisible." But 15 years later, VON OPPOLZER proved that this eclipse was not visible at that place in China. The same fate happened to FRÉRET and CASSINI's 24th October 2006, and JOH. v. GUMPACH's 22nd October 2155. THEODOR VON OPPOLZER found that of 34 ecliptic conjunctions of sun and moon between 2200 and 1900 B.C., which had occurred in the month of October, only two were visible at that locality in China—those of the 21st October 2136, and 10th October 2135. He decided for the 21st October 2136, provided that the passage in the *Shu King* could be translated in a different way.

SCHLEGEL and KÜHNERT, May 1889, leave the choice between 12th May 1904 B.C. and 7th May 2165, but decide "with great probability" for the latter date.

SCHLEGEL takes the passage in *Tso-chuen*, Duke Ch'ao, xvii year (LEGGE, Vol. v, p. 667) as his basis. This passage is taken as a repetition of the statement in the *Shu* (III, iv, 4), but as the dates do not agree—LEGGE says: "The 4th month of Hea was the 6th of Chow. But the present text of the *Shoo* places the eclipse in the 9th month of the year"—SCHLEGEL declares the date given in the *Shu* as AN ALTERATION OF THE ORIGINAL TEXT by the Han revisers, or even by Confucius himself, to make it conform to the position of the sun in their time. The ancient Chinese observation, however, is *supposed* to have been made at evening in the 2nd month of spring (akronyktischer Aufgang) and in the morning during the 3rd month of spring (kosmischer Untergang), of which no ancient text says a word. Further, I think the limitation of the period to 1900 B.C., according to the Bamboo-books, [Comp. p. 207, Nos. 20-22,] without scientific foundation.

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## OBITUARY.

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### EDWARD COLBORNE BABER.

From time to time our Society has to note in the pages of its Journal the loss of one or other of its members. But seldom has it to deplore the disappearance from its roll of so striking an individuality as his, whose death in the wilds of Burmah the newspapers have recently recorded. Had EDWARD COLBORNE BABER been a Frenchman, he would long since have worn a red ribbon, perhaps even a rosette, in his button-hole; but he belonged to a nation which is slow to distinguish, and he has gone to his grave with no other mark of distinction than that accorded by the *vox populi*, viz., that of being spoken of, far and wide, by his simple surname without any addition at beginning or end, which constitutes in itself no doubtful sign of popularity and fame.

It is just 24 years since BABER joined the British Consular service in China, and the first decade of that period was occupied with the usual duties of a Consular officer in this country. He did not fail, however, to give evidence, on occasions, of that energy and force of character, which have since carried him through many a scene of difficulty and danger. Most of us have heard of his exploit at Nan-chang, when he overawed a dangerous mob, by felling to the ground with a single blow of his fist a ruffian, who thrust an impudent head inside the curtains of his official chair. But BABER's reputation was in the main built up outside the narrow limits of an ordinary Consular career, and it is as an explorer in the untrodden ways of China that he is best known. To him belongs the credit of being one of the few to succeed in investing a Blue Book with a

real literary charm; witness that account of his travels in South-western China, published, by arrangement with the Foreign Office, as a special supplement to the Annual Report of the Royal Geographical Society some years ago. In those pages, which, though written for "presentation to both Houses of Parliament," form as fascinating a record of travel as any issued by a Murray or a Macmillan, we can see how his spirit beat against the bars, within which he was confined by the etiquette of the unimaginative official style; and we learn from his own outbursts of regret, how he longed to clothe in a poetical garb worthy of his subject, his descriptions of the glorious mountains of Yünnan. And elsewhere, untrammelled by the requirements of officialism, he was fond of mounting Pegasus and trotting him round for the benefit of his friends. His humorous ballad, "In Yuen-ning-yuen all gaily arrayed," is too well known to be more than referred to.

BABER was attached as interpreter to the Grosvenor Mission, sent into Yünnan in 1876 to investigate the circumstances of the murder of MARGARY, and to see that justice was done on the guilty parties. He was later stationed for some time at Chungking, which was the starting-point for the explorations he made throughout Ssüch'uan and Yünnan. In one of these journeys he had for companion Captain GILL, whose book of travels, *The River of Golden Sand*, is well known. In 1879, BABER was appointed Chinese Secretary at Peking, a sedentary post which scarcely suited his restless energies, and which he retained but for a short time. Still nominally attached to the service in China, he was commissioned as Consul successively at Chefoo, Ichang and Swatow, but took up his appointment at none of these places. After a short incumbency of the Consul Generalship in Corea, he quitted China, as we now know, for ever, his services being lent to the Government of India, in connection with the task of delimiting the frontier between Yünnan and Burmah. Though, in earlier days at least, much addicted to all forms of athletic exercise, he was not constitutionally strong, and had a sovereign contempt for the precautions which the average European thinks it necessary to take against the dangers of an Eastern sun. Till further details are to hand, we can only conjecture what the

causes were which led to his last illness, whether lack of stamina to resist a sudden attack, or unavoidable exposure to the treacherous climate of Upper Burmah. Whatever the cause may have been, we know he has died at his post and in the midst of his duties. In EDWARD COLBORNE BABER our Society has lost one of its most distinguished members ; the Government, a zealous and energetic servant ; and those who knew him well, a valued friend.

## REVIEW.

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### AN EXPOUNDER OF DARK SAYINGS.

"CHUANG Tzŭ, Mystic, Moralist and Social Reformer;" *Translated from the Chinese by Herbert A. Giles, H. B. M.'s Consul at Tamsui.* London: Bernard Quaritch, 1889.

We live in days of which the most striking characteristics are an advance by leaps and bounds in all departments of science, and an iconoclasm of creeds as thoroughgoing, in its way, as Luther's revolt from Popery, and much more widespread. Some there are who would connect the two phenomena in a chain of cause and effect, and not without plausible grounds. However that may be, it is certain that the old-fashioned hard-and-fast bounds of most creeds, like to the superannuated defences of many a continental town, have been contentedly dismantled by those within, or have fallen flat before the trumpet blasts of modern thinkers from without. Had these trumpeters been none but godless men of science, as the lovers of the old battlements at one time maintained, the symptoms would not have been so serious as they actually are; but when the higher dignitaries of the Church recruit the ranks of the levellers, and demolish, with a hearty good will, here the six days of the creation, and there the bolts and bars of an everlasting hell, it is no wonder that people in general begin to wake up, and take advantage of their enlarged horizon, to speculate whether there be anything worth knowing beyond the ruined boundaries which hem them in no longer.

The vast majority of the respective flocks still remain, doubtless, contented and unquestioning within the sheepfolds of Protestantism and Roman Catholicism, but there are an increasing number of truants, who place the honest doubt which leads to enquiry above the cut and dry tenets of any creed, who decline to admit that "another



man's doxy" is necessarily heresy and schism, and who on the whole gain in Charity where they lose in Faith. And it is consoling to know that a good authority appraised the former at a higher value than the latter.

The spirit of the age is, in brief, a spirit of enquiry into other men's beliefs, with the inevitable result that the enquirer finds there is much commendable, where he would once have been taught to believe all was beyond question condemnable. *Audi alteram partem*, is the motto of the day. Let us hear what the so-called Turk, Jew, Infidel or Heretic has to say before we decide that he is (almost) past praying for. Fetichism may eventually find partisans, or at least apologists, for aught we can tell: at any rate Buddhism, Mahometanism, Confucianism and Taoism have their admirers, and with respect to all creeds, whether religious or philosophical, there is a general feeling growing up that we ought to understand before we condemn.

The works of Chuang-tzŭ, as Mr. GILES is careful to point out, have no title whatever to be classed among the Sacred Books of the East, unless we make a radical change in the ordinary meanings of words. It is also true that Confucianism, which has often been vaguely spoken of as the religion of the educated Chinese, has no claim to rank as a religion. Of Confucius, Mr. GILES writes, (p. ix), "He taught his countrymen that *duty to one's neighbour* comprises the whole duty of man. Charitableness of heart, justice, sincerity and fortitude sum up the ethics of Confucius. He knew nothing of a God, of a soul, of an unseen world. And he declared that the unknowable had better remain untouched."

This is an excellent definition of Confucius' doctrines, and to define Agnosticism scarcely a word would have to be changed. Confucianism had never heard of a Supreme Being; Agnosticism has, but decides that God is a possibility without being a necessity. The wavering Christian has a tendency therefore to become practically a Confucianist, his Confucianism being termed Agnosticism because it retains an ineradicable tinge from a past belief. And in like manner the lukewarm Confucianist of the East, tired of what Mr. GILES calls the "hard and worldly" doctrines of his prophet,

degenerates into the untrammelled *far niente* follower of Chuang-tzū and Quietism.

Enough has been said to show that the enquirer into the moral systems of the Far East, who should neglect the study of Chuang-tzū, would have unduly narrowed his field of research. But there are few indeed of such seekers after knowledge, even among the remnant possessed of a fair acquaintance with Chinese, who could crack so hard a nut as Chuang-tzū in the original. An earlier version, from the pen of Mr. BALFOUR, was, it is true, in the field, but it must be admitted that Mr. GILES has brought to the task maturer powers, a greater practical knowledge of a translator's requirements and a more thorough command of forcible and idiomatic English. It is a difficult, nay, an impossible, task to divest a translation of this length of all the "parfum de l'antiquité," and the Eastern flavour which is essential to it; and, even if possible, such a deodorizing process would be undesirable. The smell of the oil is pleasant enough to those, who can appreciate what an arduous work the seven years of toil for his uncouth Rachel has been to the author. Whatever gratification Mr. GILES may derive from the completion of his labour of love, I trust he will remember he owes a debt of gratitude to his precursor. In 1882 he wrote, "I personally have no reason to be otherwise than grateful to Mr. BALFOUR for attempting a translation of the *Divine Classic*. His effort stimulated me to do that which I should in all probability never have done—read the works of Chuang Tsze from beginning to end." There may be some who doubt the lasting character of Mr. GILES' gratitude and who yearn with me to see him take in hand some abstruse but interesting author, who has hitherto escaped translation at the hands of a LEGGE or a CHALMERS, a BALFOUR or a BEALE. It is distinctly a matter for congratulation that, having, shortly after its appearance, satisfactorily demolished Mr. BALFOUR's version in the *China Review*, Mr. GILES dismisses the offender on this occasion with a Parthian kick at the end of the Introduction, and in a few disdainful lines condescends to

"let the foolish yeoman go."

Writing chiefly for a class to whom the language of Chuang-tzŭ is unknown, Mr. GILES has succeeded in laying before them a translation which, while conveying the purport of the original accurately, as far as a cursory inspection has enabled me to judge, is couched in smooth and lucid English, vastly easier of comprehension to the Western reader than the original is to the Chinese. For such as appreciate caviare, the book will have an undoubted attraction. It cannot be said to be light reading, nor is it a work of such a kind that, when once taken up, you cannot relinquish it till it has been read to the end. On the contrary, even a reader to whom Browning is clear, will often have to lay Chuang-tzŭ down in order to think a passage over. Many a page will have to be read yet once again before the author's drift is grasped, and there are not a few sentences which will have to be treated as enigmas and given up.

For instance, we have on page 19 the following words:—"To take a finger in illustration of a finger not being a finger is not so good as to take something which is not a finger." Perhaps Mr. GILES understands what the above means; I confess, I do not. In any case the fault does not lie in the translator, it is an accurate version, I should say, of the Chinese; but if Mr. GILES does understand it, I think he might have enlightened meaner mortals in a note, for the import is far from self-evident. Possibly this passage belongs to the third class of renderings referred to on page xiii. In wrestling with the obscurities of his author, Mr. GILES adopted three sensible rules,—“Where there is a consensus of opinion [among the native commentators], I have followed such interpretation without demur. But where opinions differ, I have not hesitated to accept that translation which seemed to me to be most in harmony with the general tenor of Chuang-tzŭ's philosophy. And where all commentators fail equally, as they sometimes do, [see for an instance page 329,] to yield anything at all intelligible, I have then ventured to fall back upon what Chuang-tzŭ himself would have called the ‘light of nature,’ [for which see page 19.]”

It is doubtless by virtue of Rule III that Mr. GILES has been able to present some sort of a version of many a passage which would otherwise have had to be omitted. It would have been useful if such passages had been indicated by an asterisk, placed within

brackets, or otherwise distinguished. In a few instances, however, the fact is mentioned in a note. This bold determination to conquer where so many native commentators have failed, is evidence of considerable moral courage and laudable self-confidence, and those who know Mr. GILES well, will feel sure that, in the absence of authoritative native decisions, the interpretations of "CHAI FU TZŭ" are as good as any procurable from his peers.

I do not propose to enter on a consideration of the contents of the book itself; if any desire to know what Chuang-tzŭ has to say, are there not booksellers? But it will not be out of place to offer some remarks on the way in which the work of translation has been done. Mr. GILES has taken a hint from Mr. IGNATIUS DONNELLY, and in so doing has placed his reviewers somewhat at a disadvantage. The author of the "Great Cryptogram," it may be remembered, did not offer a complete elucidation of his alleged discovery. He contented himself with giving a specimen of the results of his calculations, with some of the main features of the system by which these results were arrived at, and then with the calmness of conscious worth—or, the colossal impudence of brazen imposture—invited the public to take the rest on trust. Similarly Mr. GILES announces that this wholly English reproduction of Chuang-tzŭ is to be followed shortly by a supplement, consisting of such textual and critical notes as involve the use of Chinese characters in elucidation of his translation. It is obvious that to criticise renderings, while still unprovided with these coming explanations, is to work at a disadvantage. I shall, however, make a few observations of this nature, always premising that I am quite prepared to find Mr. GILES has in reserve arguments which may justify, even in my own eyes, renderings to which I now feel impelled to take exception.

At the end of his Introduction Mr. GILES states, that "only one previous attempt has been made to place Chuang-tzŭ in the hands of English readers." Of the works of Chuang-tzŭ, as a whole, this is perfectly true. But portions have found a translator between the appearance of Mr. BALFOUR's book in 1881 and the present version. It will be instructive to place some of these translations side by side, numbering them 1 (Mr. BALFOUR), 2 (the other translator) and 3 (the work under review).

1

2

3

(a) "You are as obstinate in your opinion as a man who keeps running round and round in the same circle."

(b) "This relief from the anxieties of life and death is as great as that experienced by one who, being strung up by the heels, is suddenly cut down."

(c) "When a corner is hacked (with a knife) it requires afterwards to be carved and worked."

(d) "In the beginning of all things, there was not even nothing. There were no names, these began afterwards."

(e) "Though a loud noise may be unheard by those who are close by."

(f) "The perfect man, though he walks in obscurity, meets with no obstructions."

(g) "I never meet with favourable times in my capacity of ruler."

(h) "Things which come together fortuitously—without any special cause or *raison d'être*,—afterwards part company in an equally fortuitous manner."

"You might as well try to imprison a man by marking the ground round him."

"A man suspended in the air may cut down another suspended man, but not himself."

"Guard them (men's hearts) from all external injuries."

"At the beginning of all things there was nothing; but this nothing had no name."

"A great truth cannot penetrate rustic ears."

"The perfect man can walk under water without difficulty."

"I do not serve my prince as the times require."

"The former (the superior man) having had no motive in contracting the intimacy, will have no object in breaking it off."

[p. 55] "Beware, beware, move cautiously on!"

[p. 81] "I am simply \* \* \* hanging in the air, unable to cut myself down."

[p. 123] "But try to cut and polish it."

[p. 143] "At the beginning of the beginning, even nothing did not exist. Then came the period of the nameless."

[p. 154] "Grand music does not appeal to vulgar ears."

[p. 231] "The perfect man can walk through solid bodies without obstruction."

[p. 243] "Officially, I am not a success."

[p. 254] "The friendship of the mean man begins without due cause, and in like manner comes to an end."

(i) He looked southwards [to the abode of Lao Tsze] and was displeased."

(j) "Saying, 'O ye, O ye who are alone the first to incur the great troubles that there are upon the earth, are you not robbers, are you not murderers?'"

"He became king but did not leave off [teaching.]"

"[To this Lao-tzū replied, 'My son, my son, are you then going to be the first to rid us of the great curses of the world with your 'Do not steal,' and 'Do no murder'?'"]

[p. 294] "On hearing of this, Kêng Sang Ch'u turned his face to the south [towards the abode of Lao Tzū] in shame."

[p. 344] "'O Sirs, O Sirs, there was trouble upon earth, and you were the first to fall into it.'

'I would say, Perhaps you were robbers, or perhaps murderers?'"

In the case of some of these passages, it is almost incredible that meanings so utterly diverse should be extractable from them. And it is, if possible, still more incredible that any one considering the renderings of, for instance, the sentence marked (c) in the 2nd and 3rd columns, should be able to maintain that the Chinese language is never ambiguous. Yet these two renderings are from the same hand, for translator No. 2 is no other than Mr. GILES himself, as may be seen in the *China Review* for July 1882. And who, in the face of Mr. GILES' new rendering of passages (d) (i) and (j) can doubt that Mr. BALFOUR will be able to gather some crumbs of consolation for the stripes of 1882 from the pages of Mr. GILES' Chuang-tzū of 1889?

It would be eminently unfair to deduce from the above passages that Mr. GILES seven years ago had only an elementary knowledge of the Chinese language. Not only unfair but grossly illogical, for to draw a universal conclusion from premises of which one at least is particular, is a fallacy such as would make him of Stagira turn in his grave. Yet it is sometimes done. The just conclusion to draw is that in 1882 Mr. GILES had given Chuang-tzū only a hasty consideration, and has seen reason to modify his opinions since.

In striving to put Chuang-tzū before the English reader in as easily intelligible a form as possible, and perhaps in some instances

from a wish to be graphic or to turn a sentence neatly, Mr. GILES has ended by being at times misleading. What I would chiefly complain of is the rendering by one English word of divers Chinese expressions, which while perhaps reducible to one general category, are still of many distinct shades of meaning. It is a translator's peccadillo which Mr. GILES shares with the authors of the Authorised Version of the Bible, so he errs in good company; but as this very *laches* formed one of the strongest arguments in favour of a revision, it is a pity it was not avoided here. The most glaring instance is of course the word "God," which some sinologues would say does not occur once in Chuang-tzŭ, but which nevertheless will be found liberally sprinkled throughout these pages. Waiving the objection which might be made that the Chinese can hardly be said to have a word for "God" (with a capital letter) at all, it would have been open to Mr. GILES to select any one character which he thought would bear the rendering, and to have restricted the use of the English word to passages where that character occurred. But take the following sentences:—

- (1) "I played as a man, drawing inspiration from God." [p. 177.]
- (2) "Its name is then *of-God*." [p. 194.]
- (3) "Were I to prevail upon God to allow your body to be born again." [p. 225.]
- (4) "It is the delegated image of God." [p. 282.]
- (5) "God will punish them." [p. 302.]

The unwary reader would take it for granted, and justifiably so, that "God" in each case represents the same idea in Chinese. But so far is this from being the case, that in each of the five the idea is different. In (1) it is *T'ien*, Heaven; in (2) *Ti*, a ruler or Emperor; in (3) *Ssü Ming*, the Controller of Destiny; in (4) *T'ien Ti*, Heaven and Earth; and in (5) *Kuei*, a devil, or, as translated on p. 236, a bogey. Only in this last instance does Mr. GILES explain in a note this somewhat startling specimen of catachresis.

This wholesale reduction of many terms into one occasionally lands Mr. GILES in a difficulty. For instance on page 41 there is a

passage, "He who is inwardly straight is a servant of *God*. And he who is a servant of *God* knows that the Son of *Heaven* [the Emperor] and himself are equally the children of *God*."

Here each of the words italicized represents the *T'ien* of the original; so that we have the anomaly of the same character translated in two different ways in as many lines. What Mr. GILES' dilemma was is of course obvious enough, but if he had elected to translate *T'ien* in the usual way the dilemma would not have presented itself, and the result would have been rather clearer and more nearly what Chuang-tzū meant to express.

Another case of misleading (here, I fancy, with the idea of being more graphic,) occurs on page 40:—"It will be as though you took fire to quell fire, water to quell water, which is popularly known as 'pouring oil on the flames.'" The enthusiastic proverb-hunter might well be excused for thinking he had run to earth in Chuang-tzū an excellent equivalent for a Western saying. But on turning to the Chinese he would find nothing about oil, nothing about flames, and not even the word "pouring." The Chinese is simply "making matters worse" or, more literally, "aggravating" [the difficulty or, situation]. Mr. GILES would have been quite justified in inserting in a note that in Europe we should speak of "pouring oil on the flames," but he ought to have kept it out of the text.

On p. 135 we read "Sovereignty begins in virtue and ends in *God*" (*i.e.*, Heaven). I should say it is doubtful whether the character *ch'êng*, here translated "ends," will bear that interpretation. "Is perfected" appears nearer the mark. But this is a case in which the promised supplement may enlighten us. Supposing, however, that "ends" is tenable, I wonder Mr. GILES resisted the temptation of giving the dictum a prophetic turn. Translated, as it well might be, thus, "Sovereignty originated in pre-eminence and ended in divine right," it would have been startlingly applicable to the history of monarchical institutions.

We must look to the supplement, I presume, to reconcile the translation of a sentence on p. 137 with the original. The former reads, "He will not account a *throne* as his own private gain," but the Chinese, at least in the text I have followed, has no



mention of a throne, but has instead "the profits of a generation."

But with a wholesome fear of this ingeniously minatory supplement, which may reduce me to confusion when it appears before my eyes, I refrain from further textual criticism, and will close this notice with a hearty commendation of Mr. GILES' Chuang-tzŭ to the attention of the reading public, by way of valediction.

G. M. H. PLAYFAIR.

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## PROCEEDINGS.

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MINUTES of a GENERAL MEETING held at the Society's Library on  
*Saturday, 14th December 1889, at 9 p.m.*

The chair was taken by Mr. P. J. HUGHES (the President).  
About 40 persons were present.

The CHAIRMAN, in opening the proceedings, said that the lecture which Dr. Macgowan had kindly undertaken to give that evening, was one which could not be otherwise than instructive and interesting, as it referred to a subject which had at least the charm of novelty to the general public. It was true that "Gynæcocracy," or "Gynarchy," as he should prefer to call it, was probably known to some of them under a more familiar title as applied to a system of Government in the domestic circle. It was understood, however, that the lecturer did not propose to treat the subject as a social question of the present day, but as a political and historical question of the past. It was unnecessary to go through the form of introducing Dr. Macgowan to a Shanghai audience. As the Nestor of sinologues, he was known to most of them and respected by all; and his many valuable contributions to their knowledge of China and the Chinese had made his name familiar as a household word. He was sorry that the unavoidably short notice which had been given and the severity of the weather had prevented the attendance of many who would otherwise have been present; but among the numerous and representative audience there assembled, the lecturer would be glad to recognise some of his old friends and fellow-labourers in the field of Chinese literature; and he (the Chairman) had no doubt that Dr. Macgowan would receive the attentive and appreciative hearing which he well deserved.

