PĀṬALIPUTRA EXCAVATION

1955-56

By

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Translation of the Devanāgarī alphabet used in this work into the Roman characters

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PREFACE

The present work is the second publication of the Directorate of Archaeology & Museums, Govt. of Bihar, the first being the report on Vaisali excavations. It is singularly fortunate though may be accidental that the Directorate has published reports of excavations of the most important Republican capital and the Imperial capital, i.e. Vaisali of the Licchhavi Republic and Pataliputra of the Imperial Mauryas. History of Pataliputra is yet not completely known except for the notices made by Megasthenes and Fa-hien and excavation reports by L. A. Waddell, Dr. Spooner and Dr. Altekar. There are no coherent accounts of the city. The K. P. Jayaswal Research Institute, Patna, therefore, decided to carry out excavation at Pataliputra with the view to know more about history of the city. The excavation was conducted in the year 1955-56 by Shri V. K. Mishra, the then Research Fellow of the K. P. Jayaswal Research Institute under the general guidance and supervision of Late Dr. A. S. Altekar, the Founder-Director of the Institute. Following his appointment as an Assistant Superintendent in Archaeological Survey of India, Shri Mishra left the Institute in 1957 to join his new assignment. As a result the work of writing the report was in abeyance for sometime.

Subsequent to the creation of the Directorate, the work of writing the report was entrusted to the authors. This report sets out the results of the excavation on the basis of available materials and it has filled up a very large gap in our knowledge of the history of Pataliputra which for nearly 1000 years dominated the historical and cultural scene in ancient times.

In the actual operation of the work, Shri Mahesh Chandra Prasad Shrivastava, Shri Srinivas Sharma, Shri Arjun Joshi, Shri Saroj Ranjan Sinha and Shri Balbhadra Mishra, all post-graduate students of the Department of Ancient Indian History & Archaeology, Patna University, acted as trench supervisors. The authors thank them for their co-operation. Shri S. K. Kairaj, senior draftsman of the Institute (now in the Patna University) extended full co-operation in the preparation of the report and the authors utilized his services in various ways whenever they felt the need of his assistance.

The staff of the technical section of the Directorate, Shri Lakshman Prasad Singh, Surveyor-Cum-Draftsman, Shri L. S. Narayan, Draftsman, Shri Raghunath Prasad Verma, Draftsman and Shri N. C. Ghosh, photographer deserve special credit for the preparation of drawings and photographs illustrated here. Shri Lakshman Prasad Singh also rendered valuable help in proof reading, an onerous task in the publication work.

Shri Kameshwar Prasad, Manager, Kalika Press, Patna-4, deserves special thanks for the keen interest taken by him in the publication work.

B. P. Sinha

&

L. A. Narain
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1 HISTORY OF PĀṬALIPUTRA

Pāṭaliputra or Patna, the metropolis of Bihar is situated on the southern bank of the Ganges. It is 185 feet above the sea level and the latitude of the place is 25°37' N and the longitude 85°15' E.

Pāṭaliputra is not referred to in the vedic and the epic literatures. It was probably a humble village under the kingdom of Magadha. The earliest reference to this place is found in Buddhist scripture wherein it is mentioned as a small village known as “Pāṭali”. It is said that Gautama Buddha while going from Rājagriha to Kuśinagar a few months before his death stayed in the village for a night. There he saw the ministers of king Ajātaśatru of Magadha selecting the place for constructing a fort on the spot with the intention to launch an attack on the Lichchhavi republic or to ward off the onslaughts of the powerful Lichchhavis of Vaiśali who were a constant source of anxiety to him. Gautama Buddha then appreciated and prophesied about the future prosperity of the village. He told that “Among famous places, busy marts and emporiums, Pāṭaliputra will be the greatest, but three perils will threaten it fire, water and the internal strife”.

The village very soon grew into a great city as its location was of great commercial and strategical importance. Its location was such that it stood on or near the confluence of important rivers like the Ganges, the Son and due to this it controlled the river traffic.

So long Ajātaśatru was alive he did not transfer his capital from Rājagriha to Pāṭaliputra even when he defeated the Lichchhavi republic and annexed its kingdom. When Ajātaśatru was succeeded by Udayi, the latter transferred the seat of his government to the new city of Pāṭaliputra. It is said that the decision of change in the capital was not fully supported by the citizen of Rājagriha but when they knew of the commercial as well as strategical importance of the place, they came to Pāṭaliputra to settle. We learn from a Buddhist tradition that Udayi was succeeded by Aniruddha and the latter by Munda. Both of them were ruling at Pāṭaliputra but we do not know anything about them in detail.

After overthrowing the last ruler of the Śaivismāga dynasty, Mahāpadma Nanda became the master of Pāṭaliputra in circa, 372 B.C. He extended the boundaries of the Magadhan empire in all directions which extended from the Beas to the confluence of the Ganges with the Bay of Bengal, and from the Himalayan tarai to the Vindhayas. His successors though inherited a vast empire from him could not prove themselves equal to the task. The last king of the dynasty, Dhana Nanda was not held in high esteem by his subjects and they were fed up with his tyrannical rule. People wanted change in the government and in this opportune moment, Chandragupta Maurya emerged as a national hero on the political scene of Pāṭaliputra. At that time the north west of India was under the Greek rule established as a result of Alexander's invasion. Chandragupta Maurya raised sizeable army and defeated the Greek. He then turned his attention towards Pāṭaliputra and with the active help of Kauśalya, besieged it and killed Dhana Nanda.

Chandragupta after successfully repelling Selukos Nikator’s invasion, followed a peaceful policy towards his foreign neighbour. He maintained friendly relations with him. Selukos sent Megasthenes as ambassador to the court of Chandragupta Maurya and he lived at Pāṭaliputra for a considerable period. Megasthenes wrote an account of the imperial city and its administration. His description about the city is as follows :

"At the meeting of this river (the Ganges) with another is situated 'Palibothra', a city eighty stadia (9.2 miles) in length and fifteen stadia (1.7 miles) in breadth. It is of the shape of a parallelogram and is girded with a wooden wall, pierced with loop-holes for the discharge of the arrows. It has a ditch in front for defence and for receiving the sewage of the city. This ditch which encompassed it (the city) all round was six hundred feet in breadth and thirty cubits in depth, and the wall was crowned with 570 towers and had four and sixty gates. This description about the length and the breadth of the city well suits the present length and breadth of Patna (Fig. 1). The present length of the city is more than 8 miles from Golghar to Malsalami. The description about the wooden palisades round the city is also confirmed by the discovery of the remnants of wooden palisades at Lohanipur in the west and Bulandibagh, Bahadurpur, Maharajkhand and Sevai tank in the south east. The excavation during the year 1926-27 at Bulandibagh threw considerable light on the nature of the wooden palisades. Here two rows of upright pillars about 12 feet in height above the floor and fixed at a distance of 14 feet 6 inches from one another were traced up to 250 feet.

The city had an elaborate arrangement of underground wooden drainage. This fact is proved by the discovery of a 40 ft. long drain at Bulandibagh. The drain was discovered at a depth of 32 feet below the present ground level and its inner height was 6 feet 3 inches and the breadth was 3 feet 6 inches. Such wooden drains were also noticed at Rampur and Bahadurpur by Mr. L. A. Waddell.

Megasthenes further informs us that the royal palace of Chandragupta was entirely made of timber but it excelled in splendour and magnificence of Susa and Ecbatna. The pillars of the palace were decorated with golden vines and silver birds. The palace of the king was in the centre of the city which was surrounded by parks, pasture grounds and shady grooves in which peacocks were domesticated.

Mudrārākṣasa though a later work vividly describes the battle that was fought around the fortification of Pataliputra and the pomp and chivalry of the court in early days. According to this work the name of the palace of Chandragupta was "Sugāṅga". As the name indicates, it was somewhere on the bank of the Ganges.

The administration of the city was in the hands of a commission consisting of 30 members. The commission was divided into six committees with five members in each. The first looked after the industrial arts and artisans. The second attended to the entertainments of foreigners, the third maintained the register of births and deaths. The fourth committee was in charge of the trade and commerce. The fifth looked into the affairs of manufactured articles and the sixth board levied tax on the price of sold articles.

Pataliputra became the greatest city of India in Aśoka's time. The daily octroi duty of the city was to the tune of four lacs Kārśāpanas. The buildings in the city prior to Aśoka's epoch were all in wood like most of the palaces, temples and stockades of Burma and Japan. Aśoka brought a change in the building material. He switched over to stone from wood. Aśoka's gigantic palace was entirely made of hewn stones and was so beautiful to look at that the Chinese pilgrim, Fahien who visited Pataliputra in the early 5th century A. D. remained spell bound to see the palace. During the time of his visit, Pataliputra was still a great city and many of the buildings of Aśoka's time were in fair state of preservation.

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1 Strabo, XV, 1, 35-36; Mc Crindle's, A. I., 67.
2 Arrian, Indica 10; Mc Crindle, 68.
4 Mudrārākṣasa-Act III, after verse 1.
About the palace of Asoka, Fahien\textsuperscript{1} writes, “The royal palace and halls in the midst of the city which exists now as of old were all made by the spirits which he employed, and which piled up the stone, reared the walls and the gates, and executed the elegant carving and inlaid sculpture work in a way which no human hands of this world could accomplish”. When the free standing Asokan pillars with lustrous polish over them catch the eye, it is difficult to imagine how the splendid palace was designed and looked.

The 80 pillared hall discovered at Kumrarah and some fragments of polished stone pillars, probably parts of buildings, and a mutilated couchant bull discovered from Sadargaly constitute a part of the evidence to testify to the statement of Fahien about the superb capital city.

Asoka is credited to have constructed several Buddhist structures in the city of Pataliputra as well as in other parts of his empire after he embraced the Buddhist religion. He constructed 84000 stupas and several vihāras in his empire including the Asokaraśāmanavihāra at Pataliputra. Three stupas, one to enshrine Buddha’s relic, the second to commemorate his gift of an Āmalaka fruit to Āngha and the third to mark the spot where Buddha had prophesied the prosperity of the city were constructed by him.

Asoka is said to have convened the third Buddhist council at Pataliputra in the 17th year of his reign under the presidency of Moggaliputta Tissa to end the confusion that had cropped up in the Ānovha due to heresies. In the council, the followers of the false doctrine were punished and unity in the religion was established. From Pataliputra itself, Moggaliputta Tissa also called Upagupta sent religious mission to different parts of the country to propagate Buddhist religion. Pataliputra thus became an important centre of Buddhist religion at that time.

After the death of Asoka there was a succession of weak Mauryan kings who could not maintain the integrity of the empire. In the first half of the 2nd century B.C. the Indo-Bactrians attacked the north west of India and further marched up to Pataliputra. Demetrius or Menander was the leader of this invasion. The Greek historian Appolodorus says that “those who came after Alexander advanced beyond the Hypanies (Beas) to the Ganges and Patadliputra”. The capture of the city by the Greeks is also mentioned in the Yugapurāṇa.\textsuperscript{3} Therein it is written that the Yavanas will capture the city of Pataliputra but will not stay there for long. Recent excavations at Kumrarah and Pataliputra have revealed a thick ashy deposit assignable to circa, 2nd century B.C. This ashy deposit points out that the city witnessed a large scale fire and this may strengthen the inference drawn from the Yugapurāṇa that the Greeks came to Pataliputra, waged war, plundered the city and set the buildings on fire.

In spite of this temporary set back, Pataliputra continued to be the most important city in India. Patañjali, the author of Mahābhāṣya who flourished in the 2nd century B.C. at Pataliputra writes that the city was prosperous one and the citizens were regarded as more cultured than the citizens of other cities like Sankisa. From Kathasaristasīgara\textsuperscript{3} we learn that Pataliputra was an important centre of learning. Scholars from Malwa and Kashmir used to come to this place for higher studies. Nāgasena, the preceptor of the Yavana king Menander\textsuperscript{4} had completed his higher studies in Asoka’s park at Pataliputra.

\textsuperscript{1} Legge’s Travel of Fahien, P. 77.
\textsuperscript{2} Yugapurāṇa, Page 33.
\textsuperscript{3} Kathasaristasīgara, chaps X, XVI.
\textsuperscript{4} R. Davids, questions of king Milinda, I, Page 26.
The history of the city from the end of the kanāyas to the rise of the Gupta dynasty is in oblivion though the Purānas mention that the Saṅgaṇakas would overthrow the kanāyas and would establish themselves at Pātaliputra. There is, however, no evidence to prove the Saṅgaṇaka rule over Pātaliputra.

In the first half of the 1st century A.D., some local rulers probably exercised their sway over the city. Inscriptions of king Indrāgniṇītra and Brahmanītra have been found at Bodh Gaya and from the palaeography and contents of the inscriptions, it appears that they might have ruled over Pātaliputra for sometime in 1st century A.D. Some copper coins of Mitra dynasty have also been found in Kumrahar excavations.

Towards the end of the 1st century A.D., Pātaliputra fell in the hands of the kuśāṇas. Chinese and Tibetan legends inform us that Kaniska conquered Saṅgaṇaka and Pātaliputra. A hoard containing 200 copper coins from the time of Wema Kadphises II to Vasudeva was found at Buxar. In the excavations at Kumrahar a hoard of 43 kuśana copper coins was discovered by Dr. D. B. Spooner in 1913. During the excavations of 1955-56 at Pātaliputra a gold amulet fashioned after one of the coin types of Huviśaka came to light. Apart from these, a large number of terracotta figurines with typical kuśana head dresses had been found in Kumrahar and Pātaliputra excavations. All these indicate that Kuśāṇas held their sway over the city but their rule was short lived. The Nāgas, Kulindas and the Yaudheyas started their own war of liberation against the kuśāṇas and as a result of that they lost their hold over Pātaliputra. After the kuśāṇas probably the Lichchhavis reappeared on the political scene of Pātaliputra but there is no positive evidence to prove the Lichchhavi rule over it.

Pātaliputra once again came into prominence during the rule of the Gupta kings. It was a flourishing city when Fahien visited it in the early part of 5th century A.D. He resided at Pātaliputra for three years and copied down some of the important Buddhist Vinaya texts for which he visited several important places of Buddhist learning. He had seen two monasteries, one belonging to Mahāyāna sect and the other to Hinayāna sect. In Kumrahar excavations quite a good number of monastic structures belonging to the Gupta period were exposed, the most important amongst them was the Arocavāhāra. The excavations further revealed that the Gupta monastic structures were decorated with flying gandharvas and the nitches of the monastic walls were adorned with the seated images of Buddha.

