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EXCAVATIONS AT PIPRAHWA AND GANWARIA

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K.M. SRIVASTAVA



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विशेष संख्या... R 913.03 / I. D. A. / S. M.
नई दिल्ली

Cover
FRONT
Piprahwa : Exposed stupa
BACK

*Piprahwa : Soapstone caskets containing
relics of Buddha (top) ; Terracotta sealings with
the legend 'Kapilavastu' (bottom)*

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PREFACE

The excavations at Piprahwa-Ganwaria had behind them the cherished ambition of transforming a dream into reality. The lost town of Kapilavastu, where Lord Buddha spent the first twenty-nine years of his life before renouncing the world in quest of emancipation of humanity at large had to be located. For the archaeologists it was a subject of avid concern on account of being the native place of Buddha, where his father Suddhodana ruled as the chief of the Sakyas. The religion of Buddhism preached by Buddha flourished in India for about five hundred years and got extinct from the land of its birth sometime in the twelfth century A.D. with such a sweeping impact that even the names of the most important towns associated with it went into oblivion. Kapilavastu happened to be one amongst them.

Engulfed in complete darkness, the scholars made a beginning in the direction of locating Kapilavastu like a wild goose chase. Armed with one clue or the other, they enjoyed the liberty of declaring any place as Kapilavastu. Instead of keeping the doors open for the exact identification of the site, they attempted to justify their stand with all emphasis in a wholesale subjective manner, sometimes delving into wild imaginations, of which details in a limited number of cases have been presented in the book. The identification, however, developed into a lively interest in the closing years of the nineteenth century, when the inscribed Asokan pillar at Lumbini and the inscribed soapstone casket at Piprahwa were brought to light by A. Fuhrer, a German scholar and W.C. Peppé, an English landlord at Birdpur in the years 1896 and 1898 respectively. In spite of the fact that the inscription on the casket, supported by the distance from Lumbini recorded by the Chinese pilgrim Fa-hien, were considered by certain scholars to be adequate enough to proclaim Piprahwa as Kapilavastu, yet the declaration made by A. Fuhrer in 1896 continued to outweigh the balance in favour of Tilaurakot.

It has generally been observed that the Indian scholars are carried away and overwhelmed by the opinion and views of a foreigner, without caring the least to analyse the available evidence and strike at the truth. A. Fuhrer took the privilege of indulging in the activities of greatest intellectual dishonesty to convince the scholars in any manner, so far as the identification of Kapilavastu was concerned. He did not hesitate to wantonly destroy a large number of structures on the banks of a large tank called Sagar in Sagarahwa village near Tilaurakot. In the guise of excavations, seventeen so-called square stupas and a conspicuously large structure, also considered to be a stupa and attached with a monastery, were ransacked right upto the foundation, in search of treasures and reliquaries and above all to corroborate his own identification of Kapilavastu. All these structures were contemplated as the stupas

containing the relics of the Sakyas massacred by Vidudabha, the young king of Kosala and son of Prasenajit. Fuhrer did not feel contented enough, but went a step further and made an attempt to associate the names of eighteen Sakyas including Mahanaman with the structures. He went to the extent of getting them inscribed in pre-Asokan characters. The attempt, however, could not reach the desired end. It was fortunately foiled by the well-known historian V.A. Smith, who paid a surprise visit, when the work was in progress. Thus, the forgery was exposed to the public.

Armed with the facts of undesirable activities of A. Fuhrer, V.A. Smith should have been courageous enough to turn down his claims on the identification of Kapilavastu with Tilaurakot outrightly. On the other hand, besides falling in line with Fuhrer, he marched a step further and created the greatest confusion in the identification. Though Smith appears to have been concerned enough to accept Piprahwa as Kapilavastu on the basis of the inscribed casket, he could not gather adequate strength to come out with a statement against Fuhrer. Instead, a new thesis was presented that the Kapilavastu shown to Fa-hien was Piprahwa, whereas the Kapilavastu shown to Hiuen Tsang was Tilaurakot. Smith did not hesitate in making such an unfounded statement, when on his own he was not in favour of it. He deserves all appreciation for not losing any time in expressing his inability in justifying the existence of two Kapilavastu. He came out with the argument and commented, "If I am asked the reason why, in or about A.D. 406, Piprahwa was regarded as representing Kapilavastu, whereas in 635 the city on the Banganga was regarded as representing the same place, I can only reply that I do not know the reason, and plead ignorance concerning events which occurred fifteen hundred years ago is excusable"¹. Indeed, it is surprising that the same scholar places on record that, "My identification of the Piprahwa site with the Kapilavastu of Fa-hien rests upon the pilgrims description of his itinerary. Professor Rhys Davids by a wholly independent line of argument arrives at the same conclusion that Kapilavastu is represented by the Piprahwa group of ruins. I am convinced that Professor Rhys Davids' argument is sound and that the stupa opened by Mr. Peppe' really contained the relics of the Sakya sage, enshrined by his Sakya brethren shortly after his decease and cremation"².

Caught in the maelstrom of the dubious statements by an eminent scholar like V.A. Smith, the scholars gave far greater credence to the views of A. Fuhrer. They could never believe the existence of two Kapilavastu with a time gap. Analysing all the evidences with a preconceived notion, the scholars one after the other, presented statements in their own manner corroborating the conclusions drawn by A. Fuhrer without any tangible evidence. The subject was never studied in an open manner.

Once Tilaurakot was accepted as the site of Kapilavastu a complete lull set in the twentieth century. It was not until 1962 that the question was again opened up. D. Mitra (Mrs.) was

¹ P.C Mukherjee and V.A. Smith, *Antiquities of Kapilavastu*, No. XXVI, Part I of the Tarai of Nepal, 1890, A.S.I. Imperial Series (reprinted Varanasi, 1969), prefatory note by V.A. Smith, p.10.

² *Ibid*

entrusted with the job of undertaking excavations at certain sites in the *Tarai* area of Nepal in order to set at rest the long-standing controversy. During the course of her excavations at Tilaurakot, she did not come across any tangible evidence in support of the conclusions drawn by A. Fuhrer. It was, however, not made public till 1972, by which time the author had already marched a step ahead in the direction of locating Kapilavastu precisely by the discovery of the original relics of Buddha solemnised in the stupa at Piprahwa by the Sakyas.

Destiny always reigns supreme in the achievement of any success. Of course, man is not the master of circumstances, but at the same time he has not to act in a slavish manner. He has to get the spindle ready and the Almighty will send the flax. The final identification of Kapilavastu remained waiting for my hands as long as seventy-five years. Had W.C. Peppé or P.C. Mukherjee not remained contended with the massive box encasing the valuable objects found in the stupa at Piprahwa and the site would have been subjected to detailed investigation, the precise location of Kapilavastu would have been settled long back. Complications were further added by J.F. Fleet, who revised his own interpretation of the inscription on the casket.

Opportunities always stand in waiting for those enthusiasts who are prepared to grab them and work in a devoted manner. The crucial moments to identify Kapilavastu flashed before the author of their own accord, when he was posted in the Patna Circle as a Superintending Archaeologist on 28th August 1970. Within two days his attention was arrested by one of the demi-official letters of the then Director General, who used to address such letters to the Branch officers only rarely. In this case the letter was in connection with the preservation of the ancient site of Piprahwa, towards which the attention of my predecessor was invited. While enclosing a copy of the complaint lodged with the Prime Minister of India regarding utter neglect and wanton destruction of the ancient site, my predecessor was requested to take immediate necessary action. The complaint was lodged by the local monk Mahasthavi Dharmakirti, who was stationed at Naugarh, now the district headquarter of Siddharthanagar in Uttar Pradesh. My predecessor, in place of undertaking the work submitted a long list of posts, for which he needed sanction. This was the manner by which the golden opportunity was spilled over and the ball passed on to the other's court. My predecessor was conscious enough that sanction of so many posts at a time was well-nigh impossible. The matter was, there-after, shelved without any correspondence even. Neither the posts were sanctioned nor the work was undertaken.

A work of such a great importance remained buried for more than a year and brought to life again by the author. Though he was anxious enough to visit the site immediately, it was not possible on account of heavy monsoons. The author, therefore, directed his attention to the investigation of all the references to the site. This is not the place to go into the details of the hardship, the author had to undergo in conducting the excavations at a very remote place. The firm belief in the identification of Kapilavastu armed him with adequate strength to withstand all the difficulties and problems. He was at long last crowned with success in his endeavours in March 1973 when a large number of sealings with the legend 'Kapilavastu'

were found in the Eastern Monastery at Piprahwa, which finally clinched the issue. Coming as it did, in addition to the discovery of the original relics and the town site with rich antiquities, it put the lid on the controversy once and for all.

Discovery of such an epoch-making importance in the early history of India should, as a matter of fact, have received world wide acclaim without any loss of time. It was, somehow or the other, deprived of the recognition and remained behind the curtain. Instead of any applause for the meritorious work, the news continued to be a victim of suppression for a period of three ears. Even after a lapse of three years when a news item with the title 'Lost City of Kapilavastu Found' appeared in the New Delhi City edition of *Times of India* of 24th January 1976, there was a great upheaval amongst a particular set of scholars. They derived pleasure in indulging into the most unparliamentary language questioning the identification of Kapilavastu. Any scholar is free to express his views, but he has to observe certain norms in the use of language at least. Filthy language never carries greater weight. Anyway, the cat was out of the bag. Facts could not be overlooked for all time to come and the wrath of a limited few could not blind the eyes of the scholars round the world.

With the same strain of feelings and context an extract of the Presidential Address of Dr. D.C. Sircar, an eminent epigraphist, who delivered the address before the august body of Indian History Congress at Bombay in 1980 is presented below:

"What is particularly deplorable is that a few writers, both Indian and Foreign, have failed to understand the real nature of such clear cases of forgery. Some Oriya writers have even taken the palpably absurd stand that the Kapileshwar inscription is a genuine Asokan record and that therefore the Buddha must have been born in Orissa. It is difficult to argue with such people on this point because they would feel that non-Oriyas are making an attempt to deprive Orissa of its glory of being the Buddha's birth-place. The caricature of research in Chakradhar Mahapatra's book entitled, *The Real Birth Place of Buddha* (Cuttack 1977) and the encouraging remarks thereon by some Foreign and Indian scholars it carries are expected indeed to reveal the hopelessness of the situation we are facing. As yet, however, no other birth place of the Buddha has been claimed on the basis of the Mathura Museum copy of the Rummindei pillar inscription.