Dr. MACGOWAN, proceeding to read extracts from his paper on "The Gynaeocracies of Eastern Asia," remarked that the unmellicious word shortened by Sir WALTER SCOTT into gynocracy meant simply what in domestic matters all right-minded men enjoyed—the sway of woman. On the present occasion it referred to political domination, yet it was not to be regarded as bearing on the question of the enfranchisement of women, but as a contribution to anthropological sociology, though perchance something might be found which could be made to fortify the views of advocates and opponents of that momentous question. He added to these prefatory remarks that he eschewed the use of the term "female" as not sufficiently respectful to the dependent sex—to whom the fittest, the reverential, sacred term "woman" or "lady" should be applied. Ethnographical observations commenced the discourse, to show the conditions of aboriginal peoples whom the Chinese found on the Yellow River on their arrival from Akkad. The Chinese then possessed the rudiments of civilisation, of which the aboriginals were destitute. That this irruption of the Chinese was anterior to the invention of cuneiform writing in Akkad was probable, because of their use of quipos or knotted cords in keeping records. Dr. Macgowan added parenthetically that on a future occasion he would explain his views respecting quipos, as they, and not mere tradition, were the base of Chinese archaic annals, and that from those quipos the earliest form of Chinese written characters was evolved. Anterior to these quipos, judging from certain neighbouring tribes, notched sticks were employed, which was an improvement over a plan by which certain Mongol Sachems kept account of the number of their soldiers and cattle. Into a hole in the floor of the tent sheep droppings were deposited, a pellet being dropped in or subtracted on every addition or loss of man or animal; by counting the store of pellets, the strength of the army or number of horses could be known. With regard to the tribes which the Chinese found existing on reaching their future home, Dr. Macgowan remarked that the philosopher of Universal Love—Motzu, proto-altruist and arch-heresiarch—whose sun was rising when the sun of Confucius was setting, enunciated views on the evolution of the State and Family which are in accord

with those of modern anthropologists. Men at first were in the lowest state of savagery : there was no Golden Age as depicted by sages and political philosophers until men felt the necessity of a remedy for the anarchy that prevailed. Practices of self-deformation were, some of them, remarkably curious, such as those of drinking through the nostrils, extracting of front teeth and substituting dogs' teeth, head-flattening, etc.: the most striking was the attempt to raise a polydactylous race, by destroying all children who came into the world with the usual number of fingers and toes, and thus the tribe had a dozen fingers and as many toes. Self-deformation might be taken as a differentiation between man and brute ; not even the anthropoid ape disfigured his visage to improve his beauty ; he did not tattoo himself, nor did his mate resort to tight-lacing. Man alone was given to such conceits. The first Queendom described was that which was established in Tongking at the beginning of the Christian era, the occasion being an attempt to throw off the Chinese yoke. In relation to the suppression of that rebellion, Dr. Macgowan remarked that the Chinese army would have extended its conquests in the South until the Dragon could lave in the Straits of Malacca, but for malaria, which in a single year destroyed half their number. But for that fell foe Chinese conquests would have annexed the entire Malayan archipelago long ago, and Canton would have become a northern port of China. Jungle-fever alone prevented Burma becoming a Chinese province in the latter half of the last century. The most remarkable gynecocracy was established on the South of the Karakorum Pass in Kashmir by a tribe of Chiang, who in the third century B.C. were driven from Eastern Turkestan. The sufferings of their flight across the Gobi desert and ascent of the Karakorum Pass must have caused them to reach their destination with very few surviving women, and polyandry was the result, and the system of plurality of husbands led to the establishment of hearth rule. Women were few and became dominant. In the course of their history the Karakorum Chiang, wearied by civil wars consequent on contested claims to succession to the sovereignty, resolved to vest the chieftaincy in a line of women, and applied to a dominant clan for two maidens to be their queen and vice-queen, which was

accorded, and when these died without female issue application was again made for a brace of girls as successors, a large amount of gold being sent as a present to the clan which enjoyed the hereditary right of keeping up the line of women sovereigns. Her majesty the queen of the Karakorum Chiang held a *levée* every five days in a nine-storied palace. No male held office except in the army, which was under the command of a generalissimo. Attempts at display were made at this court, the most striking feature being the horns which adorned the head-gear of the ladies, each sporting gold horns indicating the number of husbands possessed. Among a tribe of barbarians in the south tufts of hair indicated the number of husbands which the dames possessed. Comparing this court with the contemporary court of Heraclitus it is probable that while the barbaric display of the former would jar on the æsthetic sense as compared with the magnificence of the court on the Thracian Bosphorus, yet the decorum of the simple pagans placed them on a plane higher than that of the licentious Christian court. How long this polity existed it was impossible to discover; probably more than a century, possibly several centuries. It was not likely that of their own accord the Chiangs abolished woman rule; it probably existed until the State was subjugated by more powerful neighbours. Their constitution was the ideal of a commonwealth—rule with the consent of the governed; it did not appear that they became dissatisfied with their peculiar institution, seemingly they were content with the gentle, suave, benign and not unwise sway of mothers, wives and sisters. The whirligig of time had brought the descendants of the founders of this gynæocracy under woman's sway; the Empress of India now ruled in that region and with the free consent of the governed. It was noteworthy that the men of this queenhood, where women were excluded from every office except chieftainship, were less advanced in civilisation, less martial, less virile than those who committed the entire administration of the country to their wives. Whether their higher civilisation was due to that cause, or whether their greater progress induced them to adopt the polity, cannot be ascertained. Usurpation by a son of a queen led to the abolition of woman's dominion in the country, which became absorbed by China, when its

polyandry was gradually changed to less discivilising polygamy; and when their land became denationalised, each cultivator becoming owner of the soil he cultivated, they entered on a march of improvement, as did the Chinese when at the revolution (China's sole revolution, the only interruption in the continuity of her evolution), to which cause, with eligibility of every man to office, is due the progress that she has made. Erstwhile husbandmen enjoyed their land in usufruct only, during which period China was stagnant, or engaged in internecine strife. The lecturer went on to give notices of Malayan, Papuan, Siamese, Japanese and Corean gynecocracies, concluding with those of China, empresses and female regents. It was not until the approach of the revolution that cases occurred—these cases were already known to history, and might here stand over, with the remark that fears of usurpations of empresses dowager acting as regentesses led sometimes (under the Northern Wên in imitation of Hung Wu) to the murder of mothers of heirs apparent, a practice restricted to an alien dynasty and strongly denounced by Chinese writers. It was chiefly among the aboriginal inhabitants that women chieftaincy obtained to this day. There was seldom an age in which one tribe or another did not afford examples—the more primitive the condition of these tribes the slighter was sexual differentiation as regards public governmental affairs, both civil and military. It was rumours respecting tribes of this kind which gave rise to fables and myths in Greece regarding Indo-Scythian Amazons. To the list of women rulers of China, which included empresses of execrable character as well as of character the most exemplary, must be added that of the illustrious lady who has just retired from a regency which must give her a conspicuous niche among the best rulers of her sex. A few remarks were added respecting the court of Rock-tiger, who for a few years held portions of Shensi and Shansi under his sway, shortly before the establishment of the Northern Wei. His Majesty Rock-tiger had a body of maidens numbering ten thousand, duly co-ordinated into seven ranks. To the cleverest was assigned the duty of superintending the astrological observatory—to check the predictions of the male Bureau. More interesting was his cavalry, a thousand strapping girls wearing jaunty, crimson caps, on steeds gaily caparisoned, as a body-guard.

Dr. EDKINS said that they had had presented to them a very interesting subject treated in a very interesting manner. It is well for the progress of ethnology to draw on the literatures of Asiatic countries for fresh facts. In the books of ethnologists of the present age, published in Europe and America, attention was devoted too exclusively to the modern savage as he was found in islands scattered about the ocean, but they could only arrive at safe conclusions in ethnology by joining the old facts collected in national literatures with the newly-gathered stories of modern travellers. This contribution of Dr. Macgowan's to their Journal would be welcomed by the ethnological and anthropological societies of the West. Prof. Huxley had divided races into three—the black, the tawny, and the white. He laid down a line from Lapland to the Malayan archipelago, and placed the Turanian or yellow races to the north and east of this line. Perhaps proximity to that line had something to do with the appearance of Amazons in history. In Homer they occupied a prominent place. Gynocracies had played a great part near that line, apparently from the union of race characteristics of opposite kinds, and quite as much from their clashing and rivalry. In regard to the origin of female rule, it was, he thought, the consequence of regency, and the hereditary principle in Governments was the principle on which it rested. In China for a quarter of a century resident foreigners had had the opportunity of judging of the success or failure of rule by a woman. The opinion was unanimous that the country had been wisely ruled. The fact was that woman was naturally possessed of those faculties which, improved by education, have led to its being frequently recognised in times ancient and modern that the government of a State was safe in her hands.

Dr. Bock and Dr. Focke added a few words, and a hearty vote of thanks was accorded to the lecturer.

The meeting terminated with a vote of thanks to the Chairman.

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MINUTES of a GENERAL MEETING held at the Society's Library, on  
*Friday, 20th December 1889, at 9 p.m.*

The chair was taken by Mr. P. J. HUGHES (the President).  
There were about 50 persons present.

In opening the meeting the CHAIRMAN mentioned that as the proceedings of the last meeting of the Society, which was held on the 14th instant, had been reported in the local press, he would, with the permission of the meeting, dispense with the formality of reading the minutes. There were, however, a few matters not mentioned at the last meeting which it was desirable to notice. He was informed by the Honorary Secretary that the replies to the questions circulated by the Society early in the year on "Currency and Measures" had come in neither as readily nor as fully as was expected. Mr. Morse, who had kindly undertaken the duty of editing the replies, reported that the abstract of the papers which he was preparing would "be useful only to circulate for amendment and amplification." When the abstract was complete, it was proposed to print and circulate it, in order that the information might be checked and supplemented. It was hoped that all interested in the subject—and it was one which should be specially interesting to all engaged in commerce—would aid in making the information as full and precise as possible. He might add that at a late meeting of the Council it was suggested that the subject for a similar series of questions to be put in circulation next year should be "The Roads and General Means of Communication and Travel throughout China." With a view of obtaining information on this important subject, a list of questions was in course of preparation. When referring at the last Meeting to the forthcoming papers intended to be read or published, he should have mentioned that they had in the press a valuable paper by Mr. von Möllendorff on "Manchu Literature." It was also his duty to announce that since the Annual General Meeting of the 28th May the following gentlemen had been elected members of the Society:—The Rev. E. T. Williams and Dr. R. C. Beebe, of Nanking; Messrs. A. D. Startseff and G. Martinoff, of Tientsin; Messrs. Chesney Duncan and T. E. Hallifax, of Corea;



Messrs. Claude A. Rees and Otto Messing, of Shanghai. He now begged to invite Dr. Faber to favour them with some account of his paper on "Prehistoric China as revealed by the Chinese Written Character." The paper in its original form had been accepted for publication by the Council and would appear in the Society's Transactions at an early date.

Dr. E. FABER then read extracts from his paper on "Prehistoric China as revealed by the Chinese Written Character," which is printed *in extenso* on pp. 141 *seq.* of this volume.

Dr. J. EDKINS said that the exposition by Dr. Faber of the formation of the Chinese characters was most interesting and would prove useful, it was to be hoped, in alluring to the study of the Chinese writings a larger circle of students. In regard to Dr. Faber's chronology he thought it very far in the wrong. By assuming the age of Chinese writing to be no earlier than about 800 years before Christ, Dr. Faber placed himself in opposition to Confucius, to Mencius, to the Han dynasty scholars, to the classical school of the T'ang dynasty, to the Sung dynasty critical school, and to the scholars of the present dynasty, who had carried research much farther than it had been carried before and in a perfectly independent manner. Dr. Faber was prepared to treat the classics as legend, and in doing so he was going against much valuable evidence. For example, there was the astronomical proof of the genuineness of the first parts of the *Shu King*. The Pleiades were now at the winter solstice about 145 degrees distant from the sun. But in the *Shu King* the Pleiades were only 90 degrees from the sun at the winter solstice. The precession of the equinoxes was nearly a minute a year. Taking it at fifty seconds, in 71 years the place of the Pleiades had moved a degree; hence the observation in the *Shu King* must have been made about 2,108 years before Christ. Anyone could make the addition of 50 seconds a year, and he would find it so. In this case we found astronomy in accord with Chinese chronology, and we had better, then, accept the statement of scholars in regard to the books in which this and three other similar observations of stars were found. Not that the book was entire or uninjured. It consisted of fragments, and in it there were many gaps. But

those of an astronomical kind showed that its earlier portions deserved their confidence. With this view the contents of the book agreed. The Emperor Yan gave his three daughters as wives to one husband, the Emperor Shun. Such a thing could not have happened in the China of the Chow dynasty or at any later period. The book that contained it must therefore be much more ancient. So with the geographical chapter, the *Yü Kung*. Dr. Faber said it was written in the Chow dynasty. But against this view was the fact that it had no Chow dynasty names. Its territorial divisions were the Nine provinces, the *Kieu cheu*, names which had given place to others in the times of the Chow. So it might be shown in regard to the *Yi King*, the book of divination, that the names of five-sixths of its 64 sections were older than the Chow period and that they must have been the accepted names of the divining symbols many centuries before B.C. 1120, the time of Wên Wang. The completion of the system of Chinese writing only about three centuries before the age of Confucius was not capable of being harmonised with the fact that Confucius admired antiquity and studied with great reverence the classics which he edited. If they were such new productions, we should have found proof of it in his writings. So with Mencius. Mencius at the end of his work spoke reverentially of the line of ancient kings and sages ending with Confucius, a hundred years before himself. They were, he says, parted at intervals of 500 years or more. Yau and Shun, T'ang and Wên, were his moral and political heroes; and to his knowledge the oldest of these lived more than 1,600 years before his own age. The passage was a splendid ending to a brilliant book and came from one who was a professed expounder of the doctrines of the ancient sages and was personally extremely fond of history. Thus Dr. Faber placed himself in direct opposition not only to Confucius but also to Mencius. Then it should be remembered with what earnestness the scholars of the Han dynasty laboured to restore the ancient classics. Could these able and learned men have been so far mistaken about these books as Dr. Faber's hypothesis implied? It was impossible; and so with the learned classical school of the T'ang dynasty. It was no easy task to overthrow

the results of their careful and laborious vigils. Then came the school of the Sung philosophers, followed at due interval by the critical school of the present dynasty. Truly it was a long array of authorities, distinguished for deep scholarship and critical acumen, to whose views and wide knowledge this theory of the late origin of Chinese writing is opposed. The critical school of the present dynasty, beginning with the seventeenth century and still flourishing, was specially worthy of respect. The "Bell and Vase" school of research began its career in the Sung dynasty. At present there were about fifty vases in the imperial collection marked in books as of the Shang dynasty; and in the inscriptions on these vases there were many characters which were written phonetically, so that the phonetic principle must have been adopted several centuries before B.C. 1120. Lastly, to account for the orderly development of the language since the first poetry was written, they needed the whole of the extent of the Chinese historical chronology, and could not do with less. A single tone took about a thousand or fifteen hundred years to grow up into accepted use. This natural law would find its scope for action much too cramped and confined within the restricting limits of Dr. Faber's new hypothesis. Recognising the utility of Dr. Faber's analysis of the characters and his study of their construction, his chronology of their origin needed to be firmly rejected, although he had supported his views with so much learning, so much Chinese reading, and so much knowledge of the subject.

Dr. WILLIAMSON, who said he agreed with Dr. Edkins on the subject of chronology, and who put a number of questions to Dr. Faber on points raised, mentioned that 3,000 years before Christ the Akkads, whose writing had only lately been deciphered, had libraries of two kinds—clay bricks and papyri—and hymns to their gods.

Mr. KINGSMILL said that were he to differ from the writer of the paper it would not be, as the last speaker, on the score of his having postdated the introduction of writing into China. Rather, he thought, that he had assigned too early a date for the use of the written character as a means of disseminating literature. There was

evidence, and very strong evidence too, that even so late as the time of Confucius the written characters were not so far developed as to be available for expressing thought and language generally. There was nothing unique in the spectacle of a nation advancing to a high level of civilisation without the possession of a written literature; the case of India, situated nearer to Europe and the West was a case in point. The Rig Veda was on good grounds assigned an antiquity of about fifteen hundred years before Christ, yet it was not till the successors of Alexander opened a path for Western civilisation that writing was introduced into India. The ancient Sanscrit literature was during all that period handed down by oral tradition, and not only the Vedas themselves but, extraordinary to relate, a mass of explanations and comments exceeding in size the original. Again, on the landing of the Spaniards in Central America, they found an advanced civilisation co-existing with an entire absence of writing: quipos did indeed exist and were used for keeping tallies and as remembrancers of the great events of history, but the idea of their representing language had never dawned on the inhabitants of those countries. Mencius, who had been appealed to on the other side and whose authority they would scarcely doubt, was very explicit on the condition of affairs in China. "When the traces of the royal power of Chow were extinguished, the art of ballad-making was forgotten and annals came into vogue," he tells us (IV. 2. XXII). As a matter of fact the period of the destruction of the capital by the Turks (*cir.* B.C. 770) marks the close of the ballad era. It seems difficult for us, brought up amidst the surroundings of a literature some two thousand five hundred years old, to realise the condition of a people well advanced in civilisation without the aid of letters, yet we have only to look back along the current of our own history to find that but for external circumstances we might have been in similar case. The old ballads sung by the bards at the court of the Welsh princes were the exact analogue of the ballads of the *Shi King*, and so late as B.C. 541 we find (*Shi King XXXI*) the King of Wu sending his brother Kicha to the capital of Lu to hear and see their representation, a work of complete supererogation did the ballads, as we are gravely told, exist in writing at the time.

Again, in B.C. 529 we find the assistant recorder of Chow praised for his profound knowledge in understanding the three *fun*, five *tien*, eight *soh* and nine *k'iu*. He, however, fails when he is asked about the *K'i shao*. "If he doesn't know this," is the remark, "how should he know anything more distant?" Even so late as the time of Confucius we find no mention of writing and reading. True, Dr. Legge, by one of those strange instances of mistranslation which are the scandal of sinologues, makes Confucius ask his son, "Have you read the Odes?" but the word rendered "read" is "*hsio*"—to learn by heart. The *Sün Yü* bears internal evidence that it was not composed till long after the time of the sage, probably some three generations, for in Mencius and his contemporaries we find unmistakable allusions to writing and reading, while not a single mention is made of either in the works attributed to Confucius. When, therefore, he tells us Confucius was afraid when he had made the *Ch'un-t'siu*, we find him using the same word "make" which is applied to composing a ballad. What Confucius really did make, and the result of which he feared, is hardly to be considered as what we recognise as the text of what is now called the *Ch'un-t'siu*, but then were lectures delivered to his disciples, which afterwards, written down in the time of his grandson, became known as the *Tso-chwan* or "Assisting Narrative" erroneously rendered as Tso's narrative, for whose composition a special sage, Tso King-ming, has been invented by the myth-makers. The *Ch'un-t'siu* itself was doubtless in existence in Confucius' time, but its structure shows that it was at best but a rude description of writing. Even as now printed, with its necessary particles supplied, it contains scarcely one thousand characters; in its original state it must have contained much fewer, and was probably not much advanced beyond the stage of quipos. It was not history, but merely the pegs on which history could be hung, and to enable it to be of any service the court *shis* handed down orally from one to another the tradition of the events. This was the work of Confucius, and as soon as the art of writing was sufficiently advanced to enable language to be portrayed it resulted in the present *Tso-chwan*. He had himself paid much attention to the early literature of China with reference to the subject of Dr. Faber's paper; he had taken up the subject with no foregone conclusion, and

the result was that he had to discard the genuineness of much of the so-called early literature. Allusion had been made to the *Shu King*, and he must express surprise that Chinese students had been unable to recognise the composite character of the work as handed down. The earlier portions of the *Shu* more especially are of this description, and consist of rude rhymes, generally of four characters, embedded in a crust of later verbiage which is frequently little better than a mass of rubbish. The most trustworthy of the ancient works, the so-called Book of Odes, really the ballads of the Chows, was, he was sorry to notice, but little understood by Chinese students, but a careful study could not fail to correct many of the errors into which they had fallen. Of similar construction to the *Shu* was the *Yih King*, a copy of which he had brought with him. If the cabalistic accretions were removed from the text they would find left behind what were probably meant to represent rude verses, and some of these he had translated and gave a specimen. The so-called early history of China, as the early history of many of the other nations of antiquity, began in myth and ended in legend. Besides this there was a vast amount of pure invention. They had heard quoted the pretended bases of the Shang dynasty, and his hearers would no doubt be surprised to learn that the 28 so-called Kings of that line were simply an old rendering of the twenty-eight mansions of the lunar zodiac. They would find these constellations appearing in ancient Persian in the Bundahesh, in India in the Surya Siddharta, and in old Chinese in the ordinary received twenty-eight Shih. Whence the names preserved in the *Kings* came he was not at the moment prepared to say, but their relations were apparently with the West, and the lists of the sovereigns bore internal evidence of having been evolved in the Han dynasty. It was doubtless comfortable to some minds to receive this mass of verbiage and rubbish as representing an ancient literature, and he envied Drs. Edkins and Williamson the frame of mind which led them to accept it because it was more agreeable to do so than to seek deeper for the truth. Unfortunately, with the writer of the paper, he was unable to bring his mind to this compliant state, and was glad in the interests of scientific truth that Dr. Faber had been bold enough to cast to one side the fetters of an unwholesome tradition.

Dr. FABER warmly thanked all the speakers for their interest in his paper, which had moved them to express their opinions on the subject. He quite agreed with Dr. Edkins that Chinese authors should be treated with respect and that their views should receive careful consideration. Chinese authors, however, were not so unanimous as Dr. Edkins' assertions implied. The principal dates in his lecture were taken from the best Chinese authorities. Neither Confucius nor Mencius, to whose authority appeal had been made, furnished any direct evidence in regard to the age of Chinese writing. Dr. Edkins seemed even to have forgotten the famous saying of Mencius, "Better no *Shu King*, than to place entire confidence in it!" Whether the established Chinese chronology was true or false did not at all affect the line of his argument. Mr. Kingsmill, who had given much careful study to Chinese antiquity, had already satisfactorily answered that point. He might, however, be permitted to remind Dr. Edkins that even on chronology Chinese authors do not agree. There was, for example, a difference of more than 200 years between the respective chronologies of the *Sz Ki* and of the Han books. W. F. Mayers (*Chinese Reader's Manual*, p. 366 Note) says:—"Numerous dissimilar schemes of chronology have been propounded by historical compilers, whose mutually antagonistic views sufficiently attest the unreality of the date for their speculations." There were almost no chronological data in the earlier parts of the *Shu King*. Chronology was still uncertain in the earlier time of the Chow dynasty; not even the chronology of the state of Lu, the native country of Confucius, could be determined beyond the beginning of the "Spring-Autumn" Annals, 722 B.C. Sze-ma Kwang, A.D. 1009-1086, got the credit of fixing the standard chronology; but he would call the attention of students to Choo He's account of the matter. He told them:—"When Kwang first made a chronological scheme, his earliest date was the 1st year of Wei-lee (B.C. 424). Afterwards he extended his dates to the time of Kung and Ho (B.C. 840). After this, again, he made his 'Examination of Antiquity,' beginning with the period of 'highest antiquity,' but he could give no dates of years earlier than the time of Kung and Ho. It was Shaou K'ang-tsie (A.D. 1011-1077) one of the most fantastic

writers of the Sung period, who constructed an arithmetical system and used history to paste it up, and who pushed his calculations up to the 1st year of Yao."—(Dr. Legge, III a, page 83, Note.) Thomas Fergusson, in his *Chinese Researches*, has done a great service to Chinese students by bringing together into one volume the results of all that has been written on Chinese chronology and cycles. After 268 pages of examination of evidence his verdict is: "The chronology of the Chinese can therefore only be considered as an elaborate *fictitious* contrivance, to put in narrative and historical order the traditions that have filtered through the outskirts of ancient civilised Central Asia, towards Chinastan; where at different periods, outcasts and adventurous military chiefs, and even colonies, have found a dwelling-place, and have brought thither with them the traditions of their former homes, which gradually their descendants have imagined were those of ancestors, who had lived all the time of those traditions in China; and thus they appropriated them for their own glorification and that of their adopted country." Mr. Fergusson makes a very important remark on p. 3 of his work:—"It is partly because the annals of those undoubtedly ancient nations (Egypt, Babylonia, Assyria, etc.,) *make no mention* of a coeval empire of China, that a reasonable doubt is suggested as to the reality of the chronology on which the antiquity of that empire is founded; for had China been in those times the seat of science and civilisation, and of the extent and power which are attributed to it, China would have had such a remarkable prominence in the social world that it could not have been unnoticed or unrecorded. It is this absence of any mention of China from the records of known ancient nations that even justifies a refusal to receive any part of its ancient history except with hesitation, and that also necessitates a most careful investigation as to its truth." Dr. Edkins referred to the marriage of Yao's two daughters to Shun as not in accordance with *later* Confucian morals. If not a myth, this story, however, compared favourably with stories related in the *Tso-chuen*, about the time of Confucius, and not at all in accordance with the moral standard of the Confucian classics. That geographical names were commonly older than any books which mention them, should not need mentioning.



Dr. Edkins seemed, moreover, to have forgotten that the division of China into nine provinces was ascribed to Chuen Hū, about 300 years before Yü, the names of which were the same as those of Yü, (Legge, III a 94.) The Emperor Shun, on the other hand, is said to have instituted the division of the empire into 12 provinces, (Legge, p. 38.) As Yü was co-regent with Shun, we find the two divisions of the empire, of which Yü's was regarded as the earlier and Shun's the later, very improbable. [See the chapter on the *Chow Li*, p. 202.] What the speaker had said as to geographical names applied also to the ancient names of the diagrams of the *Yi King*. He had no objection to *names*, only to their writing. Phonetic *writing*, he maintained, was not older than 1200 B.C., probably 800 B.C. He begged a careful consideration of the statistical table of written characters in the paper. Dr. Edkins' apparently strongest argument was taken from astronomy. "In the *Shu King* the Pleiades were only 90 degrees from the sun at the winter solstice." Dr. Edkins did not state that the stars mentioned for the summer solstice and those for the two equinoxes *could not be seen* at the time in China. (Chalmers in Legge III a, Pref. 92.) Dr. Edkins' assertion was in direct opposition to Dr. Chalmers' statement, who says:—"No doubt there was a *tradition* to this effect at the time when the *Shu King* was compiled, for the author, knowing nothing of the precession of the equinoxes, could not have adjusted them to the time of which he was writing. His 'examination of antiquity' (first sentence of Canon of Yao) was so far accurate, although the details of his narrative may and even *must* be mythical. Even Yao himself may be so . . . . The value of the astronomical part of the Canon of Yao, as a confirmation of the received chronology, has been much overrated. According to the obvious interpretation of the text, Yao had *reason* to expect the stars he mentioned to be in the equinoctial and solstitial colures. But what his reason was we are left to conjecture. It might be personal observation; or it might be tradition from his great grandfather, or from Noah himself." Thus, if Dr. Edkins wished his assertion to be of any value, he should first have shown that Dr. Chalmers was wrong. Dr. G. Schlegel published in 1875 a large volume of 927 pages and atlas, *Uranographie*

*Chinoise*. This learned author found Chinese chronology to be far in the wrong, and calculated, from the astronomical data of the *Shu King*, the year in question at 17,827 B.C., or, according to another calculation by the same author, at 16,916 B.C. The difference of 900 years is, of course, trifling in comparison with that of Dr. Edkins' persistently defended chronology, which amounts to about 15,000 years! They might reasonably expect that Dr. Edkins would first settle accounts with other astronomical sinologues before, on such basis, proposing another "firm rejection" of a view based on firmer ground. The astronomical statements in the *Shu King* were too vague to be of any scientific value. Not a single star was mentioned, but a whole constellation. Dr. Chalmers (*Legge*, III a, Pref. 95) says:—"The angular value of the 28 mansions varies from  $1^{\circ}$  to  $80^{\circ}$ , and modern books differ materially from the older ones as to the dimensions of each." Nothing was said as to whether it stood at the horizon or at the culminating point, nothing whether in the evening, at midnight or at dawn. Dr. Edkins simply presumed that the Chinese, 4,000 years ago, were able to determine, to a minute, the culmination of a constellation by mere eyesight, for no instrument was mentioned. Dr. Edkins further presumed that they could determine the exact time of six o'clock. Yao himself thought it better to verify his star-observations by "the length of the day," "the movements of the people" and "the condition of birds and beasts." Further, Yao sent his four officers in four directions; according to some commentaries, to the four extreme borders of the then known Chinese provinces. Their reports could then not have reached the emperor until after a period of several months. All these details pointed to traditions outside of China, which were never understood by the Chinese. Dr. Edkins picked out only one fact and fitted that to his purpose. They might be sure that on such ground no scholar would agree with Dr. Edkins and "firmly reject" the solid and careful arguments of this paper.