Pātaliputra was also a great centre of Hindu religion at that time. Chandragupta's minister, Saka, a celebrated scholar of poetics, literature and diplomacy, was the citizen of Pātaliputra. Āryabhaṭṭa, the famous mathematician had established a school in the city and wrote a famous book "Āryabhaṭiya".

During the time of Hiuen Tsiang's visit, the city was not in a prosperous condition. He writes that the city was long deserted and found the stūpas, the vihāras and other structures in ruinous condition. Only two or three structures were in fair state of preservation. The city had the population of only 1000 houses.

To the north of the old palace, the pilgrim saw the hell of Asoka and south of it there was the first of the 84000 stūpas which was made of carved stone and balustrade all round it. Its foundation had sunk and only the crowning jewel of the copula was visible. By the side of this stūpa he saw the great stone with Buddha's foot print in a vihāra. The stone was 18" long and 6" broad and was decorated with circle signs, figures of flowers and forms of fishes.

1 J. N. S. I, XII, 121.
HISTORY

By the side of the vihāra, he saw an Aśokan pillar about 30 feet in length with inscriptions thereon which marked the gift of Jambudvīpa to Buddha, Dharma and Saṃgha. Towards the north of the palace he saw the Mahendra's hermitage and south of it was a hollow trough in which food was stored for the use of the monks. Towards the south east of the old palace there was a little mountain in which Aśoka had constructed dwellings for Upagupta and other arhats. By the side of these dwellings there was a pond which was famous for its "sacred water".

To the south east of the old city, he noticed the ruins of the saṃghārāma called kukkuṭārāma which was constructed by Aśoka when he first became the follower of the Buddhist religion. The Āmalaka stūpa was just near the Saṃghārāma and north west of the stūpa and in the middle of an old Saṃghārāma the pilgrim saw the Gong-call stūpa. ¹

Harsa who was the emperor of India during Huen Tsiang's visit, had his capital at Kanauj. Pāṭaliputra was in neglect.

It appears that the city as a whole was destroyed before Huen Tsiang visited it. The Hūpas may have caused decline and devastation. Huen Tsiang refers to Mihirkula's invasion and its siege. The onset of flood might have completed the destruction. A Jaina work "Tīthhogali Painmiya"², informs us that due to heavy rains for complete 17 days and nights, the Ganges and the Son water swelled and began to overflow. The flood water engulfed the entire city and washed away several monks and laymen. Only a few could save their lives.

After the Gupta rule the history of Pāṭaliputra again merged into obscurity. During Pāla's rule over Magadha we find that it was an important centre of river communication. The khalimpur plate informs us that Pāṭaliputra was the important Skandhāvāra (camp). However, from the excavation not a single coin, inscription or antiquity dateable in the Pāla period has so far been found. When the Muslims conquered Bihar, they made their capital at Bihārsarif. Fresh settlement at Pāṭaliputra again cropped up in the 17th century A.D.

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¹ Watters on Yuan Chwang II, pp 87-100.
² Dr. Motichandra in Premi Abhinandan Grantha, pp 230, ff.
PREVIOUS EXPLORATIONS AND EXCAVATIONS AT PĀṬALIPUTRA

Pāṭaliputra (modern Patna) was the most important city in the country and it remained the capital of India for a much longer period than any other ancient city in India. It may be safely asserted that the history of India from 600 B.C. to 600 A.D. can be studied as the history of Pāṭaliputra. For the history of Pāṭaliputra, we largely depended on the literary sources like Mahābhārata of Patañjali, Kautilya's Arthasastra, Megasthenes's accounts and the itineraries of the Chinese travellers. Till the later half of the 18th century we had no concrete idea as to the location of ancient Pāṭaliputra nor we had archaeological data to check the authenticity of the foreign accounts. Towards the close of the 18th century some western scholars started searching the exact site of the ancient city of Pāṭaliputra.

On the basis of the accounts furnished by Megasthenes, it was regarded by some that the ancient city of Pāṭaliputra was situated somewhere near the junction of the Kosi river and some thought it to be near Bhagalpur. Its precise location was, however, indicated by Major Rennell in 1783. Mr. Beglar, the archaeological surveyor examined the site and reported that the ancient city of Pāṭaliputra was situated somewhere near the junction of the Kosi river and the old city having occupied, what is now the bed of the Ganges and perhaps part of the great island between Patna and Hajipur, on the opposite side of the river, all or almost all traces of the ancient city must long since have been swept away by the Ganges'. Sir Alexander Cunningham later on inspected the site twice and expressed his opinion that the remains of the old city of Pāṭaliputra still existed at Chhoti and Pancha Pahari to the south of the railway line. He excavated these mounds and discovered nothing but debris of bricks.

In this state of uncertainty Mr. L. A. Waddell of the Indian Medical Service ventured to examine the site personally and to find out whether actually nothing remained to prove the existence of ancient Pāṭaliputra. He visited the site in 1892 and succeeded in identifying not only the location of the site but also its various monuments with the help of the itineraries of the Chinese pilgrims. In the effort to identify the monuments of the Mauryan age, he carried out excavations at Bulandibagh, Chhoti Pahari, Tulsimandi and Maharajkhand to the north east of Kumrahar and at Rampur, Bahadurpur and Pirthipur in south of Patna. At Bulandibagh, Tulsimandi and Maharajkhand he discovered the remains of the wooden beams about 18 to 20 inches in diameter. These wooden beams were arranged in double row. Aside this, a colossal capital of corinthean style belonging to Śuṅga period was discovered from Bulandibagh at a depth of 12 feet from the surface.

Further south across the railway line at Kumrahar, which Waddell thought to be the main area of Mauryan capital, he succeeded in finding a broken Aśokan pillar at its north eastern corner in between chaman and kalu tanks. At sandalpur he could find nothing except

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1 Megasthenes placed Pāṭaliputra 475 miles down the Ganges from its junction with the Jamuna. Pliny as analysed by M. V. de st Martin in Etude Sur Le Geographic Grecque, 132.
2 Asiatick Researches, V (1798) and XIV, 380 (1822).
3 W. Frankcklin enquiry concerning the site of the Ancient Palibothra : London 1815.
4 Memoir of a Map of Hindustan, 1783
5 A. S. I., A. R., VIII, 24, 1876.
6 A. S. I., A. R. XI, 151-160 (1881) and XV, pp, 1-3 (1883).
7 Discovery of the exact site of Aśokas classical capital at Pāṭaliputra by L. A. waddell 1892.
some portions of brick walls. In the south west corner of village Rampur, wooden planks placed one above the other were exposed and just by the side of these planks a wooden drain was traced up to sixty yards. At Bahadurpur also similar type of drain was unearthed. In the extreme west at Pirthipur a sand stone pillar, probably a part of a temple was discovered.

In 1897-98 Mr. P. C. Mookherjee laid out exploratory trenches at Lohanipur and excavated terrace near a ditch which extended in east west direction to three hundred fifty feet. To the north of the ditch he found a Buddhist railing but after taking measurement of the posts, he covered it with earth. Besides these, several punch-marked coins, beads of semi-precious stones and a coin of Chandragupta II were unearthed. At a depth of 3 feet from the surface some structures of the Gupta period were exposed. Twenty five feet south west of the find spot of the Gupta structures, fragments of a Mauryan pillar 3 feet in diameter, and a small shaft 8 feet in length were discovered but they were left at the site. At a distance of two hundred fifty feet from the site of the Mauryan pillar, Asokan pillar capital in flattened vase form with mortice hole on the top was also brought to light. Traces of wooden palisades and a wooden drain running in north south direction were found.

In 1912-13 Dr. D. B. Spooner carried out excavations at Bulandibagh and Kumrahar. At Bulandibagh a little south of the spot where Greek capital was discovered by L. A. Waddell, wooden beams running parallel to each other were traced to more than three hundred fifty feet. Other noteworthy objects that came to light were a chariot wheel with iron round the hub, two hundred uninscribed cast coins, terracotta head of a smiling infant and a dancing girl.

Again in 1926-27 the site of Bulandibagh was reselected for archaeological operation in order to determine the nature of wooden palisades. The excavation at the site threw considerable light on the nature of wooden palisades which Megasthenes had referred to in his accounts. Here the palisade about 250 feet in length running in east west direction was exposed. Two rows of upright pillars about 12 feet in height above the floor were seen placed at a distance of 14 feet 6 inches from one another. The space between the pillars was paved with wooden sleepers and their ends were socketed with upright pillars. The uprights continued some five feet deeper than floor sleepers and were fixed on wooden planks laid on a rammed bed of kankar.

Dr. Spooner’s excavation at Kumrahar in 1912-13 brought to light the site of a Mauryan pillared-hall. These pillars were fixed on wooden platforms and stone bases. He excavated at various parts of Kumrahar and thought the whole plan of the site to resemble the plan of the palace at Persepolis. Towards the southern end of the hall he discovered platforms of wood. He further succeeded in bringing to light a polished stone pillar about 14 feet in length and several minor noteworthy finds like seals with legend in Gupta characters. Some punch-marked, Kusana and Gupta coins, terracottas, and Bodh Gaya plaque etc. were also found.

At another site in city area known as Sadargaly north of the railway line, Dr. Spooner discovered several fragments of polished stone pieces.

After an interval of 38 years Kumrahar was once again selected for archaeological excavation by the K. P. Jayaswal Research Institute, Patna. Dr. Spooner’s discovery of the Mauryan pillared hall was, no doubt, very important but many problems associated with the structures and the plan of the palace remained unsolved. Thus excavation on the site continued for five seasons i.e. from 1951 to 1955 to solve the problems.

The five season's dig at the site revealed that the habitation at Kumrahar was continuous from the Mauryan age down to 600 A.D. After that the site was abandoned and again in 17th century fresh settlement cropped up. It further exposed eight more pillars belonging to the hall proper and four probably belonged to the entrance. It was established that the destruction of the hall took place in early Sunga period and not in the post Gupta period as previously held by Dr. Spooner. Quite a good number of monastic structures belonging to 2nd century B.C. to 6th century A.D. were unearthed. Other notable discoveries included seals and sealings in Gupta character, punch-marked, uninscribed, Kusana and Gupta coins, beads of semi-precious stones and several terracotta objects.
Pātaliputra was the earliest historical imperial City in India and this position it continued to enjoy from the 4th century B.C. to the middle of the 6th century A.D. During the Pāla period and particularly in the time of Dharmapāla, it continued to occupy prominent position. Archaeologists, therefore, have been trying to discover and unearth the remains of the ancient Pātaliputra. Spooner's excavation in the early part of the 20th century exposed a stone pillared-hall and wooden platforms. Except these there was nothing to show that the Royal palace of Chandragupta Maurya rivalled the palaces at Susa and Ecbatana which Megasthenes referred to in his accounts. The latest excavations at Kumrahar also did not give any evidence of the pillared-hall being a part of the palace-complex. This excavation brought to light the existence of monastic structures ranging in period from 2nd century B.C. to 6th century A.D. and thus gave fairly good idea of the evolution of the brick monastic architecture in this part of the country. Thus the archaeological excavations so far exposed the historical remains of Pātaliputra from 4th century B.C. to 6th century A.D. These excavations while adding a good deal to our knowledge about the history of the city, pose many new problems. The Buddhist literature refers to Pātaliputra as a humble village during the time of Buddha and also about the fortification on the bank of Ganga by Ajañacatu and it was to this fortified city that Udaya had transferred his capital from Raigraha. We also learn from Sanskrit literature and inscription that the Royal palace of Chandragupta Maurya was known as "Suganga". Thus it is clear that Pātaliputra was settled prior to the Mauryan age. Archaeological excavations have not yet corroborated these literary accounts. Therefore, it was considered quite possible that remains of pre-Mauryan Pātaliputra and Mauryan palace-complex might lie further north east of Kumrahar in Gulzarbagh and Patna City area. With this end in view, trenches were taken at Mahabirghat, Sadargaly, Begum-Ki-Haveli and Government Press Play Ground to find out the cultural sequence of these sites, past building activities and to locate, if possible, any part of the palace-complex of the Mauryan period. As the areas selected for excavation were heavily built up and thickly populated, only a few small trenches could be taken.
4 STRATIGRAPHY AND CULTURAL EQUIPMENTS OF THE VARIOUS PERIODS DISCOVERED FROM THE EXCAVATION.

Six trenches, (a) MBT (b) MBT-A (c) SKR (d) SKR-A (e) BHL (f) G. P. P. varying from 8 feet to 15 feet in width and 18 feet to 51 feet in length were laid out in four isolated parts of the 'city' area of Patna, viz., Mahabirghat, Shah-Ramal Road, Begum-Ki-Haveli and Government Pres Play Ground. The area was thickly populated and as such only limited vertical digging was possible. Excavation at these sites revealed three cultural periods at Patliputra, the earlier two were continuous in occupation and the last followed after a long break of nearly twelve hundred years.

All the three periods had their own distinctive terracotta figurines and potteries. Here the special features of each period are enumerated.

Period I

Period I was represented by greenish clay and the deposit of the period varied in between 10 feet and 18 feet. The ceramic industry of the period was represented by a number of wares, the most distinctive amongst them was the Northern Black Polished Ware. Made of well levigated clay, the ware ranged from fine to medium varieties. The shapes encountered were dish and bowl and they were available in various shades. The most common was the steel-black but silvery and golden pieces were also met with.

The associated ceramic industries of the period comprised of black-and-red ware, grey ware, black ware and red ware. All these wares were made of fine ground clay except the black-and-red ware. Although this ware was wheel turned but only the coarse fabric could be found. Basins and rim of big jars were the characteristic types. The principal types in the grey ware were dish, bowl, carinated rimless handi and lipped bowl. Some of them had impressed symbols. Generally the pots were treated with deep grey or ash grey wash or slip and ranged from fine to coarse varieties. In black ware the types discovered included bowl with corrugated sides, dish with incurved rim and lid cum bowl. The types in the red ware were dish, carinated rimless handi, basin, lipped bowl and rim of vase.