"Similar has been the case with the location of the city of Kapilavastu, the capital of the Sakya people. Its name has, even from the ancient times, been often wrongly written as 'Kapilavastu' due to wrong Sanskritization of Pali-Prakrit *vatthu* standing for both the Sanskrit words *vastu* (an object) and *vaastu* (a habitation). Literary evidence was inadequate for the definite location of the Sakya city so that some scholars were of the opinion that it stood at the site of modern Tilaurakot in the Nepalese Tarai while another group of them preferred to locate it at the village of Piprahwa lying in the same neighbourhood but falling in the Basti District of Uttar Pradesh in India, actually on the northern fringe of the District, immediately to the south of the Nepalese border. Excavations were recently carried out at both Tilaurakot in Nepal and Piprahwa in India by the officers of the Archaeological Survey

of India; but Tilaurakot yielded no antiquity offering evidence on the point whereas more than forty seals belonging to the *Kapilava (vaa) stu bhikhshu-sangha* (community of Buddhist monks of Kapilavastu) living in the Devaputra-vihara which seems to have been a monastery named after the Kushana king Kanishka I (c. A.D. 78-102) often called Devaputra have been unearthed at Piprahwa. Thus the evidence in favour of Piprahwa as the site of Kapilavastu seems to be conclusive but it has naturally failed to satisfy the Nepalese who feel that their country is being deprived, by the Indian archaeological excavators, of the honour of being the homeland of the Buddha, and a suggestion has even been offered that the matter may be put up to the UNESCO for decision whether Kapilavastu should be identified with Piprahwa in India or Tilaurakot in Nepal. A funny idea indeed".

K.M. SRIVASTAVA

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CHAPTER I
EXCAVATION AT PIPRAHWA
A. THE SITE AND ITS ENVIRONS



Nestled in a sylvan surrounding, not far away from the foot of the Himalayas, the ancient site of Piprahwa (27° 26' 30" N; 83° 7' 50" E; pls. I-III) is located about twenty-two kilometres north of Naugarh, the headquarters of the recently created district of Siddharthanagar in Uttar Pradesh. Naugarh is a railway station on the Gorakhpur-Gonda loop line of the North-eastern Railway (fig. 1). It is also connected by road both with Basti and Gorakhpur, the former a headquarter of a district and the later of a division. With Basti, a railway station on Gorakhpur-Lucknow main line of North-eastern Railway, Naugarh is connected only by road, the distance being about eighty kilometres. There is no appreciable difference in the distance by rail and road from Gorakhpur, both being a little more than seventy kilometres. Buses ply to Naugarh both from Gorakhpur and Basti, more frequently from the latter place. Mini buses also ply between Gorakhpur and Naugarh. Naugarh is not the terminus of the state buses. They go upto Kakrahwa on Nepal border via Birdpur. Kakrahwa is not far off from Lumbini, the birth place of Lord Buddha. To reach Birdpur from Naugarh, a cycle rickshaw or auto rickshaw can also be hired to cover the distance of thirteen kilometres in the absence of a bus. The ancient site of Piprahwa is only nine kilometres north of Birdpur. There is hardly any bus service between Birdpur and Piprahwa, but a cycle rickshaw is always available to reach the site during the day time. A decade back it was rather risky to attempt any trip after the fall of the day.

About three decades back the road from Birdpur to Piprahwa was very well maintained under the strict vigilance of the local English landlord, W. C. Peppé, who with a big estate resided at Birdpur in a stately building, which has now been converted into an inspection bungalow under the charge of irrigation department of the Government of Uttar Pradesh. The name of Birdpur owes its origin to Mr. R. M. Bird, who was appointed Commissioner of Gorakhpur in 1829. After Peppé left the country suddenly, in circumstances not exactly known, the road from Birdpur to Piprahwa was badly damaged by bullock carts. The condition of the road was so awful when the excavation was undertaken in 1971 that the same could not be used for reaching the site even in a jeep. The site had to be approached, after covering at least double the distance, by a canal road passing through the lakes of Siswa and Majhauili. One or two heavy showers, so frequent in the area, however, rendered this road also unserviceable. On repeated appeals by the author, after the large scale excavations and identification of Kapilavastu at the site, the Uttar Pradesh Government undertook the repairs of the road. The whole area has now, however, been incorporated in an ambitious tourist development project.

The strip of land in and around Piprahwa is levelled and very fertile with an alluvial soil. Producing the best quality of rice in India, paddy constitutes the chief crop of the area, where the water of the rainy season and of inundations remain long standing on the rich soil. As a matter of fact the

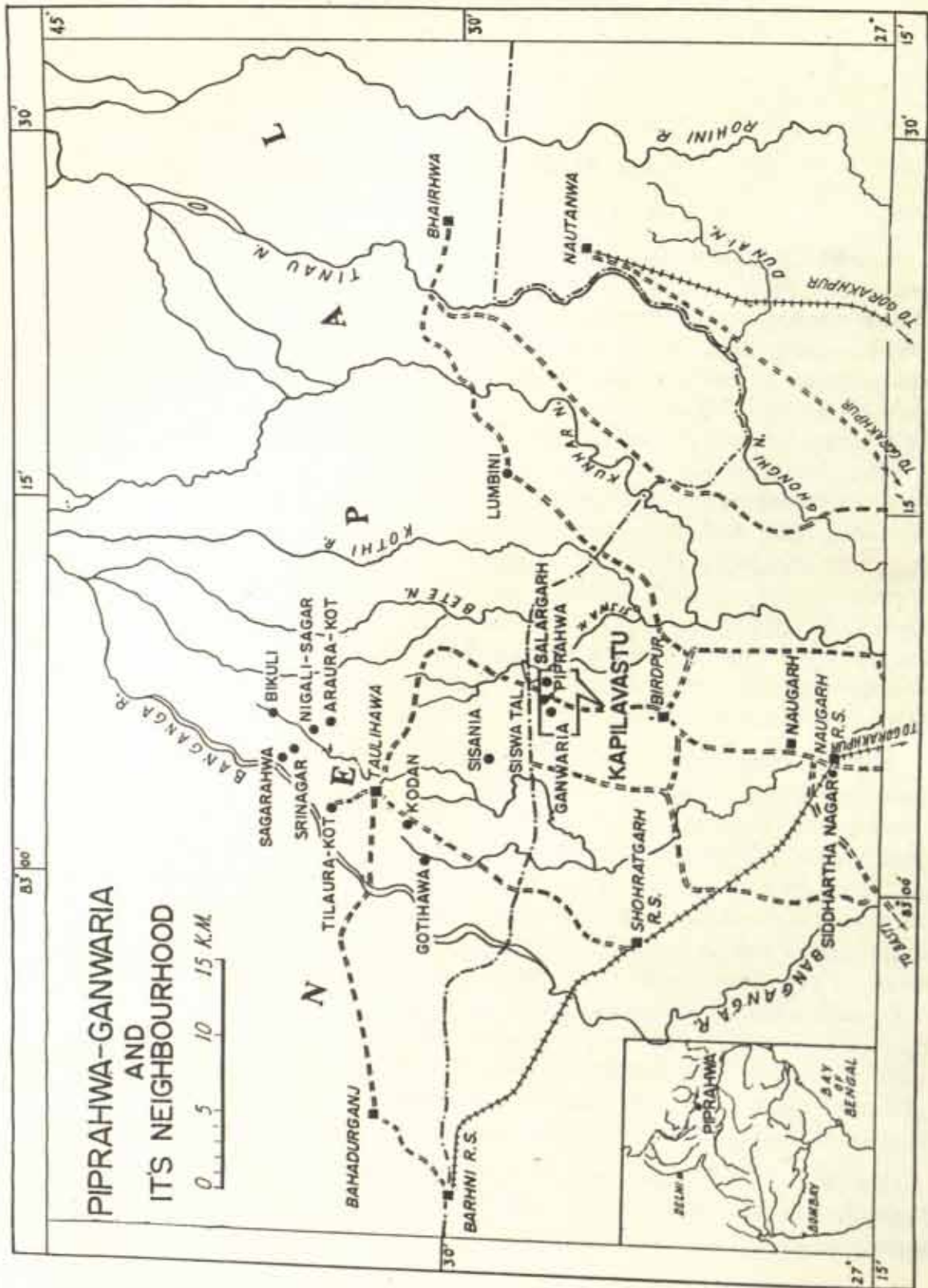


FIG. 1

area can be aptly called a rice bowl, because not only the best but innumerable varieties are produced there. Rice is no doubt the staple food of the people, but the better varieties are meant only for export and business. It also flows from the territory of Nepal, the boundary of which is hardly a kilometer and half from Piprahwa. Naugarh is one of the most important trade centre for rice. As the background of this level and fertile land the range of Himalaya mountains appears on the north with the black mosses of the low ranges in the foreground backed by the towering snow-capped summits. The snow-capped summits are clearly visible from the ancient site, particularly, in the winter season immediately following heavy rains. Wheat and *arhar* are amongst the other crops, generally grown in the area. About a decade back wheat was not at all cultivated in the area. During the course of excavations with effect from 1971 to 1976, it was observed that a beginning was made in wheat cultivation, which went on increasing year by year. For proper irrigation Peppé spread a network of canals in the area, though the system no longer works properly and the farmers have to depend entirely on the monsoons. Generally the monsoons are heavy and adequate, but any failure upsets the economy of the area completely.

There are several huge lakes not far off from the ancient site. Of them, two viz., Siswa and Majhauri Tal are about a kilometre to the north-east and east of the site. They are interconnected. Siswa, in fact, was a small and shallow stream, which was converted into a lake by the construction of an embankment originally by Peppé sometime in 1864. A third reservoir known as Sagar Tal is about four kilometres to the east of the site. About six kilometres away from the site there is another lake bearing the same name. This lake is about a kilometre south-west of Bajha Tal which in turn is about five kilometres west of the site. All these lakes appear to have been formed by the accumulation of rain water from the Himalayas in the low lying areas caused primarily by the removal of *sal* forest from the area. Embankments around the water were raised, so as to augment the capacity and store the water for irrigation purposes.

The Birdpur grant, the principal European estate, in which the ancient site of Piprahwa is situated, comprised of more than two hundred fifty villages, though originally treated as a single unit. It is only on this reckoning that Birdpur was considered as the most thickly populated town in the entire district. The grant of Birdpur, the biggest in the district, has an interesting background. It was originally given in 1832 to Mr. J. J. Maclachau, of the firm of Alexander and Co. in Calcutta, for fifty years, the term of which was to expire in 1882. The firm failed, and in March 1834 the property was sold to Messrs W. F. Gibbon and J. Cock for Rs. 10,700. In 1840 the grant was again conferred by a fresh warrant on Messrs Gibbon and Cock, with whom were associated Messrs H. and J.P. Gibbon, together with additions in the property, which brought it up to 29, 316 acres. The whole tract then consisted of swamp and jungle. There were few inhabitants and as such cultivators were few imported from Chota Nagpur in Bihar and Azamgarh in Uttar Pradesh for frowing and manufacturing indigo. This attempt, however, did not prove profitable and was, therefore, abandoned : so too sugarcane cultivation, horse-breeding, and the manufacture of lac, each experiment serving merely to increase the debt. In 1848, Mr. Hugh Gibbon, the managing proprietor, who had resided continuously in the estate, died from exposure and hard work in the unhealthy climate, and for nearly a year his widow carried on the management. Mr. W. Peppé then came as a manager and subsequently married Mrs.