Dr. JAMIESON said that he had felt it a great privilege when a few minutes before he had received a note from the Honorary Secretary, asking him to propose a vote of thanks to Dr. Faber for the interesting and valuable paper they had just listened to—a paper, he had no

hesitation in saying, which would prove the most important that had ever appeared in the Transactions of the Society. Those who had once been or were still students of history knew by sad experience that all history voluntarily constructed was liable to be deformed by falsehood; and without any unjustifiable amount of the scepticism which had been denounced by Dr. Edkins, it might be said that no record so formed, no matter how sacred or monumental, was worthy of implicit credence. But here the history, unconsciously inscribed on the language itself, was necessarily and infallibly true. There would needs be differences in the interpretation of it, but whereas, in the case of ordinary history, false interpretations of false records led us into a geometrical progression of error, we had, on the ground which Dr. Faber had broken, only to make sure of our interpretation by careful analysis in order to arrive at certain truth regarding the periods corresponding to the documents. The case was strictly analogous to that of the past history of our globe lithographed on the eternal rocks, where the animals and plants of ages long gone by had left indelible impressions which had only in comparatively recent times found their interpretation. Over these, countless generations of our predecessors had walked all heedless of the treasure beneath their feet. It was a like treasure that Dr. Faber had brought to light, and he (the speaker) was confident that he expressed the feeling of all who had heard Dr. Faber's exposition, when he proposed a hearty and appreciative vote of thanks to the lecturer for doing for Chinese what Max Müller and other eminent scholars had done for the primitive Aryan language.

The vote of thanks was carried by acclamation, and the meeting terminated with the usual compliment to the Chairman.



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It has been decided by the Council that the Society's publications will not for the future be issued to any Member whose subscription is one year in arrear.

The names of those Members whose subscriptions are two years in arrear will for the future be printed in *italic* in the annually published "List of Members."

It is requested that Subscriptions be sent to the Treasurer at the beginning of each year.

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## CHINESE ARCHITECTURE.

By J. EDKINS, D.D.

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To understand the architecture of a country it is necessary to have some knowledge of antiquity. All architecture rests upon the past and embodies the ideas of the men of earlier generations. If, for example, we approach a Gothic cathedral, we observe it may have on the outside rows of statues sculptured on the front, representing the prophets and apostles of scripture. They are intended to shew that the Christian religion, for the conduct of the worship of which this splendid church was built, was founded on the teaching of the men whose statues we see. If they are in rows, as in Wells Cathedral, there is an idea borrowed from Greek art, which loved to represent battles, religious processions, gymnastic contests, feasts, marriages and court pageants in this way. Entering we pass the font, which reminds us that baptism admits a man to the Christian assembly. The thought then occurs that the door of the building is the gate of admission to the congregation, and that the building is symbolical in all its principal features. In the nave occupied by the assembly of worshippers, the congregation, which is entered by baptism, is symbolized. The aisles may possibly be separately assigned to men and to women, but are the parts of the one church. The mysteries and highest truths of the Christian faith are symbolized by other chief features of Gothic architecture. The whole has an adaptation to impress both the cultivated and the ignorant. Architecture in such a case has an effect of the most striking kind on minds endowed with genius. So it was with Milton, whose familiar

words I shall be pardoned for using here as a noble introduction to my subject :—

But let my due feet never fail  
To walk the studious cloysters pale,  
And love the high-embowed roof,  
With antick pillars massy proof.  
And storied windows richly dight.  
Casting a dim religious light :

But the poet wished to describe the effect of music as well as of architecture on the worshipper, and he adds :—

There let the pealing organ blow,  
To the full-voic'd quire below,  
In service high, and anthems clear,  
As may with sweetness, through mine ear,  
Dissolve me into ecstasies,  
And bring all heaven before mine eyes.

Gothic architecture is a medium for religious impression, and its parts are adapted for the conduct of Christian worship. Provision is made for the reader, the preacher, and the musical features of the service. The high arches of cathedrals are not only intended to symbolize celestial aspiration, but also to allow of deep impression being made on the audience by full and reverberating waves of sound.

#### I.—CLASSICAL CHINESE ARCHITECTURE.

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It may be asked, if such be the aim of Gothic architecture and its successful result, what is the aim of Chinese architecture, and is it effective within its own sphere, only having regard to its original ideas ?

First, I remark that in classical Chinese architecture *there is no distinction of an essential kind between sacred and secular buildings*. The farther we go back the more clear does it appear that the palace was a temple and the temple

was a palace. This same circumstance in the architecture of the Assyrians struck LAYARD and other students of Assyrian antiquities. The same fact appears in the old Chinese records. We are told in one of the first chapters of Mencius that Ch'i Siuen Wang, King of the Ch'i country, asked him if he should order the Ming tang in his territory to be destroyed, as many persons advised him to do. Mencius said, No; it was the hall for the emperor to announce correct principles of government in the assemblies of the barons. If you wish to act as a king ought, and practise the duties of a wise ruler, do not destroy it. This was his advice. The emperors formerly came, when they visited Tai shan, to hold here a great feudal assembly, to sacrifice to ancestors, to sacrifice to heaven and to reside in it themselves during their stay. This, we partly learn from Panku, who relates that Han wu ti, on visiting Tai shan, found there the foundations only of the Ming tang of the Chen dynasty. The time would be about B.C. 120. The altar and the hall were gone at that time. Chen kung, the great sage, sacrificed to his deceased father, Wen wang, in the Ming tang of the Imperial residence, placing his tablet in a subordinate position at the time of sacrificing to Shang ti. This was to confer the greatest possible honour upon his deceased father. In the Ming tang there was worship offered to the sun and moon, also an altar for burnt sacrifice, in which case the victim was laid on wood and burnt. When the covenant was made between sovereign and feudal barons the emperor sat on a throne nine feet high during the Chen dynasty, three feet high in the Shang dynasty, and one foot high in the Hia. The throne was a dais, and the emperor sat on it cross-legged. The commentator on the *Chow-li*<sup>1</sup>, from whom I learn these particulars, adds that when the covenant had been determined

<sup>1</sup> See 考工記 *Kau kung ki*, the supplement to the *Chow-li*.

on, the fact was announced to the bright spirits, and therefore the hall was called the "Bright Hall," which is the meaning of the name Ming tang. We gather from this, by the way, the true explanation of the common phrase "Shen ming,"—spirits and bright intelligences. This phrase is much used in modern Chinese for worshipped beings who are believed to come and throng round the spots where sacrifices are offered and prostrations made. They also scrutinize and reward or punish the actions of mankind.

2.—*In the construction of the ancient palaces of the Chinese emperors there were three objects kept in view.* They were for religious purposes, for feudal audiences and consultations, and they included private apartments for the emperor. The feudal compacts needed to be confirmed by religion. The emperor was chief sacrificer, and there never was in China any notion of local sanctity in buildings. All the reverence attached to a palace is on account of the emperor, the brother of the sun and moon, and his ancestors.

It became convenient, when the sovereign was at home in his capital, for the worship to be performed at spots removed from the palace, but down to the present time the ancestral hall is still attached to the palace on the south-east. So also the great halls and courts where the emperor meets the princes and high officers are connected with the palace. The altar of the spirits of the grain and land is also as near to the palace on the south-west as the temple of ancestors on the south-east. The arrangement of buildings in the capital at the present time is therefore in principle like the old classical arrangement, which combines the three ideas of temple, hall of audience and private residence.

In the building of the Imperial capital all favourable circumstances must be combined. There was in ancient times no *feng shui*. This is a recent superstition. But it was required to have lucky portents and begin laying out a city

upon a lucky day. Cheu kung the sage measured north and south with the gnomon's shadow. The gnomon was eight feet long. The time was noon on the day of the commencement of spring B.C. 1109. He used plummet-line and mason's rule, and the latitude was that of Honan fu, or  $34^{\circ} 43' 15''$ . The mats he used to lay out the palace were six English feet long, and his measuring-rod four feet and two-thirds long. This also is the English foot, the old Chinese foot being taken at eight inches.

The principal roof of the Ming tang was circular. The building beneath was square at the base. The idea was that of imitating the form of heaven and earth. It had nine rooms and eight windows.

There were two other chief buildings called Pi yung and Ling tai. The Pi yung was on the east, as it is now in Peking. It contains at present the stone classics, cut by order of the Emperor Chien lung, and the Imperial act performed there is the exposition of the classics before the assembled court. The old Pi yung was devoted to music, archery and the like functions. The Ling tai was employed as a cluster of offices for those officers who were engaged on preparing the calendar and calculating eclipses.

We find in the *Kau kung ki* that the dimensions of the Hia dynasty ancestral temple are given. It is there said to have been 14 feet deep and  $17\frac{2}{3}$  feet wide. There were five rooms occupying the north-east, south-east, north-west, south-west and centre; each was fifteen feet square; the middle one was three feet wider from east to west than the others. There were nine steps on the ascent. There were windows as well as doors to each of the five principal rooms. The doors were four and the windows eight. Lime made of shells was used in ornamenting the building. At the main door was a separate hall, said by the Erya, a very ancient authority, to have been a school-room.

In this account of a Hia dynasty temple we see that the five elements' philosophy had a voice in the arrangement of rooms. The idea of the architect would be conformity to nature as interpreted by the physical theory of the time. The same occurs in the round hall of the Chow architecture. Roundness means the shape of heaven. The same architecture makes the circle rest upon a square, which is the earth's figure, according to the common idea of the Chinese in ancient and modern times.

In the Imperial temple of the Shang dynasty the idea of a double roof was introduced. The length of the hall was 56 feet. The emperor's platform was raised three feet. The roof was made double on all four sides. The object in this was to lend an air of greater richness and dignity to Imperial buildings.

In the Chow dynasty temple the breadth was 54 English feet and the depth forty-two feet. The height of the Imperial dais was six English feet. There were no chairs in those days. They were first used in China in the Buddhist period.

In the plan of a house the ancients were influenced by filial piety, which caused them to begin with the ancestral hall in the south-east of the plot of land set apart for the building of the palace. This, according to the *Chou-li*, was the idea of the architecture of B.C. 2200. Religion, as people then understood it, was a powerful sentiment in their minds. So in the First Book of Kings it is recorded first that Solomon built the house of the Lord and afterwards the king's house and the house of the forest of Lebanon.

The double roof mentioned as an accession of luxury, when compared with the simplicity of the Hia and ascribed to the Shang dynasty, B.C. 1766, has always continued to be a favourite ornament with the Chinese. It is noticed particularly in gate-towers, pagodas, and towers at the corners of walls. A desire was felt to increase

the appearance of gorgeousness in the imperial dwelling, and magnify the difference between the king's house and that of the common people. This effort became greatly intensified in the Chow dynasty. Then the palace assumed the majesty and beauty of the Ming tang. Many separate buildings began to be erected for each function of the king. The servants of the king or emperor (we may call him by either title) had the most multifarious duties to perform, and the offices were multiplied almost beyond belief; so in Peking at the present time the palace buildings and offices of Government are counted by hundreds.

So far as we have yet gone it will be observed that architecture was at first geometrical. Houses were built to the southward, and they faced north, south, east and west. The circle and the square were both introduced in imperial architecture. The simplest geometrical forms constituted the basis, and ornament was added later. The ancient Chinese built of brick with a wooden framework. The provinces which the nation then occupied are chiefly plains and broad valleys. The chief constituent of the soil is the loess, which is partly a subaerial deposit and has partly become diluvial and alluvial by the action of rivers overflowing every summer. There is also a good deal of yellow clay. Bricks were easily made out of these constituents. The climate was milder than it is now, and the labours of house-building were carried on in the winter. Nothing was found so convenient as brick for house-building, and nothing lends itself more readily to geometrical manipulation.

Chinese architecture then had nothing to do at first with the imitation of tent forms. The suggestion has been made that the concave shape of the eaves of Chinese buildings shews that the people love to remember the nomade life which they once led when they occupied tents of a conical form or shaped

like a house-roof. No such concave curve is seen in any old roofs in sculptures hitherto brought to light. In the Chinese books which contain illustrations to the classics the roofs of temples are indeed turned up at the eaves, but this, I think, must be an error. It would arise partly from an incorrect way of representing in perspective the lines round a corner, and partly from the habit which most people have of carrying the present into the past and making their ancestors responsible for their own peculiarities. The early architecture of the Chinese was plain, geometrical and practically useful. The love of fantastic curves in the lower part of roofs came into vogue later, and must be sought rather in Buddhism.

In the *Book of Odes* we have the grandfather of Wen-wang removing to the south of Chi-shan in Shan-si. This he did for the sake of peace. The tribes of Tartary annoyed him. He left them his old territory and cultivated new lands. He built a new home, and in erecting it used the plumb-line and a wooden wall-frame. Boards are roped together and earth is filled in between them. Such earth hammered down constitutes a wall, and this is still the mode of building used in the north in making earthen walls. When the wall is washed away by rain they build another. This simple style was adapted to an undeveloped state of society, and building by this method allowed houses to be very rapidly erected. Two doors were sufficient—the *kau men*, or “high” gate or outer enclosure gate, and the inner or answering or central gate.

On account of the universal belief in omens it was usual to divine by the tortoise to know if the locality selected was a good one. In ancient China we can judge of the customs of the people in the second millenium before Christ by the three older classics. In the *Book of Odes*, building was not commenced without an omen of a favourable character. This was done when Tai-wang moved south-west from the valley of



the King river, in which lay his old residential city Pin, to the south of Chi-shan, in the valley of the Wei river. He then inscribed on the shell of a tortoise certain lines, and upon scorching it received such an answer that he knew that the site he had arrived at would be suitable. The cardinal points were determined and the simple laws of ancient architecture were followed.

Orientation was made an important point, and there was provision for religious ceremonies. A burnt sacrifice, for instance, was offered even in front of private houses in summer, and on that occasion the altar was on the south-east, the worship being that of the god of fire. This seems to shew that the worship of the five elements was intimately connected with the ancient rules of house-building.

Beside the *kau men* and *ying men*, there was a gate called the "tiger gate," from a picture of a tiger drawn there, as the symbol of bravery. This was to add to the dignity of the master of the house. It was outside the *kau men*. Within was the "pheasant gate," from the representation probably also of that bird drawn there. Outside of it were lofty pillars or flag-posts and standard measures for markets to follow.

The art of house-building was spread among the Tartar tribes by the Chen family when they took refuge from the tyranny of the Shang dynasty in the Pin country, fifty miles north-west of Si-an-fu, and rather near the western boundary of the province of Shen-si. There the aboriginal tribes had lived in loess caves. This kind of house is there very convenient, warm, well-protected and economical. The loess deposits where they occur are found in the valleys with a vertical front of uncertain height varying from a few feet to several hundred feet. The rude savages who had been living in a single room were taught to make double chambers and upper rooms by their new friends from civilized China. This their friends did by instructing them in the art of making bricks in kilns.

This seems to be the meaning of the passage *tan ju tan hui*—"they taught the aborigines to make double houses and dig caves with the help of the kiln." Yet the commentators explain the passage differently, as if it was meant to say that the people were taught to live in kilns, and LEGGE explains that the houses were shaped like kilns. In RICHTHOVEN'S *China* there is a picture of houses in five stories one above another, all of them having arched windows and doors. There is an outside staircase connecting the houses of each story. On the opposite page is another front of a house hollowed out of a loess bank. It is fenced by a low wall on the outside. This house, hollowed out of a loess bank, communicates with the outside simply by three windows and a door.

On the whole the classical architecture had square and round buildings and double roofs, but it lacked the arch, and the modern *ting-tsz* was still undeveloped. Halls were matted. There were no chairs, but there were low tables. Lucky days were selected for building. The emperor's throne was a high dais on which he sat cross-legged and facing the south. His personal suite stood behind him and on his right and left. The ministers of state stood in rows on the east and west. In the open space between them, individuals came forward and prostrated themselves to speak to the emperor and answer questions. There were three audience-halls, that of the daily audience for a few persons, near the private apartments, that of the court generally, more to the front, and that of great festivals, still more to the southward. The arrangement was something like what it is at present in Peking. The ministers held batons in their hands, or writing brush and tablets. In the larger assemblies the greater part of the nobles and officers prostrated themselves in their places in an open-paved court which was unroofed. The emperor and his suite were on a raised platform which was roofed. In ancient times North China had a mild climate in winter, and the grandees,

clad in fox-skins, would not feel cold. The ancestral temple is specially marked out for admiration in the *Four Books*, just at the end, where Confucius is compared to a house whose encompassing wall is much higher than that of all common persons. An observer may see the beauty of a common house by looking over the wall. But the wall of the house of Confucius is several yards high. The disciple, in fervent love for his master, adds that it is with him as with an ancestral temple. It must be entered if its beauty is to be seen. When he said this he was thinking of the double roof, the vermilion pillars of the hall, and within the tablets and the offerings, with the beautiful ornamented vases placed in order before each. Before perspective was ever studied the perspective lines of light and shade caused by these objects would be in his mind, and he would pronounce the effect of the whole to be beautiful. It was the most fitting image he could find to represent the superiority of his master to all other men.

Architecture is introduced with the gnomon and its shadow. A vessel of water is hung up by a string so as to obtain a level. When meeting with this in the *Chow-li*, that valuable repertory of archæological knowledge, no reader will fail to picture to himself the ancient artificer clad in coarse linen in summer, or sheep-skin in winter, determining for himself the level of water for the wall of a house he is building. To have his work strictly according to the cardinal points he marks the shadow of his gnomon. For imperial use there was a gnomon of which the length was eight feet, or  $5\frac{1}{3}$  of our English feet. They had the plumb-line, by which they could make the pillars of wood, which supported the roof, perfectly straight. They had also the mason's rule, which they called *kwei* 規, and they used it to secure that the bricks of their walls should be laid evenly, and the walls themselves be both horizontal and and vertical.

According to the *Chow-li* the ancient art of house-building

was controlled by astronomy. It is mentioned that the mason's rule—*luwei*—was placed level with the sun at his rising and at his setting. The builders also looked at stars by night to ensure a perfect level, and to obtain an exactly south façade. In the old architecture of China this was viewed as very important, as it was also in Egypt and Babylon. In these countries the old civilization produced this scientific element in the buildings of the time. Heaven, earth and man are in harmony according to the Chinese idea, and the emperor's palace could not be erected otherwise than facing the south, four square, and with its four walls strictly north, south, east and west. At present it is admitted that the architecture of the pyramid builders was wonderfully accurate in its aspect as regards the heavenly bodies. The great pyramid was not only a tomb for the sovereign, but an observatory from which the stars as they passed the meridian could be observed from its interior with extreme exactness. It is therefore not more than what we might expect to find the art of the builder of palaces in old China also, but in a rougher way, controlled by astronomy and the principles of trigonometry. This part of the modern art of architecture in the West is without doubt traceable to the early Asiatic and African civilization, just as the trigonometry and geometry of the Greeks were suggested to them by the plumb-line, the water-level and the gnomon. It was not Euclid that discovered the properties of the right-angled triangle. They were known to Pythagoras, and before the time of Pythagoras they were familiar to the wise men of Babylon and of Egypt. He travelled in those countries and he was the first to introduce geometry among his countrymen. China also knew, eleven centuries before Christ, the properties of the right-angled triangle.

The capital city must be a square of nine *li*, and there being about six *li* in an English mile, the whole circumference is a mile and a half. It must be square and have three gates in each

wall. It is the city in which the emperor resides. In front of it on the south-east is the ancestral temple, and on the south-west is the altar of the gods of the land. This is just the arrangement followed in Peking in the plan of the palace. In front of it on the east is the Temple of Ancestors, and on the west the Shê tsi t'án. The Emperor Yung lo erected this palace and the Manchus inherited it, occupying the old imperial residence when they conquered the country. But it is otherwise with the gates. According to the ancient plan the emperor's city had twelve gates leading from it. Behind was the market, and in front the emperor met the court every morning. Each of the twelve gates led to a street broad enough to allow of a carriage-way in the middle and a *trottoir* for men on the right and women on the left. The modern arrangement is different.

Imperial editions of the classics, such as the 欽定周官義疏 *Ch'in ting Chen kwan Yi su*, contain illustrations which deserve study, because they are the result of the profound examination not only of old texts but of sculptures rescued from mounds. Attention should be given to the well system of agriculture in this connection. Ancient China was always feudal, and the emperor could command the service of the people of each barony. Agriculture was the basis. The workers of the soil gave a share of their work to the cultivation of common land. In providing for labour in the erection of palaces and imperial temples, the feudal system supplied it, and as that system was based on the justice and benevolence of the sovereign, the people came, says an old classical record, like sons to work for a parent.

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## II.—ARCHITECTURE OF THE POST-CONFUCIAN AGE.

The architecture of the time when the power of the sovereign had declined in China became special by the changed conditions. Feudal chiefs ascended independent thrones and fought with each other for supremacy. A struggle for hegemony became an evil which was chronic. There was a two hundred years' war, and machines were constructed for taking cities, the mode of making which is described in *Métsi*.

This state of affairs led to rivalry in palace building. The Imperial revenue was in the hands of the feudal chiefs, and with the people's money they built beautiful palaces and surrounded them with pleasure-gardens. Among them may be particularly mentioned the park and palace of the Wizard Mountain, just beyond I-chang, at the entrance to the beautiful land of Szechwen, where there is now a British Consul and a foreign community of merchants. The fact that the gorges should have been selected as the spot chosen for the site of a feudal palace plainly shews that poetic feeling ruled. In fact, at that time, there sprang up a school of vigorous poetry which has never failed since to influence the literature of this country. The romantic element could not fail, therefore, to appear in architecture, and so we find it. In the architecture of the Han dynasty there is a most remarkable grouping of romantic creations with a reproduction of historic scenes of an exciting and didactic kind, for there are both. Should someone ask, how was the spirit of poetry introduced into palaces and temples in their construction? the answer must be, by painting and sculpture. It is said in the *Shi ki* that "the Emperor is lord of the Four

Seas. All people constitute his family. If his palace were not ornamental he would not possess sufficient dignity. The palace must therefore be richly ornamented." In the palace they recognized the need of depth in the suite of rooms or courts through which the visitor is conducted to the audience-chamber. The architect built with this in view; he had to conceal the sovereign and his family within a succession of courts. He had to provide him with pleasure-gardens. This was imitated by the sovereigns of all the kingdoms of the Chinese heptarchy. Their palaces and parks became all the property of the Chin dynasty in the end of the third century before Christ. By the Chin Emperor's command a palace was built in the Wei valley, near Hien yang, the capital, to represent that of each defunct kingdom, and the peculiar construction employed in erecting the palaces of each with their ornaments would here be reproduced. The Ah fang was the most splendid, being the favourite palace of the Chin Emperors. We can tell the style of the architecture, for it is believed by Chinese critics to be represented in the Chia-siang sculptures. In the scene referred to we find roofs, pillars, low couches, and various architectural details fully represented. There is an audience-chamber in a pleasure-garden; above it is a gallery, and in front of it a large, high tree. The gallery presents a queen sitting on a dais with five female attendants. Below is a king, or noble, seated on a dais, before whom two officers are prostrate and knocking their heads against the ground. The queen wears a five-leaved crown, and the king the court-hat of the time, rising in front by a straight line deflected outwards and having a flat top falling to the crown. The roof of the gallery has men for its supports, that is to say, the pillars of the roof are Caryatides, and like Mount Atlas personified. The roof of the audience-chamber is supported by round pillars having three simple straight mouldings

above, which relieve the angularity. The round wooden pillar rests on a round stone as now in the modern Chinese style. The roof is tiled without the modern concave. At the ends of the upper roof-line large bricks are deflected upward and outward to a point, to remove the angularity there. Peacocks and monkeys are sculptured on the roof-line, as also winged men and various birds walking or resting.

A great peculiarity of the mythological period was the representation of historical scenes. It was before the age of theatrical representation which began in the Tang dynasty, but was only thoroughly inaugurated at the end of the Sung. The historic groups on the sculptured walls of the Chia-siang ancestral chapel are an example of how architecture makes use of history as a teacher. The great men of past times live again before the visitor's eye. As he passes along the ancestral chapel in its three compartments the guide points out to him on the eastern wall of the central hall the sculptured form of Fu hi, founder of the national civilization, who was, as I suppose, an ancient Chinese monarch, who received reverently from Babylon certain instructors in architecture and civilization, and to express this thought vividly he appears with the mason's rule in his hand. What gave him power over the people was scientific and civilizing wisdom. The termination of his body is partly that of a fish. It ends with a fish-tail, denoting that the sculptured idea is foreign. In the classics, Fu hi had not a fish-tail. He was a man like other men, but we are now in the age of mythological architecture. He is closely joined by intertwining of the tail with that of Tsung kie, who also holds a mason's rule right angled. Shen nung follows with the plough, and the Yellow Emperor, who first taught the people in the loess country to dig wells, to divide their fields evenly for irrigation, and to wear dignified robes with broad sleeves and a girdle. The Emperor Yau follows, who taught morality; Shun



succeeds him, who taught astronomy ; and Yü, founder of a great dynasty, who, when immense floods checked the labours of agriculture and drove the people to the high grounds to live in tents, undertook the control of the rivers, and restored the land to the cultivators. Then the rise of the Chow dynasty is pointed out with scenes from the history and poetry of the classics. This is followed by groups of an exciting character such as assassinations and battles from the age of Confucius and the two centuries which followed. The rise of the Chin Empire is also sculptured. Here battles on bridges and in rivers and in the air occur, with tiger-hunts, grotesque groups to excite laughter, and many festive scenes.

With such sculptured groups the emperors and princes of the Han dynasty adorned their palaces. The artists of those times were extremely fond of grotesque scenes and monstrous shapes. The sculptured halls of that age are reflected in the poetry, which consisted of long descriptive pieces, like THOMSON'S "Castle of Indolence" or the separate books of the *Faerie Queene*. The princes of the house of Lieu gathered round them a choice school of literati and engaged them in discussions on the history of early times and on philosophical and religious dogmas. They talked about Confucius and Lau tsï, and wrote books for the princes and for the emperor. The subjects on which they wrote were politics, history, popular mythology, architecture and astronomy, and they compiled these works in prose or in poetry. A good number of them remain to us, and the discovery of the Chia-siang and other inscriptions and sculptures is a great help to the understanding of China as it was in the Han dynasty.