The terracotta figurines discovered from the earliest level were conspicuous by themselves. The figurines indicated the archaic style and displayed lack of imagination of the artists in the art of clay modelling. The ear, nose, hair of human beings were shown by pinching out the clay, the mouth by a deep horizontal cut just above the chin, the legs and hands by stump of clay and the fingers by notches. In some cases, the nostrils were shown by two holes (pl. X). The impressed circles over the body indicated the navel and the breast portions.

The female figurines discovered from the mid and top levels displayed some developments in the creative genius of the artists. Faces were produced out of the moulds but other things like hair, ornaments and ears were shown by the applique method. Some terracotta plaques entirely made of mould also made their appearance in the period (pl. XI, no. 7).

Animal figurines on the other hand, although hand modelled appeared to be more graceful. The discovery of the horses in greater number in comparison to other animals proved that the horse was the most favourite animal of the people at that time. Other animals
recovered included tortoise, ram and bird (pl. XV). Invariably these animals were decorated
with punched circles and notches.

Bone objects such as styli, awls, arrow heads, sockets and beads were collected in good
quantity. On the evidence of these objects, one is inclined to believe that a good majority of
the people were meat eaters and after eating meat they did not throw the bones as waste
products. They knew how best the waste materials could be utilized. By applying their
creative genius they manufactured awls for boring objects, arrow heads for hunting purposes,
sockets for keeping the points of arrow secured and beads for ornament. (pl. XXVII).

The discovery of beads testified to the fact that the inhabitants were quite aware of
semi-precious stones and had much liking for them. They had attained high degree of per-
fection in the art of grinding and boring such hard stones like carnelian, quartz and crystal
of which they used to manufacture beads in variety of shapes for ornaments (pl. XXV B).
Amongst other finds, terracotta ghata shaped beads and ear ornaments were noteworthy.

The most noteworthy discoveries were of the mutilated couchant bull and a number of
carved stone pieces bearing the lustrous Mauryan polish. One of the stone pieces measured 6
feet X 3 feet and had the bead-and-reel pattern over it. All these pieces were probably archi-
tectural fragments. It may be recalled here that Dr. D. B. Spooner had also discovered some
polished stone fragments from the same area from which they were discovered.

Punch-marked coins both in silver and copper and uninscribed cast coins were in
circulation and they made their appearance from the mid level of the period (pl. XXIV).

As regards house plans, no definite idea could be obtained owing to limited area availa-
ble for excavation. However, the brick flooring and two parallel walls found in one of the
sites known as Begum-Ki-Haveli suggested that the structures were made of burnt bricks.
(Fig. 9). The occurrence of terracotta ring-wells at short intervals indicated that they were
utilized as refuse pits.

Towards the first half of the 2nd century B. C., Pataliputra witnessed a large scale
fire which is evident from the thick ashy layer found in the excavation sites.

Period II

The pottery evidence from period II was of simple nature. All other wares of the
previous period were extinct save an except the red ware. Nearly all the pots in the red ware
were either treated with red wash or slip but stray evidences of the pots without any kind of
external treatment were also recorded. The potteries were wheel turned, plain but utilitarian
in character and ranged from medium to coarse varieties. The types met with were
miniature vase, basin with clubbed rim, rim of vase and conical bowl.

During the period, moulded as well as hand made terracotta figurines were collected in
large number. The hand made examples were crude and clumsy in comparison to moulded
specimens. Moulded figurines evinced the art of clay modelling at its peak. The two terracotta
heads (pl. XII) with typical Kusåna head dresses were partly mould made and partly with
applique technique. The naigamesa figurines were entirely modelled by hand.

Majority of the animal figurines were hand made except a few which were produced
out of moulds. These animal figurines were devoid of any kind of external treatment.
Amongst the animals, elephant, bull, bird and tortoise figured much.

Ear ornaments, beads, skin rubber and pendants were amongst other terracotta objects.
The ear ornaments (pl. XVIII A), and pendants were of various shapes and designs
(pl. XVIII B).
Uninscribed cast coins were still in circulation but after circa, 2nd century A.D. they became extinct. Kausambi Lanku bull type coins were also collected. The bone objects like arrow heads, awls and styli were still in use but were confined to the lower levels of the period.

The most sensational discovery of the period was of a gold amulet fashioned after one of the coin types of Huvishka. This helped much in determining the chronology of the period. On the obverse of the amulet was the bust of the king within beaded border and the legend in Greek was  

\[ \text{PAONANO PAO OOHPKI} \]  

On the reverse of it the legend was \[ \text{APΔOXPO} \]  

(pl. XXIV, no. 23).

The copper objects of the period included antimony rods, spoons and small sized bell (pl. XXVI).

The inhabitants of the period freely used burnt bricks for constructing their dwellings. As many as eight sub-structural periods were encountered. Due to the limited area under excavation, the house plan could not be had. However, wall no. 9 (II, 4) of the site MBT-A could give some idea about the shape and size of the rooms (fig. 2). Wall no. 9 formed part of a big room. The width of the room was 9 feet east west and the length was about 14 feet which continued towards the unexcavated part. The wall no. 25 and 26 of the site MBT-A also formed part of small rooms. The size of the bricks used in the structure was \[ 17'' \times 11\frac{1}{2}'' \times 2'' \]. Terracotta ring-wells were also found. The diameter of the rings was 2 feet.

**Period III**

The sites were deserted for a considerable period after period II. This break in occupation resulted due to the abandonment of the site by the general public. That the general population seemed to have shifted to some neighbouring place, was evident from the non-availability of the material relics after 500 A.D. A fresh settlement appeared on the site after a lapse of twelve hundred years. The inhabitants of the new settlement brought with them new technique of manufacturing potteries. Two divergent class of potteries were in use, the first was the glazed ware and the second was the plain red ware. In the glazed ware, shallow plate with spayed out rim and painting inside the plate came to light. It may be stated here that the number of glazed ware sherds discovered was very limited. The painting and glaze in the interior of the plate suggested that such plates were specially intended for ceremonial occasions. Amongst the plain red ware of the period, the types unearthed were plates with obliquely spayed out rim, water vessel with ring base and \[ hāndi \] with ridged carination.

The terracotta objects of the period were all produced out of moulds. A good number of male figurines with Muslim and Maratha caps were brought to light. The female figurines displayed elaborate drapery and head dresses (pl. XIV).

The animal figurines included elephant, monkey, fish and bird.

Bone objects of the previous periods were totally absent. Glass beads of different colours and designs (pl. XXVB, nos. 13 and 16) were collected. The iron objects were of diverse nature, the note-worthy amongst them were axe and sickle.

Only one silver coin belonging to Shah Alam was discovered.

The houses were constructed entirely of brick bats. From the material used in the construction it appeared that the economic condition of the people was not sound.
5 CHRONOLOGY

Chronology of the sites has been largely fixed with the help of the potteries but all other dateable materials have also been taken into account. Thus on the basis of the total cultural components, the sites have been divided into three cultural periods.

The chronology of the earliest period has been obtained on the basis of the following materials:

(1) Northern Black Polished Ware.
(2) Mauryan stone pieces and mutilated couchant bull.
(3) Punch-marked and cast coins.
(4) Terracotta objects.

The occurrence of the well known pottery, Northern Black Polished Ware in almost all the trenches selected for operation proved it beyond doubt that the sites, in question, were in occupation from hoary antiquity. The chronology of this period largely depends upon the dating of this ware. This ware has been found at a number of sites like Taxila, Hastinapura, Kaushambi, Sonepur, Chirand etc. The Taxila\(^1\) evidence of this ware indicated that the ware was in use right from circa, 6th century B.C. to circa, 2nd century B.C. Out of twenty sherds, 18 were discovered from Bhir mound and two came from Sirkap. One of the sherds from Sirkap was recovered from the lowest level of the site assignable to 2nd century B.C. Hence, the upper limit of the ware at Taxila was fixed at 2nd century B.C. Out of the eighteen sherds discovered at Bhir mound, one occurred at a depth of 6 feet from the surface and the rest were found in between 6 feet and 13 feet deposit. Along with the sherd discovered at a depth of 6 feet, one coin of Alexander was found in mint condition. The discovery of Alexander's coin with the sherd proved that the ware was in use in 4th century B.C. So the rest 7 feet deposit bearing N.B.P. Ware below Alexander's coin must have taken at least two centuries to accumulate. Thus the N.B.P. Ware made its appearance in circa, 6th century B.C. and continued down to circa, 2nd century B.C.

The date assigned to this ware at Taxila was further cross checked at Kaushambi.\(^2\) At Kaushambi from the top level of the N.B.P. Ware, coins of mitra rulers of Kaushambi belonging to 2nd century B.C. were collected and below this there was about 8 feet deposit yielding this class of pottery which must have taken considerable time in accumulation. Thus the date of the N.B.P. Ware at Kaushambi was assigned in between circa, 6th century B.C. and circa, 2nd century B.C.

The C-14 test of the N.B.P. Ware from Ataranjikhera\(^3\) (U.P.) has also testified to the date assigned to this ware.

At Pataliputra N.B.P. Ware sherds appeared right from the earliest occupational level. From the upper level of the N.B.P. Ware deposit, coins of the Lanky bull type of Kaushambi prevalent before circa, 100 B.C. were collected in good number and after that the ware was completely absent. This would mean that the N.B.P. Ware came to an end in circa, 150 B.C. The lower limit of the ware was determined with the help of the Mauryan

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1 Ancient India, no. 1, Pages 55-56, (1946).
3 The earliest date of N.B.P. Ware sherds from Ataranjikhera (U.P.) has been assigned to circa, 6th century B.C. by C-14 test. Bulletin dated 22-10-65, issued from the Tata Institute of Fundamental Research, Colaba, Bombay-5.
couchant bull and other polished stone pieces that came to light from the mid level of period I and below that there was 5 feet deposit yielding N. B. P. Ware sherds. Naturally 5 feet deposit must have taken two to three centuries to set. Punch-marked and cast coins which range in between circa, 5th century B. C. and circa, 2nd century B. C. were also found in association with N. B. P. Ware sherds and they helped in cross checking the date of the ware. Terracotta objects with impressed circlets and notches further helped in determining the chronology of the period. Thus on the basis of above discussion the occurrence of N. B. P. Ware at Pātaliputra can safely be asserted in between circa, 6th century B. C. and circa, 150 B. C.

Period II yielded typical Kusāna terracotta heads, gold amulet fashioned after one of the coin types of Huviška and terracotta naigamesa figurines.

As a matter of fact, the chronology of the Kusāna rule in India is still a much disputed subject and so nothing definite can be said in this regard but generally the scholars believe that Kusāna rule in India began in circa, 1st century A. D. and continued down to circa, 3rd century A. D. The discovery of a gold amulet and Kusāna terracotta heads proves that the Kusānas held their sway over Pātaliputra up to circa, 3rd century A. D.

The upper limit of the period was determined with the help of naigamesa figurines as no other dateable materials were available. Such naigamesa figurines were found at Ahichchhatra in good quantity and were dated in between circa, 450 A. D. and 650 A. D. At Kumrhar also naigamesa figurines were collected but their stratigraphic position showed that they made their appearance in circa, 1st century A. D. and continued down to 5th century A. D. The naigamesa figurines with horns were prevalent in circa, 100 A.D. to circa, 300 A.D. and those without horns were in existence in between circa, 300 A. D. and 450 A. D. The naigamesa figurines from Pātaliputra were without horns and so they were dated in between circa, 300 A. D. and circa, 500 A. D. Thus it would appear that naigamesa figurines of Ahichchhatra were later than the Pātaliputra naigamesa figurines.

Period III provided a silver coin of Shah Alam, glazed ware and a number of terracotta male and female figurines wearing Muslim and Maratha head dresses to determine the chronology of the period.

Uptil the glazed ware has not been studied properly and nothing has been done to show its stratigraphic position. However, at Adilabad near Delhi, this type of pottery was collected in good number where the stratigraphic position of this class of pottery showed that it occurred in the first half of the fourteenth century. At Pātaliputra this ware was confined in the upper levels of the period and along with it, a silver coin of Shah Alam came to light. This would mean that fresh settlement at Pātaliputra cropped up in the 17th century. The terracotta human figurines that were unearthed helped to a great extent to cross check the chronology.

Thus on the basis of the above discussion, the following dates have been proposed for the different periods of the sites:

<table>
<thead>
<tr>
<th>Period</th>
<th>Date Range</th>
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<tbody>
<tr>
<td>Period I</td>
<td>C. 600 B. C. to C. 150 B. C.</td>
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<tr>
<td>Period II</td>
<td>C. 150 B. C. to C. 500 A. D.</td>
</tr>
<tr>
<td>Period III</td>
<td>C. 1700 A. D. and after</td>
</tr>
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1 Ancient India, no. LV, page, 134.
2 Report on Kumrhar excavations (1951-55) page 98.
3 Ancient India, no. I, page 72.
6 THE CUTTINGS

It has already been stated that six trenches namely, (1) MBT (2) MBT-A (3) SKR (4) SKR-A (5) BHL and (6) G. P. P. were laid out in four isolated parts of the city area of Patna, viz, Mahabirghat, Shah-Kamal Road, Begum-Ki-Haveli and Govt. Press Play Ground. Here brief description of the trenches with special reference to their structures, ring-wells, floors etc. is given below:—

(1) SITE MBT (Fig. 2)

A trench measuring 48 feet in length in east west direction and 15 feet wide in north south direction was laid out. Operation at this trench revealed all the three periods.

**Period I**

In period I, two sub-periods were noted. In sub-period 1, two ring-wells namely 1 and 4 came to light. Ring-well no. 1 had 36 tiers and no. 4 had only three. The diameter of the rings was 2 feet.

In phase 2, ring-well no. 9 was exposed of which only 8 tiers came to light without reaching the bottom. No structure, however, was encountered in this period.