Gibbon. With his arrival matters rapidly improved. He discontinued the cultivation of indigo, and paid his attention to rice, the staple product of the surrounding country. For this purpose he required many more cultivators and these were obtained from the neighbouring parts of Oudh, from where emigrants came in great numbers, only too glad to be able to escape from the misrule of the province. Mr. Peppé made over the land to the settlers on easy terms, with the result that the jungle soon disappeared, villages sprang up and most of the land was brought under the plough. The destruction of the forest, consisting of valuable *sal*, *asna* and other species, though regrettable in itself, was one of the conditions of the grant, and the land so cleared proved admirably adopted for the growth of *jarhan* rice. The only difficulty was the paucity of water in dry years, and in order to obviate the danger, the admirable system of canals was devised and implemented by Mr. Peppé and his successor, Mr. W. C. Peppé who joined the estate in 1875. At that time the estate was managed by Mr. F. H. Warren, the proprietors being Messrs W. C. Peppé and G. T. Peppé and Mrs. Larpent, children of Mr. W. Peppé, the widow of Mr. W. F. Gibbon and Mrs. Warren and Mrs. Jones, children of Mr. Hugh Gibbon.

The above information indicates clearly that the area around the site of Piprahwa was mostly covered by thick forest which had to be removed by labour imported from outside. The local inhabitants, therefore, do not belong to this place originally. Being outsiders and hired labour they were not innately interested in the development of the area and as such it is far more backward than other parts even now.

The ancient site of Piprahwa is very extensive. At present it is at least two hundred thirty-five metres east-west by one hundred ten metres north-south. The site must have been much more extensive in earlier days, but an appreciable area was converted into cultivable land by the farmers. Further extension of the cultivable land was stopped after the excavations were undertaken in 1971.

The maximum occupational deposit of the ancient site was about five and a half metres. In the vicinity of Piprahwa there are several mounds, mostly low-lying. Of them all, Ganwaria a kilometre south-west is most impressive. Amongst others are Salargarh, Bankatwa, Boharwa, Bairkhi, Rakshel, Pokhar, Bhitra, etc. The extent and deposit at Ganwaria are in no way less than Piprahwa.

B. CLIMATE AND RAINFALL

Like all *tarai* regions (sub-montane tracts) of Oudh, the climate of the area in and around Piprahwa is milder in comparison to the districts lying in the western parts of the Uttar Pradesh. The intensity of the heat produced by the westerly wind is never experienced here, because the burning face of the winds is lost much before the same is able to reach the tract. In a similar manner the winter months are also not too severe. Frosts, a common feature of cold areas, seldom occurs in this area. In February 1905, when the crop of the entire region was almost totally destroyed by frost, the tract around Piprahwa was fortunate enough in escaping the devastating effect. During the months of summer the temperature never crosses the line of 110° F.

There is a wide variation in the night and day temperature, the nights being comparatively pleasant even in the month of June. Local thunderstorms, which are so frequent in the area, bring

down the temperature, to a great extent to cool down the atmosphere. They preserve a tinge of verdure in the grass.

The rainfall in the area is usually heavy and combined with the proximity of the mountains the climate is rendered damp. The climate of a damp nature is occasionally a source of diseases, particularly filaria. Regular rains commence by the end of June and last till the third week of September. However, the final rainfall of the year in the first few days of October has its own great importance. It is locally known as *Hatiya* rains and are essential for the growing of late rice. The rains also leave behind adequate moisture in the soil for the rabi sowings. They also help in the supply of sufficient water to the local lakes and *jhils*. The heaviest rainfall of 92.02 inches was recorded at Khalilabad, a tehsil headquarters about hundred kilometres away in 1894. The same place received the minimum rainfall of 15.1 inches in 1877.

C. HISTORICAL BACKGROUND

The ancient site of Piprahwa caught the attention of the indologists for the first time in 1898 when W. C. Peppé made certain monumental discoveries in the stupa. In the first instance, he bored a shaft in the stupa in 1897. After digging upto a depth of eight feet he abandoned it. V. A. Smith examined the stupa in October 1897 and declared it to be a very ancient stupa in which something important should be found at the centre. In January 1898 the excavation was resumed by Peppé and a well ten feet square dug down in the centre of the stupa. Ten feet below the summit a small broken soapstone vase similar to those found lower down was encountered. The broken vase was full of clay in which beads, crystals, gold ornaments, cut stars etc., were found. Immediately below, a circular pipe made of moulded or cut-to-size bricks was observed. The diameter of the pipe, which was full of clay, was one foot reduced to four inches after a depth of two feet. Eighteen feet below the top of the stupa, Peppé came across a huge broken slab of stone 31.5 inches to the east of the centre of the clay pipe. This slab covered a massive sandstone coffer 4' 4" × 2' 8.25" × 2' 2.25". The cover (lid) was provided with a deep groove, which fitted perfectly into the flange of the sides of the coffer. The massive coffer weighed 1537 pounds and the weight of the lid alone was 408 pounds. The coffer and the valuables contained in it are housed in the Indian Museum, Calcutta. The remarks of Smith in this context are very important. He said, "Mr. Peppé, unfortunately, omitted to take a note of the contents of each vase separately".¹ The coffer contained the following objects.²

1. A steatite vase 7.5 inches high with a maximum diameter of 4.5 inches.
2. A similar, but inscribed casket 6 inches high and 4.5 inches in diameter (pl. VI A).
3. A *lota*-shaped steatite vase 5.5 inches high (with lid) having a diameter of 5.25 inches. The lid of the vessel was found away from the vessel.
4. A small round steatite casket 3.25 inches in diameter and only 2.25 inches high.
5. A crystal vase, polished to the perfection, the maximum diameter being 4.25 inches and height 4.6 inches (with cover). The cover of the vase had a beautiful fish-shaped lid, which was hollow and filled with seven granulated stars having gold six-petalled flowers and gold circular frames attached to them, and several tiny beads in paste.

In addition to the above, there were wooden and silver vessels reduced to pieces. The vases were very rich in their contents, the number of which was several hundred. Apart from pieces of bone they contained gold leaves impressed with various symbols like *svastikas*, *triratnas*, triangle-headed standard etc., impressions of two female figures (one completely and the other partly nude) on gold leaf; gold and silver flowers and stars; a tiny amulet-like box; gold *triratnas*; a gold disc impressed with profuse connected spirals; plain gold bars, rolls of gold leaves, numerous pearls with or without perforations; a carnelian and a malachite bird; delicately fashioned leaves; seed vessels, *tri-ratnas* and flowers in semiprecious minerals, fragments of coral; beads of various shapes in gold, silver, and precious minerals and coral; cut semiprecious stones; pieces of mica and a spirally-rolled copper wire. There were some objects of shell as well (pl. VI B).

The brickwork of the stupa continued for another two feet below the bottom of the huge coffer. At the bottom the circular clay pipe turned into a rectangle, the edge of which was 21.5 inches from the coffer, for a single course of bricks. Further below, it again became circular and ended with brickwork two feet below the box. W. C. Peppé searched further remains in the pipe carefully and came to the conclusion that nothing more was left behind. He, therefore, categorically remarked, "I was most careful in searching this pipe, all the way down, but nothing was found in it." The rectangular shape of the pipe was undoubtedly an indicator to the coffer as stated by Smith as well. He said, "The rectangle served as a pointer to the coffer."^{2b} The cover of the box was provided with a deep groove, which fitted perfectly into the flanges on the sides of the coffer.

Of all the finds in the massive coffer, the most important was the inscription on the lid of the smaller steatite vase. The inscription was read as *sukiti bhatinam sa-bhaginikanam sa-puta dalanam iyam salila nidhane Budhasa bhagvate sakiyanam*.

Though many translations of the inscription have been presented by various scholars, the widely accepted ones are restricted to three. G. Buhler translated the inscription thus:

"This relic shrine of divine Buddha (is the donation) of the Sakya Sukiti brothers (i. e. either "of Sukiti's brother" or of Sukiti and his brothers), associated with their sisters, sons and wives".³

Rhys Davids has translated the inscription in the following manner :

"This shrine for the relics of the Buddha, the August one, is that of the Sakyas the brethren of the Distinguished one, in association with their sisters, and with their children and their wives".⁴

J. F. Fleet translated the inscription thus :

"Of the brethren of the Well famed One, together with (their) little sisters (and) together with (their) children and wives, this (is) a deposit of relics (namely) of the kinsmen of Buddha, the Blessed one".⁵

According to the first two interpretations the relics found inside the stupa by Peppé were those of Buddha himself, whereas the third one by Fleet meant that they were of the kinsmen of Buddha, sisters, wives and children. It may be pointed out that the translation presented by Fleet also in the beginning meant that the relics were of Buddha himself. His earlier translation was as follows:

“Of the brethren of the Well-famed One, together with (their) sisters (and) together with (their) children and wives, this (is) receptacle (or deposit) of relics of Buddha, the Blessed one; (namely) of the Sakyas”.⁶

The inscription was treated by some scholars to be the earliest record in Brahmi. It also threw light on the early history of Buddhism in India.

D. OBJECTIVE OF THE EXCAVATION

The primary objective of the excavation at Piprahwa, undertaken in January 1971, was to locate the lost town of ancient Kapilavastu and thereby settle the long standing controversy. It appears surprising that the most wonderful and subtle production of human wisdom in the form of the religion of Buddhism was rooted out completely from the land of its birth. On the one hand the impact of the religion on the people of other Asiatic countries was deeply rooted, whereas its extinction from the country of its birth over eight hundred years ago had such a sweeping effect that important places associated with it did not only lose their significance, but were completely lost into oblivion. A victim of such a sweeping effect was one of the most important towns, Kapilavastu, the location of which had been eluding the archaeologists for more than a century. Gautam Buddha spent the first twenty-nine years of his life at Kapilavastu, before he renounced the world in quest of salvation for the emancipation of humanity at large. Kapilavastu also happened to be the capital of the Sakyas, of which Siddhodana, father of Buddha was the ruler.

Though the inscription on the relic casket from Piprahwa coupled with the distance of Lumbini recorded by the Chinese pilgrim Fa-hien were considered by certain scholars to be adequate enough to proclaim Piprahwa as ancient Kapilavastu, yet the declaration made by A. Fuhrer in favour of Tilaurakot in Nepal continued to outweigh the balance. In spite of the fact that Tilaurakot did not yield a single antiquity during excavation to support the claim of Kapilavastu, a large number of scholars were firm in their belief, so much so that in one inch-to-a mile Survey sheet 63 M/2 Kapilavastu was bracketed below Taulihawa, which is 3 kilometres from Tilaurakot.

Virudhaka, a descendant of Ikshvaku I, was a king of Saketa. He had four sons and five daughters by his first queen. The king married a second time after the death of the first spouse. The subsequent queen gave birth to a son. Quite natural as it is, she desired her son to be the next ruler of the state. The king had to yield to the wishes of his better half for the banishment of other children. The children by the first queen were, therefore, forced to leave the state. After banishment they wandered in a northerly direction and reached a desolate spot, where Brahman saint Kapila was residing in a hut. The place was located on the bank of a tank and on the slope of Himlayan ranges. On the request of the exiled children the great saint permitted them to settle down there. The site was gradually developed and given the name of Kapilavastu, after the saint. So far as the source of the name of the community Sakya is concerned, there are two theories. According to one the Brahman saint Kapila was residing in a grove of Saka (*Sala*) trees viz., *Sakasanda* or *Sakavanasanda*. The name Sakya was derived from the grove of trees which the children occupied. The other theory is much more interesting. In order to maintain the purity of their blood and race the four exiled sons married the four younger daughters and appointed the eldest daughter as queen mother. When the

father of the children came to know of the gesture he expressed delightfully "*Sakya vata bho Kumara parama-Sakya vata bho Kumara* meaning thereby 'Aha! Smart men indeed, Sakyas indeed are the princes; very smart men'. Thus the endogamous tribe came to be known as Sakyas.