I learn from Lieutenant D. MILLS, who wrote to me in February 1887, when he had just visited the spot where these sculptures were exhumed, that, "the valley in which they

occur is about five square miles in area, and that the excavation was less than ten feet deep, but it would fill up quickly." The two gate-pillars stand in the excavation, rising about ten feet above the ground. The stone of these pillars has weathered brown. A large number of slabs have been taken out of the soil, and are now set up in an oblong tiled building, fifty feet by twenty, lining its walls without any orderly arrangement. Since the erection of this house other slabs have been dug out, and are piled on the ground in the house, which has no room for them upon its walls. The cutting on the sculptured slabs is about a tenth of an inch deep.

There would be village temples in the Han dynasty, erected to ancestors, as also to the gods of thunder, rain, and wind, and to the Great Bear and the gods of grain and agriculture. All have perished, because they were constructed with a wooden framework. The reason why this ancestral chapel of a prince, consisting of three chambers, has survived the storms and frosts of seventeen centuries, is that it was of stone.

A stone chapel with a stone roof entirely or almost entirely consisting of sculptured slabs and unsculptured slabs, was exposed to winds which blew dust upon it, and floods which dashed silt round it and filled up its interior, till it became buried more than twelve feet deep. The two stone pillars in front of it were twenty-five feet high, and are now buried to about that depth. This is a fact which shews what winds and floods can do in seventeen centuries in raising the soil. It also shews the supreme excellence of stone architecture, which is capable of preserving to us these valuable memorials of the China of the Han dynasty. The chapel dates from A.D. 147. The Pantheon is older by 174 years.

Lieutenant D. MILLS, in his visit to the Chia-siang inscriptions *in situ*, observed no traces of wooden beams in any of the stones belonging to the original chapel buildings. The

Pantheon in Rome when it has stood for eighty-three years longer will be two thousand years old. It is a circular building with a stone roof. The ancestral chapels in Shantung were rectangular stone buildings with two gables which fell in part many centuries ago, but the loess, with friendly assistance, buried the sculptured stones under the soil.<sup>2</sup> The buildings would in part be standing till quite recently, or the sculptured stones at least were preserved in good order where they fell. So far was this the case that the native archaeologists have been able to tell us to a large extent what part of the buildings was occupied by each particular stone.

The question must here be confronted, how much of the Han dynasty architecture is of foreign origin? In the *Archæological Survey of India*, kindly lent me by Mr. KINGSMILL, we find in the 1st volume, published in 1871, the question discussed how Greek sculpture is found occupying a place in Buddhist architecture. To this question General CUNNINGHAM replies, that Bactrian Greek sculptors would find ready employment for their services among wealthy Buddhists, just as later in the time of the Mogul Empire goldsmiths and artillerymen were employed by the sovereigns. It was a Buddhist custom to make gifts of statues and pillars to the monasteries. This gave continuous employment to many skilled workmen. In the city of Mathura, which lies on the Jumna between Delhi and Agra, there is a colossal image of Buddha the Teacher, measuring one foot across the palm. It would be thirty feet in height. The Chinese have such in their country, where the stone is easily cut and the Buddhist zeal of the community favoured the production of this kind of work. The statue was from 20 to 24 feet in height. Buddha

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<sup>2</sup> In the Island of Jersey there is a stone chapel erected A.D. 1111. Its roof is of stone. It has stood more than 700 years—a signal instance of the permanence of stone roofs—but the roof has been replaced recently by a new one.

is represented as the Teacher, explaining the law to his disciples. It should be remembered that the coming and the laughing Buddha are one. In one of the female figures the attitude is peculiar. The left hand is brought across the right breast while the right hand holds up a small portion of drapery. The head is inclined slightly to the right shoulder. The hair is dressed in a new fashion, with long curls on each side of the face, which fall from a large circular ornament on the top of the head. This figure has a plump face with a broad smile, and it is one of the best specimens of unaided Indian art which General CUNNINGHAM had met with. He goes on to notice specimens of Greek sculpture mixed with that of the Hindoos. The costumes of the sculptured figures are Hindoo, Greek and those of some other unknown nation. There is represented in one place a Greek altar such as was dedicated to Bacchus. Adjoining a well-carved elephant in one place are certain inscriptions which contain the names of five Greek kings, including Alexander and Antiochus.

In the fifth volume of the *Archaeological Survey of India* the Doric character of architecture in Cashmere is illustrated. In some localities in North-Western India there was Indo-Corinthian and in other localities Indo-Persian. The Ionic style was introduced in Taxila and the Corinthian in Gandhara. All these styles flourished for several centuries. Thus, as far as stone was used in building, the imitation of Greek architecture and sculpture would naturally follow, and would spread into distant countries. But India, like ancient China, was well wooded, and, therefore, wooden pillars and beams continued to be used.

In the case of monasteries, pagodas, tombs and bridges, with certain other structures, stone was held to be better as a material. Civilization, commerce and national intercourse brought more and more wealth to the communities, and these buildings were erected by the gifts of individuals. In such

cases there would be a tendency to imitate Western art. This would gradually lead to the arch in bridge-building. So also the broad verandah, necessary in India to shade a bungalow from the sun, would lead to broad roofs, which were afterwards imitated by the Chinese.

The influence of Greek art would enter as an element in the Han sculptures in the following manner. The country being rich and at peace, many foreign improvements would be adopted. Workmen would be conveyed from a distance to do work for wealthy persons. These workmen would be instructed by skilled masters, who were either Greeks or the pupils of other masters who were taught by Greeks. In this way we may account for sculptured horses represented successfully in attitudes which without a long apprenticeship could not easily be produced.

### III.—BUDDHIST ARCHITECTURE.

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The third period of Chinese Architecture is the Buddhist. When the Hindoo Missionaries came to China to propagate their religion, they were lodged in an official building, called a *si*, and in consequence of this their monasteries were called *si* ever after. But the form they took in building was that of the Vihara, the Sanscrit name for a Buddhist monastery. The Buddhist monastery in China may have native Chinese features in some things, as when, for example, we find there the hall for ancestral tablets, in which the deceased priests of the monastery are honoured with worship, wooden tablets being used, just as in Confucian ancestral worship. But the great outline is Indian.

There may be gate lions, one on each side of the gate. The gods of native Hindoo polytheism are placed in the entrance-

hall. This is the locality in which the defenders of the Buddhist faith should be honoured. Here also is found the laughing Buddha, the Buddha of the future. Then come the bell and drum towers. Within is the teaching-hall of Buddha. The normal height of the statue known as the "teaching Buddha" is 16 feet, which probably is represented by ten feet eight inches in English measurement. Much smaller figures are commonly used. The pictures or statues on the east and west or right and left of Buddha are his audience. They consist of the gods of Brahminism, and of renowned Buddhist saints. Behind in another large hall is either the sleeping Buddha, or the ascetic Buddha, or the guiding Buddha, who is called *Omīto Fo*, or the Buddha of the future, *Maitseya*, surpassing all the forms of Buddha in height. The other buildings are numerous. They provide living-apartments for the abbot and the monks under him, refectory, rooms for guests, kitchens, store-rooms, library, halls for the worship of the inferior divinities of Buddhism, and for the complete representation, so far as practicable, of the Buddhist world of worship, of suffering, of joy, of punishment, of salvation. In a Buddhist monastery the object of the architecture, and of the sculptured and pictorial representations, is to exhibit the world as it appears to the Buddhist. Buddha is enthroned on the lotus as teacher and redeemer, and the universe pays him homage.

The lion is not an Indian animal,\* but is or was Persian and Syrian. The Buddhists borrowed it as an ornament in their mythological conceptions from that part of the world. The whole ideology of Western Asia pressed into India in the age of the Persian dynasty of Cyrus and in part before that time. The lion very soon appears in the Buddhist books, though not in the lifetime of Buddha himself. Why, then, did the disciples of Buddha in North-Western India eagerly adopt this animal as a symbol, the animal being foreign,

It was because they were disputants, and in combating with Persians, Greeks and men of other races who engaged in religious disputation, they found that the lion was considered king of beasts and the symbol of victory. It is found, for example, in the Book of Genesis and other parts of the Bible as a symbol of power, courage and victory. The north-western Buddhists adopted it, as they did images and cosmogony from the nations which lay on that side of India, and used it in the service of their religion.

The pagoda was specially a Hindoo mausoleum for relics of Buddha. It is surprising how little it is used in Japan or in Lamaism. Osaka has but one pagoda and Tokio none. It is very much connected with the *feng shui* superstition, which was never adopted by the Japanese, and with the worship of relics. The number of stories is always odd, because odd numbers are male while even numbers are female. To benefit a locality the pagoda must have the power of *Yang*, the male principle. It is the dark principle *Yin* which does mischief. Pagodas are often built entirely of stone or brick. Quite commonly they have sculptured entablatures representing the life of Buddha, or scenes in the biography of some Buddhist saint.

Many pagodas are very pretty objects, and they have come to be a special characteristic of Chinese architecture. The curling eaves of Chinese buildings are probably an imitation of some early pagodas. They were erected in large numbers from the sixth century onwards, and since China has no explanation to offer of curling eaves, it seems necessary to assign them to a foreign source.

The erection of pagodas was a test of the skill of native architects, many of them being lofty, and built without wood. That they have been fairly successful in erecting strong buildings is evidenced by the fact that there are more old pagodas existing than there are old houses or temples. From the

seventh century onwards, there are still structures of this class. There is an octagonal pagoda in Peking of thirteen stories, and it dates from the year A.D. 600. The sculptured figures are all of moulded brick, and this is the material which has been largely used in erecting this pagoda. It is 275 feet 5 inches in height. This building, so high and so well preserved, is a good specimen of the durability of some Buddhist work in China.

The efforts of Buddhist architects were very much directed to the provision of images of a large size and great variety. Several types grew up which had to be constantly reproduced in new erections. Buddhism teaches contemplation, and does so by images as well as by books. The propagators of this religion aimed to gain the popular ear by appealing impressively to the eye.

The laughing Buddha at the gate indicates that the religion there professed is the pathway of joy. The second form of Buddha is that of teacher. The teaching Buddha is therefore the central object in the principal hall. Around are seen his audience of divinities and human beings. In some other hall is represented the ascetic Buddha, it may be with unshorn head and the attire of a hermit. The sleeping Buddha is quite a favourite subject. Some examples of this type are very ancient, coming down from the Tang dynasty, and made of sandalwood or copper. The guiding Buddha leads the soul to Paradise. The rock-hewn Buddha, of 16, 30 or 60 feet high, is like the laughing Buddha, the Buddha of the future.

Another effort made by Buddhist architects was to represent the Buddhist world in its completeness, or specially some part of it. Five towers on a lofty terrace represent the universe, as north, south, east, west and centre. Such is the Wu t'a sī, or monastery of the five pagodas, in Peking. When ordered to pray for rain, the Buddhist priests arrange the images in a square in some spot in the fields which appears



suitable. The arrangement is made on this principle. Rock-work is much used to represent imaginary worlds. Mud or clay is the material, and paint of many colours is used to deck out in the gayest finery grottos, bridges, winding-ways among mountains, temples and lakes. Some scene may have been drawn by a poet, or the writer of a Buddhist work in prose. A time comes when a decoration is required in a temple under repair. The scene of a book is then realized in mortar and paint.

Other features in Chinese house-building which are a tradition of the Buddhist age are the screen before the gate, and the figures on the roofs. Both these features are connected with *feng shui*, which, being an article of popular belief, it becomes requisite to protect buildings from the mischief likely to be caused by evil beings moving towards a house and capable of doing harm to the inmates.

The screen of brick-work, built like the character *pa* (eight), does not appear in old sculptures and has no ancient equivalent. It is an unpleasing feature which ought to be dismissed from modern architecture, but *feng shui*, unfortunately, insists upon it.

So it is with the little monsters seen on the line of a roof or on the projecting ledges below. They must, like the stories of pagodas, be in odd numbers, in order that the *Yang* principle may prevail over the *Yin*. Though their forms are so sinister looking, they are all friendly, and their ugliness is put on for effect's sake. Their office is to deter evil spirits. The dragon and monkey are the types of these figures. Both are in odd numbers; the larger is the dragon, usually one only, while the smaller is the monkey, which may be three, five or more. I have been at some pains to learn what they mean, and this is the result. It is probably one of those architectural peculiarities which the Chinese may claim as their own. But this is not certain. From Shanghai to Suez, all along

the southern coast of the continent of Asia, the people believe in the active agency of evil spirits constantly in motion and seeking opportunities to inflict evil on mankind. Against them protectors are sought for of every available class, and among them are these creatures which suit alike the Arab, the Persian, the Hindoo and the Chinese.

The result was that in house-building it was felt to be necessary to use protective measures against the forces of evil always threatening danger to men. The gate-screen and the small monster on the roof have the same office as the charm pasted over a door, or the amulet, the small bottle, the bronze mirror, carried on the person. They were supposed to have a magical effect of a defensive nature.

The result was disastrous in an architectural sense. The gate-screen conceals the entrance, and is placed where it is not wanted. It must as such be unpleasing. But popular superstition clings to the gate-screen. It lives still after many centuries of useless encumbrance. Outside the gate there is the *pa* character wall, within the gate is a screen. On each side is a lion. On the roof of the chief building are metamorphosed monkeys and dragons. We can bear the animal shapes for the sake of the grotesque, which human nature loves, but we cannot bear with the same equanimity the hiding of the front view. Our European training has led us to appreciate the excellent effect of an open view in front. To shut off from view the front of a building, is a mistake.

Gilding images was common in India about A.D. 500, and probably earlier. The Buddhists, by introducing the practice of gilding Buddha's image, greatly increased the impressiveness of their temples. This was a new element of beauty added to their architecture, which did not fail to affect the people powerfully in many ways. Let this point be well considered. In Europe, cut stone assumes a dark hue, especially in England. We enter a Chinese Buddhist temple as we see it in Hangchow

or in Peking. The beautiful colour of the gold image, untarnished after many years, is felt to be in itself pleasing. We then become conscious that to gild Prince Albert's Monument in Hyde Park and the statue of Victory in Berlin, was a useful preservative against weathering. The Chinese learned the effective use of gold in ornamentation from the Buddhists.

#### IV.—ARCHITECTURE OF THE MODERN PERIOD.

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Printing commenced in the tenth century and, the Sung dynasty attaining power at that time, was accompanied by a Taoist revival. Of this there are several indications. The first Emperor, Chan t'ai tsu, had a Taoist friend, Chen twan, who, with the emperor's powerful aid, forwarded his own religious views. The predilections of the founder were shared by his descendants. Among them, Hwei tsung was a great lover of Taoism. The Fukien goddess Ma tsu, the sailor's favourite, belongs to this period. So also does the worship of Kwan ti, the god of loyalty, the favourite divinity of soldiers. Lü tsu, or Lü chun yang, the famous Taoist of the latter part of the eighth and the first half of the ninth century made Taoism popular near Lu shan, on the north-west shore of the Poyang Lake. Temples began to be erected to him in the twelfth century. The early Sung dynasty was then a time of rapid progress in popular Taoism. Nothing marks modern China more than the spread of Taoist worship in imitation of Buddhist worship, and this took place specially in the tenth, eleventh and twelfth centuries.

This fact implies a rapid spread of temple-building; that is to say, Buddhist architecture was imitated most extensively at this time. It was a foreign art in several respects, and

through its being very full of idealism, it won its way to the heart of the Chinese. As to the form of the monastery and the arrangement of the halls, this imitation doubtless began in the Tang dynasty. But there was then no extensive national imitation embracing all parts of the empire. This appears to have taken place in the Sung dynasty, as the examples just given combine to show.

In a large Taoist temple, such as the Tung yo miao, in Peking, in the first small halls at the door in the neighbourhood of the Bell and Drum towers, are certain military images. They indicate protection to the religion of which this is a temple. In this they simply repeat the idea of the hall of the four kings who, at the entrance to a Buddhist Monastery, take the part of the defenders of Buddhism. Beyond is the hall in which the god of the east mountain is worshipped. He takes the place of the teaching Buddha of Buddhism. In the temple of the god of medicine in Peking, in front are distinguished physicians of antiquity. Behind them is the central idol, that of Yü hwang. Farther still behind is the hall consecrated to the worship of the Three Pure Ones. Such a disposition of the halls and statues is mostly taken from the Buddhists.

We see, then, that the Confucianists had in the Sung dynasty ceased to be enemies to Buddhism. They saw that the foreign idolatry was popular, and they decided to leave it to work out its own future. They made deities of native origin, like Lü chun yang, Ma tsu and Kwan yü, and everywhere temples were erected in their honour. Temples had been Confucian and Buddhist. They now became Confucian, Buddhist, and Taoist. An extraordinary number of new temples must have been erected in the Sung dynasty by the Taoists. The emperors favoured them, and this led the people to favour them also. The Ch'eng hwang miao in each district city and prefectural city seems now to be an

essential part of Chinese institutions. But it is not in fact older than the Sung dynasty in most cities. I have noticed one which was erected in A.D. 917, in the Wu tai period, so that probably this type of temple was first introduced in the Tang dynasty, but it was the partiality of the Sung imperial family for Taoism, and the tolerant political tone of the Sung literati, which spread this sort of temple and other types of Taoist sacred buildings throughout the empire.

In the Sung dynasty, the first part of the modern age of Chinese architecture, we have the results of the devotion of the nation to Buddhism during seven centuries. Two great forces have animated the nation since that time. The one was the Confucian and Taoist revival of the Sung dynasty, the other was the school of critical research of the present dynasty. The Confucian revival led to political toleration, and so foreign architecture, for example, might be imitated without offence. The principles of the Chinese Government from the tenth century forward have allowed men of different religions to reside together, and the magistrate is expected to keep the peace between them if they offend. The consequence is, that Hindoo, Moslem and new European architecture, in the erection of the sacred buildings of each religion, are seen together in China. Toleration of foreign religious tenets has favoured the mixing of styles in buildings and in art generally. This freedom of choice has been encouraged by the critical attitude of the literati in the present dynasty. China is now more eclectic than it ever was.

The school of critical research which has flourished during the last two centuries has paid special attention to the classics, and among them to the *Chow-li*, whence facts on ancient architecture are gathered. It is singular that there should be important differences of opinion on the manner in which the Temple of Heaven ought to be built, and whether Confucius ought to have a statue in his temple or not. The result of

researches in the Ming dynasty led to the abandonment of the statue of Confucius and the restoration of the old Confucian tablet. This was an instance of recoil from Buddhist views of art. Yet in some cities the statue remains, the decree of the emperor on the subject not having been very peremptory. But the spirit of modern China is against the use of statues in Confucian worship. The Buddhist love of statues in temples does not in any way influence the true Confucianist, who glories in his freedom from popular Buddhism. So also during last century it was decided not to have dual worship at the Temple of Heaven, but to worship there only the Supreme Ruler.

The Sung dynasty architecture is not specially known by examples, because it has been outshone by the works of the Yuen and the Ming dynasties, but it may be studied, because books printed with engravings exist, and there are much fuller details and materials for research in that age than previously. For the ancestral temple, for example, it is interesting to find that Chu fu ts'i made inquiry into it, and determined its essential features. The Chinese art of the Golden dynasty in North China remains in a few octagonal pillars inscribed with Buddhist charms. Sanscrit and Chinese characters are here seen cut in limestone.

Art rose higher in the Yuen dynasty, and the Ch'ü yung kwan arch and inscription, which have stood for six hundred years, shew that China at that time undertook to develop new types of architectural work. But the Yuen dynasty architecture was surpassed by that of the Ming dynasty. It was then that Chinese art rose to its greatest height. The Emperor Ch'eng tsu, of the Yung lo period, was the greatest of the Ming line. It was he that made Peking what it is. The plan of the city, the tombs, the great bell, the fortified passes in the Great Wall are his. These and the grandeur of the city gates and wall belong to the Ming dynasty and to him in particular. In

the time of Shun chī and Kang hi, an effort was made to improve the astronomical observatory. This was done by removing the observing instruments from the tower and replacing them by machines cast by VERBIEST and some presented by the French king. Underneath the tower is the chamber for observing the length of the shadow at the winter solstice and on other occasions. Peking is the only capital in the world on whose wall is seen a collection of large bronze instruments intended for astronomical observation. They lend a character of refinement to the city to which they belong.

The influence of the Emperor Chien lung was directed to the production of substantial architecture in various styles. His Buddhist, Confucian, Moslem and Italian erections were well done in their day. Yet now the relentless changes wrought by time have reduced many of them to a ruinous state. His Italian structures at Yuen ming yuen were burnt in the war of 1861. High civilization and refinement led this Emperor to look kindly on fashions of all nations and to take pleasure in introducing them into his country. It will never cease to be a subject of regret that the buildings in the parks outside of Peking were burnt. There must be something wrong when it is found necessary to burn works of art.

In the changes made by the Emperor Chien lung in the temple of Confucius there is a distinct aim to restore the ancient classical structure—the Pi yung kung. The brevity of classic texts renders exact restoration to a large extent conjectural. In this case there is a circular marble tank. In the centre is a hall in which is a throne for the Emperor when he expounds the classics. The south face of this hall consists entirely of lofty doors admitting light through thin bamboo paper.

In the architectural works of the present dynasty, as of the Ming, the *feng shui* ideas have never been abandoned. China has ceased to build new pagodas for the sake of riches

and prosperity to a locality, but she puts the old ones in repair when money can be obtained for the purpose. The roofs of temples are still ornamented with a view to *feng shui* opposite to the openings of lanes in Peking. Lions are set up, or stones with the powerful name of the Tai shan god, to frighten away demons who might be intending to come that way. The superstition of *feng shui* is retained in house architecture even in this age of growing knowledge. In judging of Chinese architecture there are two chief divisions of work to be looked at. The one is its general excellence, the effect of dignity, solemnity, richness and grandeur on the whole. The other is the special excellence of the parts. In both there is room for the greatest genius. In regard to the former, it may be noticed that the greatest triumph of Chinese architecture is in the effect on the whole. In the Ming tombs we have the perfection of Chinese power of arrangement. It is a ride of seven miles from the entrance of the valley to the tomb of Yung lo. The valley is occupied by the thirteen tombs. At the entrance the marble gateway attracts special attention. Ninety feet long by fifty high, composed of marble, and seeming to be roofed with tiles, it is seen from a great distance, and it has stood for three centuries and a half. On nearer inspection it is found that the roof is cut marble, and when this fact is observed, the whole structure is seen to be a remarkable triumph of architecture. The P'ai leu of China takes the place of the triumphal arch of Europe, and this one at the Ming tombs is the best in the country. It was erected at a time when the Chinese building and bell-casting art reached their culminating point. The original red and green colours have long since weathered down to a sober grey. Passing this we proceed through several avenues of trees and several gateways till the avenue of animals is reached—a truly striking feature. Lions, unicorns, camels and elephants stand and kneel in pairs. The four elephants are each cut



from one stone. They are 13 feet high and 14 feet long. Thus it is seen that the Chinese are capable of Egyptian effects in working in stone if only their country did not consist of alluvial plains, which necessitate a brick architecture. Then the hall for sacrifice is the third great feature. It is 70 yards long by 30 deep. The teak pillars, 12 feet round and 32 feet high, are 32 in number. The building is 64 feet high. It is reached by a marble ascent of 18 steps, and is surrounded by beautifully-carved balustrades. The roof juts out 10 feet beyond the walls on which it rests. The fourth great feature of the Ming tombs is the tomb itself, above this passage. In front of it is a mass of solid stonework which supports the monumental stone on which is inscribed in characters of enormous size the posthumous name of the Emperor Yung lo, who died A.D. 1425. Beneath is the coffin-passage, 39 yards long, conducting to the tomb-door, and the visitor arriving there ascends to the platform above by a long staircase. Here the stone, three feet thick, two yards wide, and high in proportion, with the Emperor's name on it, may be observed. It was originally painted with vermilion. Then there is the mound, half a mile in circuit, containing a hemispherical chamber, in which is the coffin. The chamber is large enough to hold probably 400 persons.

In this work of construction we see Chinese architectural skill at its acme of power. So many remarkable features combine in the Ming tombs that we must in this instance award to Chinese architecture the praise of success in imparting to the imperial tombs an air of great dignity and solemnity.

Chinese art is to be praised for the lightness and grace of the curve of a heavy roof. The Greek loved to see lines of beauty at the head of a column, and a succession of columns seen in vanishing perspective has a very lovely effect. The

effort of Chinese art is rather to lighten the appearance of heavy masses of timber in a roof by curves and the use of coloured tiles.

In the modern style we find the shaft of a column carved with dragons, and this mode of ornamentation has lately become commoner than it was. It is observable in the guild-houses of Ningpo and Hankow. If in Shanghai commercial guilds should build new houses suitable for theatrical performances, this kind of ornament would be adopted.

We also find in modern style a special development of the *t'ing ts'i*. This first occurs in the sculptured halls of the Han dynasty. An ornamented roof rests on pillars. The pillars enclose a space which is open all round. We see it in the baldacchino of Romish cathedrals, in the kiosk of Constantinople, in the summer-house or arbour or bower of a pleasure-garden, and in the building over the stage of a Chinese theatre. The roof of a *t'ing ts'i* may be very simple, as when made square with four slopes, or very complicated, as when gables and slopes alternate. Examples of rich variety in the roofing are seen in many theatres and in the corner towers of the Peking Palace wall.

In the Temple of Heaven the altar is carried to its highest point. Its circularity, its marble pavement and its numerical arrangement deserve attention. It is 90 feet wide at the top where the emperor kneels on the circular stone in the middle. He faces the north while kneeling, and in front of him is the tablet of Shang ti, the Supreme Ruler. Round the circular stone are eight concentric circles of marble stones. Nine stones make the first of these circles. Double that number form the next. Twenty-seven, thirty-six, forty-five, fifty-four stones form the next four circles. The three outer circles have sixty-three, seventy-two and eighty-one stones. These circles represent the universe, which consists of nine concentric spheres. This symbolism also occurred

in Western Asia, and the city of Ecbatana, for example, was built on a plan which exhibits the same principle as its foundation. The marble stones on the middle and lower terrace of the altar are also placed in circles. Outside of them are the boundary-walls of the altar, which are also circular. The lower terrace is 210 feet wide and the middle one 150 feet. There are four flights of steps connecting the upper, middle and lower terraces. The altar is 16.95 feet high. When the emperor worships here, which he does twice a year, he acknowledges Shang ti as his superior, he himself representing the universe symbolized in the mystic numbers of this unique and beautifully-proportioned structure.