**Period II**

Eight sub-periods were marked in this period. Assignable to sub-period 1 was wall no. 1 and 2. Wall no. 1 was made of broken bricks and was exposed to a height of two to nine courses in east west direction. Wall no. 2 was running in north south direction and had five to ten courses. Just near this a concrete floor was also observed. In addition to this, ring-well no. 6 also made its appearance of which only two rings were exposed. The diameter of this ring-well was only 1 1/2 feet. In sub-period 2, wall no. 4 was ascribed which was running in north south direction and was exposed to a height of five to nine courses but it presented no shape. In sub-period 3, there were wall no. 5, 6 and 8. Wall no. 5 was traced in east west direction in which pit no. 9 cut the wall. The size of the bricks used in this wall was 1 foot 6 inches x 1 foot x 2 inches. Wall no. 6 had only one to two courses which was running in east west direction. Only a small portion of wall no. 8 could be traced because of bulk which obstructed in exposing the structure but the idea of this structure could be obtained in the adjoining trench MBT-A.

Wall no. 9 was ascribable to sub-period 4 which was in east west direction and was exposed to a height of twelve to twenty courses. The bricks used in this structure was of 1'6" x 1' x 2" dimension. Just by the side of this wall, a concrete floor was observed. Aside this, a brick drain and two ring-wells no. 2 and 5 which had fourteen and twenty six rings respectively placed one above the other came to light (pl. 1). Wall no. 9 A belonging to this phase had one to four courses which gave no definite idea about its shape. In this sub-period, a rammed foundation running in east west and two adjacent sides running in north south direction probably forming a room was observed.

Sub-period 5 had only wall no. 12, the bricks of which were set vertically and could be traced in east west direction. The vertical setting of the bricks possibly suggested a brick floor.

Belonging to sub-period 6 were wall no. 15, 16 and 17. Small portion of wall no. 15 was exposed in the north south direction which was disturbed by pit no. 4. Wall no. 16 was also a small structure in the north south direction which suggested no idea about its shape. Wall no. 17, however, was traced in the eastern part of the trench. Two adjacent sides of wall no. 17
were running in east west and north south direction which suggested that it formed a part of a room. The bricks used in all the three walls mentioned above were of \(1'6'' \times 1' \times 2''\) dimension.

Sub-period 7 yielded wall no. 23 and 24. Wall no. 23 had eleven to eighteen courses which was disturbed by pit no. 6. The trend of the structure indicated to be a portion of a room. This sub-period had three ring-wells namely 3, 7 and 8 with two, six and eight tiers respectively placed one above the other. The diameter of the ring-wells no. 7 and 8 was 2 feet and the diameter of ring-well no. 3 was only \(1\frac{1}{2}\) feet.

Wall no. 24 was made of brick bats which was disturbed by pit no. 1 and was running in east west direction.

Wall no. 25 belonged to sub-period 8 which formed a small room. It was probably intended for bathroom. The wall was, however, disturbed by pit no. 3.

**Period III**

The structures of this period were clumsy in nature and were entirely made of bricks. The materials used in the structures proved that the people's economic condition was not sound. **Two sub-periods** were noted in this period. In sub-period 1, three walls 1, 2 and 3 were unearthed. Wall no. 1 was completely made of brick bats and was disturbed by pit no. 5. (pl. IA). It was running in north south direction. Wall no. 2 had one to two courses in east west direction and wall no. 3 was in north south direction. None of the walls gave any indication about their shapes.

In sub-period 2, wall no. 5 and 6 made their appearance. Wall no. 5 was traced up to two to four courses in north south direction in the western part of the trench. Wall no. 6 was a long wall running in north south direction and was available to two to six courses. Considerable part of this wall was traced in the adjoining trench MBT-A. (II) SITE MBT-A (Fig. 3)

Another trench MBT-A was laid out just by the side of MBT with the view to cross check the evidence gathered in trench MBT and also to obtain clear shapes of most of the structures which could not be had in the adjoining trench. The trench was 51 feet long in east west direction and 15 feet wide in north south direction. In this trench all the three periods were encountered (Pl. II).

**Period I**

In period I, neither the structure nor the ring-wells could be found. This might be due to limited area under excavation. However, five post holes and a brick floor were noticed.

**Period II**

In period II, seven sub-periods were noted. Wall no. 3 belonged to sub-period 1 of which two to four courses were available and was in east west direction. Concrete floor was observed just near this wall (pl. III). Sub-period 2 could only be noticed in MBT. Sub-period 3 was represented by wall no. 7 and 8. Wall no. 7 was made of broken bricks. The plan of the wall suggested corner portion of four rooms. There was also an indication of a post hole in this structure. Small portion of wall no. 8 was available in east west as well as in north south direction.

In sub-period 4, wall no. 9 was again traced, some portion of which was available in trench MBT. In this trench two parallel walls no. 9 running in due north south could be traced to a height of twelve to twenty courses. The trend of the walls indicated that they formed part of a big hall. The parallel walls towards the west had a long projection measuring 16 feet in length towards west which was disturbed by pit no. 10. Besides an imposing ring-well no. 10 was also found of which sixty three tiers had been exposed (pl. IV). Wall no. 10
MBT-A
Section Looking North

Fig. 3. See page 16.
PLAN OF SKR
1955-56

2 (III, 1)

1 (III, 1) = STRUCTURE-1, PERIOD-III, SUB-PERIOD-1.

Fig. 4. See page 17.
Fig. 5. See page 17.
M  E  T :  Four walls, 1, 12, 17 and 24 with a drain, ring-well no. 2 and a concrete floor,
Period II. See page 15.
MBT: Walls, 2 and 5, period II; walls, 1, 3 and 6 with a pit in between wall 1 and 3, period III. See page 16.
MBT—A: General view of the structures of different periods. See page 16.
MBT—A: Concrete floor, sub-period 1, period II; wall no. 7 with a post hole, sub-period 3, Period II. See page 16.
MBT—A: Close view of ring-well no. 10 of sub-period 4, period II. See page 16.
SKR : General view of the structures and fragment of a Mauryan polished stone bearing bead-and-reel pattern, *in situ*, period I. See page 17.
BHL: General view of the structures of different periods. See page 18.
BHL: Ring-wells, 3, 4, 5, 6, 7 and 8 of period I and a square well towards right, sub-period 3, period II. See page 18.
BHL : A brick floor and a wall no. 2 of period I. See page 18.
was traced in north south and east west direction which probably formed a room; besides this, a small portion of a structure was traced in south western corner.  

Assignable to sub-period 5 was wall no. 11 of which only a small portion was available in the northern corner of the trench.  

Sub-period 6 had wall nos. 13, 14 and 18. Wall no. 13 was 8 feet long running in east west direction. It presented no shape at all. Wall no. 14 was in north south direction of which only small portion was available. Wall no. 18 was 12 feet long which was running in north south direction and had two post holes. The bricks used in all these walls were of 1' 6" x 1' x 2" dimension.  

In sub-period 7, there were four walls namely 19, 20, 21 and 22. Wall no. 19 was an insignificant structure running north south. Wall no. 20 had fourteen to twenty four courses and was running towards north south. Wall no. 21 was exposed to a height of ten to thirty courses and formed a portion of a room in the northern extremity of the trench. The bricks used in this structure was 1' 6" x 1' x 2" dimension. Wall no. 22 had three to twenty eight courses of which two adjacent sides were unearthed which probably formed a part of a room. Wall no. 26 of sub-period 8 had six to twenty one courses of bricks, two adjacent sides of this wall could be traced which was disturbed by pit no. 8.  

Period III  

Two sub-periods were identified. In sub-period 1, no structure could be found out, however, the structure of this sub-period was traced in MBT. In sub-period 2, there were two walls. Wall no. 4 was made of broken bricks which gave no idea about the shape of the structure. Wall no. 6 was made of brick-bats which was running in north south direction.  

(III) SITE SKR (Fig. 4 and 5)  

A small trench measuring 18 feet long and 8 feet wide was laid out at Shah-Kamal Road with the intention to correlate the evidences gathered from other cuttings. Here also all the three cultural periods were noted.  

Period I  

In period I, neither the ring-wells nor any structure made their appearance but it is gratifying to note that a Mauryan polished sand stone piece of 6 feet x 3 feet dimension bearing bead-and-reel pattern was discovered (pl. V).  

Period II  

Period II had only one sub-period. Ascribable to sub-period 1 was structure no. 1 which was exposed to a height of 27 to 31 courses. Two parallel walls of the said structure running east west were discovered to a length of 9 feet and these walls were connected by a wall 12 feet in length running north south. These walls probably formed a room.  

Period III  

In period III, wall nos. 1 and 2 were discovered. They were made of brick-bats and suggested no shape. Wall no. 1 was 11 feet long and had four to ten courses whereas wall no. 2 was only 3½ feet long. Both of them were running in north south direction.  

(IV) SITE SKR-A (Fig. 6)  

Towards south east of SKR another trench SKR-A was laid out. In the north east of SKR-A, Dr. Spooner had excavated and succeeded in getting a number of materials belonging to Mauryan age. The trench was 18 feet long in east west direction and 15 feet wide in north south direction.
In this trench structures of period III only were met with. Four sub-periods were noted in it.

Sub-period 1 was represented by wall no. 1 in the western extremity of the trench. The wall was 11\(\frac{1}{2}\) feet long running in north south. The bricks used in this wall were of 6" \(\times\) 4" \(\times\) 1" dimension.

Wall no. 2 of sub-period 2 had nine to ten courses of bricks. This wall was observed in the southern extremity of the trench. It suggested no shape at all.

Wall no. 3 was marked in sub-period 3 of which five to six courses could be traced. The length of the wall towards east west was only 4\(\frac{1}{2}\) feet.

Wall no. 4 belonging to sub-period 4 was 9 feet in length and was made of brick-bats. It presented no shape.

(V) SITE G. P. P. (Fig. 7)

30 feet long and 12 feet wide trench was laid out at this site. Here also all the three periods were encountered.

**Period I**

Period I was represented by wall no. 1 which was in north south direction. It was made of re-used bricks. It, however, gave no regular shape.

**Period II**

This period had two sub-periods. Sub-period 1 had four walls namely 1, 2, 3 and 4. Wall no. 1 was made of brick-bats of which two to seven courses were traced. Wall no. 2 was more or less like the previous one. It had two to four courses. Wall no. 3 had fourteen to eighteen courses which was running in the north south and east west direction. In wall no. 4, the bricks used were of 1\(\frac{1}{6}\)" \(\times\) 1" \(\times\) 2" dimension. It suggested no shape.

In sub-period 2 wall nos 5 and 6 were assigned. Wall no 5 was 8 feet long and had a 2 feet projecting wall in the middle of the wall running in east west direction. Wall no. 6 had been exposed to a height of seven courses and was 3 feet long in east west direction.

**Period III**

Wall no. 1 of this period was completely made of brick-bats which was exposed up to a length of 12 feet in the north south direction and two parallel walls of this sub-period running in east west joined this wall. A concrete floor was also observed.

(VI) SITE BHL (Fig. 8)

In this trench structures of period I and II could only be found out. The trench measured 33' \(\times\) 12' in east west and north south direction (pl. VI).

**Period I**

In period I, wall no. 1 and ring-well nos. 3, 4, 5, 6, 7 and 8 were unearthed (pl. VII). Wall no. 1 was represented by two parallel walls running in north south direction. It was exposed to a height of eleven to twelve courses. A brick floor was also exposed in between the two parallel walls (pl. VIII). The size of the bricks used in the floor was 11" \(\times\) 10\(\frac{1}{2}\)" \(\times\) 3" (fig 9).

**Period II**

Period II had five sub-periods. Wall no. 1 belonging to sub-period 1 had three to nine courses which was running in north south direction. The length of the wall no. 1A running east west was 6\(\frac{1}{2}\) feet. Ring-well no. 9 also belonged to this phase.
1 (Ⅲ,1)= STRUCTURE - 1 , PERIOD - Ⅲ , SUB - PERIOD - 1.

Fig. 7. See page 18.
BEGUM-KI-HAVELI

SECTION LOOKING NORTH
1955-56

Scale of

Scale of

Fig. 8. See page 18.
PLAN OF BEGUM-KI-HAVELI
1955-56

Scale of
1 2 3 4 5 6 7 8 9 10
FEET

Scale of
1 2
METRES

3(II,2) = STRUCTURE 3, PERIOD II, SUB-PERIOD 2

Fig. 9. See pages 11 and 18.
In sub-period 2, there were wall nos. 2, 3 and 4. Wall no. 2 had six to seven courses and the length towards east west was 6 feet. Attached to it there was a projecting wall towards south measuring 3 feet in length. It formed a part of a room. Wall no. 3 was found in the eastern extremity of the trench which was disturbed by pit no. 4. It formed a part of a room and was exposed to a height of sixteen to twenty one courses. The size of the bricks used in the structures was $17'' \times 11\frac{1}{2}'' \times 2''$. Wall no. 4 was made of re-used bricks. It formed a room, the dimension of which was $11\frac{1}{2}'' \times 8''$. This was disturbed by pit nos. 1 and 3. Aside this, ring-well no. 1 was also discovered in this period.

Wall nos. 5 and 6 belonged to sub-period 3. Wall no. 5 was small structure which was disturbed by a circular well with square top. The bricks used in this wall were of $1'4'' \times 10'' \times 1\frac{1}{2}''$ dimension. Ring-well no. 2 belonging to this sub-period had been exposed up to thirty six tiers. Wall no. 6 was an insignificant structure with no shape.

In sub-period 4, wall no. 7 formed a part of a room. The dimension of the room was 7 feet long in east west direction and 7 feet wide in north south direction. The wall was exposed to a height of four to twenty five courses but was disturbed by pit no. 4.

Wall no. 8 of sub-period 5 had been exposed to a height of two to seven courses. Its two adjacent walls were discovered. The size of the bricks used in this structure was $1'6'' \times 1' \times 2''$. 


THE POTTERY

The potteries unearthed from the Pātaliputra excavation were in general simple and plain in nature but painted and designed potteries were not altogether wanting. All the potteries were wheel-turned and were available in fine, medium and coarse varieties. On the basis of the pottery evidence, the cultural sequence of the sites was divided into three distinct groups.

Period I.

The ceramic industry of the first group was represented by a number of wares, the conspicuous amongst them was the well known pottery, Northern Black Polished Ware. This ware was made of well levigated clay and was subjected to very good firing. The ware ranged from fine to medium varieties and the shapes that came to light were bowl and dish only. The other types in this ware discovered at Hastināpura, such as lids, carinated hāndis were not found at Pātaliputra. Majority of them were available in shining steel-black colour but pieces in silvery and golden shades were also picked up.