While writing an article on 'Kapilavastu in the Buddhist Books', Watters admits at the outset the conflicting account in the texts. He said, "These books are of a very unequal value, and they often vary to a remarkable degree in their descriptive and narrative passages. It often seems to be impossible to reconcile their conflicting statements, or to regard them as being derived from a common source".⁷ Watters further observed the unsatisfactory and vague nature of the description in the books regarding the location of Kapilavastu and said "We are told, for example, that it was in the centre of the world or of Jambudvīpa, a description very unsatisfactory from a geographical point of view".⁸ After analysing carefully all the description in the Buddhist texts, Watters categorically said, "Now we cannot fail to observe that all the sites mentioned in the Asoka romance, and nearly all those described in the narratives of the pilgrims derive their existence from the romance and legends about the Buddha's birth and early life".⁹

Kapilavastu (also known as Kapilavatthu, Kapilanagar and Kapilapura) has been frequently mentioned in the Buddhist texts as glorious town. The description of the town given in *Soundaranand* of Asvaghosa, will make it apparent. The poet describes the town in the following words:

"Then with the acquisition of that wealth and the ripening of their merit, they founded on that site a city which was majestic through their knowledge of town-planning. With a moat as broad as a river, with a straight and magnificent main street and with ramparts almost as big as mountains like another Girivraja. Having a fair front of white upper storeys and well laid out bazars and encompassed by a row of palaces, like valley of the Himalayas having fine peaks like white watch towers and manifold interior wealth and encompassed by uplands like palaces. There with joyous hearts, anxious to gratify the citizens, they made magnificent abodes of fame known as gardens. Without order from anyone, but only because of their excessive wisdom, they dug in all directions pleasant lotus ponds filled with water of pre-eminent virtue. And all round on the roads and in the grooves they set up rest houses, charming fine, splendid and provided with walls. The city was crowded with elephants, horses and chariots, yet it was not polluted or disorderly. Wealth was not kept back from those in need there and it harboured learning and manly vigour."¹⁰ It must, however, be made clear at the outset that such a description was simply an outburst of religious zeal and sentiments of Buddhists. The reputed historian V. A. Smith said, "The *Lalitavistara* and other works, which profess to tell the story of Buddha's infancy and early life are full of glowing descriptions of the material glories of Kapilavastu, and of the magnificence of the royal court supposed to have been held there by Raja Suddhodana, father of Gautam Buddha. But these tales are purely works of imagination without any basis of solid fact".¹¹

A widespread tradition represents Buddha as having been a king's son. But the idea that Buddha's father Suddhodana enjoyed the royal dignity does not find a place in the oldest traditions regarding the family. We have hardly any basis to contemplate in Suddhodana more than one of the great and wealthy landowners of the Sakya race. The so-called kingdom of the Sakyas was one of those small aristocratic governments, a number of which had maintained themselves on the out-skirts

of the greater Indian monarchies. We shall not be far astray if we visualize the Sakyas as the fore-runners of some Rajput families as we have in later times. The political subordination of the Sakyas to the Kosala kings adjoining it on the south and west, appears almost in every text. King Prasenjit was the head of five Rajas, the Sakya king being one of them. The acknowledgement of the suzerainty of the Kosalan kings by the Sakyas is a very good indication to establish that Kapilavastu was never as glorious a town as described in Buddhist texts. The Sakyas, who belonged to the Solar race and Ikshvaku family considered themselves as the people of Kosala. Based on this fact only the great king Prasenjit felt proud in being a fellow citizen of Buddha". "The father of Buddha", according to Watters, "was no more than a member of the Sakya clan, perhaps invested with some rank or importance as Chief Magistrate, although this does not appear. He may also have lived in or near a place called Kapilavastu, but he had not a palace and did not reign there."¹² Smith without the least hesitation said, "There is no sound reason for believing that either he or his father ever enjoyed the position of regal magnificence ascribed to them by the pious imagination of later ages. Even some of the Buddhist treatises, as Watters points out, describe, Kapilavastu as a small unimportant town without any attractions. The place was too small for the accommodation of the growing families of the legendary Ikshvaku princes. The real Kapilavastu although raised to a certain degree of ecclesiastical grandeur by the erection of monasteries and other religious buildings after the time of Asoka, never can have been a large and wealthy city".¹³ Watters observed further and said, "Again, in certain Abhidharma treatises, such as the "Ta-Chih-tu-lun", we find Kapilavastu referred to as a small town inferior to Sravasti and in some enumerations of the great cities of "Central India" the name does not appear."¹⁴ Ananda Coomarswamy is also of the same opinion and says, "It is only in later legend that Siddhodhana is represented as a great king, most likely he was in fact a wealthy knight and landowner."¹⁵ Similar is the opinion of Oldenberg who says, "A widespread tradition represents Buddha as having been a king's son. But the idea that Buddha's father, Siddhodhana enjoyed the royal dignity is quite foreign to the oldest forms in which the traditions regarding the family are presented to us, rather, we have nothing more or less to contemplate in Siddhodhana than one of the great and wealthy landowners of the Sakya race, whom later legends first transformed into the "great king Siddhodhana".¹⁶ According to A. Fuhrer Buddha's father was rather a feudal baron or chieftain of a small clan, than an actual king. He said, "It is only the newer tradition that extols the power and wealth which the Buddha gave up on renouncing worldly ties".¹⁷ There is a corroborative reference in Buddha's own statement made at the time when king Bimbisara offered to bestow upon him the whole kingdom. Buddha said, "Raja, near the Himalaya is a rich and prosperous country, Kosala it is named, there lives a tribe of "Ikshvaku or Solar race, the Cakyas they are called. To this tribe I belong. I am of Kshatriya caste". Further, it may be added that Ananda while discussing Buddha not to enter *Nirvana* at a small place like Kusinara does not mention the name of Kapilavastu amongst the well-known places where he should die.

In this connection Oldenberg said, "The following leads me to deny the antiquity of the traditions which make Buddha's father a king when (as in the *Somadansutta* of the "Digh N") the external claims of Buddha to respectful consideration are discussed, it is always admitted merely that he has come of an "uccakula, khattiyakula addhakula." It is emphasised that when he entered on a spiritual career, forsook relatives and friends, gold and silver, the kingly dignity of the family is never

alluded to.¹⁸ He further said, if anywhere, it is with reference to a circumstance of this kind, which assuredly could not have been suppressed, that the *argumentation ex-silentio* is applicable. To this another consideration must be added. Anyone who knows the uniform care with which the titular appellation of persons, appearing in the *Pitakas* is observed, will also find this difference decisive, that Buddha's father is there named only Suddhodhana Sakka (*Mahavagga*" i 54 and ff. the passage cited above from the *Mahasaccakasutta*), just as mention is made of Anuraddha Sakka, Upananda Sakyaputta etc."¹⁹

G. C. Pande has also observed without any doubt and said, "Economic life was simple, and rested on villages surrounded by rice fields, pastures and forests. Large cities like Baranasi, Savatthi, and Vesali were apparently not included in Sakyas territories. In this background the story of Buddha's having had in his early life three different palaces for the three seasons does not appear very plausible. This may represent the beginning of the later tradition which makes Buddha the son of a king. The growth of the ideal of the king of Righteousness might also have contributed to this development".²⁰

According to the information available in Buddhist texts and described by Oldenberg, Kapilavastu and the land of the Sakyas fell between the Nepalese lower ranges of the Himalayas and the middle part of the course of Rapti, which runs through the northeastern parts of Oudh. The strip of land, level and fruitful extends to about fifty kilometers and is well watered by the numerous streams that issue from the Himalayas. Here lay the not very extensive territory over which the Sakyas claimed supremacy and dominion. On the east the Rohin separated the land of the Sakyas from their neighbours. On the west and south the rule of the Sakyas extended quite up, or nearly so, to the Rapti. In the land of the Sakyas between tall forests for *Sal* trees, there spread out in uniform richness yellow rice fields. The rice plant constituted the chief crop of the country, where the water of rainy season and of inundations remain long standing on the rich soil of the low lying flats, and renders in great measure superfluous that excessively troublesome artificial irrigation which is elsewhere necessary for rice. The importance of rice cultivation to the Sakyas is evident from the name of Buddha's father Suddhodana meaning "pure rice". Between the rice-fields we may see here and there place villages in the days of the Sakyas such as exist today, hidden among the rich, dark green foliage of mangoes and tamarinds, which surround the village site. In the background of this picture over the blue mosses of the mountains of Nepal, rise the towering snow-capped summits of the Himalayas.

According to G. C. Pande, "The Sakya territory was spread over the lower slopes of the Himalayas, and included, beside Kapilavastu, the towns of Catuma, Lamagama, Khomadussa, Silavati, Medalimpa, Nagaraka, Ulumpa, Devadaha and Sakkara. Devadaha was the town next in importance to Kapilavastu. Politically the Sakyas were practically independent till Vidudabha invaded them. The administration and the more important judicial business of the clan was carried out in public assembly at which young and old were alike present. The headship of the state was vested periodically in an elected chief entitled Rajan".²¹

EXCAVATION AT PIPRAHWA

The distance between Sravasti, the capital of Kosala, and Kapilavastu could be covered in three days by Suddhodana's messenger, but by old king Prasenjit and queen fugitives in seven days and nights. Kapilavastu was, according to the *Jataka* stories, sixty *yojanas* from Rajagriha but according to the "Hsing-chi-ching" only ten *yojanas*.

The two Chinese pilgrim Fa-hien and Hiuen Tsang have rendered a great service to Indian history by furnishing graphic account of their pilgrimage, though in a number of cases the same is very much exaggerated. While describing the towns and cities they have also carefully recorded their distance from one another. Fa-hien who visited India in A.D. 399 gives the following details regarding Kapilavastu:

"Leaving the city of Sravasti and going twelve *yojanas* to the south-east we arrived at a town called Napika. This is the birth-place of Krakuchchhanda Buddha. There are towers erected on the spots where the interview between the father and son took place, and also where he entered *Nirvana*.

"Going north from this place less than a *yojana* we arrived at a town where Kanakamuni Buddha was born; there are towers also erected here over similar places as the last. Going eastward from this less than a *yojana*, we arrived at the city of Kapilavastu. In this city there is neither king nor people, it is like a great desert. There is simply a congregation of priests and about ten families of lay people.