We also find bridges greatly improved in the modern style by adopting the arch. This came in with Buddhism, for we find it in the pagodas. At present it is used when it is desired to span rivers by bridges. Made with an arch for foot-passengers, such structures look well to the eye, but they are inconveniently steep, being often 30 feet in height. Such bridges are made with steps so that they are crossed easily by burden-bearing coolies. Beasts, however, cannot easily use them, which is a great defect. The appearance of these bridges is agreeable to the eye, and they last long, because the superincumbent weight is efficiently sustained in the most economical manner by the arch. Many bridges in modern style would be better for being not so steep as they are, and for not being made with steps. They ought to be built not only for longevity and elegant appearance, but for the convenience of traffic. The custom in China is for the rich to erect bridges and dams from charitable motives, and in order to obtain benefits in return from the unseen powers. The money is forthcoming, however much may be required, because of the charitable disposition of the donor. It might be, however, better used than it often is, and much greater convenience for the public

secured. There is often a want of economy in the expenditure. The Chinese are ready to give, and many of them are very rich, but they might give more wisely than they do.

Ultimately, in regard to railway construction in this country, the rich natives will bear a chief part of the burden. There is a large quantity of wealth in their hands. For this purpose, at present, they will not give as they would for a costly bridge. No one would praise them for it. They do not think that the unseen powers, that make men rich and give men many children and grandchildren, will favour the opening of railways as they do the construction in convenient spots of bridges and embankments. When they learn to feel this, and are convinced that the Buddhist doctrine of moral fate which influences their actions approves of railways, the money will come and come in abundance.

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\*. For illustrations of Chinese Architecture the reader is referred to works containing plans, engravings and photographs. Among these may be mentioned THOMSON'S *Views of China*, the plates to *Macartney's Embassy*, PÈRE ZOTTOLI'S *Cursus Litteraturæ Sinicæ*, *Mémoires concernant les Chinois*, and various recent books of travel in China.

The number of photographs taken by natives is now so great that there is scarcely a remarkable building in any part of China of which a good photograph may not be obtained at Shanghai or elsewhere.

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## NOTES ON THE NESTORIANS IN CHINA.

By E. H. PARKER.

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The following notes may perhaps assist a little in elucidating several obscure points in connection with the Nestorians, Persians and Arabs living in China during the period A.D. 600 to A.D. 1200. It appears to me not unlikely that the Nestorian missionaries never reached the coast of China at all, and that their "heresy" was always tinged with the native superstitions of the Ugro-Tartars, through whose territory it filtered into China; also that it, and possibly other forms of early Christianity, were somewhat coloured by one or the other of the two leading forms of Buddhism; and that the lines of demarcation now drawn by dogma were not so rigid in those days as they are now; in short, that men were more tolerant.

### 1.—WERE THERE EVER NESTORIANS AT CANTON?

The late Mr. BOWRA, in a paper upon the *Christian Missions in Kiang Tung* [*China Review*, Vol. II, Page 246] says that he could not satisfy himself that the Nestorians ever went to Canton.

Mr. GEO. PHILLIPS quotes an extract from the *Annals of the Canton Customs* [*China Review*, Vol. VIII, Page 31] which makes mention of Persian Priests at Canton, in order to justify the identification of these priests with Nestorians. He confirms this supposition by citing a statement, found in

RENAUDOT's translation of the *Ancient Accounts of India and China*, that there were many Christians residing at *C'angfu*, which place Mr. PHILLIPS inclines to think is Canton [I suppose "*Kwang-fu*"] because we can find no mention of Arab or Persian ships frequenting Hangchow at that time.

There are several extracts from a book called *Ch'êng Shī* [程史, I suppose of the *Sung* dynasty] which shew that there were other foreign priests at Canton during the middle ages besides Persians. "One of the most influential of the sea-foreigners [海獠] was one named *P'u* [蒲], known as the "white barbarian," who was originally a prominent man in "*Chiampa* [占城]. Having had rough weather on his voyage, he was afraid to go back, and begged his ruler for "permission to remain in China so as to facilitate his trade." An extract from the *Sung Shī* says that most of the people at *Chiampa* are surnamed *P'u*; and another extract says that the Caliph Empire sent an envoy named *P'u-sz-no* [蒲思那]; all which looks as though Arab traders were meant in each case. Again: "At Canton [番禺] there are sea-foreigners [海獠]; "for praying happiness they have a hall; in the hall is a "stone slab, which is the object of their symbolic worship "[像主], and those doing obeisance all turn towards it. "They meet to eat at dawn, but do not provide spoons or "chopsticks; they use gold and silver to make a great trough, "and mix porpoise flesh, [鮓] vegetables, grain, and rice all "together, sprinkling rose-water, and scattering camphor."

The word 獠 is, as a rule, specially applied to the frontier tribes of Yün Nan and Burmah, but that Arabs may have been included is evident, because the *Sung Shī* says of *Chiampa*, and also of *T'a-li* State [Yün Nan]: "Their customs "and clothes are like those of the Caliph Empire," which last name is often grouped with those of other Indo-Chinese and Archipelago states, doubtless because the Arabs traded there.

The Chinese occasionally confuse the Persians with the Arabs. For instance, the *T'ang Shu*, on the subject of the Caliph Empire, says:—"Between the years A.D. 605-617 " there was a Persian man tending herds at Medina [摩地那] " Mountains in *Kā-fēu* [俱紛]. A beast in the mountains " said:—"East of the mountain, in the third cave, there is a " "sharp weapon, and a black stone with white writing on it: " "whoever gets it will rule." He went, and found it so. The " writing said he ought to rebel. He wheedled the people, " and got together a multitude of desperate characters at the " River *Hēng-hoh* [恒曷水]; robbed caravans, occupied the " west part of the region, set himself up as king, removed the " black stone, and treasured it. The people of the state went " to chastise him, but were repulsed with great loss."

This, of course, is Mahomed, who was a tender of camels; who did spend time in a cave near Mecca; who framed his Koran with the aid of a Persian Jew and two Nestorians; who did hoax the people; took refuge in Medina, and set up there (in the western part); whilst the black stone "brought by the angel Gabriel" is still in the Caaba. The account of *Méhtéhuo* State [默德那] given by Dr. BRETSCHNEIDER on Page 177 of the *China Review*, Vol. V, confirms this strongly.

## 2.—WERE THE *Ta-téh Séng* ALL NESTORIANS?

It is a question how far the expression *Ta-téh Séng* [大德僧] can be taken to refer to Nestorian missionaries. Mr. G. PHILLIPS, criticising Dr. BRETSCHNEIDER, has shewn [*China Review*, Vol. VII, Page 412] that, in or about the year A.D. 719, the ruler of *Fuh-lin* [拂菻] sent two of these ecclesiastical dignitaries to the Chinese court with tribute; and he justly inclines to the view that these were Nestorian missionaries, inasmuch as *Olopén*, the introducer [A.D. 636] of Nestorian Christianity into China, is also described on the celebrated Si-an Fu monument as being a *Ta-téh*.

Dr. HIRTH, in his work *China and the Roman Orient*, quotes the same passage, and also quotes a passage from the monument itself, which latter seems to mean that, in *Ta Ts'in* or *Fuh-lin* Christianity is the only religion, and that Christians only can be rulers [法非景不行; 主非德不立]; adding that Colonel YULE had already conjectured that the *Fuh-lin* missions were connected with the Nestorian arrivals recorded on the monument, [Page 284 of the *Identifications*]. On the other hand, the old *T'ang Shu* tells us that, during the reign of *Ming Hwang* [713-762], the King of Central India *Ishavuma* [伊沙伏摩] sent his *Ta-têh* priest to court with tribute; and that, about that time [750], at one *Chang Yih's* suggestion, ten *Ta-têh* priests were banished to *Ting-chou* [south of Peking].

An extract from a work of *Peh Kū-i* [白居易, lived 772-846], on "A Pagoda Slab of the *Ta-têh* Priests [大德和尚塋碑]" says:—"Abstinence begets calm, calm begets wisdom, and wisdom has begotten 84,000 *Fah-mên* [法門, "sectarians]." It is evident that the *Fah-mên* must have been different from the ordinary Buddhists, for the old *T'ang Shu* says:—"The Emperor *Wu* of *Liang* was a devout Buddhist, whilst [his successor, A.D. 550] the Emperor *Kien Wên* was an ardent *Fah-mên*."

The *Wên-kien Hsü-lâh* [聞見後錄, apparently the same as, or a continuation of WYLIE'S *Wên-kien Kin-lâh*, 11th century,] says that in *K'i-yang* town of *Fêng-siang Fu*, a piece of Buddha's bone lay buried under the pagoda of the *Fah-mên* monastery, and that the Emperor *Hien* [806-823] had it brought with great ceremony into the palace, in spite of *Han Yü's* remonstrances, [as to which remonstrance see *China Review*, Page 341 of Volume 1].

The *Tu-yang Tsah-pien* [杜陽雜編, 9th century] says that "in the spring of the year A.D. 873 an imperial order commanded the *Ta-têh* priests to go and welcome Buddha's



"bone. On the 8th day of the 4th moon, it was brought into 'Ch'ang-an [Si-an Fu]: the Emperor sat in the An-fuh Monastery [安福] and personally kowtowed to it." Another passage says that "several hundred Ta-t'eh priests were ordered to welcome the Buddha's bone of the Fah-mén monastery of Fêng-siang Fu."

### 3.—WERE ALL Fah-mén BUDDHISTS?

A work called the *Wu T'eng Hwei-yüan* [五燈會元] says that the first Buddhist apostle in China [東土] was the Worshipful Dharma [達摩尊者] who was also the last of the line of 28 in India [西天]. He was the son of *Hiang-yü* [香玉], king of Southern India; and in the year A.D. 520 he came to China by the southern sea route, and stayed at a temple called the *Shao-lin Sz* [少林寺]. This man must not be confused with another Dharma, a painter, who came by land to Sz Ch'uan in 580-605. His name was 達摩拙義. The *Kao Seng Chuan* [高僧傳, a 6th century work], says that his successor was one *Hwei K'o* [慧可], who stood in the snow and cut off his arm whilst begging inspiration from Dharma. Dharma said:—"My religion is in the heart, and ignores written script: apostles must be bound by the heart. Hence the saying 'stamp in the heart.'" The old *T'ang Shu* gives the same account of Dharma as that above; and the *Sung Shih* says that *Hwei-k'o* brought out a work on the human pulse by Dharma. A work called the (*Ch'uan-fah*) *Ch'eng-tsung Ki* [(傳法) 正宗記] says that the third apostle [三祖] was the priest *Ts'an* [僧璨大師], but that nothing is known of his origin, except that he came from the Northern *Ts'i* [Tungusic Empire 550-580], and lived in seclusion at the *Kuh-shan* Temple [谷山寺] of *Kung Shan* [公山] in modern An Hwei Province. The fourth apostle was *Tao-sin* [道信大師], whose real surname was *Sz-ma* [司馬]. He was reëmbodied in the person of *Hung-jén* [弘忍大師], a

native of *Hwang-mei* [黃梅] in modern Hu Peh Province. Both of them were together at a temple on *P'o-t'ou Shan* [頗頭山] in A.D. 624. The *Wu-t'ung Hwei-yüan* says that the bonze *Shên-sin* [神秀] associated with Confucian scholars in his youth, and picked up a great deal of knowledge: suddenly he became a priest and entered the *Tung-shan* [東山寺] temple, where he met the fifth apostle *Hung-jên*, and acknowledged with joy, that he had at last found a real master. Finally, the "History of the Priest *Shên-sin*" says that *Tao-sin* and *Hung-jên* went together to the *Tung-shan* monastery, and that their religion was called the *Tung-shan Fah-mên*; *Shên-sin* looked up to *Hung-jên*, who therefore thought very highly of him.

A literary effort [聖教序] of the T'ang Emperor *T'ai Tsung* [627-650] describes the celebrated traveller *Hsien Chwang* as a Leader of the *Fah-mên* [法門之領袖].

#### 4.—DOES THE WORD *T'ien* BELONG TO NESTORIANISM ALONE?

The *Sui Shu* [7th century] says, in connection with the state of *K'ang* [康], (which has been abundantly proved to be identical with Samarcand):—"They have a body of Turkish law [胡律], which is placed in the Nestorian temple [祆祠]; and, when any punishment is to be awarded, they "take and decide it by this." In translating the remarks of the *Ming Shih*, written nearly a thousand years later, upon Samarcand [撒馬兒罕], Dr. BRETSCHNEIDER [*China Review*, Vol. V, Page 127] shows that, in the fourteenth century, there was still a hall there, in which the sacred book (then, of course, Moslem), was explained. And that this Nestorian body of law had found its way into China previous to the year A.D. 800 is evident from the remark made by the poet *P'i Jih-hiu* [皮日休, T'ang dynasty] that there was a 胡律 in the *Wu-k'iu Temple* [武丘寺], somewhere in China.

That the Turkish races had Nestorian temples among them, previous to their conversion to Moslem, seems plain from the following extract from the *Yu-yang Tsch-tsu*, [酉陽雜俎] a work of the eighth century: The Turks [突厥], in worshipping God [祆神], have no temples or shrines [祠廟]. They carve sandal into figures, which they put in skin bags, and, wherever they go, they smear them over with an unguent [脂蘇], sometimes lashing them on to a stake; and they sacrifice to them [祀之] at the four seasons.

The *Si K'i Ts'ung Yü* says:—"In the fifth year of *Ch'ung-kuan* [A.D. 631] imperial orders were given for the "construction of a Nestorian temple [祆寺] in the *Ch'ung-hwa* division [崇化坊] of *Ch'ang-an*; and it was called the "Syrian [大秦] or Persian [波斯] temple [寺]." Again: "The Emperor *Wu Tsung* [841-6] destroyed the Buddhist "temples, and made the priests commoners. In A.D. 845 he "ordered the Syrian Archimandrite and sixty others [大秦 "穆護大祆等] to revert to the lay status." \*

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\* The last two extracts are taken from the *Si-k'i Ts'ung-Yü* [西谿叢語] a work which, according to WYLIE'S *Notes on Chinese Literature*, was written by *Yao K'uan* [姚寬] in the 12th century, and partly or wholly republished during the *Ming* dynasty, in an encyclopaedic collection known as the *Pai Hai* [稗海].

An extract from the *Hwei-chu Lüeh* [揮塵錄], however, states that the *Si-k'i Ts'ung-yü* [西谿叢語] was compiled at *Yao K'uan*'s direction by [some one whose personal name was] *Wei* 威, and that it was a very complete collection of notes on ancient and modern things.

This leaves us pretty much where we were, as WYLIE does not seem to mention the *Hwei-chu Lüeh* at all. But an extract from the *T'ung K'ao* [通考] informs us that the latter work was compiled by one *Wang Ming-t'ing* [王明清], son of *Wang Chih* [王鉉] who, according to WYLIE, wrote in the 12th century.

It is clear therefore that the two authorities or the one, if both be identical, date from the twelfth century A.D.

5.—WERE ALL *Po-sz* PRIESTS NESTORIANS?

An extract from the old *T'ang Shu* says that, during the reign A.D. 806-821, the Uigurs successfully applied for leave to establish *Moni* [摩尼] temples in *Hsiao-nan Fu* and *T'ai-yüan Fu*; and the *K'ang Kien* gives the year A.D. 806 as the date of the first introduction of *Moni* sectarians, who are described as being Uigur subjects, but Buddhists and Taoists by religion [浮屠道人之稱]. Another extract from the *Sung Shih* says that, in the state of *Kao Chiang* [高昌, during the period 960-1127 the Uigur metropolis], there was a *Moni* temple where the Persian priests [波斯僧] held their separate rites; they were the so-called "heretics" [外道] of the Buddhist *Sūtras*.

A work called the *T'ien-kuang Shu-chu* [天官書注, the date of which I cannot find], says that "the Great Unity" [泰一] is the most worshipful God of Heaven," to which a commentator adds, [長水疏]: "the custom of all Western nations is to worship the Eternal God of Heaven [長命天神]."

The *Fah-yüan Chu-lin* [法苑珠林] says that there was a very learned polemical Brahman in the Lion state [Ceylon], champion of the *Wai-tau* [外道], who, hearing that *Kumârajîva* was preaching Buddhism in North-west China, [關中, and at the *Toba* court, 397-415], got on a camel with his books, and came to *Ch'ang-an*. The *Tsin Shu* says that *Kumârajîva's* mother had been with the King of *Kuche* [龜茲], and that she went with her son to India, and tried to dissuade him from preaching in China. Also that "his father was a clever and virtuous man, and had declined the hereditary premiership, crossed the Orion Range, and come east." From these extracts it would seem that *Kumârajîva* was not a Hindoo, but a *Kuche* Turk.

6.—WHAT OTHER RELIGIONS, BESIDES NESTORIANISM AND PROBABLY ZOROASTERISM, FLOURISHED IN THE UIGUR AND NORTH-WEST CHINA REGION?

The Turkish races, and the Uigurs especially, seem to have been religiously inclined, and tolerant to all religion, for the *Sung Moh Ki-wên* [松漠紀聞, a 12th century history of the *Nuchéns*], says:—The Uigurs are very devout Buddhists; when they worship, they wear the *Kachāya*, and use the Sanskrit or Hindoo tongue, [作西竺語]. The *Sung Shī* says of *Kao Chiang*: There are over 50 Buddhist monasteries, all with door-slabs presented by the *T'ang* dynasty: in their monasteries they have several Chinese dictionaries and other works [唐韻, 玉篇經音, etc.].

The *Si-hu Chī-gū* [西湖志餘, possibly the same as the *Si-hu Chī-tsuān* 纂 of WYLLIE, 18th century] says that “wax-fasting is a custom under which barbarian priests of the “Western regions, during fast time, weigh their bodies and “make a wax figure of like weight: when the fast is over, “they again weigh themselves, and, if their bodies are heavier “than the wax, they have been good; if lighter, then their “efforts have failed.”

The *Fah-gūan Chu-lin* [法苑珠林, 7th century] says:—“The *Sāstras* [經] in the West are all written in characters “derived from Sanskrit [祖梵], but some of the 36 states “use forms of it very different from others.” The word for Sanskrit is loosely used, for we find *Pashpa*, the Tibetan preceptor of Kublai described in the *Yüan Shī* as a 梵僧, whilst the *Liao Shī*, or *Kitan* History, says that in A.D. 1001 a “Sanskrit priest” and distinguished physician was introduced to court by the Uigurs.

The *Mêng-ki Pih-t'an*, [夢溪筆談, a very good authority of the 11th century], says that in the *Yen-chou* [延州] hills

there is a Buddhist temple of the *Ts'in* state [秦國佛寺, probably referring to the Tibetan *Ts'in* dynasty of Yao 姚 (384-417), which succeeded the Tibetan *Ts'in* dynasty of P'u or Fu, 蒲 or 符 (351-395), both in North-west China, and also in relation with the Cashmir Buddhists], in the court of which is King *Sic's* [尸毗] grave.

7.—IS THERE ANY EVIDENCE THAT ANY FOREIGN PRIESTS EVER WENT TO CANTON? WERE NOT THE "SEA-FOREIGNERS" PROBABLY MERE TRADERS, GOING THROUGH THEIR DAILY RELIGIOUS OBSERVANCES?

The *Yih T'ung Chi* [一統志, I suppose the *Yüan* dynasty edition,] says that south-east of *Shao Chou* [that is, somewhere on the Canton coast] there is a port called *Ts'ao K'í* [曹溪], to which, during the *Liang* dynasty [A.D. 502-555], a Hindoo priest came in a merchant ship. This statement is confirmed by an extract from a stone tablet of the 8th century in praise of one *Mu Tsung's* [馬總] administration at *Ts'ao K'í*, saying:—"The great barbarian ships from Annam, and the Western sea-going craft from India [身篤] all shared in his kindness." Another panegyric of the same date, on the same man, speaks of the valuable freights [寶舶] he induced. The *T'ang Shu* speaks of *Pulo Condor* ships [崑崙舶] at Canton in the Empress *Wu's* time [684-704], and of an affray with the captain of one of them, in connection with some extortion, and says that, during the tenure of office of the 38th descendant of Confucius there, [A.D. 808], the mooring-dues exacted from barbarian ships were abolished. There had been great corruption after the reign 714-742. An undated inscription speaks of a sort of *Hoppo* at Canton called the 押番舶使. The poet *Tu Fu* [杜甫 812-870] sings of "thousands of Sea-Türk ships" [海胡舶], which probably refers to the

Arab traders. The *T'ang Shu* says that *Wei Chêng-kuan* [韋正貫], nephew of [the famous Tibetan frontier administrator] *Wei K'ao* [韋皋, 9th century], "was appointed Imperial Commissioner at Canton [嶺南節度使]. The "maritime traders had hitherto been obliged to give the first "pick of their ivory, pearls, etc., to the great officers [大帥] "at nominal prices; but after his arrival there was no "such demand made, and his understrappers grumbled at "his integrity." Again:—"During the Emperor *King's* "reign [about A.D. 825] the maritime traders offered *guru* "wood and timber for building pavilions [亭材]." The *Wu Tai Shih* says that *Liu Ch'ang* [劉鋹, Emperor of the Southern Han dynasty reigning at Canton, about A.D. 970], "was dallying with his palace girls and Persian [波斯] "women in the inner apartments, and left the government of "his state to the ministers." The *T'ang-kuoh Shih-pu* [唐國史補, doubtless of the *T'ang* dynasty] says that the Lion state's [Ceylon] ships were the largest that came to Canton [南海], and that, on their arrival filled with precious goods, the Governor at once reported the fact to the Emperor.

#### 8.—IS THERE NOT EVIDENCE OF EARLY FOREIGN SEA-TRADE WITH FUH KIEN AND CH'EH KIANG PORTS AS WELL?

A. The *Peh Shih* [7th century] says that Loochow is five days' sail from *Kien-an* [建安 modern Foochow]. The *Chung-hing Hwei-yao* [中興會要, Southern Sung,] says that, during the reign 1131-1163, the Emperor was alive to the importance of encouraging barbarian ships by having an honest officer at Foochow.

B. The *Wu-kuoh Ku-shih* [五國故事, 10th century] says that one *Wang Yen-pin* was appointed to *T's'uan-chou*, and used to successfully freight a barbarian ship every good year. The *Yüan Shih* [Mongol] mentions the appointment of

one *K'wei-k'wei* to watch the ships at *T's'uan-chou* [泉舶. See the late Mr. MAYERS' remarks on page 185 of Vol. IV. of the *China Review*]. The same work says that junks from *T's'uan-nan* [泉南] pass *Ciampa* on their way to Java. The *Wên-hien T'ung-k'ao* says the largest ships that came to China were of one thousand *boran* [婆蘭] capacity, with only one mast: each *boran* was 300 pounds [400 lbs. *av.*] *Boran* is evidently a foreign word, but it does not appear to what port these large ships came.

C. The *I-yüan* [異苑, *quere* date,] says: During the reign 826-837, during the building of a granary at *Shan-jin* [opposite Hangchow] two large boats were dug up, and in them were found coins with characters on the rim. *Ou-yang Sin* [歐陽修 11th century] says: "Hangchow, [錢塘] ever since "the Five Dynasties [10th century], has had the good sense to "obey China [proper], to respectfully ask commands, and to "cease warring. The people are now rich and happy, and the "town is splendidly built, having a population of over 100,000 "families, and being shut in between the lake and the mountains. "*P'uh Kien* traders and all sorts of sea-going ships crowd the "harbour." The *Wu-tai Shi* says that "*T's'ien Liu* of *Wu-Yüeh*, [吳越錢鏐, independently ruling at Hangchow A.D. 900], "frequently sent envoys across the sea, and all the sea-ports "did a large trade with his people," The "good sense" evidently alludes to the period subsequent to his reign.

D. The *Ming Yih-t'ang Chi* [明一統志] says that *Ch'ap'u* [乍浦 near Hangchow] is in the *P'ing-hu* district [平湖], and that, during the *Yüan* [Mongol] time, foreign ships congregated there. The same work says that "*Can'fu* [澹浦] "was in the *Hai-yen* district of *Ka-hing Fu*; and that, during "the reign of Kublai Khan, it was a great resort for traders, "for which reason the *Ming* dynasty built a wall round the "harbour, and gave to the place the name of *Kan-p'u* Mart." The city of *Hai-yen* was near the old Salt Town [鹽官鎮]



which had been two centuries earlier submerged by the inroads of the sea. The *Shên Pao* reported that valuable porcelains were dug up here in 1887 when part of the old town was exposed to view.

The result of the above quotations, all of which are taken from the *P'ei-wén Yin-fu*, seems to me to be as follows:—

1. There is no evidence that any Nestorians ever were at Canton, or that any Persian Christians ever were there.
2. Nor that Canton was *Canfu*, or that *Canfu* was any other place than *Kan-p'u*.
3. There is plenty of evidence that both Persians and Arabs went to Canton; and it seems likely that they were also among the foreigners who plainly went in ships to Fuh Kien and Chêh Kiang ports.
4. The term *Ta-têh Sêng* was undoubtedly applied to Nestorians, and to their religion the *king kiao* [景教]: but the term *Ta-têh Sêng* was also applied to the *Fah-mên* priests, and to priests from India.
5. If all the *Fah-mên* were not Buddhists, at least some of them were. It is certain that some *Fah-mên* were Buddhist sectaries of some sort, and there is nothing to shew that all were not.
6. The *Hwî-tao* were not orthodox Buddhists, and there is nothing to shew that any of them were Buddhists at all. Some of them were *Po-sz* and *Moni* priests.
7. *Ta Ts'in* is not only identical with *Fah-lin* in the sense of "Syria," but, in connection with ecclesiastical matters only, it is interchanged also with *Po-sz*. It seems not unlikely that *Po-sz* and *Persian* both mean "Parsee" in many cases, both in China and in the West.
8. The word *t'ien* [天, or Heaven as a spiritual abstraction] cannot be shewn to have been applied exclusively to Nestorians.

9. *Po-sz* priests were in some cases identical with *Moni* priests ; in others with Syrian Nestorians.

10. The Arabs traded all along the China coast as far as they found ports.



## THE "TENT THEORY" OF CHINESE ARCHITECTURE.

By S. RITTER VON FRIES.