As to its date sufficient light has been thrown by the discovery of the N. B. P. Ware at Taxila, Kausāmbī, Hastināpura, and Ataranjikhera etc. In all these places the stratigraphic position of this ware has been established that it was prevalent in between circa, 6th century B. C. and circa, 2nd century B. C. The C-14 dating of the N. B. P. Ware sherd from Ataranjikhera has further testified to the date.

The other associated wares comprised of black-and-red ware, black ware, grey ware and red ware. Of these wares all were made of fine grained clay except the black-and-red ware. The black-and-red ware was of coarse fabric and the types met with were big basins and rim of big jars. The clay of which it was manufactured was not thoroughly levigated and appeared to have been mixed with husk like objects which could be obviously seen in the section of the pots. The surface of the ware was smeared with sand and sometimes appeared to be micaceous. Here it is interesting to note that a solitary piece of a bowl in fine fabric was also picked up.

Majority of the vessels in the grey ware were plain but some of them bore impressed designs generally appearing on uninscribed cast coins and graffiti marks too. Variety of shapes were available in this ware such as (a) dish with incurved rim (b) bowl with straight sides, knobbled base and incurved rim (c) sharply carinated hāndi (d) lipped bowl and basin. The designs encountered were confined to dish, bowl and carinated hāndi only. In dish and bowl the impressed design usually occurred in the centre of the inner portion of the pots. Contrary to this, the design and the graffiti marks on the carinated hāndis appeared only on their shoulders. The designs consisted of (a) hollow cross (b) crescented hill (c) wheel with spokes and concentric circle with a pellet in the centre (d) concentric circle (e) graffiti showing a human figure (pl. IX). Such types in the grey ware had also previously been noted at Hastināpura, Vaiṣāli and Taxila. Generally the fabric of the ware ranged from medium to coarse but specimens of fine fabric were also recorded. They were usually treated with dark and ashy grey slips but some were absolutely devoid of any kind of surface treatment. This normally happened with the pots of the coarse fabric.

1 Ancient India, No. 10 & 11, Page—51.
2 Ancient India, No. 10 and 11, Page 53.
Pottery from period I showing impressed designs, painting and graffiti marks. See page 20.
The number of the sherds in black ware was far less in comparison to other associated wares. The sherds in this ware were mostly well slipped. Some had excellent polish over them that they could have been easily misunderstood for N. B. P. Ware sherds. The types discovered were (a) dish with incurved and internally chamfered rim (b) bowl with corrugated sides and (c) lid-cum-bowl. Some of the bowls had impressed designs in the centre of the inner portion of them.

The potteries of the red ware comprised of dish, bowl, rim of vase, lipped bowl, basin and carinated rimless ħândi. Mostly the vessels were either treated with red wash or slip. Very few were devoid of any kind of external treatment. Some of the sherds had design of parallel horizontal lines in dull red colour in the inner portion and a sherd of carinated rimless ħândi bore the impressed triskeles design on its shoulder (pl. IX, nos. 6, 7 and 8).

Here some of the important types of the wares discussed above have been illustrated—

**Fig. 10**

1. Dish of Northern Black Polished Ware of medium variety with inturned rim and flat base. The colour is steel-black.
2. Dish of Northern Black Polished Ware with thick sides and internally bevelled rim. The colour is steel-black.
3. Dish of grey ware with slightly incurved rim and flat base, of medium fabric and has grey slip on both sides.
4. Dish of deep grey ware with featureless inturned rim. It is of medium fabric and well burnished both externally and internally.
5. Dish of brown red colour with closing featureless rim and rounded base, of medium fabric, it is treated with brown slip both externally and internally and is burnished.
6. Dish of N. B. P. Ware with slightly inturned rim, of medium fabric, ashy patches on both sides probably due to water logging.
7. Dish of grey ware of medium fabric with vertical featureless rim. It has carination at the base and is treated with dark grey slip both externally and internally.
8. Dish of grey ware of coarse variety. It has bevelled rim and carination at the waist and is devoid of slip or wash.
9. Dish of grey ware of medium fabric. It has beaked rim and is treated with pinkish slip on both sides and has flat base.
10. Dish of grey ware with inturned featureless rim, is treated with dark grey slip on both sides. It is of medium fabric.
11. Dish of grey ware with flat rim and two carinations at the waist. It is of medium fabric and treated with grey wash on both the sides.
12. Dish of grey ware with internally rounded rim, oblique sides and flat base. It is of fine variety and treated with dark grey slip.
13. Dish of grey ware with inturned rim and rounded base. It is of medium fabric and treated with grey slip on both the sides.
14. Dish of grey ware with flat rim and rounded base. It is of medium fabric and has dark grey slip on both the sides.
15. Dish of grey ware with internally bevelled rim. It is of medium fabric with dark grey slip on both sides.
16. Dish of Northern Black Polished Ware with rounded rim. It has yellow blotches on both sides probably due to water logging.
17. Dish of orange colour ware with externally chamfered and a groove inside the rim. It has well burnished surface and is of medium fabric.
18. Dish of grey ware with inturned rim with three projections at the waist. It is of coarse fabric and is devoid of wash or slip.
19. Dish of grey ware with internally everted rim and carination at the base. It is of medium fabric and is devoid of wash or slip.
20. Dish of black ware with rounded rim and a groove inside the rim. It is of medium fabric and has two carinations. It is treated with black slip internally.
21. Dish of red ware with rounded rim and four carinations on the profile. It is of medium fabric and is not treated with wash or slip.
22. Dish of grey ware of medium fabric with internally obliquely cut rim and two carinations on the profile. It is devoid of wash or slip.
23. Dish of orange colour ware with sharpened inturned rim with a groove and flat base. The surface is well burnished and is of medium fabric.
24. Dish of grey ware with rounded profile and rim. It has flat base and is treated with grey slip internally. It is of medium fabric.
25. Dish of grey ware with almost straight sides and flat rim. It is of fine fabric and treated with slip.
26. Dish of black ware with round rim and profile. It is of medium fabric and is black burnished both externally and internally.

Fig. 11

27. Bowl of Northern Black Polished Ware with featureless rim. It is of medium variety.
28. Bowl of red ware with flat rim. It is of medium fabric and is treated with red slip internally.
29. Bowl of grey ware with sharpened rim and rounded base. It is of fine fabric and treated with dark grey slip both externally and internally.
30. Bowl of grey ware of medium fabric. It has sharpened rim, rounded base and is devoid of wash or slip.
31. Bowl of grey ware with vertical inturned rim, carination near the sagger base. It is of medium fabric.
32. Bowl of grey ware of fine fabric with collared rim, slanting sides and sagger base. It is treated with dark grey slip on both sides.
33. Bowl of grey ware with internally bevelled rim. It is of medium fabric and treated with dark grey slip on both sides.
34. Bowl of Northern Black Polished Ware with splayed-out rim and vertical sides. It is of medium fabric and golden colour.
35. Lid-cum-bowl of dull red ware of medium fabric. It is treated with red slip both externally and internally.
36. Lid-cum-bowl of black ware of fine fabric. It is black burnished.
37. Lid-cum-bowl of red ware with obliquely splayed-out rounded rim, and four horizontal lines inside the rim. It is of medium fabric and is treated with red wash on both sides.
Fig. 11. Pottery from period I.
38. Bowl of grey ware with round profile and featureless rim. It is of fine fabric and treated with grey wash on both sides.

39. Lid-cum-bowl of red ware of fine fabric with obliquely splayed-out, internally round collared rim and tapering sides. It is devoid of wash or slip.

40. Bowl of black ware with externally bevelled rim and tapering corrugated profile. It is of fine fabric and has fine black polish.

41. Bowl of Northern Black Polished Ware of medium variety, it has round rim and profile with lustrous golden polish.

**Fig. 12**

42. Bowl of black ware with vertical featureless rim, corrugated sides and rounded base. It is of fine variety and black burnished both externally and internally.

43. Bowl of Northern Black Polished Ware with internally bevelled rim. It is of medium fabric and the colour is steel-black.

44. Bowl of black ware with sharpened rim and round profile. It is of fine variety and treated with black slip both internally and externally.

45. Bowl of black ware with internally bevelled rim and corrugated sides. It is of fine variety and treated with black slip both externally and internally.

46. Bowl of dull red ware with tapering sides and slightly splayed-out rim. Of medium fabric, it is devoid of wash or slip.

47. Bowl of ashy grey ware with partially straight sides and a groove inside the rim. It is of fine variety and treated with grey slip on both sides.

48. Bowl of black-and-red ware with horizontally splayed rim, straight sides and round base. It is of fine variety.

49. Bowl of grey ware of medium variety with internally bevelled rim, and round base. It is treated with grey slip on both sides.

50. Miniature pot of red ware with vertical neck and internally chamfered rim. It has ring base, a groove and floral design on the shoulder. It is of fine variety and treated with red slip externally.

51. Bowl of red ware with inturned and externally beaded rim. There is a groove on the body and a carination at the base. It is of medium fabric and treated with red slip externally.

52. Slightly carinated bowl of grey ware with inturned rim. It is of fine variety and treated with dark grey slip on both sides.

53. Fragment of a vase of red ware with out-turned thickened rim and gritty core. It is of medium variety and devoid of slip or wash.

54. Fragment of a vase of black-and-red ware of coarse variety with externally thickened rim. It is devoid of slip or wash.

55. Bowl of Northern Black Polished Ware with sharpened rim and round base. It is of fine variety and the colour is steel-black.

56. Bowl of Northern Black Polished Ware with almost vertical sides and ridge near the base. It is of fine variety and the colour is steel-black.
Fig. 12. Pottery from period I.
57. Upper portion of a large jar of black-and-red ware with internally thickened rim and perched on the neck with an inner carination. It has a small ridge just near the neck. It is of coarse variety and smeared with mica pieces both externally and internally.

58. Basin of black-and-red ware with an internally clubbed rim. Of coarse variety and is devoid of wash or slip.

59. Upper portion of a large jar of black-and-red ware with internally thickened rim but more pointed at the top. It has a small ridge on the exterior of the neck. It is of coarse variety and has gritty core.

60. Basin of black-and-red ware with internally collared and externally chamfered rim. It has a small ridge below the rim. It is of coarse variety and has gritty core.

61. Upper portion of a large jar of red ware with internally clubbed rim and an inner carination at the neck. Of coarse variety and is devoid of wash or slip. It has thick gritty section and smeared with sand on both sides.

62. Upper portion of a large jar of black-and-red ware with internally collared and externally bevelled rim. It has inner carination at the neck and has a small ridge above the neck. It is of coarse variety and devoid of wash or slip.

63. Upper portion of a large jar of black-and-red ware with almost vertical sides and externally collared rim. Of coarse variety, it is devoid of wash or slip.

64. Variant of above.

65. Variant of No. 63.

66. Upper portion of a large jar of black-and-red ware with inturned thickened, externally bevelled rim and inner carination at the neck. It is of coarse variety and devoid of wash or slip.

67. Fragment of a basin of black-and-red ware with slightly inturned rim. It is devoid of wash or slip and is of coarse variety.

68. Upper portion of a large jar of black-and-red ware with internally clubbed rim and inner carination at the neck. It has a small ridge above the neck. It is of coarse fabric and not treated with wash or slip.

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Fig. 14

69. Fragment of a basin of red ware with horizontally out-splayed nail headed rim. It is of medium fabric and treated with red wash internally.

70. Fragment of a basin of red ware with everted and internally bevelled rim. It is of medium fabric and treated with red wash both externally and internally.

71. Fragment of a rimless hāndī of grey ware with carination at the shoulder. It is of medium fabric and devoid of wash or slip.

72. Fragment of a basin of red ware with short flaring, internally bevelled rim and round profile. It is of medium variety and treated with red wash on both sides.

73. Fragment of a vase of red ware with everted, flat topped rim. It is of medium variety and it has been treated with red slip on both sides.

74. Fragment of a basin of red ware with slightly everted rim and round base. It is of medium fabric and has red wash on the rim and in the interior of the pot.
Fig. 18. Pottery from Period I.
75. Fragment of a vase of red ware with wide mouth, everted rim and round profile. It is of medium fabric and has red wash both internally and externally.

76. Basin of black-and-red ware with collared rim. It is of medium fabric and devoid of wash or slip.

77. Basin of red ware with an inturned externally round collared rim distinguished by a lip. Of medium fabric, it is treated with red slip externally. The type is abundant at Kausambi and Vaisali.

78. Basin of black-and-red ware with inturned thickened rim. Of medium fabric, it has gritty core and is smeared with coarse sand on both sides.

79. Rim of a vase of black-and-red ware with externally square thickened rim and a depression at the top of the rim. It is of medium fabric and has gritty core.

80. Fragment of a basin of brown red ware with thick, inturned rim and a external groove at the shoulder. Of medium fabric, it is treated with red slip both externally and internally.

81. Fragment of a basin of grey ware with inturned rim and a groove at the neck. It is distinguished by a lip. Of medium fabric, it is treated with dark grey slip externally.

82. Fragment of a basin of grey ware with inturned, externally round collared rim. Of medium fabric, it is treated with grey slip both externally and internally.

83. Fragment of a basin of black-and-red ware with thickened inturned rim. Of coarse fabric, it has gritty core.

84. Fragment of a basin of dull red ware with inturned, thickened nail headed rim and two carinations on the profile. Of medium fabric, it is treated with pinkish slip inside and black wash on the exterior.

Period II

The potteries of the second group constituted entirely of red ware. Majority of them were either treated with red wash or red slip but the number of specimens without any kind of external treatment was not totally absent. Firing was uniformly good and the types met with were very simple and ranged from medium to coarse fabrics. The types included (a) miniature vase (b) basin (c) bowl (d) conical bowl (e) rim of vases and shallow dishes.

The following selected examples are illustrated here:

Fig. 15

85. Shallow plate of red ware with obliquely splayed-out rim and thick concave sides. Of medium fabric, it is devoid of wash or slip.

86. Shallow plate of red ware with splayed-out round rim. It is of medium fabric and not treated with wash or slip.

87. Carinated dish of deep red ware with a concave profile above the carination. It has sharpened rim and sagger base. Of medium fabric, it is treated with red wash on both sides.