"On the site of the ruined palace of Suddhodhana there is a picture of the prince's mother, whilst the prince, riding on a white elephant, is entering the womb. Towers have been erected on the following spots where the royal prince left the city by the eastern gate; where he saw the sick man; and where he caused his chariot to turn and take him back to his palace. There are also towers erected on the following spots: at the place where Asita observed the marks of the royal prince; where Anand and the others struck the elephant, drew it out of the way, and hurled it; where the arrow, going south-east 30 *li*, entered the earth, from which bubbled up a fountain of water, which in after generations was used as a well for travellers to drink at; also on the spot where Buddha, after arriving at supreme wisdom, met his father; where the 500 Sakyas, having embraced the faith, paid reverence to Upali; at the place where the earth shook six times; at the place where Buddha expounded the law on behalf of all the Devas, whilst the four heavenly kings guarded the four gates of the hall, so that his father could not enter; at the place where Mahaprajapati presented Buddha with a *Sanghati* whilst he was sitting under a *Nyagrodha* tree with his face to the east, which tree still exists; at the place where Virudhaka-rajā killed the offspring of the Sakyas who had previously entered on the path *Srotapanna*. All these towers are still in existence. A few *li* to the north-east of the city is the royal field where the prince, sitting underneath a tree, watched a ploughing match. Fifty *li* to the east of the city in the royal garden of Lumbini, it was here the queen entered the bath to wash herself and having come out on the northern side, advanced twenty paces, and then holding a branch of the tree in her hand, as she looked to the east, brought forth the prince. When born he walked seven steps, two dragon kings washed the prince's body—the place where this occurred was afterwards converted into a well, and here, as likewise at the pool, the water of which came down from above for washing (the child), the priests draw their drinking water. All the Buddhas have four places universally determined for them: (1) The place for arriving at Supreme wisdom; (2) The place for turning the wheel of the law; (3) The

place for expounding the true principles of the law and refuting the heretics; and (4) The place for descending to the earth after going into the Trayas-trimsas heaven to explain the law to their mothers. Other places are chosen according to existing circumstances. The country of Kapilavastu is now a great desert; you seldom meet any people on the roads for fear of the white elephant and the lions. It is impossible to travel negligently".²²

Hiuen Tsang, who visited India much later in A.D. 629 records the following details :

"From this point (i.e. Sravasti) going southeast 500 *li* or so we came to the country of Kapilavastu. This country is about 4000 *li* in circuit. There are some ten desert cities in this country, wholly desolate and in ruins. Its circuit cannot be accurately measured. The royal precincts within the city measure some 14 to 15 *li* round. They were all built of brick. The foundation walls are still strong and high. It has long been deserted. The peopled villages are few and waste.....

"There is no Supreme ruler; each of the town appoints its own ruler. The ground is rich and fertile, and cultivated according to the regular season. The climate is uniform, the manners of the people soft and obliging. There are 1,000 or more *Sangharamas* remaining by the side of the royal precincts, there is still a *Sangharama* with about 30 followers in it, who study the little vehicle of the Sammatiya school.....

"To the south of the city going 50 *li* or so, we come to an old town where there is a stupa. This is the place where Krakuchchanda Buddha was born, during the Bhadra-Kalpa when men lived to 60000 years.....

"To the north-east of the town of Krakuchchanda Buddha, going about 30 *li*, we come to an old capital (or great city) in which there is a stupa. This is to commemorate the spot where, in the Bhadra-Kalpa when men lived to the age of 40000 years, Kanakamuni Buddha was born.....

"From this (i.e. from a stupa outside the south gate of the city) 30 *li* south-east is a small stupa. Here there is a fountain, the waters of which are clean as a mirror. Here it was, during the athletic contest, that the arrow of the prince, after penetrating the targets, fell and buried itself upto the feather in the ground, causing a clear spring of water to flow forth. Common tradition has called this the *arrow fountain (Sarakupa)*; persons who are sick by drinking the water of this spring are mostly restored to health."

"To the north-east of the arrow well about 80 or 90 *li*, we came to the Lumbini (Lavani) garden. Here is the bathing tank of the Sakyas, the water of which is bright and clear as a mirror, and the surface covered with a mixture of flowers. To the north-east of this 24 or 25 paces there is an Asoka-flower tree, which is now decayed, this is the place where Bodhisattva was born on the eighth day of the second half of the month called Vaisakha."²³

While describing the deserted condition of the town of Kapilavastu Shui-Ching-Chun said, "The kingdom of Chia-wei-to-Yuch (Kapilavastu) has not got a king now. The city and the ponds are desert and dirty, and there is only the empty space. There are some *upasaka*, about twenty householders of the Sakya family; they are the posterity of Suddhodana. Once they formed four families who dwelt inside the old city and acted as *upasaka*; formerly they highly cultivated religious energy

(oriya) and still maintained the old spirit. In those days, when the stupas were dilapidated, they completely repaired them. The king of Kapilavastu, over and above this, took care of one stupa, and the king of Ssu-ho-tias such gifts as an aid to finish it. But now there are (only) twelve monks who dwell inside that (city).²⁴

E. EARLIER ATTEMPTS

Like the lost town of Kapilavastu, the archaeologists were also lost amidst numerous problems. The details regarding the location of Kapilavastu are of the most unsatisfactory nature, in most cases covered up in legends and romances. The Buddhist texts, besides being contradictory, furnished a very inadequate and sketchy description of Kapilavastu. Complications were added to the problem by the religious sentiments of the Buddhists, who described the town to be too glorious in their texts. In the absence of adequate information in the Buddhist texts, the scholars had to depend mainly on the travel documents of the two Chinese pilgrims Fa-hien and Hiuen Tsang, though, of course, they were also not free from deep religious sentiments. Further, the records were complicated on account of various reasons. Firstly, the pilgrims did not always adopt the same route and secondly, the places from where the distance of Kapilavastu was mentioned were themselves not known. Thirdly, the account of Kapilavastu was very much exaggerated. Above all, the direction recorded by the two travellers do not always agree with each other. The greatest confusion was created by the two routes followed by the two pilgrims from Kapilavastu to Lumbini. While Fa-hien went from Kapilavastu straight to Lumbini, Hiuen Tsang adopted a circuitous route, first going to *Sarakupa* from Kapilavastu and then to Lumbini.

Of course, a beginning to establish the identity of the ancient town was made much earlier like a wild goose chase, concentrated efforts in the direction were made by a number of scholars after the discovery of the inscribed Asokan pillar at Lumbini, the birth-place of Buddha and inscribed relic casket at Piprahwa in 1896 and 1898 respectively.

In the year 1858 Lassen considered the remains of Kapilavastu on the bank of the modern Rohin at a short distance to the north-west of Gorakhpur, a divisional headquarter of Uttar Pradesh.²⁵ He took Rohin to be ancient Rohini, which according to Ceylonese chronicles is said to have flowed between the territories of Sakyas and Koliyans. According to tradition Buddha once intervened to avoid a struggle between the Sakyas and Koliyans over the distribution of the water of Rohini. Monsieur Stanislaus Julian agreed with the findings of Lassen.²⁶

Alexander Cunningham, Archaeological Surveyor, successfully established the remains of Sravasti in 1863 with the help of an inscription. Sravasti being one of the cities from where the distance of Kapilavastu was recorded by the Chinese pilgrims, the discovery came as a great fillip in the search of the lost town, which was calculated to be eighty to ninety miles south-east. Taking Kakua to be the birth-place of Krakuchchanda, Cunningham declared Nagarkhas in the southern part of Basti district in *pargana* Aurangabad to be ancient Kapilavastu. While referring to the birth-place of Krakuchchanda he said, "As the site of this place may with great probability be identified with Kakua, eight miles to the west of Nagar, which I propose to identify with Kapilanagara, I am inclined to adopt the narrative of Fa-hien. Now the distance between Sahet (Sravasti) and Nagar is

rather more than $81\frac{1}{2}$ miles."²⁷ Elaborating further on the identification he said, "Now the town of Nagar, or Nagarkhas, that is "the city", is situated on the eastern bank of the Chando Tal, near a large stream named Kohana, a tributary of the Rapti, in the northern division of Oudh beyond the Ghaghra river, and therefore in Kosala."²⁸ The ground on which Cunningham made such an important declaration, without caring to visit the site and examining the remains is indeed surprising. Taking the direction recorded in the documents of the Chinese travellers to be absolutely correct, he appears to have simply measured the distance from Sravasti on the map to arrive at the decision.

A. C. L. Carlleyle, the assistant of Cunningham, explored the districts of Gorakhpur and Basti in 1875-76 with the primary objective of settling the question of the location of Kapilavastu. He did not lose much time in identifying the remains at Bhuladih in Mansurnagar *pargana* of Basti district as Kapilavastu. The ancient site is about twenty-four kilometres west-north-west of Basti. Carlleyle also made an attempt to verify the claims of Cunningham regarding the location of Kapilavastu at Nagarkhas. Though he himself could not visit the site, he sent a party to collect necessary data. Turning down the identification of both, the birth-place of Krakuchchhanda and Kapilavastu, by Cunningham he said, "From the general conclusions that I drew from the above informations which I received concerning Nagar Khas and its immediate neighbourhood, it appeared to me that it could not have been the site of Kapilavastu as it did not seem to agree in any one single point with the description of that ancient capital of the Sakyas, as given either by Fa-hien or Hiuen Thasang. The general mound near Nagar Khas may probably be the site of some very ancient city, perhaps more probably, one of the ten deserted towns, which are stated to have existed in the dominions of the Sakyas, but it apparently has not any of the surrounding points, or contingent features, which especially constitute the most important and necessary concomitants, required for the full identification of the site of Kapilavastu."²⁹

Carlleyle was too subjective in giving credence to his own identification. However, he must be congratulated for the feats he performed in comparing the syllables of the word Kapilavastu with Bhuladih in order to carry conviction amongst scholars on his location. The extent to which his imagination could fly in this direction deserves all appreciation. In spite of the fact that he could not find any antiquity during the course of his excavation at Bhuladih to associate with Kapilavastu, he painstakingly connected various mounds in the proximity with different localities of Kapilavastu as mentioned by the Chinese pilgrims. Though Carlleyle exhausted a large number of pages in comparing the syllables of the words Kapilavastu and Bhuladih, only two are being quoted here to bring home to the mind of the readers his intelligence and height of speculation. He said, "Now it struck me that at least the termination *ila* of the two names of Kapila and Bhula was exactly the same, and there might be something in that and the first two syllables of the two names *Kap* and *Bhu* might perhaps eventually, on analysis turn out to be synonymous for the Sanskrit radical *Ka* is said to signify earth or soil, and *bhu* also signifies ground, or land, or place. But the difficulty was, what to make of the latter *p* in the syllable *Kap* of Kapila unless indeed, we supposed that Bhula was a corruption of *Bhupila*; and that as *Bhup* meant king, sovereign, so also *Kap* might mean head, or top or chief, as the root of the Sanskrit word *Kapal*, which means head, forehead."³⁰ In another example he said, "Again, the Sanskrit radical *Ka*, as meaning "earth", or "soil". Hence Kailasya would correspond to

Bhu-ilas. But Kailas is the name of the mountain Paradise of Kuvera and of Siva, and *Kapila* is a name of Siva. Thus *Bhuilas* would be equivalent to *Kailas* and *Kapilavastu* would mean "The abode of Siva". But it might also mean the place of skulls." Now it is remarkable that there is actually a famous *Lingam* of Siva, at Bhuila which is called "*Bhuileshwar*."³¹ As a true master, Cunningham, without caring to examine the details, upheld the decision of Carlleyle.