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When reading the proceedings of the meeting of the Royal Asiatic Society on the 21st February, as published in the *North-China Herald*, I noticed that Mr. CARLES, one of the members present, in commenting on Dr. EDKINS' paper on "Chinese Architecture," expressed his surprise that the learned author had made slight reference to the Tent Theory, and even doubted whether it was a tenable hypothesis that the curved roofs of Chinese buildings had developed out of and were a remnant of ancient tent-habitations.

In regard to the theory, I venture—though a layman in matters of architecture—to express my view, hoping to elicit in this way information from some of the learned members of our Society who have entered into this question, and arrived perhaps already at a definite result, either supporting or upsetting my argument.

My conviction is, and I hope to be able to prove it, that Dr. EDKINS was perfectly correct in abandoning a hypothesis which cannot be upheld substantially. The few "proofs" which Mr. CARLES brings forward, I find, are as little an obstacle to discarding the tent theory as they are a support of the same.

If we are to assume that the shape of the tent was so familiar to the Chinese that they continued to preserve the same even in their structures of masonry, we must in the first place be able to show that the dwellings of the natives ever consisted of tents. In which period of the history of

this people, wonderfully complete as it is, do we find a hint of their having lived in tents? If we go so far back as to the mythical sovereigns Yu Ch'ao (有巢) and Huang Ti (黃帝), we read that they taught the people to build houses and cities. Of course this is myth; but would even myth abstain from mentioning the existence of tents altogether, if they had been the first and usual form of their quarters at any time? The Chinese fully realise the fact that a nation in its childhood is uncivilised, and they are not ashamed to relate that their ancestors "ate hairs and drank blood," before some one of the Sui-jên family (燧人氏) discovered fire. Why, then, should they ignore the tents, which they would doubtless have kept longer than that strange food and beverage, especially if we find it reasonably assumable that this form of dwelling had any influence on their architecture. I have nowhere come across a passage yet which would show that the Chinese were formerly in the habit of making use of these portable structures as constant habitations. In the absence of such a passage, I must also put the question: were the Chinese ever a nomadic tribe, so as to require tents, or so as to be in circumstances to find them useful? As far as I am aware, the Chinese neither consider themselves, nor are they by Western historians described, as nomads. We have every reason to believe that they were as early as possible a settled people, and essentially agriculturists, (note Shên-nung, the divine husbandman) a mode of life which in itself excludes migration. In the face of these facts, we should, I should say, require very strong proofs to believe that the Chinese were, instead of cave and hut dwellers, at any time dwellers in tents. That tents have been employed by them on their numerous warlike expeditions, even in remote antiquity, I am quite willing to concede, as they could have learned their usefulness in such cases from their northern nomadic neighbours.

The next point in favour of my argument is etymological. Do any of the characters, or part of them, which bear the signification of house, dwelling, home, etc., have the slightest reference to a tent-like structure? Do not the radicals 宀 (*mien*) and 冫 (*hu*) unmistakably point to both a cave and a dwelling with doors, indicating surely that a tent cannot be meant? Finally, the expression *chang-fang*, meaning a tent, is a *compositum*, and therefore naturally also of more recent invention.

If it is not possible to adduce proofs in either history or language in support of the tent theory, by what circumstances then, I may be allowed to ask, are we forced to assume, in spite of this significant silence, that the shape of the tent is the cause of the characteristic form and arrangement of Chinese buildings? The singularly curved roof, I am told, is such a *prima facie* proof. I venture not only to disbelieve that the usual Chinese roof has derived its shape from the tent, but to go farther, maintaining that such a curve has scarcely anything in it parallel to a tent at all. The outlines of the latter are necessarily straight, and it is the space between the framework, covered with cloth, skins, and the like material, which would bend and show a curve, and this again principally with tents having a triangular profile, which are the sort least likely to have been used. The *yurt* which the Tartars, Kirghese, and Kalmuks construct is round and often hemispherical, and bears no resemblance whatever to the Chinese house. The surface of the roof of native houses is not bent, but the masonry or beams at both its ends, also sometimes the ridge of the house, show the typical curve. The roof surface, on the contrary, is perfectly even and bears, especially in the South, obvious traces of split bamboo roofing alternately showing the concave and convex, the convex parts swelling upwards like ribs, which form it has been found useful to follow even in tile roofs. It is therefore

evident to me that the Chinese house of the present age originated from caves and huts, and the apparently puzzling flourish of corners and ridge of the roof of buildings can, if it must be derived, just as well have been caused by the uneven forms of the rude material used to build the primeval hut. I am, however, more of the opinion that this peculiarly shaped line was no inheritance of days of yore, but is an artistic embellishment given to the gradually more improved houses and temples. That wooden buildings apparently induce the constructor to add projections to the roof and increase its ornamentation I find illustrated in the primitive houses of peasants in some parts of the Austrian Alps, where the wide outstretched rafters at the corners are very often decorated with fantastic carvings, and those on the long side of the roof are bent upwards, and are utilised at the same time to support the eaves. Most of the Chinese ornamentation, which Dr. EDKINS rightly asserts ought to be considered Buddhist, is incongruent with that indigenous fondness for the rectangle which is exhibited in their architecture, furniture and dress, and I can therefore not suppress my doubt whether the characteristically curved roof is originally Chinese. There is, I am perfectly aware, neither in India nor anywhere else an exact parallel to it to be found, which we might consider the original of that form, and I consequently express my doubts with reservation. The archaeological remains of Egypt, the country which seemingly had the same propensity for a geometrical arrangement as China, show uniformity in every branch of the plastic arts, because they are all equally Egyptian.

In concluding, I solicit a renewed attention on the part of the learned members of the Society to this interesting question.

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## NOTE ON THE COMPARATIVE LONGEVITY OF MALES AND FEMALES IN JAPAN.

BY T. E. HALLIFAX.

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The appended list, taken from the census report published in March 1890, may be of some little interest, as showing the greater longevity of females over that of males in Japan, and the impunity with which the Japanese inhale both tobacco and charcoal fumes. It is the universal custom in Japanese houses during autumn, winter and spring to warm the rooms with charcoal fires. These of themselves would not prove very harmful, as the houses are so badly constructed as to admit draughts from all sides, and thereby render the fumes comparatively innocuous; but the people, both men and women, have a habit of sitting close to the fire with their heads leaning over, so as to inhale fumes to such an extent as would speedily knock over a European. Again, both sexes are inveterate smokers, and inhale all the tobacco smoke. Of course many people of Europe inhale tobacco smoke, but they do not inhale charcoal fumes also; and it is rather matter for surprise that any Japanese reach a hundred, seeing that a great part of their lives they are inhaling poisonous matter, thereby diminishing in the same proportion the necessary supply of oxygen. Among my own acquaintance are several old women, nearer eighty than seventy, who are inveterate smokers, and who, during three-fourths

of the year, crouch over the charcoal fire, yet who are still remarkably healthy and active.

## AGE.

70	...	male and female,	983,856
80	...	do. do.	199,074
90	...	do. do.	7,507
101	...	males 9, females 21	
102	...	" <i>nil</i> "	9
103	...	" 1 "	2
104	...	" 4 "	18
105	...	" 3 "	6
106	...	" 1 "	1
107	...	" <i>nil</i> "	1



## PROCEEDINGS.

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*MINUTES of a GENERAL MEETING held in the Society's Library, Museum Road, Shanghai, on Friday, 21st February 1890, at 9 p.m.*

Mr. P. J. HUGHES (President) occupied the chair. There were about 30 persons present.

The HON. SECRETARY (Mr. W. Bright), in opening the proceedings, said that as the business of the last meeting of the Society, held on the 20th December, had been fully reported in the daily newspapers, he thought that, with the permission of those present, the minutes might be taken as read. At the last meeting the President had mentioned that the abstract of the replies to the Weights, Measures, and Currency circular was in course of preparation by Mr. Morse. It was now his duty to report to the meeting that the abstract had been received, and would form a valuable addition to the current fascicle of the Society's Journal, which was shortly to be published. The thanks of the Society were due to their correspondents for their replies, and especially to Mr. Morse for the great pains he had bestowed on the preparation of the summary. The Circular for 1890 on "Inland Communications" had just been issued, and would, he hoped, elicit even more numerous and exhaustive replies than resulted from the issue of the last Circular. The information sought on the present occasion to be obtained from all parts of China and Corea had reference to the main roads, the condition of the ancient and modern roads, particulars of noteworthy bridges, viaducts and tunnels, of modes of conveyance, rate and cost of travelling, cost of carriage of goods, and accommodation for travellers. He might add, in conclusion, that, owing to the difficulty experienced in some cases of obtaining subscriptions from members, the Council had decided to remove from the list the names of those

who had failed to pay their subscriptions for the past three years, and to print in the next fascicule of the Journal a notice to the effect that members whose subscriptions were a year in arrear would receive no further publications of the Society.

The PRESIDENT said that he had much pleasure in announcing the election, since the last meeting of the Society, of the following gentlemen : MESSRS. MAX GORBEL (Consul-General for Belgium), F. M. GRATTON and FERD. RINKEL. In the name of the Society, he desired to thank M. Janet for his kindness in arranging and classifying the specimens of butterflies in the Museum. He had been requested to intimate to members that they would greatly assist their indefatigable Hon. Librarian (Dr. Faber), in his arduous labour of re-arranging the books in the Library, if they would kindly return without delay any works which might happen to be in their possession. There were at present some forty books missing ; the absence of such was, to say the least, exceedingly inconvenient. The lecture on "Chinese Architecture," which they were to have the pleasure of hearing from Dr. Edkins that evening, would, he was informed, treat the subject from the historical point of view. The well-known learning and ability of the lecturer entitled them to expect a lecture of more than ordinary interest, and he was glad to see many present, though doubtless there would have been a much larger audience had not the weather been so severe. Among those present he noticed some who had travelled extensively in the interior, and who had doubtless come across remains of ancient edifices and seen the cave and rock dwellings described by Dr. Williamson in his interesting work, *Journeys in North China*. There were other gentlemen—and perhaps ladies, too—who, although they had not gone so far afield, had closely observed the facts within their reach, and who might possibly favour the meeting with the results of their observations. Last, and perhaps not least, there were present professional gentlemen able, as he hoped they would be willing, to tell them something about Chinese architecture regarded from the standpoint of Western science. He had no doubt that thus many novel and interesting facts would be elicited, and a flood of light thrown upon a subject which, as far as he knew, had not hitherto been discussed at a meeting of the Society,

Dr. J. EDKINS then read extracts from his paper on "Chinese Architecture," which is printed *in extenso* pp. 253 *seq.* of this volume.

In the discussion which followed,

General MESNY thought that the different interpretations of scholars in regard to the caves and kilns arose from the use of the same character to express both, as was the case in Shansi and Kansu, though in Szechuan the caves were known by a distinct name. The loess referred to by the lecturer resembled chalk, was easily worked, and was used for making cabins, beds, stoves, etc. The ornaments which he had noticed round the graves of Emperors were usually in pairs; there were two torches, two goats, two horses, two men, and so on. The graves had large tablets, with inscriptions similar to those on tombstones in Western countries. The cap (or *mao-tzu*) at the top of the tablets had designs of dragons holding balls—presumably of fire. There were caves of the Tang dynasty ten or so miles west of Honan-fu executed out of solid rock, and many of them very large. Excepting the porcelain pagoda at Nanking, the pagodas he had seen were mostly of brick.

Dr. FABER said that he had followed with much interest the valuable paper of Dr. EDKINS, and only regretted that he found it impossible to remember the great number of minor details. He wished to ask the lecturer a question, namely, "What was the characteristic feature of Chinese architecture?"—in the sense that we speak of parallel lines forming the characteristic of Greek architecture, of the vertical line with pointed arch of Gothic, and of the round arch of the Roman style.

Dr. EDKINS replied that he considered the roof the characteristic feature of Chinese architecture.

Dr. FABER, continuing, said that the roof was certainly very characteristic of Chinese architecture. Architecture, however, was not merely workmanship, but a science and an art. The roof could not be considered as an object in itself, but only in connexion with the building to which it belonged, and of which, as an organic whole, it must be a part. Herein Chinese architecture was deficient. The ground plan was sometimes well proportioned, but the leading from it to the superficial roof was seldom perfect, except, perhaps, in small

open garden-houses, in which the Chinese excel. Though the roof was not exclusively supported by walls, but by pillars also, the pillars in themselves showed no artistic perfection. They had commonly a pedestal, of which there were various forms in China, but no capital. Only very rarely was a rough beginning of such to be seen in China. The upper portion of the pillar was pierced by cross-pieces, commonly of wood. This piercing pointed to wood-construction as another feature of Chinese architecture. For this reason no vaults were to be met with, the very few exceptions, on the Omei Mountain and in graves, pointing to foreign workmanship. Dr. Edkins had mentioned a building entirely of stone; it would be interesting to get more particulars about such. Then with regard to the Ming-t'ang, they had been told that it was a square building with a round roof. To accomplish that in an artistic way, to the satisfaction of cultivated, æsthetic ideas, meant the highest perfection in architecture. It would mean an anticipation of Michael Angelo and Wren, 3,000 years ago. But we might as well believe in the squaring of the circle by the Chinese. Probably a round roof was simply put on a square one. That the Ming-t'ang, at the T'ai Mountain, was more magnificent than other buildings of the kind was due to the near relationship of the Duke of Lu, commonly called Chow Kung, to the Imperial house of the Chow, and to his great merits in establishing that dynasty in China. He was invested with the feudal State of Lu, and special privileges were granted to him. Some of these referred to the Ming-t'ang. This was a large building for ancestral worship, for audiences, and for the reception of the Emperor on his tours of inspection. There were four other buildings of the kind in China at the time, the principal one being at the Imperial residence. In the *Li-ki* they were told that the Emperors of the Shang and Hsia dynasties had similar buildings under other names. Though that kind of building served for religious as well as for political purposes, it did not follow that all ancient Chinese buildings were devoted to religious observances. There were very early notices in Chinese literature of markets, of walled cities, of granaries and other store-houses, of stables, towers, etc. All such buildings were doubtless very prosaic in outline, only serving for the immediate necessities of life. The designs of all

larger buildings in China exhibit an immense waste of space ; the principal impression was received from the vast dimensions, which, according to Burke, are always the sign of a common and low imagination. Of more or less beauty, however, were the gates and gateways, and, as a branch of them, the memorial arches. Their ornamentation was often beautiful. But even in their ornamentation the Chinese rarely, if ever, exhibited congruity of detail. The details were often perfect, but they were seldom in such full harmony with other details as to present to the spectator the pleasing aspect of a harmonious work of art. The distinction of a classical and post-classical period in Chinese architecture was scarcely tenable, and certainly of but little importance. Very marked, however, was the Buddhistic period. No mention had been made of the influence of Mohammedan architecture in China. There was undoubtedly such from Arabia (for example, in Canton), from Persia, and from Turkestan. It was possible that the superiority of the architecture of the Ming dynasty could be traced to that source.

Dr. WILLIAMSON said there were comparatively few allusions to the buildings of the Chinese in ancient books, and it would be easier to describe their dresses than their dwellings. The few which existed had been utilised by Dr. EDKINS. There was no doubt that the lecturer was right in saying that the first end was geometrical, and this was also true of contemporaneous architecture. The early Babylonian and Assyrian architecture was emphatically geometrical — usually rectangular — crowned often with a dome or an octagon ; so also with the earliest Egyptian. The Great Pyramid was a geometrical problem from base to apex. And in regard to these the lecturer was also right in saying that science preceded superstition. Those two styles of architecture seemed to have had no beginning, but to have sprung up in their richest glory like Minerva full grown and armed from the brain of Jupiter. This was true likewise of the most ancient Egyptian statues, alike as regards size, expression, and finish. In regard to the second stage, the speaker thought it was very likely that Ts'ing Shi Huang had obtained his ideas of parks and gardens and other of his public works from the royal palaces of Babylonia, which appeared so unexpectedly

in China, as with the touch of a magician's wand. Ts'in Shi Huang lived in the distant north-west, and there could be no doubt that there was far more intercourse in those times between Central Asia and Asia Minor than was once supposed.

Mr. HUGHES (the President) suggested that the resemblance between the Chinese house and the Mongol tent might account for the style of Chinese buildings. He had not heard that subject referred to in the course of the discussion, and perhaps there were some present who could enlighten them with regard to it.

Dr. EDKINS stated that he knew that that was a favourite theory, but he had not much faith in it.

General MESNY having made a brief reference to the resemblance between the portable canopy used at military reviews, to shelter the inspecting officer, and the concave roofs met with in China,

Mr. CARLES said that he was rather surprised to hear the learned lecturer call in question the origin of Chinese architecture. It was not only the outer slope of the roof in a Chinese house which bore a resemblance to a tent; there were many other features in common. In building it, the wooden framework was first placed in position, after which the brickwork was filled in, the sequence of work being the same as that with a tent's pole and its covering. Further, the rafters overlapped the pillars to a degree which, though natural in a tent, was certainly not necessary in a more stable structure. There was also a complete absence of any arch; but perhaps the most striking resemblance between a Chinese house and a tent lay in the divisions corresponding to the spaces between the poles or pillars, which necessarily, with the exception of the central space, were equidistant from each other. Nor, again, was it only in the interior of the house that the resemblance existed. The main building was slightly raised above the others, and was approached by a pathway flanked by the buildings of secondary importance. The women's quarters were at the back of the main building and thus screened from sight. No communication existed between the different buildings, and if it was desired to pass from one courtyard to another, the passage lay outside the intervening buildings, and not through them. All these conditions were such as would exist in a camp, the chief's

tent being on a slightly higher ground than the rest, the approach to it being guarded by his officers' tents, and the communications from one to another being not under cover, but in the open air. There was another curious feature to which it was perhaps worth while to call attention in passing. The stone socket (*sang-tun*) in which the main pillars stand is cut away on its lower side to such an extent that only a comparatively small portion of it rests on the stone slab beneath it. This, of course, is a weak point in the structure, but may be due to the fact that formerly the socket rested in the earth and not on a stone slab, when, of course, it would be advisable to reduce the size of the lower portion in order to admit of its easier reception into the earth. This, too, might point to the time when a substitute was sought for tent-pegs in the erection of solid buildings. There were other buildings than those of the type which had been referred to. For instance, at Soochow the Wu-liang Tien or Beamless Hall, and at Peking the Drum Tower, were specimens of structures in brick and stone, the like of which were found on a smaller scale at the cemeteries of persons connected with the Imperial family. In view, however, of the resemblances which existed, in appearance, interior arrangements, and general plan, he held that the original idea of a Chinese house was drawn from tents and tent life.

Dr. FABER said that in regard to the design of Chinese Yamêns and similar buildings, he thought that Mr. Carles' arguments were quite conclusive. He also agreed with General Mesny that the concave roof was an imitation of the lines of a tent or portable pavilion. Curved roofs were, according to all Chinese authorities, as ancient as Chinese architecture. They might believe that, as it marked a peculiarity of Chinese artistic feeling, which showed unmistakably a horror of straight lines, especially horizontal ones. The forms on the wall-pictures exhibited before them that evening were no valid argument against it, for they knew that Ts'in Shi Huang showed a great interest in going against every custom prevailing during the Chow dynasty, which was then crushed, and a new era in social and political life, not merely a new dynasty, was inaugurated with irresistible power and relentless cruelty. A few ancient relics at one place in China could never be conclusive in

regard to the state of things at other places, and, still less at other periods.

Mr. G. J. MORRISON stated the usual points in architecture were construction, outline, and ornamentation, and as regards construction in Chinese buildings his experience led him to the conclusion that its principal feature was its utter badness. There was hardly a building erected so as to last. In pagodas bricks were used, and such structures lasted longer than most others. Wood formed the chief part of the majority of the buildings. The outline was the point to which Western architects liked to pay most attention. In Chinese buildings, except perhaps as regards the roof, and except in the case of pagodas, there was very little outline. The outline of the semi-circular bridges was pleasing to the eye, and had greater attention been paid to the foundations, they would probably have remained to the present day. The pleasantest feature of most Chinese buildings, and on which the greatest care was evidently bestowed, was the ornamentation. In this real merit could be discerned, and the work was well worthy of the study of those interested in such subjects.

Dr. FABER proposed a vote of thanks to the lecturer for his very interesting lecture, and a similar compliment having been paid to the Chairman, the meeting adjourned.

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*MINUTES of the ANNUAL GENERAL MEETING held at the Society's  
Library on Monday, 19th May 1890, at 9 p.m.*

Mr. P. J. HUGHES (President) in the chair. Between 30 and 40 persons were present, including ladies.

The SECRETARY read the Reports and Accounts for the year 1889-90.

The CHAIRMAN observed that the accounts showed a balance of Tls. 530, and Tls. 70 had since been collected. The Reports showed that satisfactory progress had been made during the past session. The Museum had not been so much favoured as usual, and it was hoped that sportsmen would bear this institution in mind. After



expressing a hope that the incoming Council would accelerate the work of printing the papers accepted by the Society, the Chairman said he hoped members would enable them to still further increase the attractiveness of their Journal by reviving the "Notes and Queries" which used to form an interesting item in the Transactions. Accounts of journeys in the interior would be acceptable, especially if read by the traveller himself. In this connexion he would remark that gentlemen who might happen to visit Si-an-fu in Shensi would confer a favour by reporting, as suggested by his Excellency Mr. von Brandt, on the efficiency of the measures taken for the protection and preservation of the Nestorian Tablet. It would be remembered that, at the instance of some missionary friends, the Council had a letter written to Mr. von Brandt on the subject, and that His Excellency and his colleagues had induced the members of the Tsung-li Yamén to interest themselves in the matter and to instruct the local authorities to take the necessary steps for the preservation of this monument of the early relations between China and the West. The meeting would be glad to learn that Dr. Bretschneider had promised a paper on the "Botany of the Chinese Classics," being the second part of his *Botanicon Sinicum*, published by the Society ten years ago.

On the motion of Mr. P. G. VON MÖLLENDORFF, seconded by Dr. JAMIESON, the Report and Accounts were adopted.

On the motion of Mr. M. F. A. FRASER, seconded by Mr. MENCARINI, the following gentlemen were elected to constitute the Council for the ensuing year:—Mr. P. J. HUGHES, *President*; Dr. EDKINS and Mr. VON MÖLLENDORFF, *Vice-Presidents*; Mr. W. BRIGHT, *Hon. Secretary*; Mr. THOS. BROWN, *Hon. Treasurer*; Dr. FABER, *Hon. Librarian*; Mr. CARL BOCK, *Hon. Curator of the Museum*; Dr. JAMIESON, Rev. A. WILLIAMSON, LL.D., and Messrs. VON HAAS, PLAYFAIR and D. C. JANSEN, *Councillors*.

The CHAIRMAN observed that several of the retiring Council had deserved particularly well of the Society during the past year, among them being Dr. Faber, Dr. Jamieson, Mr. Bright and Mr. Bock.

Dr. JAMIESON then proceeded to read a paper by Mr. E. H. Parker styled "Notes on the Nestorians in China." (*This paper is printed at pp. 289 sqq. of this volume.*)

Dr. EDKINS said he disagreed with the author of the paper in the conclusion he arrived at. There was a regular trade carried on by the Arabs between Bussorah and Canton, and the Nestorian Christians, having to come to China and coming from the same part of Asia as the Arabs, would naturally come by the same route. The author had been unwise in confining his attention to one book, which was a very unsafe thing to do in reading Chinese history.

Mr. W. BRIGHT then read a paper by S. Ritter von Fries, on "The 'Tent Theory' of Chinese Architecture." (*This paper is printed at pp. 303 sqq. of this volume.*)

Dr. FABER thought the writer of the paper rather missed the point of Mr. Carles' argument. Mr. Carles did not mean to express the idea that the curved roof was derived from tents like those of the Mongols, or that the ancient Chinese must have lived in such tents. On the contrary, Mr. Carles pointed to several yamêns and other existing buildings as having derived their shape from structures in an encampment. Dr. Edkins, on the other hand, based his argument on some tablets which had been discovered in a certain place in China as indicating that in ancient China the curved roof was not known. They had learned, from Mr. Parker's paper just read, that it was not wise to confine oneself to one book; and it would not be wise to confine oneself, as he considered Dr. Edkins had done in his lecture on "Chinese Architecture," to one monument, especially one belonging to a dynasty in which all the ancient customs of China were set upside down. The shape of the roof was shown in a line fastened above and below but not stretched tight.

Dr. EDKINS thought the imitation of a tent was probably imported into China from other nations.

General MESNY thought some reason for the use of the curve in Chinese buildings might be found in the former use of bamboos with projecting ends.

Dr. WHITNEY said that from ideas gathered from the natives themselves it was probable that the whole thing arose from superstition. The Chinese never make a road straight for any considerable distance. Every here and there a crook is made, the idea being that any evil influence travelling along the road will be

dissipated at the bend. The same idea had probably been applied to the roofs of houses.

The proceedings terminated with a vote of thanks to the Chairman.

## COUNCIL'S REPORT FOR THE YEAR 1889-90.

The Council of the China Branch of the Royal Asiatic Society beg to present their Report on the operations of the Society during the year ended 30th April 1890.

1. *Council*.—The office-bearers and members of Council elected at the Annual General Meeting held, under the presidency of Dr. R. A. JAMIESON, on the 28th May 1889, were as follows:—

P. J. HUGHES, M.A.,	<i>President.</i>
W. R. CARLES, Esq.,	} <i>Vice-Presidents.</i>
P. G. VON MÖLLENDORFF, Esq.,	
WILLIAM BRIGHT, Esq.,	<i>Hon. Secretary.</i>
REV. ERNST FABER, DR. THEOL.,	<i>Hon. Librarian.</i>
CARL BOCK, Esq.,	<i>Hon. Curator of Museum.</i>
R. M. CAMPBELL, Esq.,	<i>Hon. Treasurer</i>
JOSEPH EDKINS, D.D.,	} <i>Councillors.</i>
W. S. EMENS, Esq.,	
J. H. FOCKE, DR. JUR.,	
R. A. JAMIESON, M.A.,	
Ven. Archdeacon MOULE, D.D.,	

Of these, Messrs. W. R. CARLES and R. M. CAMPBELL, Dr. J. H. FOCKE, and the Ven. Archdeacon MOULE resigned towards the end of their tenure of office, the first-named owing to his transfer to another port, and the others owing to their departure for Europe.