88. Bowl of red ware with tapering sides, inturned rim and flat base. It is of fine fabric and devoid of slip or wash.

89. Miniature pot of dull red ware with convex profile and slightly everted rim. Of medium fabric, it is treated with red wash at the neck and shoulder and the surface of the pot is sand smeared.
Fig. 15. Pottery from period II.
90. Miniature handi of dull red ware with flanged waist, oblique shoulder, slightly everted and internally chamfered rim. There is depression inside the pot in between base and waist. It is of medium fabric and treated with red wash externally.

91. Miniature vase of ochre colour ware with vertical neck, featureless rim and tapering body towards the flat base. Of medium fabric, it is devoid of wash.

92. Miniature vase of dull red ware with round profile and out-turned thickened rim. The outer surface bears design and is of medium fabric.

93. Miniature earthen lamp of red ware. It is distinguished by a small lip and is devoid of wash or slip.

94. Small vase of red ware with flared beaded rim, a short concave neck and a groove at the neck. Of fine fabric, it is treated with deep red wash externally.

95. Miniature vase of red ware with flat rim and groove near the base. Of medium fabric, it is treated with red wash externally.

96. Miniature vase of dull red ware with almost vertical neck, globular profile and a narrow flat base. Of medium fabric, it is devoid of slip or wash.

97. Miniature vase of dull red ware with spreading mouth. Of medium fabric, it is treated with dull red wash externally.

98. Miniature vase of ochre colour ware with flared rim, slanting sides and a narrow flat base. Of medium fabric, it is treated with red wash externally.

Fig. 16

99. Miniature pot of red ware with splayed-out rim and parallel sides. It has groove at the waist and has round base. Of medium fabric, it is treated with black slip both externally and internally.

100. Miniature pot of red ware with externally collared rim, vertical sides and sagger base. Of medium fabric, it is devoid of wash or slip.

101. Small cup of pale red ware with moderately high sides. The rim is slightly out-turned and has sagger base. Of medium fabric, it is devoid of wash or slip.

102. Miniature cup of light red ware with externally bevelled rim and flat base. Of medium fabric, it is devoid of wash or slip.

103. Miniature pot of red ware with concave neck, corrugated body and narrow flat base. Of medium fabric, it is treated with red wash externally.

104. Miniature cylindrical pot of dull red ware with flat base, ridged profile and long slanting sides. Of medium fabric, it is devoid of wash or slip.

105. Miniature vase of red ware with globular profile, flat base and vertical neck. Of medium fabric, it is treated with red slip externally.

106. Miniature vase of red ware with a flaring mouth, round profile and sagger base. It is of medium fabric and treated with deep red wash externally.

107. Miniature vase of red ware with concave neck, bulged profile, wide mouth and flat base. It is of medium fabric and treated with dull red slip externally.

108. Miniature bowl with tapering sides, slightly inturned rim and flat base. Of medium fabric, it is devoid of wash or slip.

109. Miniature pot of dull red ware with globular profile, short vertical neck, featureless rim and flat base. It is of medium fabric and devoid of wash or slip.
Fig. 16. Pottery from period II.
110. Fragment of a vase of dull red ware of medium variety with grooved rim and concave neck. It has gritty core and sand smeared surface and is devoid of wash or slip.

111. Fragment of a vase of light red ware with out-turned and under cut rim. It has gritty core, mica smeared body and is of coarse variety.

112. Fragment of a vase of red ware with thickened flared rim and gritty core. It is of medium variety and treated with red wash on both sides.

113. Fragment of a vase of pale red ware with externally beaked rim, concave neck and gritty core. It is of medium fabric and has sand smeared surface. It is devoid of wash or slip.

114. Fragment of a vase of red ware with beaded rim, short neck, round profile and mica smeared surface. It is of medium fabric and devoid of wash or slip.

115. Fragment of a vase of deep red ware with slightly inturned corrugated rim. It is of medium fabric and treated with red wash on the exterior only.

116. Fragment of a vase of red ware with vertical featureless rim and has ridge near the rim. It is of medium fabric and treated with red wash externally.

117. Fragment of a vase of dull red ware with thickened flat rim. Of medium fabric, it is devoid of wash or slip and has sand smeared surface.

118. Fragment of a vase of red ware with externally collared rim. Of medium fabric, it is devoid of wash or slip.

Fig. 18

119. Fragment of a jar of red ware with inturned flattened rim. Of coarse fabric, it has gritty core, sand smeared surface and a groove at the neck. It is devoid of wash or slip.

120. Fragment of a vase of red ware with flared rim, concave neck and a groove at the shoulder. It is of medium fabric and has sand smeared surface.

121. Fragment of a vase of red ware with obliquely splayed-out rim and short neck. The body starts abruptly from the neck. It is of medium fabric and treated with red wash externally.

122. Fragment of a vase of red ware with slightly everted rim and groove at the neck. Of coarse fabric, it has mica smeared surface and is devoid of wash or slip.

123. Fragment of a vase of pale red ware with externally beaded rim and carination at the neck. Of coarse fabric, it is treated with red wash externally.

124. Fragment of a vase of red ware with short everted rim. It is of medium fabric and has sand smeared surface. It is devoid of wash or slip.

125. Fragment of a vase of dull red ware with short neck with groove and externally chamfered rim. The body starts abruptly from the neck. Of medium fabric and is treated with red wash on both sides.

126. Fragment of a vase of red ware with flaring rim, grooves at the shoulder and profile. Of medium fabric, it is treated with red wash externally.

Fig. 19

127. Fragment of a basin of red ware with inturned rim. Of medium fabric, it has red wash on the exterior of the basin.

128. Fragment of a basin of light red ware with everted rim and rounded sides. Of medium fabric, it is devoid of wash or slip.
129. Fragment of a basin of pale red ware with hammer headed rim and round base. It is devoid of wash or slip and is of medium fabric.

130. Fragment of a dish of red ware with thickened rim and slight corrugation on the exterior. Of medium fabric, it is devoid of wash or slip.

131. Fragment of a vessel of red ware with short everted rim, internally ribbed neck and globular profile. It is of medium fabric and treated with red slip both externally and internally.

132. Fragment of a bowl of dull red ware with vertical sides and slightly out-turned rim. Of medium fabric, it is devoid of wash or slip.

133. Fragment of an incense burner in red ware with thick flat rim and oblique sides. It is of medium fabric and treated with red wash externally.

134. Fragment of a vase of red ware with short vertical rim and globular profile. There is one perforation near the neck. Of medium fabric, it is treated with red slip both inside and outside. The body starts abruptly from the neck.

135. Fragment of a dish of dull red ware with featureless rim, carination at the waist and saggar base. It is of medium fabric and is devoid of wash or slip.

136. Fragment of a basin of light red ware with obliquely clubbed rim and two grooves on the profile. It is of medium fabric and treated with red wash externally.

137. Fragment of a dish of orange red ware with inturned rim, rounded sides and saggar base. It has red slip on both sides and is of medium fabric.

138. Fragment of a shallow bowl of brown red ware with inturned rim, tapering sides and flat base. There is corrugation in the interior of the bowl. It is of medium fabric and treated with red wash both externally and internally.

139. Fragment of a basin of light red ware with obliquely splayed-out and internally corrugated rim. Of medium fabric, it is devoid of wash or slip.

Period III

The potteries of the third group comprised of glazed ware and common red ware. In the glazed ware, a shallow plate with splayed-out rim and floral design inside (Fig. 20, no. 140) came to light. The exterior surface of the plate was devoid of any kind of design, wash or slip. The painting inside the plate was probably executed before it was coated with a film of glaze. Other common potteries in this group that came to light were (a) shallow plate with obliquely splayed-out rim (b) hāndī with ridged carination (c) water vessel with ring base and (d) shallow bowl. They were available in medium to fine fabrics.

The following selected examples of this group are described here:

Fig. 20

140. Fragment of a plate of glazed ware with obliquely splayed-out rim and convex waist. The interior surface of the plate is crackled and painted in blue and green colour. The design on the splayed-out portion of the plate is of a creeper which is enclosed within two circles. The inner portion is coated with a film of glaze.

141. Pot of red ware with long ridged neck and tapering body towards the base. It has groove at the shoulder and a ring base. Of medium fabric, it is treated with vermilion red slip on the exterior.
142. Fragment of a **hāndī** of red ware with ridged carination at the waist, flared thickened rim and short concave neck. There is groove below the neck. It is of medium fabric and treated with red wash from the neck to the waist on the exterior and interior.

143. Fragment of a plate of red ware with obliquely splayed-out rim and flat base. Of medium fabric, it is devoid of wash or slip.

144. Miniature cup of dull red ware with vertical sides, externally chamfered rim and a base with trimmed edge. Of medium fabric, it is devoid of wash or slip.

145. Water vessel of red ware with long neck, slightly everted rim and globular profile. Of medium fabric, it is treated with red slip externally and decorated with white horizontal lines near neck, shoulder and profile. It has ring base.

146. Shallow bowl of dull red ware with featureless rim, carination at the waist and flat base. Of coarse fabric, it is devoid of wash or slip.
8. OTHER FINDS

(i) TERRACOTTA FIGURINES

(a) Human figurines—Quite a good number of human figurines came to light from all the three periods but majority of them were from period III. The human figurines discovered from the lower levels of period I were hand modelled and evinced poor workmanship (Pl. X). Those discovered from the mid and upper levels were beautifully modelled and their ornaments, hairs and ears were shown by applique technique (1 and 6, Pl. XI). The plaques depicting female figurines were entirely produced out of moulds and they were truly specimens of finished art (2, 3, 4, 5 and 7, Pl. XI).

Majority of the figurines unearthed from period II were hand-made but stray moulded specimens were also recorded. The hand-made specimens were crude and clumsy and differed entirely in technique and theme from the specimens of the previous period. The two terracotta heads (pl. XII) displayed ferocious look. Their head-dresses appeared to be outlandish, one of the heads had tenon below which was probably intended for inserting into hollow cylindrical body. The nai-gamesa figurines of the period were entirely hand modelled and they evinced lack of imagination of the artists (Pl. XIII B).

Period III yielded only the moulded figurines. The female figurines outnumbered the male figurines. The garments on the female figurines were heavy and flowing.

Here some selected specimens are illustrated below:

Plate X

1. Standing male figurine with animal like face, the mouth has been indicated by a deep horizontal cut just below the nose. There is a small conical projection towards the left side of the head, arms and the left leg are broken, the right leg has been rendered as conical stump. The impressed circles over the body are intended to indicate the eyes, the breast and navel portion. From period I (BHL-149). Ht. 1.75".

2. Standing male figurine with snout like face slightly raised towards sky, mouth has been indicated by a deep cut below the nose and are small conical projection to the left of head. The figure is holding both the arms in his lap. The right leg is completely broken and the left is missing from the knee. The circles are representing the eyes, breast and the navel portions. From period I (BHL-203). Ht. 2.00".

3. Standing male figurine with animal like face and gaping mouth, pinched head and ear, short arms and leg stumps ending in fins, ringlets impressed for eyes, nipples and navel. From period I (MBT-609). Ht. 2.25".

4. Standing male figurine with stretched legs held slightly apart, the right hand held across the chest, left arm and leg are completely broken, pinched head and nose, the nostrils have been indicated by two small holes and mouth by a small horizontal cut near the chin; hair, fingers of hands and legs have been indicated by notches and impressed ringlets stand for eyes, nipples and navel portion. It is treated with red wash. From period I (SKR-102). Ht. 3. 50".

Plate XI

1. Torso of female figurine with nicely modelled breasts and a plain ornament affixed round the neck. From mid level of period I (MBT-B 903). Ht. 2.50".
2. Broken plaque depicting a deity, probably a female goddess standing on a lotus throne. The portion from the knee is visible which is covered with under garment (probably sārī). The folds of the under garment have been nicely executed. The lotus buds have been nicely rendered. The edge of the plaque is rectangular. From period I (BHL-266). Ht. 2.40".

3. Broken plaque showing running stags. The figure of one of the stags is completely preserved and front portion of the rest is broken. From period I (MBT-A-10). Length 2.25".

4. Broken plaque showing two seated female figurines. Both of them are heavily ornamented. Their head-dresses are very elaborate consisting of two lateral masses of turban. There is a suspension hole in the upper portion of the plaque which suggests that it was inserted on walls as object of decoration. From period I (MBT-A-867). Ht. 2.12".

5. Oval shaped plaque depicting head of a beautiful young woman with round face and flat nose. The depression round the lips and the eye brows is very pronounced. She is wearing a heavy head-dress which is decorated with double rows of ribbons terminating at the top of the head. The hair has been shown by dots which is visible at the forehead. The edge of the plaque is decorated with hollow squares. From period I (MBT-618). Breadth 1.25".

6. Head of a female with open eyes and smiling round face. Conspicuous is the exceedingly high forehead affixed to which are two ball-like objects (probably mass of hair) which are hanging on both sides of the forehead. She is wearing a cup like ear-ring in the left ear and in the right the ornament is missing. Nose and ridges of the eye brows have been carefully modelled. The depression around the lower and upper lip is very pronounced. She is wearing a close fitted ornament bearing incised design in her neck. From period I (BHL-20). Ht. 3.00".

7. Broken plaque depicting a beautiful woman who is dressing herself. She has open eyes, flat nose, oval face and parted lips. The head-dress appears like a turban which is probably tied with a pearl-string just near the right ear. She is wearing head-necklace round her neck and is holding probably an antimony rod in her right hand. The left palm is outstretched. The plaque has decorative border. From Period I (MBT-873). Length 1.75".

Plate XII

1. Head of a male with high forehead, eye brows, eye sockets and pupils prominently shown, prominent nose, thick protruding lips, thick applique ears with button like ear-ring in the left ear, has fan shaped head-dress. It is made of red clay and treated with red wash. From period II (GPP-347). Ht. 4.00". Breadth 3.75".

2. Head of a male with elongated face and broad forehead, hair tied in a knot at the top of head which is perforated, lenticular eyes, pupils shown by voids, nose broken, thick parted lips, applique ears with perforation. There is a tenon below the neck. It is made of red clay and treated with red wash. From period II (GPP-400). Ht. 4.62".