In the last decade of the nineteenth century certain important discoveries viz. two fragments of an inscribed pillar by the side of a tank called Nigalisagar (7 kilometres north-east of Taulihawa in Tarai), the lower portion of an Asokan pillar *in situ* and a stupa at Gotihawa (4 kilometres south-east of Taulihawa), a pillar *in situ* with the record of Asoka at Lumbini (24 kilometres north-east of Taulihawa) and the inscribed casket at Piprahwa, rendered the speculations of Lassen, Cunningham and Carlleyle unfounded, because Kapilavastu was not far off from these places according to the travel documents of the Chinese pilgrims.

A. Fuhrer was commissioned in 1896 to advise the Nepalese Government in the works of exploration and excavation. He considered the location of Kapilavastu as decided by earlier scholars to be erroneous on topographical grounds. He developed this view after he was able to establish the precise location of Lumbini garden, the birth-place of Lord Buddha, with the help of an inscribed Asokan pillar at Lumbini, which was very valuable in the search of Kapilavastu. Taking into consideration the distance of Lumbini from Kapilavastu, as calculated by Fuhrer from the records of Hiuen Tsang, he felt that the remains at Tilaurakot and the surrounding villages are those of Kapilavastu. Situated at a straight distance of three kilometres to the north-north-east of Taulihawa, a district headquarter in the central part of Nepalese *tarai*, the ancient site of Tilaurakot is named after the village of Tilaura. Taulihawa is twenty-one kilometres north-east of Shohratgarh, a town in Basti district of Uttar Pradesh and also a railway station on the Gorakhpur-Gonda loop line of the North-eastern Railways.

A. Fuhrer was the first explorer to place Kapilavastu in Nepal. While taking decision of such a great importance, he ignored completely the distance of Lumbini from Kapilavastu as recorded by Fa-hien. No attempt was made to analyse the variation in the records of the two Chinese pilgrims Fa-hien and Hiuen Tsang. A. Fuhrer emphatically said, "The discovery of the Asoka Edict Pillar in the Lumbini grove at Rumindei enabled me to fix also, with absolute certainty the site of Kapilavastu and of the sanctuaries in its neighbourhood. Thanks to the exact notes left by two Chinese travellers, I discovered its extensive ruins about eighteen miles north-west of the Lumbini Pillar, and about six miles north-west of the Nigali Sagar, stretching between lat. 27° 32' - 38" N. and long. 28° 3' - 10" E. in the middle of a dense *sal* forest over a length of about seven miles from the villages of Amauli, Barduli, Harnampur, and Bikuli (north-east) to Sivagarh, Tilaurakot and Ramghat on the Banganga (south-west) and over a breadth of about three to four miles from the villages of Rampura, Ahirauli, and Srinagar on the south to the villages of Jagdisur and Nagravah on the north. The whole site is at present as dreary and desolate as when seen by Fa-hien and Hiuen Tsang; yet every sacred spot mentioned by the two pilgrims can be easily identified".³² Taking it for granted that Tilaurakot was Kapilavastu, though of course without any tangible evidence, Fuhrer also declared to have located the natal towns of Kanakamuni and Krakucchhandha in the neighbourhood.

A. Fuhrer was again commissioned in December 1897 to assist and advise His Majesty's Government of Nepal in the supervision of excavation. The excavation was concentrated on the bank of a large tank, called Sagar, in Sagarahwa village, which was nothing but a wholesale destruction. The primary aim of the excavation was collection of treasures and reliquaries for which seventeen so-called square stupas and a conspicuously large structure also called stupa and attached with a monastery were ransacked down to the foundations. All these structures were acclaimed by Fuhrer, to be the stupa containing the relics of the Sakyas massacred by Vidudabha, the young king of Kosala and son of Prasenjit. Fuhrer's attempts to associate the names of eighteen Sakyas, including Mahanam, with the structures on the false ground of writing in pre-Asokan characters was fortunately foiled in time by V. A. Smith, who paid a surprise visit to the site when the excavation was in progress. Thus the forgery of Fuhrer to establish the identification of Kapilavastu was exposed to the public. The Sakyas and his kinsmen, according to tradition, were massacred in revenge for a slight put upon the neighbouring king of Kosala.

An account of the massacre of the Sakyas mentioned above appears in the introduction to the *Bhaddasala Jataka* (No. 465) and almost in identical terms in Budhaghosa's commentary on the *Dhammapada*. The entire episode has been described as follows:-

The Buddhist monks, having no trusted friend in the palace of king Prasenjit of Kosala, would not go there to eat anything. When the king came to know of it, he asked Buddha, "What is the best kind of food." Buddha replied, "The food of confidence." "Then" said the king " in whom do the monks repose confidence." Buddha replied, "Either in their own kinsmen, or in those who belong to Sakya families".

Thereupon king Prasenjit decided to gain the confidence of the monks by marrying a daughter of the Sakyas on the condition of making her chief queen. Emissaries were sent to Kapilavastu to request the Sakyas for one of their daughters in marriage. Since the king of Kosala was considered to be of an inferior race, the Sakyas were confronted with a problem, because the proposal was from the king whose orders could not be defied. Sakka Mahanam, however, presented a way out. He said to them, "Do not trouble about it. I have a daughter, named Vasabhakhattiya. Her mother is a slave woman, she is some sixteen years of age, of great beauty and auspicious prospects, and by her father's side nobly born". The proposal was therefore, accepted by the Sakyas. Suspecting some foul play the messengers of the king said, "We will take one who eats along with you". A ruse was, therefore, planned by the Sakyas which made the messengers believe that Vasabhakhattiya ate with Mahanam. Vasabhakhattiya was then accepted in marriage and was made the chief queen at Sravasti. After some time she gave birth to a son, who was named Vidudabha.

When Vidudabha was sixteen years old, he obtained his mother's consent, with great difficulty, to visit his maternal relations place. He set out for Kapilavastu with his retinue. Apprehending the ensuing danger, Vasabhakhattiya fore-warned her relatives of the impending visit by his son through a letter privily. The Sakyas, on hearing the programme of Vidudabha, sent off all their young children into the country. "It is impossible", said they, "to receive him with respect".

When the prince arrived at Kapilavastu, the Sakyas had assembled in the royal rest-house.

He was presented to his maternal grandfather, maternal uncle, etc. He walked from one to the other saluting them. But although he bowed to them all till his back ached, not one of them vouchsafed a greeting. He, therefore, asked "Why is that none of you greet me"? Promptly came the reply from the Sakyas, "My dear, the youngest princes are all in the country".

After a few days stay, Vidudabha left Kapilavastu back for home. Immediately after his departure a slave woman washed the seat, which he had used in the rest-house with milk-water saying insultingly, "Here is the seat where sat the son of Vasabhakhattiya, the slave girl". This was unfortunately overheard by one of the armed men accompanying Vidudabha, who had returned to fetch his weapon left behind. He curiously asked the meaning of the words and was told that Vasabhakhattiya, the mother of Vidudabha was born of a slave girl to Sakya Mahanam.

The whole conspiracy was exposed and narrated by the soldier before Vidudabha. Very much infuriated on the cunning trick played by the Sakyas, Vidudabha registered a vow, "Let they pour milk-water over the seat, I sat in, to wash it. When I will be king, I will wash the place with their hearts blood".

When Vidudabha became a monarch, he left Sravasti with a great army to vanquish the Sakyas but Buddha intervened. He pleaded that the nobility of a child is considered from the father and not mother. Vidudabha was forced to return. Likewise it happened on the second and third time. On the fourth occasion Buddha did not intervene because of a great sin committed by the Sakyas in poisoning a river. Vidudabha slew all the Sakyas, beginning with the babes at the breast; and with the blood from their hearts he washed the bench which he had occupied during his visit. The immediate followers of Mahanam were, however, spared.

Buddhaghosha has presented a different account of the ending of the episode, according to which, on the death of Buddha, there were still left, at Kapilavastu, some of the kinsmen to claim and receive a portion of his corporeal relics after cremation at Kusinara and to build a stupa over them. The fact of complete destruction of the Sakyas is not corroborated by *Mahaparinibbanasutta* also, which records that the Sakyas of Kapilavastu were in full possession of life and prosperity after the death of Buddha. According to the text the Sakyas claimed a portion of the relics of Buddha on the ground that the blessed one was their own kinsman. And the same text further tells that the Sakyas duly carried out their promise and built a stupa at Kapilavastu after holding a befitting ceremony in honour of the relics.

"In the Pali stories", according to T. Watters, "the Wu-fen Vinaya", and some other treatises it was the violent conduct of the Sakyas to Virudhaka on account of his thoughtless use of their new Hall which made him vow revenge. The Sakyas had recently built a fine new Assembly Hall in or near their city, and they had agreed that it was not to be used by anyone whatever until it is formally opened by the Buddha. In the meantime, before his opening occurred, Prince Virudhaka, a boy, comes to Kapilavastu with his retinue and instals himself in the Hall. Hearing of this the Sakyas become very angry, and had not the Prince fled they would probably have treated him with violence. As he had gone they contented themselves with abusing him as the son of a slave girl, took up the tiles of the floor and purified with milk and water the benches (or slabs) he had occupied".³³ So far

as the complete destruction of Kapilavastu is concerned Watters said, "It is hard to accept the story of the Sacking of Kapilavastu and the extermination of its inhabitants by Virudhaka, who, as king of Kosala was also king of Kapilavastu. Was the story made up in order to get rid of the impossible city, invented by the makers of the romances about the Buddha's birth and early life?"³⁴ Watters further said, "Then in the very interesting *Dhammapada* treatise called "Chu-yao-chuig", translated in 399, we find Virudhaka's punishment of the Sakyas introduced in order to enforce and illustrate the doctrine of Karma."³⁵ Notable again is the observation of Watters in the words, "It is to be noted that the Pali and *Mahasanghika Vinayas* do not seem to have any mention of or reference to Virudhaka's invasion and destruction of Kapilavastu. The latter treatise even tells of congregation of Bhikshus at the city several years after Buddha's decease, and of a feud there between Anand and Rahula on account of an affair connected with a layman's children."³⁶ The event of Virudhaka's invasion, it may be noted, does not find a place in the "*Asokavadana*". V. A. Smith did not believe in the description of the episode of Vidudabha and said, "It is obvious that, if there is any truth in the tale of the destruction of the place by Vidudabha, genuine knowledge in detail of the particular holy spots so glibly pointed out by the local guides could not possibly have survived, and their identifications must have been faithful. As Watters observes they failed to show the Sakyas' assembly hall and other objects frequently mentioned in the book, the reason apparently being that the guides did not know where to place them or had never read the books in which they are described."³⁷

The inscribed casket yielded by the stupa at Piprahwa in the year 1898 came as an important landmark in the location of Kapilavastu.