2. *Members.*—The number of members on the roll at the end of the period now reported on comprised 8 Honorary, 24 Corresponding, and 218 Ordinary Members (including in the last-mentioned category 7 Life Members). The total number of members has decreased somewhat, owing to a recent decision of the Council regarding the erasure from the list of members of the names of those whose subscriptions were much in arrear: the decrease, however, is to a certain extent more apparent than real, as many persons who on leaving China wished to resign their membership neglected to inform the Society of their intention. It is with much regret that the Council have to report the decease during 1889 of two prominent and learned Orientalists, Prof. W. Schott and Colonel Henry Yule, C.B., both of whom were Honorary Members of the Society.

3. *Meetings.*—At the meetings held since the date of the last Council's Report papers on the following subjects were read:—

“Government by Women in Eastern Asia,” by D. J. Macgowan, Esq., M.D.

“Prehistoric China revealed by the Chinese Written Characters,” by Dr. Ernst Faber.

“Chinese Architecture,” by Dr. J. Edkins.

The reading of these papers was followed by interesting discussions, notes of which will be found in the minutes of the meetings. In addition, the following papers have been accepted, and will be read at the Annual General Meeting:—

“Notes on the Nestorians in China,” by E. H. Parker, Esq.

“The ‘Tent Theory’ of Chinese Architecture,” by S. Ritter von Fries.

4. *Journal.*—Such of the papers mentioned above as have been accepted for publication will appear in the current volume, as also a valuable “Essay on Manchu Literature,” by Mr. P. G. von Möllendorff, and an abstract, prepared by Mr. H. B. Morse, of the replies to the Society's Circular on the “Weights, Measures, and Currency of China.” Incomplete as the information contained in this abstract may be, it has been thought well to publish it, and at the same time to solicit further particulars from those in a position to furnish them, so as to allow of the information being amplified at an early date.

In the current volume will also be found the correspondence between the President of the Society and the Doyen of the Diplomatic Body at Peking concerning the preservation of the Nestorian Tablet and other ancient monuments at Si-an-fu; and the Council would here beg to tender their thanks to the members of the Diplomatic Corps for the interest they have evinced in the subject, and to the Chinese High Authorities for their ready willingness to undertake the necessary measures for the protection of these historical treasures.

5. *Officers' Reports.*—Appended are the Treasurer's, Curator's and Librarian's Reports. From the Treasurer's Report it will be seen that the Society's financial position is exceptionally satisfactory. The balance standing to credit in the Society's Account is Tls. 532.81, being an increase over that of 1888 of Tls. 379.23; while the Museum Account shows a credit balance of Tls. 120.64. An increase has to be noted in the sale of the Society's Journals, thus affording satisfactory evidence of the growing appreciation in which the early as well as the more recent publications of the Society are held both in China and abroad. The Treasurer reports that repeated applications to many members have failed to secure the payment of their annual subscriptions. Some of the \$615 stated in his Report as outstanding under this head has since been paid in, but a considerable sum still remains to be collected. Judging that members who have not responded to the Treasurer's applications do not desire to have their names borne on the Society's roll of members, the Council, in January last, decided to remove from the list the names of those who have failed to pay their subscriptions for the past three years, and henceforth members whose subscriptions are one year in arrear will receive no further publications of the Society, while, as a reminder, the names of such members as have not been heard from for two years will in the published list be printed in italics.

The Curator's Report gives a list of the specimens presented during the year. While thanking those who in their up-country trips, in whatever province they may be, think of the needs of the Museum, the Council cannot but regret that the collection is still below the standard, as regards variety, that they and all students of

natural history desire to see it reach. The Council have to thank M. Janet for his valuable services in arranging and classifying the collection of butterflies in the Museum.

The Librarian reports favourably of the work in connexion with the Library, and the thanks of the Council are due to Dr. E. Faber for his untiring zeal and devotion to its interests. Much solid work has been done, and a great advance has been made towards arranging in convenient order, binding, numbering, and cataloguing the works in the Library, and in utilising to the utmost extent the limited accommodation the room affords.

WM. BRIGHT,

*Hon. Secretary.*

30th April 1890.

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*Appendix I.—HON. TREASURER'S REPORT.*

The balance at credit of the Society on 31st December 1888 was Tls. 153.58; the balance at credit on 31st December 1889 was Tls. 532.81. As may be seen from the accounts, the increase is owing to a large number of subscriptions that were in arrear having been collected during the past twelve months. It is greatly to be regretted that subscriptions, part due, are still outstanding to the extent of \$615, viz.:—

For the year 1883—	\$ 5
„ „ 1884—	\$ 5
„ „ 1885—	\$ 5
„ „ 1886—	\$ 15
„ „ 1887—	\$ 55
„ „ 1888—	\$255
„ „ 1889—	\$275
	<hr/>
	\$615

All members whose subscriptions are in arrear have been written to and notified of the fact. No doubt some of the letters have not reached their destination, but in many cases this cannot be supposed to be the case. There is a considerable increase in the amount received by sale of the Society's publications, over the amount shown in last year's accounts. Some of the receipts shown in this year's accounts, however, should have been included in the 1888 accounts, but, as stated in the Treasurer's report last year, as the amount was not considerable it was allowed to stand over.

*Museum.*—The usual grants have been received from the English and French Municipal Councils. The balance in hand on 31st December 1889 was only Tls. 120.64, against Tls. 178.41 at the end of the previous year; against which, however, it may be noted that the interest due on the loan from the Recreation Fund (Tls. 75) was not paid in 1888, whereas this year has borne the charge for that as well as the current year.

R. M. CAMPBELL,  
*Hon. Treasurer.*

Shanghai, 1st January 1890.

THE HON. TREASURER IN ACCOUNT WITH THE SHANGHAI MUSEUM FOR THE YEAR  
ENDED 31ST DECEMBER 1889.

INCOME.		EXPENDITURE.	
Tls.	cts.	Tls.	cts.
To Balance from 1888	...	By Wages of Taxidermist and Coolie	...
" Grant by Municipal Council	...	" Municipal Council Taxes	...
" " French Municipal Council	...	" Fire Insurance	...
" Interest on Bank Account	...	" Repairs to premises	...
		" Rent of Rooms paid to Shanghai Library	...
		" Two years' interest on Loan from Recreation Fund	...
		" Balance at credit	...
Tls. ...	781 67	Tls. ...	781 67

E. & O. E.

SHANGHAI, 1890.

*Compared with vouchers and found correct,*

THOMAS BROWN,

A. L. ROBERTSON.

R. M. CAMPBELL,  
*Hon. Treasurer.*



THE HON. TREASURER IN ACCOUNT WITH THE CHINA BRANCH OF THE ROYAL ASIATIC SOCIETY  
FOR THE YEAR ENDED 31ST DECEMBER 1889.

INCOME.	Tls.		EXPENDITURE.		Tls.		cts.	
		cts.						
To Balance from 1888	...	153	By Printing and binding Journals...	...	733	...	32	
" Subscriptions from Members	...	1,268	Postages	...	77	...	17	
" Sale of Society's Publications	...	145	" Stationery...	...	11	...	36	
" Rent from Shanghai Library	...	100	" Advertising	...	29	...	44	
" Interest allowed by Bank	...	6	" Municipal and Government Land taxes	...	14	...	19	
			" Repairs and Furniture	...	55	...	03	
			" Fire Insurance	...	6	...	55	
			" Wages	...	24	...	95	
			" Chinese Copying and Translating	...	8	...	75	
			" Coals and Gas	...	5	...	24	
			" Return of Subscription overpaid	...	3	...	64	
			" Taxidermist	...	22	...	27	
			" Mrs. Gale, honorarium for 1888 and 1889	...	120	...	00	
			" Commission to Shroff on collections	...	29	...	75	
			" Balance	...	532	...	81	
	Tls. ...	1,674		Tls. ...	1,674		47	

E. & O. E.

SHANGHAI, 1890.

*Compared with vouchers and found correct,*

THOMAS BROWN,  
A. L. ROBERTSON.

R. M. CAMPBELL,  
*Hon. Treasurer.*

*Appendix II.—CURATOR'S REPORT.*

I have the honour to submit herewith my annual report. During the year ended 29th March 1890 the Museum has received the following donations :—

## DONATIONS.

July 17th, 1889.—*Xylotrupes dichotomus* (wood-borer beetle), presented by Mr. E. H. PARKER.

August 2nd.—Fœtus of *Nyctereutes procyonoides*, presented by Mr. W. LAY.

September 13th.—*Caprimulgus jotaka* (night jar), presented by Capt. BUCHANAN; *Ardeola prasinoscæles* (red-necked heron), presented by Mr. E. HEMBER; small species of bat, presented by Mr. DEIGHTON-BRAYSHER.

November 19th.—*Platalea minor* (lesser spoonbill), rare, presented by Mr. J. ROBERTS; *Clangula glaucion* (golden-eye duck), presented by Mr. J. M. YOUNG.

November 25th.—Skull of *Babyrussa*, from Celebes, presented by Mr. CHAS. McCASLIN; Specimen of Kauri Gum (New Zealand), presented by Capt. WATTS; *Lepus sinensis* (Chinese hare), presented by Mr. F. A. DE ST. CROIX.

December 16th.—*Chettusia cinerea* (grey peewit), presented by Mr. F. A. DE ST. CROIX; *Rudicilla aurorea* (grey-headed redstart) presented by Mr. F. A. DE ST. CROIX.

*Cisticola cisticola* (fantail warbler), presented by Mr. J. M. YOUNG.

December 16th.—*Coccythæstes personata*, (marked hawfinch), presented by Mr. W. S. EMENS.

January 2nd, 1890.—*Sciurus castancioventrio* (chestnut-bellied squirrel), presented by Mr. F. FERRIS.

January 6th.—*Urocissa sinensis* (Chinese blue magpie), presented by Mr. F. FERRIS, *Anser erythropus* (lesser white-fronted goose),

presented by Mr. DUNCAN GLASS; *Anser* sp? presented by Mr. DUNCAN GLASS; *Janthia cyanura* (blue tail), presented by Mr. T. H. WANG; *Ardea cinerea* (common heron), presented by Mr. C. JANTZEN.

February 10th—*Merula sinensis* (Chinese blackbird), presented by Mr. C. L. CAMERA; *Canis procyonoides* (raccoon dog), presented by Mr. O. G. READY; *Felis sinensis* (wild cat), presented by Mr. O. G. READY.

February 27th.—*Rallus indicus* (Indian water rail), presented by Mr. F. A. DE ST. CROIX.

Monsieur JANET, a French engineer and an authority on butterflies, has kindly undertaken, at much cost of time, to arrange the collection of butterflies in families and repair many of the broken specimens. From want of books, many of the species could not be determined; the collection, however, contains many rare examples.

Attendance of visitors during the year has been 8,040.

CARL BOCK,

*Hon. Curator.*

Shanghai, 29th March 1890.

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*Appendix III.—LIBRARIAN'S REPORT.*

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The Library has given an unusual amount of work during the year, but is now getting into a more satisfactory condition. It was found necessary to hand over the sale and despatch of the Society's publications to the publishers, KELLY & WALSH, LIMITED, of Shanghai, thus relieving the Librarian of a deal of work. By this transfer of stock of publications from the Library, the room has gained sufficient space for a suitable arrangement of the many valuable books contained in it. Some of the old book-cases have been removed and two large new ones acquired, which fill all available space of two walls of the room. As between seven and eight thousand pamphlets, fascicules of periodicals, papers and books were lying about useless, because unbound and uncatalogued, it was found necessary to begin binding at once. This is still going on. The task is a tedious one, taking much time, as many portions of different books were mingled together. Over 400 volumes have been bound during the year by a Chinese binder, who needs every volume put in his hands in proper order, but manages nevertheless to make a mistake now and then. It was unfortunate that the well-trained coolie became ill and died during the summer. His substitute has, so far, been of little help. Mr. T'ANG was engaged, on the 1st January 1890, to assist in preparing a new catalogue. Of the Society's Journal, Fascicule 3 of Vol. XXIII, for the year 1888-89, has been published and distributed during the year. A list of all the publications received by the Library since the date of last report will be found appended.

E. FABER,  
*Hon. Librarian.*

Shanghai, 3rd April, 1890.

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List of Works added to the Society's Library from  
1st April 1889 to 31st March 1890.

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ASIA.

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CHINA.

*Shanghai :*

China Branch of the Royal Asiatic Society :

Journal :

Vol. xxiii complete.

Municipal Council : Report for 1889.

Imperial Maritime Customs, Statistical Department :

Customs Gazette, No. lxxxiii, July-September 1889.

„ lxxxiv, October-December 1889.

Medical Reports for the Half-year ended 30th September  
1887. 34th Issue. Shanghai, 1890.

List of Chinese Lighthouses, Light-vessels, etc., for 1890.  
18th Issue.

Tariff Returns, 1885. Vols. I. & II. 1889.

Catalogue of the Chinese Imperial Maritime Customs'  
Collection at Philadelphia, 1876.

Service List, 1889.

Bulletin Mensuel de l'Observatoire Magnétique et Météorologique  
de Zi-ka-wei, Tome xiv, Année 1888. Zi-ka-wei, 1889,  
and Nos. 173-182, 1889.

The Chinese Recorder and Missionary Journal, Vol. xx,  
Nos. 1-12, 1889.

*Peking :*

Transactions of the Peking Oriental Society, Vol. ii, Nos. 4 & 5.

*Hongkong :*

Observations made at the Hongkong Observatory in the year  
1888. Hongkong, 1889.

## J A P A N .

*Tokio :*

Mittheilungen der deutschen Gesellschaft für Natur- und Völkerkunde Ostasiens :

Vol. v, 1889, and Supplement.

Rōmazi Zasshi (a Japanese Romanised Paper). Files, 1889.

*Yokohama :*

The Japan Weekly Mail. Files, 1889.

The Japan Herald Mail Summary. Files, 1889.

## I N D I A .

*Bombay :*

Journal of the Bombay Branch of the R. A. S.

Vol. xvii, part ii, 1889.

*Calcutta :*

Proceedings of the Asiatic Society of Bengal :

Nos. 1-6, 1889.

Journal of the Asiatic Society of Bengal :

New Series, Vol. lvii, part i, No. 2, 1888.

" " " " ii, Nos. 1-4, 1888.

Mémoires of the Geological Survey of India.

Palæontologia Indica. Series xiii, Vol. iv, part i, 1889.

## A N N A M .

*Saigon :*

Bulletin de la Société des Études Indo-Chinoises de Saigon.

Année 1888, 3e fasc.

" 1889, 1er Sem.

Excursions et Reconnaissances, xiv, 1889.

## J A V A .

*Batavia :*

Notulen van de Bataviaasch Genootschap van Kunsten en Wetenschappen :

Vol. xxvii, fasc. 1-3, 1889.

Table of Contents of the Notulen, 1879-1888.

Tijdschrift voor de Indische Taal-, Land- en Volkenkunde.

Vol. xxxiii, fasc. 1-4, 1889.

Nederlandsch-Indisch Plakaatboek, 1602-1811, Part vi. By

J. A. van der Chijs, 1889.

Dagh-Register, Anno 1661. By the same.

De derde Javaan. Successie-Oorlog, 1746-1755. Door P. J. F. Loun, 1889.

## AFRICA.

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### EGYPT.

*Cairo :*

Bulletin de la Société Khédiviale de Géographie, 3e Série, No. 2.

## AUSTRALIA.

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*Brisbane (Queensland) :*

Proceedings and Transactions of the Queensland Branch of the  
Geographical Society of Australasia :

Vol. iv, 1889, and Vol. v, part i.

*Melbourne :*

Proceedings of the Royal Society of Victoria :

New Series, Vol. i, 1889.

## AMERICA.

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### CANADA.

*Toronto :*

Proceedings of the Canadian Institute :

Third Series, Vols. vi, vii, 1889.

*Montreal :*

Geological and Natural History Survey of Canada. Micro-  
Palæontology, by E. O. Ulrich, Part ii.

Contributions to Canadian Palæontology. Vol. i, Part ii, 1889.

## MEXICO.

*Mexico :*

Memorias de la Sociedad Científica "Antonio Alzate:"

Vol. i, Fasc. 8-12. Vol. ii, 12. Vol. iii, 1-2, 1889.

Anales del Ministerio de Fomento:

Vol. viii, Memoria—Atlas, 1887.

Resumen de 11 Años de Observ. Meteorológicos, 1889.

Anuario del Observatorio Astronómico Nacional, 1889.

*Puebla :*

Boletín de Estadística del Estado de Puebla :

Tomo iii, 1889.

## ARGENTINE REPUBLIC.

*Buenos Ayres :*

Boletín del Instituto Geográfico :

Vol. x, 6-9, 1889.

## UNITED STATES.

*Boston, Mass. :*

Proceedings of the American Oriental Society at Boston, 1889.

*Cambridge, Mass. :*

Bulletin of the Museum of Comparative Zoology at Harvard College:

Vols. xvi, 4, 5, 6, xvii, 3, 4, 5, 6, xviii complete.

Annual Report of the Curator of the Museum of Comparative Zoology at Harvard College, for 1888-1889.

*New York :*

Bulletin of the American Geographical Society :

Vol. xxi, Nos. 1-4.

The Coöperative Index to Periodicals.

Vol. v, Nos. 2-4, 1889.

Journal of Comparative Medicine and Surgery :

Vol. x, Nos. 1, 3, 4.



*Philadelphia, Penn. :*

Transactions of the Wagner Free Institute of Science :

Vol. ii, Dec. 1889.

Proceedings of the American Philosophical Society :

Vol. xxvi, No. 129. 1889.

*Salem, Mass. :*

Bulletin of the Essex Institute at Salem :

Vol. xx, 1-12, 1888.

„ xxi, No. 1-6, 1889.

*San Francisco, Cal. :*

Proceedings of the California Academy of Sciences :

Vol. i, Parts 1 and 2.

*Trenton, N.J. :*

Journal of the Trenton Natural History Society :

Vol. ii, No. 11, 1889.

*Washington, D.C. :*

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## EUROPE.

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„ xxxix, „ 1-2, 1889.

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Nos. 1-17, 1889.

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Vol. xxxix, Fasc. 1-2, 1889.

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Vol. xv, 1-12, 1889.

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Mittheilungen der Anthropologischen Gesellschaft :

Vol. xix, 1-4, 1889.

*Budapest :*

Bulletin de la Société Hongroise de Géographie :

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*Trieste :*

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## BELGIUM.

*Brussels :*

Bulletin de la Société Royale Belge de Géographie :

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## FRANCE.

*Havre :*

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*Paris :*

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Nos. 1-17, 1889, except Nos. 8 & 9.

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Bulletin de la Société de Géographie :

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*Tours :*

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## GERMANY.

*Berlin :*

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*Bremen :*

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*Frankfurt a/ Oder :*

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*Gotha :*

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*Halle a/ Saale :*

Mittheilungen des Vereins für Erdkunde, 1889.

*Hamburg :*

Mittheilungen der Geographischen Gesellschaft in Hamburg, für  
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*Jena :*

Mittheilungen der Geographischen Gesellschaft zu Jena :  
Vol. vii, Fasc. 3, 4, 1889.

*Koenigsberg i/ Pr. :*

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*Leipzig :*

Zeitschrift der Deutschen Morgenländischen Gesellschaft :  
Vol. xliii, 1-4, 1889.  
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*Metz :*

Jahresbericht des Vereins für Erdkunde zu Metz : Vol. xi.

*Munich :*

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K. Akademie der Wissenschaften : 1888, 1889.  
Sitzungsberichte der Philosophisch-philologischen und Historis-  
chen Classe : 1888, 1889.

*Stuttgart :*

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Jahresbericht, 1888, 1889.

## GREAT BRITAIN AND IRELAND.

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The Scientific Proceedings of the Royal Dublin Society :  
Vol. vi, 3-6, 1888-1889.

*Edinburgh :*

The Scottish Geographical Magazine :  
Vol. v, 1-12, 1889.

*London :*

Journal of the Anthropological Institute :

Vols. xviii, Nos. 3, 4, xix, 1, 2, 1889.

The Quarterly Journal of the Geological Society :

Vol. xlv, 1-4, 1889.

Proceedings of the Royal Geographical Society :

Vol. xi, 1-12, 1889.

Proceedings of the Royal Society :

Vol. xlv, Nos. 276-284.

Journal of the Royal Statistical Society :

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Proceedings of the Zoological Society of London, 1889.

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*Manchester :*

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## ITALY.

*Florence :*

Giornale della Società Asiatica Italiana :

Vol. iii, 1889.

*Naples :*

Bollettino della Società Africana d'Italia :

Vol. viii, 1-10.

*Turin :*

Cosmos : Vol. x, 1.

## NETHERLANDS.

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## PORTUGAL.

*Lisboa :*

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## RUSSIA.

*Moscow :*

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*St. Petersburg :*

Acta Horti Petropolitani : Vol. x, Fasc. ii, 1889.

Bulletin of the Imperial Geographical Society :

Vols. xxiv, xxv, 1889.

## SWEDEN.

*Stockholm :*

Ymer Tidskrift, 1889.

## SWITZERLAND.

*Neuchâtel :*

Bulletin de la Société Neuchâteloise de Géographie :

Tome iv.

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*Miscellaneous Works.*


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- 1.—The North-Western Provinces and Oudh Provincial Museum,  
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1883-1888. Allahabad, 1889.
- 2.—Les Débuts de la Compagnie Royale de Suède. Par  
H. Cordier. Paris, 1889.

- 3.—The Modern Vernacular Literature of Hindustan. By G. A. Grierson. Calcutta, 1889.
  - 4.—Die Schu-king-Finsterniss. Von Dr. G. Schlegel und Dr. F. Kühnert. Amsterdam.
  - 5.—Jubiläumsschrift. Von Paul E. Richter. Dresden, 1889.
  - 6.—Estudio de la Filosofia y Riqueza de la Lengua Mexicana. Guadalajara, 1889.
  - 7.—Liste des Ouvrages offerts à l'Auguste Protecteur du VIII<sup>e</sup> Congrès à Stockholm.
  - 8.—An Account of the Congo Independent State. By H. Phillips, jr. 1889.
  - 9.—A Grammar of the Kwagintl Language. By the Rev. A. T. Hall. Montreal, 1889.
  - 10.—China's Place in Philology. By the Rev. J. Edkins, D.D. London, 1871.
  - 11.—Rev. Dr. E. Faber's Works: Digest of Confucius, Mencius, Licius, Micius, Introduction to the Science of Chinese Religion, Famous Men of China, The Status of Women in China.
  - 12.—Discours d'Ouverture à Stockholm. Par le Comte C. de Landberg.
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## OBITUARY.

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REV. ALEXANDER WILLIAMSON, LL.D.

The death of Dr. ALEXANDER WILLIAMSON, on August 28th of this year, at Chefoo, deprives our Society of one of its oldest members and of a contributor to our Journal of many years' standing.

His *Journeys in North China, Manchuria and Mongolia*, in two volumes, contain many valuable observations on the regions he visited as a missionary traveller. He was among the first to make known the mineral treasures of North China, taking his place in this respect with PEMPELLE and VON RICHTHOVEN. The latter in his large work on China fully recognizes Dr. WILLIAMSON's contributions to our knowledge. It was this book which led to his receiving the honorary degree of LL.D. from the University of Glasgow, where he had received his collegiate education. His little book *The World: Whence cometh it?* by "Tu Quoque" shews much familiarity with modern science. He took a very decided pleasure in reading books of science by contemporary authors, and the knowledge thus acquired has enriched his works in Chinese. In this language he published a work on Botany, a Natural Theology out of McCOSH, a Life of Christ and a History of Religions. He also wrote much on political science, sociology, education and kindred subjects. Perhaps McCOSH's *Method of the Divine Government* was the chief influence on him as a translator, and it was this which led to that happy combination of modern science with religious teaching which characterizes his works in Chinese. He secured writers having facility in style, and as a translator he thought out the ideas himself, mastered them, clothed them in his own language,



turned them into Chinese colloquial and then left the control of the style in the Chinese writer's hands. He wrote much in monthly periodicals in Chinese and was an occasional contributor to the *Shên-pao* daily newspaper. In the literature of the Protestant Missions his works take a high place. He had a faculty for exposition and a keen avidity for acquiring knowledge which stood him in good stead in making books. By their tincture of philosophy and science an elevated tone was imparted to them. Several of his books have been reprinted in Japan. All are in a high degree readable and valuable.

Illness led to Dr. WILLIAMSON'S retirement from China in 1858 and prevented his return for five years. He gave in all thirty years to China, and not only worked usefully himself as a translator, but was very active and successful in founding societies and obtaining funds to print works translated by others. This is shewn in the history of the School and Text Book Series and of the Society for the Diffusion of Christian and General Knowledge among the Chinese.

J. EDKINS.

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## LIST OF OFFICERS OF THE SOCIETY FOR 1890-91.

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*President* : P. J. HUGHES, M.A.

*Vice-Presidents* : { P. G. VON MÜLLENDORFF.  
Rev. JOSEPH EDKINS, D.D.

*Hon. Secretary* : WM. BRIGHT.

*Hon. Treasurer* : THOMAS BROWN.

*Hon. Librarian* : Rev. ERNST FABER, Dr. Theol.

*Hon. Curator of Museum* : CARL BOCK.

*Councillors* : { J. Ritter von HAAS.  
R. A. JAMIESON, M.A.  
D. C. JANSEN.  
G. M. H. PLAYFAIR.

# LIST OF MEMBERS.

(Corrected to 20th October 1890.)

Members are particularly requested to notify the Hon. Secretary of any change of address or other necessary correction to be made in this List.

† Indicates a Member who has contributed to the Society's Journal.

§ „ Life Member of the Society.

Name.	Address.	Year of Election
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## Honorary Protector.

His Majesty LEOPOLD II, King of the Belgians.