Plate XIII-A

1. Head of a beautiful woman with naturalistic modelling, prominent nose and oval eyes, depression around mouth very pronounced, ridges of the eye brows gracefully modelled, hair parted towards right side, left part of the hair is decorated with flower like object. From period II (MBT-153). Ht. 2.25".

2. Head of female figurine with fercious look having double round ear-rings in the left ear, the right ear is completely broken, oval eyes with dots and flat nose, hair shown by incised lines over the forehead which is covered up with a diadem. It is treated with grey slip. From period II (MBT-A-873 A). Ht. 1.50".
Plate XIII-B

1. Bust of a female naigamesa with broken arms and goat-like face, open mouth, dangling pierced ears, prominent breasts, conical hair crest on head with a hole. Red terracotta, red wash, unstratified (BHL-141). Ht. 2.50". Hand-made.


3. Female naigamesa figurine with broken legs, goat-like face, double dangling pierced ears, hooked nose, slit mouth, breast just below the neck, left arm broken, right arm convex. Red terracotta, no wash or slip. From period II (MBT-522). Ht. 3.50". Hand-made.

Plate XIV

1. Head of a woman with open eyes, fleshy cheek, parted lips and pointed nose. The hair has been tied together in a spiral-like knot. Red terracotta, traces of lime on the face and on knot of the hair. Ht. 2.40" (MBT-A-117). Mould-made. From period III.

2. Head of a woman with smiling round face and open eyes. Tops in the ears, head covered with sari. Red terracotta, no wash. Ht. 2.25" (MBT-A-130). Mould-made. From period III.

3. Head of a woman wearing crown which is bedecked with stars, open eyes, pointed nose, smiling face. Red terracotta, traces of lime wash. Ht. 2.75" (MBT-A-116). Mould-made. From period III.


5. Head of a woman with broad forehead fringed with double pearl-string, locks of hair arranged at the top of head which is now broken. Nose, ear, lips have been nicely executed. Red terracotta, traces of lime wash on the face. Ht. 2.50" (MBT-72). Mould-made. From period III.

6. Head of a woman with high forehead, drooping eye lids, nose broken, some ornament in the left ear, head decorated with two applique lines. Red terracotta, no wash or slip. Ht. 2.25" (MBT-A-119). From period III.

(b) Animal Figurines—The excavation yielded 170 animal figurines. The animal figurines from period I were hand-made and were invariably impressed with circlets and incised lines. Often the legs of the animals were holed so that the figurines could be fitted with wheels. These figurines were obviously objects of play for the children. The figurines of period II were inferior to the figurines of the previous period in workmanship. They were of conventional type and displayed less imagination of the maker. They were underfired and devoid of any kind of surface treatment. Of period III, the figurines were generally mould-made but stray hand-made specimens were also recorded. Firing was uniformly good but were devoid of wash or slip.

The selected examples are illustrated below:

Plate XV

1. Hand modelled figure of horse with broken head and front legs. Manes shown by oblique incised lines. The back of the animal is decorated with circlets. Red terracotta, traces of red wash. Length 3.25" (MBT-A-937). From period I.
2. Hand modelled figure of a horse with broken mouth and legs. It has impressed circlets over the back. Red terracotta, red wash. Length 3.25" (BHL-226). From period I.

3. Hind portion of a horse with damaged right leg. Oblique incised lines over hip and tail and vertical lines over the back. The left leg is holed. Red terracotta, traces black slip over the body. Length 4.25" (GPP-510). From period I.

4. Head of a ram with lozenge eyes. The horns have been prominently shown and are decorated with incised lines. Red terracotta, traces of red slip. Length 2.25" (SKR-71). Unstratified.

5. Front portion of a horse with prominent ridge near the eye (probably to indicate ears), stump legs, right leg is broken, manes shown by incised lines, impressed circlet stands for eyes. Red terracotta, red slip. Ht. 3.25" (MBT-A-961). From period I.

6. Figure of a horse with short tail, mouth and hind legs completely broken, stump legs, manes shown by incised lines, back of the animal decorated with impressed circlets. Red terracotta, red slip. Length 3.75". Ht. 3.25" (MBT-A-958). From period I.

7. Figure of a tortoise with more naturalistic modelling, eyes shown with impressed circlets, fingers indicated by incised lines, flat star-shaped body decorated with oblique incised lines and circlets. Red terracotta, red slip. Length 2.50". Breadth-2.00" (MBT-A-999). From period I.

8. Figure of a stout horse with prominent ridge near the head, holed muzzle, manes shown by oblique lines, right leg and the hind portion broken. Red terracotta, red slip. Ht. 3.00" (GPP-472). From period I.

9. Figure of a ram of conventional type, front legs and hind portion broken, twisted horns, eyes shown by punched circlets. Red terracotta, red slip. Ht. 1.00" (MBT-259). From period I.

10. Figure of a cock of conventional type with holed tenon below, pellet affixed on the body, neck decorated with incised lines, simple shape. Red terracotta, dull red slip. Ht. 2.25". Unstratified.

11. Fish lying on a stand, front portion broken, body decorated with incised lines and circlets. Red terracotta, traces of black slip. Length 2.50". Ht. 1.50" (MBT-A-1009). From period I.

Plate XVI A

1. Broken snake hood with hole in the muzzle, eyes shown by two punched circles, vertical incised lines over neck and mouth. Grey terracotta with black slip. Length 2.25". Breadth 0.62" (MBT-A-752). From period I.

2. Broken snake hood with conical mouth, hole in the muzzle, vertical lines over neck and conical portion of the mouth, eyes shown by punched circles. Dull red terracotta. Length 1.75". Breadth 0.75" (MBT-140). From period I.

Plate XVI B

1. Crudely hand modelled figure of a dog, hind portion broken, front leg stump, muzzle holed, not fully baked. Dull red terracotta, no wash or slip. Hand-made. Length 3.25". Breadth 1.50" (MBT-152). Form Period II.

2. Bird with hollow body, pinched beak and head, neck holed, tail slightly raised upwards, holed across stomach probably to fix wheels. Red terracotta, no wash or slip. Length 3.50". Breadth 2.00" (MBT-A-781A). Hand-made. From period II.
Terracotta human figurines from lower level of period I. See pages 10 and 41.
Female terracotta figurines and a plaque showing running stags from mid and upper levels, period I. See pages 10 and 41.
PLATE XIII

1. Terracotta naigamesa figurines, period II. See page 43.
A. Terracotta female figurines, period II. See page 42.
Terracotta female figurines, period III. See pages 12 and 43.
Terracotta animal figurines, period I. See pages 11 and 43.
A. Terracotta nāga hoods, period I. See page 44.
B. Terracotta animal figurines, period I & II. See page 44.
OTHER FINDS

3. Bird with hollow body, applique eyes, tail raised upwards, wings shown by oblique incised lines, hole in the neck. Red terracotta, red slip. Length 3.50". Breadth 2.50" (SKR-30). Hand-made. From period I.


5. Crudely modelled tortoise, eyes indicated with pellets, hind portion broken, hollow back, not completely baked, no wash or slip. Length 2.75". Breadth 1.75" (MBT-595). Hand-made. From period II.


Plate XVII

1. Moulded figure of an elephant, eyes are not shown, ear and legs are very prominent. Trunk held in between the two front legs. Red terracotta, no wash or slip. Length 2.00". Ht. 1.70" (MBT-A-236). Mould-made. From period III.

2. Hand modelled figure of a running elephant, trunk and front legs broken, ear and head carefully modelled. Red terracotta, red slip. Length 7.50". Ht. 2.75" (MBT-A-853). From period III.

3. Hand modelled figure of a swan with long neck, beak and broken tail. Red terracotta, traces of white lime over the body. Length 3.00". Ht. 2.75" (MBT-A-273). From period III.

4. Moulded figure of a bird on a pedestal, head broken, tail raised upwards, wings indicated by oblique incised lines. Red terracotta, traces of lime wash over the body. Length 2.00". Ht. 1.75" (MBT-55). From period III.

5. Hand modelled figure of an elephant, eyes not shown, trunk, tusks and ears prominently shown, tail rests on the hind leg. Red terracotta, traces of red wash. Length 3.75". Ht. 2.25" (MBT-A-28). From period III.
(ii) MISCELLANEOUS TERRACOTTA OBJECTS

(a) EAR LOBES (Pl. XVIII-A)

Thirty ear lobes were discovered from the excavation. They were of various shapes and designs and were wheel-made.

The selected examples of the ear lobes are as follows:

1. Ear ornament of dull red ware showing concentric circles on both the ends with projection in the front side and depression in the back. From period I (SKR-24). Ht. 2.50".

2. Ear ornament of black ware having concentric circle at both the ends. There is small perforation in the centre of the front end. From period II (GPP-372). Ht. 1.18".

3. Ear ornament of black ware showing concentric circles on both the ends with projection in the front and depression in the back. From period II (MBT-550). Ht. 1.55".

4. Ear ornament of red ware with a hole in the centre and concentric circles at the two ends. It is treated with red wash. From period II (MBT-171). Ht. 0.48".

5. Ear ornament of dull red ware. Concentric circles at both ends and a hole in the centre. From period II (BHL-224). Ht. 0.52".

6. Ear ornament of red ware with concentric circles in the front end, the back portion is plain. From period I (BHL-220). Ht. 1.04".

(b) PENDANTS (Pl. XVIII-B)

Altogether 20 pendants came to light of which one was made of soap stone. All the terracotta pendants were produced out of moulds and were available in grey, black and red wares. Here only representative types are illustrated:

1. Pendant of black ware depicting lotus like flower. It is circular in design and has two vertical holes. From period II (MBT-592). Dia. 0.64".

2. Moulded pendant of red ware showing a circular floral object flanked by fish. It has two vertical holes to insert thread through it. From period II (MBT-A-638). Length 1.00". Breadth 0.92".

3. Pendant of dull red ware showing floral design. It has two vertical holes. From period II (G. P. P. 383). Dia. 0.64". Moulded.

4. Pendant of soap stone. Upon a lotus flower a pot bellied man wearing necklace, armlet and circular ear-rings is sitting. Both the thighs of the man are being swallowed by two fishes. It has two vertical holes. From period II (MBT-350). Length 1.56". Breadth 1.56".

5. Moulded necklace with two horizontal holes. From period II (MBT-774). Ht. 1.25".

(c) SKIN RUBBERS (Pl. XIX-A)

1. Broken circular skin rubber of grey colour showing notches. From period II (MBT-78).

2. Square skin rubber of dull red ware bearing net design on both the sides. One of sides of the square is 2.44". From period I (MBT-697).
3. Broken circular skin rubber of red ware showing impressed square designs on both sides. From period II (MBTA-325). Dia. 3.82".

4. Broken circular skin rubber with triangular dots on one side and floral design on the other. From period II (SKR-A-171). Dia. 4.24".

(d) WHEELS (Pl. XIX-B)

1. Wheel of red ware with hubs projecting on both sides, not well shaped, treated with red wash. From period II (SKR-56). Dia. 3.25".

2. Double convex wheel of vermillion red ware with a small hole in the centre. From period I (BHL-244). Hand-made. Dia. 2.05".

3. Wheel of dull red ware with short hubs on both sides, not fully baked. From period II (MBT-A-779). Dia. 1.68". Hand-Made.

4. Hand-made wheel of dull red ware with a hole in the centre to hold the axle. The edge of the wheel is not evenly cut. It is devoid of wash or slip. From period I (MBT-1212). Dia. 2.50".

5. Double convex wheel of dull red ware with a hole in the centre. Devoid of wash or slip. From period II (MBT-564). Dia. 2.50".
(iii) STONE OBJECTS

The excavation brought to light a good number of stone pieces bearing lustrous Mauryan polish from one of the sites known as Shah-Kamal Road. These stone pieces were probably parts of a stone building of the Mauryan age. One of the pieces measured $6 \times 3$ feet and had bead-and-reel pattern over it. The discovery of the mutilated couchant bull suggested the possibility of existence of Asokan pillar at the site.

The important stone objects are described below:

1. Couchant bull of chunar sand stone, front and tail portion broken, bears Mauryan polish. From period I (SKR-130). Ht. 1.50". Length 2.2" (pl. XX).


(iv) OTHER STONE OBJECTS

Plate XXIII

1. Casket lid of steatite with a knob handle and incised floral design on the outer surface. From period II (BHL-109). Dia.1.62".

2. Casket lid of white stone with knob handle having a circular groove on the outer surface. From period II (MBT-110). Dia.1.75".

3. Casket of steatite without lid with short vertical featureless rim. From period II (BHL-218). Ht. 0.62".


(v) COINS

Quite a good number of coins were picked up from the excavation. Majority of them were in worn-out condition but 22 were in fair state of preservation.

The coins discovered from the sites have been divided into four groups viz (1) Punch-marked coins (2) uninscribed cast coins (3) coins of the lanky bull type of Kausambi and (4) Muslim coin.

The punch-marked coins both in silver and copper were rectangular in shape and bore punched symbols like Sun, caduceus etc. They occurred from the mid level of period I and continued down to the lower of period II.

The uninscribed cast coins were in general of rectangular shape and the symbols on them were 'tree in railing', hollow cross, 'taurine', 'elephant' 'Swastika', 'V shaped banner' etc. but a few circular examples were also recorded. The metal of the cast coins was invariably copper. These uninscribed cast coins were found in association with the punch-marked coins and continued down to the lower level of period II though a few pieces also survived in the upper levels of period II.
A. Terracotta ear lobes, 1 and 6, period I; 2, 3, 4 and 5 lower level of period II. See pages 11 and 46.
B. Terracotta pendant and necklace, 1, 2, 3 and 5, period II; a soap stone pendant, 4, period II. See pages 11 and 46.
Mauryan polished couchant bull, period I. See page 48.
Fragment of a Mauryan polished stone, period I. See page 46.
Fragment of a Mauryan polished stone showing head-and-reel pattern and floral design, period I. See page 48.
OTHER FINDS

Period III yielded only one silver coin of Shah Alam. Here only the coins with distinct symbols are described below:

(a) PUNCH-MARKED COINS

Plate XXIV.

1. Size: \(0.64\times 0.36\). Wt. 2.750 grams.
   Obv: Indistinct punched symbols.
   Rev: Flat surface.
   Metal—Silver (MBT-A-295). From period I.