In the year 1899 P.C. Mukherji was assigned with the job of undertaking explorations and excavations in the Nepalese *tarai*. During the course of his work he excavated a little here and there alongwith Piprahwa. The inscription on the casket from Piprahwa found by Peppé led him to say, "One point comes prominently in view from this inscription, which is antecedent to the period of Priyadarsi the Great, that the Sakyas to whom the Buddha belonged must have built the stupa in their country. Kapilavastu should, therefore, be sought not very far from it."³⁸ However, after a systematic survey he also derived the same conclusion that Tilaurakot was ancient Kapilavastu. A careful consideration of all the available information coupled with the results of his survey led him to exclaim, "It will thus be seen that no other ancient site has so much claim on the identification of Kapilavastu as Tilaura, as being situated in the right position and fulfilling all other conditions."³⁹

The moment that this explanation flashed on my mind, all difficulties in the interpretation of the documents vanished. Each locality described dropped into its position in the itinerary, of each pilgrim, and each itinerary fitted into the other. Hiuen Tsang now supports Fa-hien, and Fa-hien supports Hiuen Tsang. The different methods in which the two pilgrims describe the approach to Kapilavastu from Sravasti now become intelligible."⁴⁰

The scholars considered the distance of Lumbini from Kapilavastu, as furnished by the two Chinese pilgrims, Fa-hien and Hiuen Tsang to be at variance from each other. They somehow or the other failed to read between the lines. In order to reconcile the difference V. A. Smith came out with a new interpretation and said, "I spent many hours in the vain attempt to harmonize the statements

of Fa-hien and Hiuen Tsang on the assumption, which I had never doubted, that they both described the same place as being Kapilavastu. At last a process of reasoning such as I have sketched above suddenly brought me to the unexpected conclusion that Piprahwa is the Kapilavastu of Fa-hien, whereas the city around Tilaurakot is the Kapilavastu of Hiuen Tsang." Though Smith presented such a view it could not carry conviction in his own mind. He was frank enough to admit and say, "If I am asked the reason why, in or about A. D. 406, Piprahwa was regarded as representing Kapilavastu, whereas in A. D. 635 the city on the Banganga was regarded as representing the same place, I can only reply that I do not know the reason, and plead ignorance concerning events which occurred fifteen hundred years ago is excusable."⁴¹ It would be quite amazing to record here that immediately after the discovery of the inscribed casket at Piprahwa, Smith held a different opinion and said, "My identification of the Piprahwa site with the Kapilavastu of Fa-hien rests upon the pilgrims description of his itinerary."⁴²

T.W. Rhys Davids pronounced a new solution to resolve the presumed difference in the distance and remarked, "The old Kapilavastu was probably at Tilaurakot. But Peppé's important discoveries at the Sakyas Tope (at Piprahwa) may be on the site of a new Kapilavastu built after the old city was destroyed by Vidudabha."⁴³

The opinion of J. F. Fleet was very much similar to that of Rhys Davids in so far as the existence of two Kapilavastus was concerned. He said, "The mound, the ruined stupa, in which the record and the relics were found may or may not mark the actual scene of the massacre of the Sakyas of Kapilavastu. Fa-hien's statement mentions only one memorial of the massacre and distinctly suggests that it stood, not amongst a vast number of other stupas but in somewhat isolated position such as that occupied by the Piprahwa mound. And it seems not impossible that what was shown to Hiuen Tsang was, in reality, the general cemetery of Kapilavastu."⁴⁴ The theory of two Kapilavastus had its birth, as a matter of fact, in the unfounded declaration by A. Fuhrer regarding Tilaurakot followed by the discovery of the inscribed casket at Piprahwa. The scholars were not bold enough to reject the claim of A. Fuhrer in the face of the discovery at Piprahwa and at the same time ignore the finding at the latter place.

J. F. Fleet in the beginning, no doubt, interpreted the inscription from Piprahwa to mean, as already mentioned, to mean that the casket contained the relics of Buddha, but at a later stage he confused the entire issue and changed the interpretation. A rethinking, on the basis of certain remarks made by M. Sylvain Levi in *Journal des Savant* of 1905, led Fleet to feel that the relics were not of Buddha, but of his kinsmen (Sakyas of Kapilavastu) massacred by Vidudabha. The remarks of Levi were, "We know the fact, from the evidence of Hiuen-Tsang, that the remains of the Sakyas, collected after the general massacre ordered by the nupious Virudhaka were deposited under stupas."⁴⁵ Fleet said "The record in fact commemorates, as I will prove in detail below, an enshrining of relics, not of Buddha himself as has hitherto been believed, but of his kinsmen, with their wives, and children and unmarried sisters. And now we see the meaning of the curious nature of the articles, numbering more than seven hundred, which were found in the stupa along with the inscribed vase."⁴⁶ In order to justify his views he changed the meaning of the word Sakyas and said, "It becomes obvious in fact, that Sakiya can only be a noun or adjective expressing some relationship or connection of that sort.

And, discarding the suggestion which I made on the previous occasion, I find the natural meaning of word Sakiya, as used here, in one of the ordinary meanings which belong to it as the Pali form of the Sanskrit, Svakiya, own, belonging to oneself."⁴⁷ Continuing further he expressed that, "But however, that may be, the natural translation of the words *Buddhasa bhagawate Sakiyanam* is "of the Kinsmen of Buddha, the Blessed one."⁴⁸

A. Barth was very critical of the new interpretation of the inscription given by Fleet. He said, "Dr. Fleet accepts, in effect, Professor Rhys Davids' now so improbable interpretation of *Sukirti* as a designation of the Buddha; from Professor Levi he takes over the latter's general conclusion that we have to deal with the relics of the victims of the massacre. But then the *Sakiyanam* at the end can no longer be an ethnical name, as "the Sakyas of the Buddha" would have no sense in any language. So he makes it an adjective, representing it as from the Sanskrit *Savakiya*, "*Suus proprins*" with the meaning of "relations, Kinsman", which the word really has..... And first as to the construction. By merely casting a glance at the above literal version, we notice at once that it is a strange one; that the first part of the inscription and the last one, which are in opposition to each other, are awkwardly separated by the medial clause, the mention of the reliquary..... And having indicated "the brethren of the well-famed one" was it necessary to add that these brethren were kinsmen?..... It will be seen that to bring to trial Dr. Fleet's construction is at the same time to bring to trial his interpretation of Sakiya. I really do not understand what he has against this ethnical term..... If I correctly understand Dr. Fleet,— for his theory is somewhat complicated and is not easily summed up in a few words— he does not deny the existence of a nearly similar ethnical term, but he will have it that all the forms in which the name occurs in epigraphy, and with a single exception, no Pali literature arise from a misunderstanding, and should be referred back to the possessive adjective *Swakiya*. By dint of calling the member of the community or of the clan of the founder *Buddhasya Svakiyah*, "the Kinsmen of Buddha", they would finally have been called simply the *svakiyah*. The hypothesis is ingenious, but I doubt if it will find many supporters. Yet on this frail basis Dr. Fleet would build an entire long chronological edifice. In our inscription, which, moreover, does not mark the vowel *Sakiya* would still be taken in original sense, the inscription must, therefore, be anterior; by at least a full century to that on the pillar of Asoka at Rummindei (the middle of the 3rd century B.C.), in which the notation of the long vowel is established and in which the designation of the Buddha as *Sakyamuni*, "the hermit of the Sakyas", shows that the possessive adjective has had time to change into ethnical term. The inscription would, therefore, be far more ancient than any yet found in India. Dr. Fleet, does not venture, positively, any further than half way between the reigns of Asoka and the date generally accepted for the death of the Buddha; for he is too experienced an epigraphist to carry back this writing, without more ado, to the very time of the *nirvana*. Yet he allows us to perform the rest of the journey at our own risk".⁴⁹

While concluding his discussion of the inscription A. Barth said that he was happy to be in entire agreement with the following interpretation given by M. Senart.

"This receptacle of relics of the blessed Buddha of the Sakyas (*is the pious gift*) of the brothers of Sukirti, jointly with their sisters, with their sons and with their wives."⁵⁰

However, the closing remarks of A. Barth on the importance of the inscription were far more

interesting. He said, "with the Buddha, whom it left in his vague and legendary twilight, and whose "tomb" it will not allow us to visit, it in no way tends, even indirectly, either to strengthen or to weaken the accounts of the distribution of the ashes, or of their removal by Asoka, or of the destruction of Kapilavastu and the Sakyas; nor does it supply us with materials for constructing a chronological system; it simply makes us acquainted together with the name of an unknown personage, no doubt some local *raja*, with the existence (after so many others, teeth, frontal bone, *ahus bool*, hair, even the very shadow) of new relics of the great reformer, relics probably more ancient, and which may, if so inclined, suppose more authentic, than any others."⁵¹

The theory of two Kapilavastus, however, did not find favour with W. Hoey. He felt that when Smith admits that the two pilgrims must have seen the same town of Krakuchchhanda and Kanakamuni, his theory that they saw two different Kapilavastus is thin."⁵²

W. Vost was in favour of only one Kapilavastu, its remains being at Tilaurakot. He said, "The relative positions and distances from one another of the places, which I identify with Kapilavastu, Kona and the town of Krakucandra, and the bearings to certain other remains lead me to agree with the statement respecting Tilaurakot that there is no other place in the whole region which can possibly be identified with royal precincts."⁵³

A. S. Geden without an iota of doubt on the identification of Kapilavastu with Piprahwa said, "At Piprahwa (Piprahawa, Piprawha) in the United Provinces, excavations were made some years ago in an ancient mound and relic chambers and among the objects discovered were a large box, containing steatite vases (one of which has a short inscription), pieces of bone, gold leaf, jewels, beads, etc. The inscription when read was understood to describe the relics enclosed in the vase as those of the Buddha himself; and it was inferred that those fragments of bone were the actual portion of the body of Gautam, preserved after cremation, over which was erected the *stupa* which had now been rediscovered. Dr. Fleet, however, interprets the inscription differently; and understands it to refer, not to the founder himself, but to the Sakyas, his kinsmen, many of whom according to the tradition, were massacred and their city wholly or partially destroyed, in revenge for a slight put upon the neighbouring king of Kosala. In either case the inscription would seem to carry with it the identification of Piprahwa with Kapilavastu, the capital of the Sakyas."⁵⁴

In 1962 D. Mitra (Smt.) of the Archaeological Survey of India was deputed by the Government of India to undertake explorations and excavations in the Lumbini-Tilaurakot region of the Nepalese *Tarai*. Though a large part of the area known as the ancient country of Kapilavastu was explored and excavations were also conducted extensively at Kodan and limitedly at Tilaurakot, she did not find any tangible evidence in favour of the identification of Tilaurakot with Kapilavastu. In her book *Buddhist Monuments* published in December 1972 Debala Mitra remarked, "Intensive excavation in the monasteries at Piprahwa is likely to yield some monastic seals or sealings which usually furnish the name of the establishment. If they are found, they will prove conclusively identity of Piprahwa and the adjoining sites with Kapilavastu or otherwise. At the same time if they present the name of an establishment other than Kapilavastu (or Nyagrodharama), the information will be a step forward towards the precise location of this lost site."⁵⁵ The conviction of Piprahwa being the site of Kapilavastu developed in her mind when she could not find any such evidence at Tilaurakot

and she said, "In fact, the inscription on the reliquary found within the main stupa at Piprahwa coupled with Piprahwa's correspondence with Fa-hien's bearing and distance of Kapilavastu in relation to Lumbini raises a strong presumption for Piprahwa and its surrounding villages like Ganwaria being the site of Kapilavastu."⁵⁶ The above-mentioned declaration of D. Mitra was made public by the book only after adequate progress was made in the excavation at Piprahwa by the author and fresh relic caskets were discovered at a much lower level corresponding with the date of the death of Buddha.