## Honorary Members.

Alcock, Sir Rutherford, K.C.B., D.C.L.	Athenæum Club, Pall Mall, London, S.W.	1864
Hart, Sir Robert, G.C.M.G., LL.D.	Inspectorate - General of Customs, Peking.	1864
Legge, Prof. James, D.D. ...	University of Oxford ... ..	1864
Richthofen, Freiherr F. von ...	Berlin ... ..	1880
Waide, Sir Thomas F., G.C.B., M.A.	5, Salisbury Villas, Cambridge	1864
Zottoli, Père Angelo ... ..	Jesuit Mission, Sicawei, Shanghai ...	1886

Name.	Address.	Year of Election
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## Corresponding Members.

†Bastian, Dr. Adolph ...	Ethnological Museum, Berlin ...	1865
†Bretschneider, E., M.D. ...	Moïka, 64, St. Petersburg ...	1880
Cordier, Henri ...	3, Place Vintimille, Paris ...	1886
†Edkins, Rev. Joseph, D.D. ...	Custom House, Shanghai ...	1864
†Fritsche, H., PH.D. ...	C/o Russian Legation, Peking ...	1877
†Fryer, John ...	Kiangnan Arsenal, Shanghai ...	1868
†Gabelentz, Prof. Georg von der	Berlin ...	1884
†Giles, Herbert A. ...	British Consulate, Ningpo ...	1880
Happer, Rev. A. P., D.D. ...	Canton ...	1864
Hepburn, J. C., LL.D. ...	245, Bluff, Yokohama, Japan ...	1864
†John, Rev. Griffith, D.D. ...	Hankow ...	1864
Keischke, Ito, M.D. ...	Tokio, Japan ...	1875
Kreitner, G. Ritter von ...	Yokohama, Japan ...	1880
†Lindau, Rudolph, PH.D. ...	C/o Auswärtiges Amt, Berlin ...	1864
Lockhart, Wm., F.R.C.S. ...	67, Granville Park, Blackheath, London, S.E.	1864
†Macgowan, D. J., M.D. ...	Custom House, Wenchow ...	1864
†Martin, Rev. W. A. P., D.D. ...	C/o T'ung-wên Kuan, Peking ...	1864
†McCartee, D. B., M.D. ...	C/o Dr. Ellinwood, 23, Centre Street, New York, U.S.A.	1865
†Moule, Right Rev. Bishop, D.D.	Hangchow ...	1864
†Muirhead, Rev. W. ...	London Mission, Shanghai ...	1864
Rondot, Natalis ...	C/o Chambre de Commerce, Lyons .	1864
Schereschewsky, Right Rev. Bishop, D.D.	23, Bible House, New York, U.S.A..	1864
Széchényi, Count Béla ...	Zinkendorf, Hungary ...	1880

Name.	Address.	Year of Election
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## Ordinary Members.

Aalst, Jules A. van ...	C/o Custom House, Shanghai ...	1888
§Abbott, R. J. ...	Custom House, Hankow ...	1888
Acheson, James ...	C/o Custom House, Canton ...	1880
Adams, Rev. J. S. ...	Am. Bap. Miss. Union, Kin-hwa-fu, <i>vid</i> Ningpo	1889
Addis, Charles Stuart ..	Hongkong and Shanghai Bank, Shanghai	1885
Adler, Max ...	Messrs. Reiss & Co., Shanghai ...	1885
†Allen, H. J. ...	54, Cambridge Road, Brighton, Sussex	1872
Andersen, N. P. ...	C/o Custom House, Shanghai ...	1883
†Anderson, G. C. ...	C/o Messrs. Jardine, Matheson & Co., Hongkong	1880
Anding, W. ...	C/o Mr. W. Rosenthal, Unterstrasse, 85, Eisenach, Germany	1887
Arnoux, Comte G. d' ...	Custom House, Ichang ...	1883
§Ball, J. Dyer ...	Supreme Court, Hongkong ...	1883
Baux, G. ...	20, Place Denfert-Rochereau, Paris .	1885
†Becher, H. M. ...	C/o Kelly and Walsh, Limited, Singapore	1885
Beck, H. ...	23, Szechuen Road, Shanghai ...	1885
Beebe, R. C., M.D. ...	Nanking ...	1889
Bethge, C. ...	Casa Valentino Molo, Bellinzona, Switzerland	1887
Bock, Carl ...	Consulate - General for Sweden and Norway, Shanghai	1888
Bottu, Prof. A. ...	Kiangnan Arsenal, Shanghai ...	1889
Bourne, F. S. A. ...	Southboro', Tunbridge Wells, Kent .	1885
Bradlee, Rev. Caleb D., D.D.,...	57, West Brookline Street, Boston, Mass., U.S.A.	1890
Brand, W. ...	C/o Robt. Brand & Co., 7, Union St., Old Broad St., London, E.C.	1887
§Bredon, M. Boyd, B.A. ...	C/o Custom House, Shanghai ...	1883
Bredon, Robt. E., B.A. ...	Custom House, Shanghai ...	1885
Bright, Wm. ...	Inspectorate - General of Customs, Shanghai	1885
Bristow, H. B. ...	British Consulate, Chefoo ...	1877
Brosche, H. ...	C/o Custom House, Shanghai ...	1881
§Brown, J. McLeavy, LL.D. ...	Custom House, Kowloon ...	1865
Brown, Thos. ...	Kelly & Walsh, Limited, Shanghai...	1885
Brown, W. P. ...	Inspectorate - General of Customs, Shanghai	1890
Buchanan, J. ...	Messrs. J. P. Biset & Co., Shanghai,	1887
Burrows, T. D. ...	C/o Custom House, Canton ...	1886
†Bushell, S. W., M.D. ...	British Legation, Peking ...	1868
Butler, Count A. von ...	Tamsui, Formosa ...	1886
Butler, P. E. O'B. ...	C/o British Consulate - General, Shanghai	1886

Name.	Address.	Year of Election
Calder, J. ... ..	Port Arthur, North China ... ..	1890
Campbell, C. W. ... ..	British Consulate - General, Seoul, Korea	1890
Campbell, R. M. ... ..	C/o Agra Bank, Limited, Shanghai.	1889
†Carles, W. R. ... ..	British Consulate, Chinkiang ... ..	1887
Carrall, James W. ... ..	Custom House, Chefoo ... ..	1885
Chalmers, James L. ... ..	C/o Custom House, Canton ... ..	1885
§Chavannes, Ed. ... ..	French Legation, Peking ... ..	1889
Cocker, T. ... ..	Custom House, Canton ... ..	1885
Cordes, Aug. C. ... ..	Messrs. A. Cordes & Co. Tientsin ...	1877
Coughtrie, J. B. ... ..	45, Queen's Road, Hongkong ... ..	1879
Creagh, E. Fitzgerald ... ..	C/o Custom House, Yuensan, Korea.	1886
Danforth, A. W. ... ..	Cotton Mill Co., Shanghai ... ..	1887
De Groot, Dr. J. J. M. ... ..	C/o Netherlands Consulate, Amoy...	1887
Deighton-Braysher, C. ... ..	Custom House, Shanghai ... ..	1870
Dennys, H. L. ... ..	Secretary's Office, City Hall, Hongkong	1877
Dmitrevsky, P. A. ... ..	Russian Consulate, Hankow ... ..	1882
Dodd, John ... ..	C/o Messrs. Dodd & Co., Tamsui ...	1872
Dowdall, Chas. ... ..	21, Foochow Road, Shanghai ... ..	1881
§†Drew, E. B. ... ..	Inspectorate - General of Customs, Peking	1882
Dülberg, F. W. E. ... ..	Inspectorate - General of Customs, Shanghai	1890
Duncan, Chesney ... ..	C/o <i>Hongkong Telegraph</i> Office, Hongkong	1889
Ebbs, W. ... ..	C/o Messrs. R. Telge & Co., Shanghai	1886
Elwin, Rev. Arthur ... ..	Church Missionary Society, Hangchow	1890
†Faber, Rev. Ernst, DR. THEOL.	Saunders' Compound, Shanghai ... ..	1886
Faragó, Edm. ... ..	Poste Restante, Budapest, Hungary.	1877
Fergusson, T. T. ... ..	C/o Messrs. Fergusson & Co., Chefoo	1872
Fisher, H. J. ... ..	C/o Messrs. W. M. Deacon & Co., 80, Bishopsgate Street Within, London	1877
Flothow, Carl ... ..	Messrs. Siemssen & Co., Shanghai...	1886
Flothow, Hugo ... ..	Messrs. W. Meyerink & Co., Shanghai	1886
Francis, R. ... ..	10, Peking Road, Shanghai ... ..	1888
Franke, Otto, PH.D. ... ..	German Consulate-General, Shanghai	1890
Fraser, M. F. A. ... ..	British Consulate-General, Shanghai	1888
Frater, Alex. ... ..	British Consulate, Swatow ... ..	1877
†Fries, S. Ritter von ... ..	Custom House, Foochow ... ..	1885
Fulford, H. E. ... ..	C/o British Consulate - General, Shanghai	1885
Gabriel, Hermann, DR. JUL. .	C/o German Consulate, Amoy ... ..	1884
†Gardner, C. T. ... ..	British Consulate, Hankow ... ..	1877
Gatti, Carlo ... ..	C/o Messrs. Jardine, Matheson & Co., Shanghai	1886
Goebel, Max. ... ..	Belgian Consulate-General, Shanghai	1890

Name.	Address.	Year of Election
Gowing, Lionel F. ...	6, Upper Park Road, Haverstock Hill, London, N.W.	1885
Grant, P. V. ...	Messrs. Boyd & Co., Shanghai	1871
Gratton, F. M., A.R.I.B.A. ...	The Bund, Shanghai	1889
Gulick, Rev. L. H., M.D. ...	C/o 3, Soochow Road, Shanghai	1885
†Haas, J. Ritter von ...	Austro-Hungarian Consulate, S'hai.	1869
Hall, J. C., M.A. ...	C/o H. P. Wilkinson, Esq., 3, Brick Court, Temple, London, E.C.	1888
†Hallifax, T. E. ...	Tokio, Japan	1889
Hanbury, T. ...	C/o Messrs. Iveson & Co., Shanghai.	1868
†Happer, Andrew P., Jr. ...	Custom House, Mángtsü, Yunnan, <i>via</i> Haiphong, Tungking	1885
Harding, J. R. ...	C/o Custom House, Amoy	1885
Hart, J. H. ...	C/o Custom House, Shanghai	1885
Hart, Rev. V. C., M.A. ...	314, Parkdal, Ontario, U.S.A.	1887
Henderson, D. M., M.L.C.E. ...	Custom House, Shanghai	1885
Henderson E., M.D. ...	Szechuen Road, Shanghai	1876
†Henry, A., M.A. ...	C/o Inspectorate-General of Customs, Storey's Gate, London	1881
Hey, E. ...	8, Foochow Road, Shanghai	1886
Hippisley, A. E. ...	Custom House, Lappa	1876
†Hirth, F., PH.D. ...	Custom House, Tamsui	1877
Hjou-bery, E. ...	C/o Messrs. Mustard & Co., Shanghai	1880
†Hobson, H. E. ...	Custom House, Chungking	1868
Hodges, Rev. H. C., M.A. ...	The Deanery, Shanghai	1887
Hoetink, B. ...	Swatow	1882
†Hosie, Alex., M.A. ...	British Consulate, Wenchow	1877
How, A. J. ...	1, Hongkong Road, Shanghai	1876
†Hughes, P. J., M.A. ...	British Consulate-General, Shanghai	1868
Hughes, T. F. ...	Custom House, Amoy	1885
†Imbault-Huart, C. ...	C/o French Consulate, Canton	1880
Ivy, R. S., D.D.S. ...	1, Kiukiang Road, Shanghai	1889
Jack, J. B. ...	Custom House, Shanghai	1890
†Jamieson, G. ...	C/o H.B.M.'s Supreme Court, Shanghai	1863
Jamieson, J. W. ...	British Consulate, Canton	1888
†Jamieson, R. A., M.A. ...	40, Szechuen Road, Shanghai	1864
Jansen, D. C. ...	Astor House, Shanghai	1877
Kenmure, Alexander ...	Canton	1887
Keswick, J. J. ...	C/o Messrs. Jardine, Matheson & Co., Shanghai	1885
King, Paul H. ...	C/o Custom House, Shanghai	1886
†Kingsmill, Thos. W. ...	28, Kiangse Road, Shanghai	1864
Kleinwächter, F. ...	Netsche bei Bohrau, Kreis Oels, Schlesien, Germany	1868
Kliene, R. ...	United States Consulate, Ningpo	1890
†Kopsch, H. ...	Custom House, Chinkiang	1877

Name.	Address.	Year of Election
Lemke, F. ... ..	Messrs. Meyer, Lemke & Co., S'hai.	1890
Lenz, Ph., PH.D. ... ..	German Consulate-General, Shanghai	1885
Lépassier, E. ... ..	Custom House, Shanghai ... ..	1885
Lieder, Ph. ... ..	Messrs. Mandl & Co., Shanghai ...	1886
†Little, Archibald J. ... ..	C/o R. W. Little, Esq., <i>North China Herald</i> Office	1868
Little, L. S., B.A. ... ..	Kiukiang Road, Shanghai ... ..	1879
Little, Robt. W. ... ..	<i>North China Herald</i> Office ... ..	1886
Lockhart, J. H. Stewart ... ..	Hongkong ... ..	1885
Macgregor, John ... ..	Messrs. Jardine, Matheson & Co., Shanghai	1888
Macintyre, Rev. John ... ..	Newchwang ... ..	1880
Mackey, Jas. ... ..	38, Yama, Kobe, Japan ... ..	1886
Maclellan, J. W. ... ..	C/o <i>North-China Herald</i> , Shanghai.	1888
Major, E. ... ..	14, Hankow Road, Shanghai ... ..	1887
Martinoff, G. ... ..	Tientsin ... ..	1889
McDougal, H., M.B. ... ..	Amoy ... ..	1885
McIntosh, G. ... ..	C/o Amer. Presb. Mission Press, S'hai.	1889
†Medhurst, Rev. C. Spurgeon... ..	C/o Messrs. Sietas & Co., Chefoo ...	1888
Mencarini, J. ... ..	Custom House, Shanghai ... ..	1887
Merz, C., PH.D. ... ..	C/o German Consulate, Takow, Formosa	1883
Mesny, Gen. W. ... ..	Shanghai ... ..	1890
Messing, O. ... ..	Deutsch-Asiatische Bank, Shanghai.	1890
Metzger, E. ... ..	Kriegsbergstrasse, 29, Stuttgart, Germany	1887
Milles, W. J., F.R.C.S. ... ..	Szechuen Road, Shanghai ... ..	1885
Mills, Lieut. D. A., R.E. ... ..	Bude, Cornwall ... ..	1888
Mittag, M. ... ..	Messrs. Glipperich & Burchardi, S'hai.	1887
†Möllendorff, O. F. von, PH.D. ... ..	C/o Mr. P. G. von Möllendorff, Inspectorate-General of Customs, Shanghai	1877
†Möllendorff, P. G. von ... ..	Inspectorate-General of Customs, Shanghai	1877
†Morrison, G. J., M.I.C.E. ... ..	Messrs. Morrison & Gratton, S'hai.	1880
Morse, H. B. ... ..	C/o J. W. Welsford, Esq., West Hill, Harrow, Middlesex, England	1888
Mörsel, F. H. ... ..	Custom House, Jenchuan ... ..	1889
Mortimore, R. H. ... ..	British Legation, Peking ... ..	1885
Moule, Ven. Archdeacon A. E., B.D. ... ..	C/o Church Missionary Society, Shanghai	1888
Mowat, J. A. ... ..	H.B.M.'s Supreme Court, Shanghai .	1838
Müller-Beeck, Geo. ... ..	C/o German Consulate - General, Yokohama, Japan	1886
Murray, D. S. ... ..	British and Foreign Bible Society, Shanghai	1887
†Nocentini, L. ... ..	Via del Proconsolo, 21; Firenze, Italy	1884
Novion, A. ... ..	C/o Mons. Quentin, 7, Rue J. J. Bell, Bordeaux, France	1885
Nully, R. de ... ..	Custom House, Shanghai ... ..	1884



Name.	Address.	Year of Election
Ohlmer, E. ... ..	Custom House, Foochow ... ..	1885
Ottomeier, P. A. W. ... ..	Messrs. Hopkins Dunn & Co., S'hai	1886
Oxenham, E. L. ... ..	C/o Messrs. Maynard, Harris & Co., 126, Leadenhall Street, London, E.C.	1887
Palamountain, B. ... ..	Inspectorate-General of Customs, Shanghai	1886
†Parker, E. H. ... ..	British Consulate, Pagoda Anchorage, Foochow	1877
Parkinson, F. B., A.R.S.M. ... ..	Hankow ... ..	1890
Patersson, J. W. ... ..	Custom House, Canton ... ..	1883
Perkins, H. M., D.D.S. ... ..	I. Kiukiang Road Shanghai ... ..	1885
Peterson, Denton E., D.D.S. ... ..	The Club, Shanghai ... ..	1887
Pichon, L., M.D. ... ..	Rue Guénégaud, 17, Paris ... ..	1876
Piry, Théophile ... ..	Inspectorate-Gen. of Customs, Peking	1885
†Phillips, Geo. ... ..	British Consulate, Foochow ... ..	1888
Plancy, V. Collin de ... ..	Seoul, Corea ... ..	1877
†Playfair, G. M. H. ... ..	British Consulate - General, Shanghai	1883
Prentice, John ... ..	Messrs. Boyd & Co., Shanghai ... ..	1885
Price, G. U. ... ..	Messrs. Tait & Co., Amoy ... ..	1886
Pym, E. T. ... ..	Custom House, Wuhu ... ..	1885
Rathsam, Th. ... ..	German Consulate, Canton ... ..	1887
Rayner, Charles ... ..	C/o Messrs. Carlowitz & Co., Tientsin	1886
Rees, Claude A. ... ..	Messrs. Gilmour & Co., Shanghai ... ..	1889
Reinsdorff, F. ... ..	German Consulate, Seoul, Corea ... ..	1883
Rémusat, J. L. ... ..	Custom House, Canton ... ..	1885
Rennie, Sir Richard T. ... ..	H.B.M.'s Supreme Court, Shanghai	1885
†Rhein, J. ... ..	Netherlands Consulate, Amoy ... ..	1877
Rinkel, Ferd. ... ..	Deutsch-Asiatische Bank, Shanghai	1890
Riva, Achille ... ..	C/o Messrs Russell & Co., Shanghai.	1885
Robinson, Prof. Henry H., B.A. ... ..	Wuchang ... ..	1890
Rocher, Emile ... ..	French Consulate, Mengtzu, Yunnan	1877
§Rocher, Louis ... ..	Custom House, Ningpo ... ..	1884
Rockhill, W. W. ... ..	No. 1620, 19th St., Washington, D.C.	1885
Rothorn, A. Edler von ... ..	C/o Custom House, Ichang ... ..	1888
Ruhrstrat, Ernst ... ..	C/o Dr. C. Zedellus, Kiangse Road, Shanghai	1886
Russell, Sir Jas., C.M.G. ... ..	Hongkong ... ..	1870
Sampson, Theo. ... ..	12, Madeira Road, Streatham, London, S.W.	1868
Samson, J. ... ..	C/o Messrs. Reid, Evans & Co., Shanghai	1877
Samwer, Ernst ... ..	Cöln a/R, Germany ... ..	1886
Schiötz, H. ... ..	Great Northern Telegraph Co., S'hai	1890
Schjölth, Fr. ... ..	Custom House, Pakhoi ... ..	1885
Schmacker, B. ... ..	Messrs. Carlowitz & Co., Shanghai ... ..	1887
Schmidt, K. ... ..	Messrs. Carlowitz & Co., Shanghai ... ..	1888
Schulze, F. W. ... ..	Jenchuan, Corea ... ..	1879
Seckendorff, Baron Edm. von. ... ..	German Consulate, Tientsin ... ..	1880

Name.	Address.	Year of Election
Snethlage, H. ... ..	Shanghai ... ..	1885
Southey, T. S. ... ..	Custom House, Amoy ... ..	1880
Spinney, W. F. ... ..	Custom House, Wuhu ... ..	1885
Startseff, A. D. ... ..	Messrs. Tokmakoff, Molotkoff & Co., Tientsin	1889
Streich, K. I. ... ..	German Consulate, Swatow ... ..	1880
Stripling, A. B. ... ..	C/o British Consulate, Jenchuan, Corea	1877
Styan, F. W. ... ..	C/o Messrs. Robt. Anderson & Co., Shanghai	1884
Sutherland, H. ... ..	C/o Messrs. Fairhurst, Sutherland & Co., Foochow	1876
Syburg, F. von ... ..	German Consulate, Bombay ... ..	1886
Tanner, Paul von ... ..	C/o Custom House, Canton... ..	1881
Tata, D. B. ... ..	Messrs. D. Tata & Co., Hongkong ... ..	1874
†Taylor, C. H. B., F.R.A.S. ... ..	Foochow Arsenal ... ..	1885
Taylor, F. E. ... ..	C/o Custom House, Kowloon ... ..	1885
Thwing, Prof. E. P., M.D. ... ..	156, St. Mark's Avenue, Brooklyn, New York, U.S.A.	1890
Underwood, G. R., M.B. ... ..	Kiukiang ... ..	1888
Valdez, J. M. T. ... ..	Portuguese Consulate, Shanghai ... ..	1888
Vissière, A. ... ..	86, Avenue de l'Est, Parc St. Maur (Seine)	1880
Voelkel, S. ... ..	Pharmacie de l'Union, Shanghai ... ..	1885
†Volpicelli, Z. H. ... ..	Mergellina, 98, Naples ... ..	1886
§Vouillemont, E. G. ... ..	C/o Comptoir National d'Escompte de Paris, Shanghai	1888
Wade, H. T. ... ..	Shanghai Club ... ..	1886
Wallberg, R. ... ..	Messrs. Kirehner & Böger, Shanghai	1887
Washbrook, W. A. ... ..	Custom House, Chinkiang ... ..	1881
Watters, T., M.A. ... ..	British Consulate, Newchwang ... ..	1865
Wilcox, R. C. ... ..	Daily Press Office, Hongkong ... ..	1877
†Williams, Rev. E. T. ... ..	Nanking ... ..	1889
Wood, A. G. ... ..	Messrs. Gibb, Livingston & Co., Shanghai	1879
Zedelius, C., M.D. ... ..	18, Kiangse Road, Shanghai ... ..	1885

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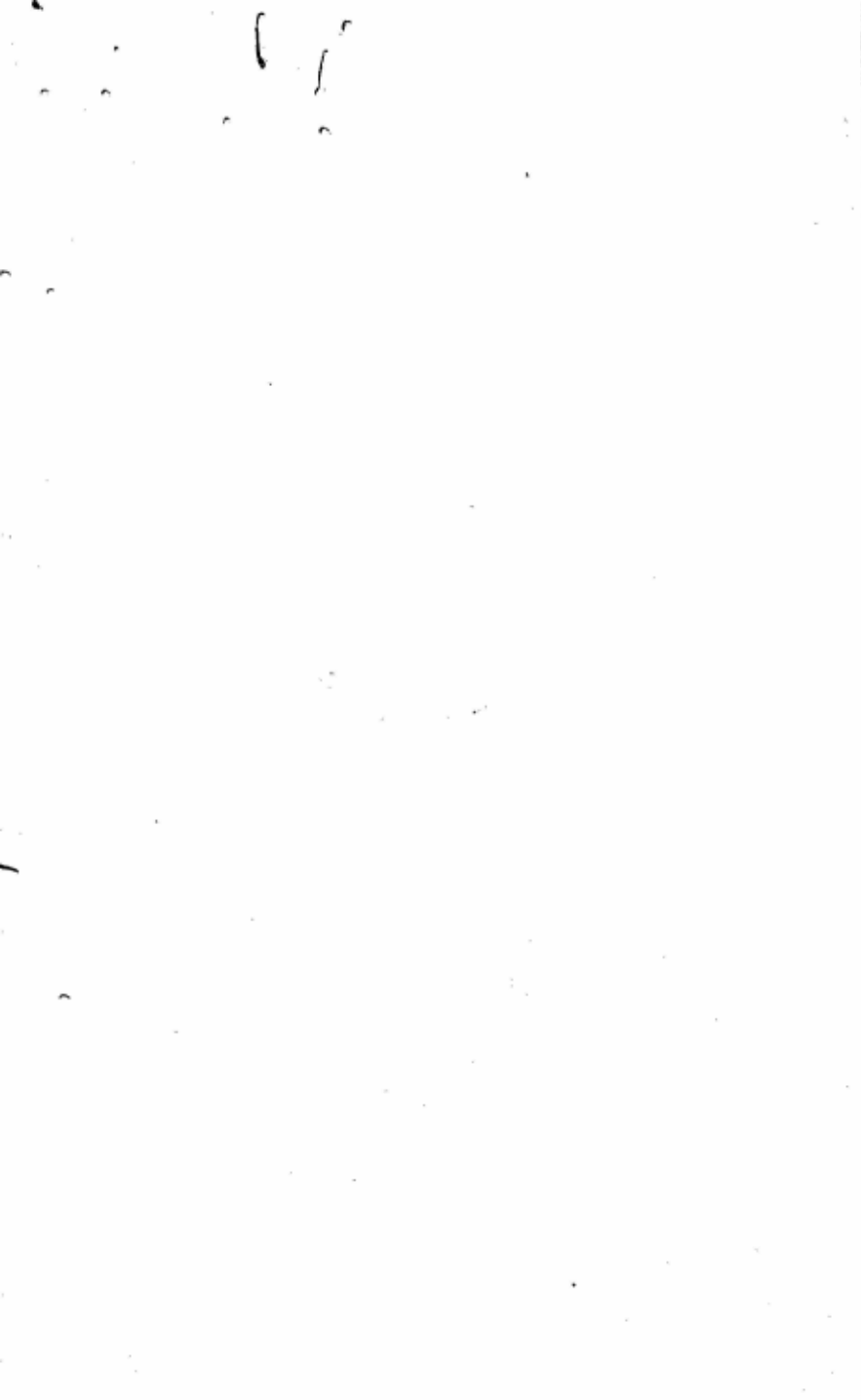
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It has been decided by the Council that the Society's publications will not for the future be issued to any Member whose subscription is one year in arrear.

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