2. Size: \(0.76\times 0.70\). Wt. 10.642 grams.
   Obv: Solar symbol, other symbols indistinct.
   Rev: Solar symbol.
   Metal—Copper (MBT-A-629). From period II.

3. Size: \(0.78\times 0.68\). Wt. 8.622 grams.
   Obv: Caduceus and solar symbol.
   Rev: Swastika, other symbols blurred.
   Metal—Copper (MBT-A-710). From period II.

4. Size: \(0.70\times 0.51\). Wt. 8.960 grams.
   Obv: Solar symbol, taurine, other symbols indistinct.
   Rev: Solar symbol, some indistinct animal within a circle and two horn like objects.
   Metal—Copper (MBT-A-791). From period II.

(b) COINS OF THE LANKY BULL TYPE OF KAUSAMBI, COPPER

5. Size: \(0.78\) dia. Wt. 2.440 grams.
   Obv: Tree in railing.
   Rev: Lanky bull standing and facing V. shaped banner to the left.
   Metal—Copper (MBT-A-786A). From lower level of period II.

6. Size: \(0.92\) dia. Wt. 5.962 grams.
   Obv: Tree in railing.
   Rev: Elephant standing and facing V. shaped banner to the left.
   Metal—Copper (GPP-506). From period II.

(c) UNINScribed CAST COPPER COINS

7. Size: \(0.5\) dia. Wt. 1.362 grams.
   Obv: Elephant standing facing left.
   Rev: Crescented three arched hill.
   Metal—Copper (SKR-A-181). From period II.

8. Size: \(0.56\times 0.60\). Wt. 2.140 grams.
   Obv: Elephant with a man on its back facing a banner to the left side.
   Rev: Crescented three arched hill, hollow cross, tree in railing.
   Metal—Copper (MBT-A-911). From period I.

9. Size: \(0.68\times 0.58\). Wt. 3.005 grams.
   Obv: Taurine, swastika, V. shaped banner and elephant.
   Rev: Crescented three arched hill, taurine, hollow cross and tree in railing.
   Metal—Copper (MBT-A-309). From period I.

10. Size: \(0.62\times 0.58\). Wt. 2.230 grams.
    Obv: Elephant, other symbols not clear.
Rev: Crescented hill, hollow cross, taurine and tree in railing.
Metal—Copper (MBT-A-881). From period I.

11. Size: '58" x '54". Wt. 2.824 grams.
Obv: Taurine, swastika, V. shaped banner and elephant.
Rev: Crescented three arched hill, hollow cross, taurine and tree in railing.
Metal—Copper (MBT-A-934). From period I.

12. Size: '60" x '58". Wt. 1.781 grams.
Obv: symbols blurred.
Rev: Crescented three arched hill, hollow cross, taurine and tree in railing.
Metal—Copper (MBT-A-876). From period I.

13. Size: '62" x '58". Wt. 2.915 grams.
Obv: Elephant standing on a ladder like object and facing V. shaped banner to the left. Above the elephant's back are swastika and taurine symbols.
Rev: Crescented three arched hill, hollow cross, taurine and tree in railing.
Metal—Copper (MBT-A-985). From period II.

Obv: Elephant standing on a ladder like object, facing V. shaped banner to the left. Above the elephant's back are the swastika and taurine symbols.
Rev: Blurred.
Metal—Copper (MBT-A-297). From period I.

15. Size: '58" square. Wt. 2.122 grams.
Obv: Taurine, swastika, V. shaped banner and elephant.
Rev: Crescented three arched hill, taurine, hollow cross and tree in railing.
Metal—Copper (MBT-A-858). From period II.

Obv: Elephant standing on a ladder like object, facing V. shaped banner to the left. Above the head of the elephant is swastika symbol and on the back is the taurine symbol.
Rev: Other symbols blurred but tree in railing is clear.
Metal—Copper (MBT-A-703). From period II.

17. Size: '44" x '46". Wt. 1.830 grams.
Obv: Taurine, banner and elephant.
Rev: Crescented three arched hill, hollow cross and tree in railing.
Metal—Copper (MBT-501). From period I.

18. Size: '48" x '46". Wt. 0.630 gram.
Obv: Symbols not clear.
Rev: Only the tree in railing is visible.
Metal—Copper (GPP-114). From period II.

Obv: Elephant facing left, other symbols not clear.
Rev: Symbols not distinct.
Metal—Copper (BHL-33). From period II.

20. Size: '58" x '54". Wt. 2.482 grams.
Obv: Taurine, swastika, V. shaped banner and elephant.
Rev: Crescented three arched hill, hollow cross, taurine and tree in railing.
Metal—Copper (BHL-47). From period II.
21. Size: \(0.57\times 0.52\). Wt. 1.500 grams.
Obv: Swastika, V. shaped banner and elephant.
Rev: Three arched hill, hollow cross and tree in railing.
Metal—Copper (GPP-447). From period II.

22. Size: \(0.62\times 0.54\). Wt. 1.940 grams.
Obv: Elephant, V. shaped banner, other symbols indistinct.
Rev: Crescented three arched hill, hollow cross, taurine and tree in railing.
Metal—Copper (GPP-422). From period I.
(vi) GOLDEN AMULET

Long after the disappearance of the Mughal rule the custom prevailed in several provinces in the old Mughal empire of having golden rings with a square plate attached, bearing one of the legends on the Mughal coins. These were known in Marathi as Moharechi-Anghis, rings with Mohurs. My grand-mother used to have several such rings towards the beginning of present century.

A somewhat similar practice prevailed in India in ancient period. We have so far not discovered any talisman or ring-plate bearing any impressions of the Gupta or Chedi golden coins, though it is possible that the thin gold pieces struck in repoussé with Garuda above and the legend Mahendra Ditya below¹ might have been used as talismans, being filled with lac from behind. These pieces, however, do not imitate any known Gupta gold coin type.

The gold currency of the Kushāṇa empire, though imitating foreign models, seems to have appealed strongly to the fancy of the fair sex. For in distant provinces like Bihar, we come across golden talismans accurately imitating both the obverse and reverse of some of the well known Kushāṇa types. One such talisman was found by Cunningham in the last century, buried below the Vajrāṇa throne at Bodh-Gayā along with punch-marked silver coins, a crescent of thin gold, etc.² The peculiarity of this talisman was that both its sides bore the impression of the bust of Huvishka, as appearing on the obverse of his coin; the corresponding reverse was not given on its back.

In the archaeological excavations carried out by the K. P. Jayaswal Research Institute in the winter of 1956 at Sadargalli in Patna city, we found a somewhat similar talisman. It bore the bust of king Huvishka as on the Bodh-Gayā talisman, but not on both its sides. One side had the bust, but the back side had one of the reverse motifs of the Kushāṇa coinage, viz. goddess Ardāxsho. The two thin golden faces of the talisman must have been joined together by lac; then it was pierced at two places in order to suitably fix it in a necklace. The holes are not punched haphazardly; they are just on either side of the heads of the king and the deity.

This talisman was found 15'8" below the present ground level to the east of the shah-Kamal road in a trial trench dug in an open plot of ground to the south of the house, in whose courtyard Spooner had discovered some fragments of the Mauryan polished Chunar stones in 1912-13.

The description of the talisman is as follows:

Metal, gold; size ≈8; weight, about 20 grains.

Obv. Aureate bust of the middle-aged king to right, wearing a graceful crown. The king wears a long-sleeved coat and holds a corn sheaf (?) in the left hand and a banner (?) across shoulder in the right.

Circular Greek legend, beginning at VIII PAONANO PAO; from IOOHPKI....

* This article was Contributed by Dr. A. S. Altekar, in the J. N. S. I, Vol XX, Pt I, Page 1—3 under the title "A Golden Amulet imitating a coin of Huvishka.

¹ A. S. Altekar, Coinage of the Gupta Empire, PL. XVI, 6.
² Cunningham, Mahabodhi, PL. XXII, 17.
Punch-marked silver coin, period 1; copper punch-marked coin, 3 and 4 from lower level of period 1I; copper lanku bull type, 5 and 6 lower level of period 1I; cast copper coin, 7, 9, 9, 11, 12, 14, 14, 17, 17, and 22, period 1I; 7, 13, 16, 18, 19, and 20, lower level of period 1I; gold amulet, 23, period 1I. See pages 11, 12, and 49.
A. Terracotta beads nos. 4, 5, 6, 7 and 8 period I; 1, 2 and 3, period II. See page 54.
B. Beads of semi-precious stone nos. 9, 20 and 24, period I; 10, 15, 19, 21, 22 and 23, period II; 12 and 18, period III; bone 17, period I; 11, period II; glass 13 and 16, period III; china clay 14, period III. See pages 11, 12 and 54.
Rev. Within dotted border, Goddess Ardooxho standing to left wearing a head- 
dress. Her left hand is on the waist and she is holding a cornucopia in the 
right hand. Symbol in her front and the legend Ap $\Delta o \times po$ behind her 
(pl. XXIV. no 23).

The legend on the obverse is blurred, but it can easily be made out; letters on the 
obverse at XI are cut away by one of the two punches, as also a portion of the top of the 
cornucopia on the reverse.

The gold-smith who imitated this coin type, is fairly successful as far as the reverse is 
concerned; he has, however, done poor justice both to the Greek legend and to the bust of the 
king on the obverse. The king appears to be care-worn and dejected. On the gold talisman 
found at Bodh-Gaya, the entire Greek legend is boldly and distinctly engraved.

A large number of Kushâna coins have been discovered in Bihar. A hoard of nearly two 
hundred kushâna copper coins, extremely worn out, was found in Buxar near the summer bed of 
the Ganga (ante, XII. 121) and about 50 were found in the Pataliputra excavations. In 
this year’s excavations at Vaishali we came across two or three Kushâna copper coins. Copper 
coins of the Kushânas were found in the former Mayurabhanja state, sometimes singly and 
sometimes in hoards, often consisting of as many as 112 coins (ante, XIII. 108). The Puri 
Kushâna coins are obviously due to the imitation of the Kushâna currency.

On the strength of this evidence some scholars, including myself, hold that the Kushâna 
rule was probably well established in Bihar and Orissa at least for a few decades. Others like 
P. L. Gupta hold that the occurrence of these coin is due to mere commercial intercourse.

The present talisman along with the other found at Bodh-Gaya show that the gold 
Kushâna currency was so common that the ladies of Bihar had taken a fancy for some of its 
types and ordered the gold-smiths to prepare talismans in their imitation. Whether this would 
have been possible if the coins had come only by commercial intercourse has got to be 
considered.
(vii) BEADS

Two hundred and fifty beads came to light from the excavation. Out of which two hundred alone were terracotta beads. The terracotta beads, specially the vase shaped occurred right from the earliest level of the site. The beads of semi-precious stones such as carnelian, agate, quartz and chalcedony and also of bone made their appearance from period I, and continued down to period III. The glass beads were mostly from period III but stray examples were also met with in period II. The representative types of the beads are described below—

<table>
<thead>
<tr>
<th>Plate XXV-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Terracotta : Spherical, incised with a melon shaped pattern, projecting hubs at both the ends. From period II (GPP-517).</td>
</tr>
<tr>
<td>2. Terracotta : Spherical, incised with net pattern, hubs on both the ends, black slipped. From period II (MBT-A-634).</td>
</tr>
<tr>
<td>3. Terracotta : Circular, dotted design on the body, black slipped. From period II (MBT-A-731).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plate XXV-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Carnelian : Drum shaped with one white band. From period II (GPP-444).</td>
</tr>
<tr>
<td>22. Carnelian : Barrel shaped. From period II (BHL-270).</td>
</tr>
</tbody>
</table>
Copper objects, period II. See pages 12 and 55.
(viii) COPPER OBJECTS

Plate XXVI

1. Copper spoon with broken handle. From period II (MBT-565). Length 6.50".
2. Copper miniature bell. From period II. Ht. 1.75" (MBT-A-279).
3. Copper miniature pick-axe. From period II. Ht. 1.25" (MBT-A-625).
4. Copper khol-stick with both ends clubbed and pointed. From period II (MBT-A-982). Length 5.25".

(ix) IRON OBJECTS

Several pieces of iron objects were discovered from all the periods but all of them were in heavily worn-out condition and as such they have not been illustrated. The objects included nails, daggers, sickles, pans and axes.

(x) BONE OBJECTS

Plate XXVII

Quite a good number of bone socketed arrow heads, awls, styls and sockets were recovered from period I and II. Majority of them, however, made their appearance in period I. The selected specimens are described below:

1. Bone: Socketed arrow head, broken. Ht. 2.00". From period I (BHL-243).
2. Bone: Socket (probably a cap to keep secured the working point of stylus). Ht. 1.00". From period I (MBT-A-955).
3. Bone: Socketed arrow head. Ht. 1.25". From period II.
5. Bone: Point unstratified. Ht. 2.62".
9. CONCLUSION

The excavation though carried out on a limited scale yielded interesting results and to some extent fulfilled the objective with which it was planned.

The antiquities discovered at the lowest inhabited strata are pre-Mauryan in date and can be placed in circa, 6th century B.C. at the earliest. So far as the Mauryan antiquities are concerned, the discovery of the mutilated couchant bull and a large number of other antiquities definitely prove that the Mauryan city extended to the north east of modern Patna. Of course, due to difficulties in taking large trenches and in attempting horizontal excavation, no definite plan of the Mauryan buildings could be traced.

The excavation could not bring to light the remains of the Royal Palace of the Mauryas but the discovery of large number of polished stone fragments may suggest that they were used in the Royal building. But this at best can be a hypothesis.

That this area continued to be a part of the ancient Pātaliputra is proved by the Śuṅga antiquities. Towards the close of the Śuṅga period, the city witnessed large scale fire which was evident from the remains of charcoal in some of the trenches. This might have some bearing on the Bactrian Greeks raid on Pātaliputra as suggested in Gārgī Saṁhitā.

The discovery of the gold amulet fashioned after one of the coin types of Huvigka and terracottas of the Kuṣāṇa age may indicate Kuṣāṇa rule over Bihar. After 500 A.D. this part of the Pātaliputra was deserted. In the present state of our knowledge it is difficult to hazard any reason for the abandonment of the sites.
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