There were several indications in favour of Piprahwa being the ancient site of Kapilavastu. One of the most important evidence was provided by the inscription on the lid of the smaller relic casket found by W. C. Peppé. The inscription by its reference to Buddha and his community Sakya furnished a very good clue to the identification of Kapilavastu. According to Buddhist text *Mahāparinibbānasutta*, *Dīgha Nikāya* and *Buddhavaṃsa* Sakyas were one amongst the eight claimants of the relics of Buddha after he was cremated at Kusinara. The Sakyas enshrined the relics in a stupa at their capital Kapilavastu after holding befitting ceremony. The views of Sylvain Levi in this connection were quite pertinent. While discussing the inscription from Piprahwa for interpretation he was of the opinion that it merely recalled a more ancient consecration and the inscription was engraved on the occasion of the reconstruction of the stupa.⁵⁷

The second clue came out from the two interpretations of the same inscription by J. F. Fleet. Fleet appears to have changed the interpretation only after he was not able to reconcile the date of the inscription with that of the death of Buddha. It never struck the mind of the scholars that the relics in fact were still lying below in the stupa.

The third indication for the identity of Piprahwa with Kapilavastu appeared from the records of the Chinese traveller Fa-hien. According to him Lumbini (the birth-place of Buddha) should be nine miles east of Kapilavastu which corresponded very well with the ancient site of Piprahwa. The ambiguity between the distance recorded by Fa-hien and Hiuen Tsang, as supposed by the scholars, must be elucidated here. Fa-hien went straight to Lumbini from Kapilavastu, whereas Hiuen Tsang first went to *Sarakupa* (Arrow well) and then to Lumbini. Supposing Hiuen Tsang to be much more authentic, the distance from Kapilavastu to Lumbini was calculated by the scholars to be sixteen miles, which led them to declare Tilaurakot as Kapilavastu. Having adopted a route other than the straight one the distance is bound to be much more. As a matter of fact there was no difference at all. *Sarakupa* (Arrow well) is the site where, during an athletic contest, the arrow shot by Buddha pierced in the ground upto the feather causing a clear spring to burst out.

The fourth indication, though a negative one, was furnished by the ancient site of Tilaurakot. Although the scholars were not prepared to change their views that Tilaurakot was Kapilavastu, they were not able to produce any tangible evidence to establish the claim even after so many excavations. On the other hand V. A. Smith said in support of Piprahwa, "My identification of the Piprahwa site with the Kapilavastu of Fa-hien rests upon the pilgrims description of his itinerary. Rhys Davids by a wholly independent line of argument arrives at the same conclusion that Kapilavastu is represented by the Piprahwa group of ruins. I am convinced that Rhys Davids' argument is sound and that the stupa opened by Peppé really contained the relics of the Sakya sage enshrined by his Sakya brethren shortly after his decease and cremation.

"If the correctness be admitted of the conclusion which Professor Rhys Davids and I have reached by wholly independent process of reasoning, it is plain that the Piprahwa group of ruins is for many reasons of the highest importance, and that the systematic survey and exploration of the locality by a competent expert would be a matter of world-wide interest."⁵⁸

In favour of Piprahwa being the ancient Kapilavastu Smith further said, "According to the well-known legends, which may have some basis of fact, the relics of Gautam Buddha were, immediately after his cremation, divided into eight shares, of which the Sakyas of Kapilavastu obtained one. Mr. Peppe's stupa at Piprahwa may well be the building erected over the relics of Gautam obtained at his cremation."⁵⁹

Additional clue was available in the Buddhist texts. The environmental setting of Piprahwa was similar to that of ancient Kapilavastu. Let only one instance be quoted here. While describing the auspicious omens that heralded the birth of Buddha the text *Lalitavistara* tells that Kapilavastu was near enough to the slopes of the Himalaya mountains for the young lions to come prowling down around it, and to stand at its gates, hailing with their roars the impending event.⁶⁰

F. CHRONOLOGY

In spite of the fact that the excavation conducted by W. C. Peppé and followed a year later by P. C. Mukherjee was not on an insignificant scale, they never attempted to fix up the chronology of the site. A limited number of epigraphists claimed that the inscription on the lid of the casket found inside the stupa is pre-Asokan. For such an early date the only basis, as far as it can be gathered, was the absence of the signs of long medial vowels, because the characters as a whole are similar to those on the edicts of Mauryan emperor Asoka (272-232 B. C.). According to the interpretation of the inscription the casket contained the relics of lord Buddha who died in 483 B.C. The kinsmen of Buddha, their wives, children etc. could also not have survived till the time of Asoka. In order to reconcile this wide gap also the epigraphists might have tried to push back the date of the inscription. G. Buhler happened to be the pioneer in this bold attempt. He or the other epigraphists in the line, however, were not successful in convincing the scholars on a pre-Asokan date for the inscription. The views of Sylvain Levi in this regard were not given any credence at all.

During the course of excavation in the large brick quadrangular monastery (eastern), P. C. Mukherji collected a few coins of the Mitra dynasty (?) and early Kushan kings in 1897-98, but they were also not very much helpful in dating the earliest occupational deposit at the site. Four stages of construction in the eastern monastery and three in the main stupa could be easily determined by the excavation on a very limited scale in 1971. On the basis of a spout in Red Polished Ware the third structural phase of the monastery could be dated to first-second centuries A. D. A silver punch-marked coin was also found in the monastery, but the same was of no use in dating, because it occurred in the debris without any stratigraphical context. The earliest remains, however, continued to remain undated.

The stupa was subjected to detailed examination in the year 1972 when the excavation was resumed. While it was being exposed on the northern side a ring made of burnt bricks came to light (pl. VII A). The ring was a part of *pradakshinapath* of the stupa, the arc of which happened to run

below the exposed courses of brick of the stupa. It was a clear cut indication of a stupa of an earlier phase which was never exposed or touched by the earlier excavators. Excited by the earlier ring, the centre of the stupa was determined and a very small trench sunk with full confidence to strike the original relics enshrined by the Sakyas in the stupa. The trench may be considered to be an extension of the shaft bored in 1898. Though the area of the trench was extremely restricted, it revealed interesting features. The outline of the pit dug by Peppé could be easily observed, particularly on the section (pl. VII B). That Peppé was satisfied with the massive stone box, which contained the inscribed casket was apparent from the cutting. Certain concrete evidences were present before Peppé, which led him to believe that there were no relics below. Both the circular pipe, which led him to the box and the burnt-brick courses of the stupa came to an end. Peppé, therefore, could not imagine earlier relics below, though indications for them were distinctly available in the pipe (pl. VIII), which had turned into a rectangle at the level of the bottom of the box and converted again into a circular one till the last course of the stupa, and to some extent in the inscription itself. In this connection the statement of V. A. Smith is very pertinent. He said, "The central pipe or well is a curious feature which is also found at Bhattiprolu and elsewhere. Mr. Peppé states that this "pipe" began at a distance of ten feet from the summit, and ran down two feet with a diameter of one foot, when it contracted to a diameter of four inches until it reached the level of the bottom of the stone coffer, it assumed the form of a rectangle, 7 inches by 5 inches, for the depth of a single layer of bricks, and then resumed the circular pipe shape, four inches in diameter, for a further distance of two feet, when it stopped. The rectangle served as a "pointer" to the coffer.

At a depth of six metres from the extant top of the burnt-brick stupa, two burnt brick chambers were observed in the trench sunk in the centre (pl. VIII, also see. pl. VII B). The two burnt-brick chambers were divided from one another by yellow *kankary* mud deposit of sixty-five centimetres. The burnt-brick chambers were at a much lower level than the spot where the stone box containing the inscribed casket was found by Peppé. There was a six centimetre thick mud deposit between the last course of the stupa and the chambers. The shape of the two burnt-brick chambers was identical, their size being $82 \times 80 \times 37$ cm.

The specific purpose of the chambers to keep certain sacred objects was evident enough from the nature of their construction. Two burnt-bricks, having a size of $40 \times 27 \times 7$ cm each, in three courses were placed one above the other on the top. Below the third course, there was a mud deposit, 7.5 cm thick and further below bricks slightly longer, but width reduced to half were used. The size of these bricks was $42 \times 13 \times 7$ cm. Some of these bricks were placed in brick-on-edge position, as if to close anything in a box.

When the three courses of brick of the northern chamber, laid one above the other were removed, a soapstone casket came to light (pl. IX). By the side of the casket and separated by a brickbat, one red ware dish with incurved sides and wide mouth was observed. The dish was covered by another dish of the same shape. The covering dish had broken into three pieces in such a manner that all the three appeared to be covering an individual compartment made for the relics. Both the soapstone casket and the dish were so carefully packed in between bricks and brickbats that it was rather difficult to remove them from their position without damaging. The maximum diameter of the

casket was 7 cm, whereas of the dish 26 cm. The height of the casket was 12 cm. It contained charred bones.

The position of the casket and dishes was slightly different in the southern brick chambers. Two dishes of the same type and size, as found in the northern chamber, were noticed side by side immediately below the topmost course of the brick (pl.X). Both the dishes were shattered to fragments on account of the lapse of time as also the weight above them. They could be removed from their position only in very small pieces. When two further courses of brick were removed another soapstone casket with the lid broken into three pieces came to light (pl.XI). This soapstone casket was bigger in size, the maximum diameter being 9 cm and height 16 cm. Like the other casket, this was also packed perfectly between bricks and brickbats. Since the lid of the casket had broken, it got filled up completely with earth. On removal of the earth carefully, charred bones were found inside. Having remained in mud for a long time, the colour of the bones had turned muddy.

Further excavation in the area established that the relic caskets were contemporaneous to the early period of Northern Black Polished Ware, which could be dated to fifth-fourth century B. C. i.e. earlier in date than the inscribed relic casket discovered by Peppé at a higher level in 1898. The dishes found along with the caskets in the chamber confirmed the above-mentioned date. The finding of earlier caskets established that the stupa, in which they were found, was built by the Sakyas over the mortal remains of Buddha at Kapilavastu, sometime in fifth century B. C. This indication was already available in the inscription on the casket, found by Peppé which mentioned both Buddha and his community Sakya.

As far as the last occupation at the site is concerned, it may be stated that it was abandoned in the beginning of the fourth century or the last quarter of third century A.D. after a devastating fire. The burnt wooden pillars and jambs used in the verandah of eastern monastery were a clear cut evidence to establish it. One of the cells in the north-east corner of the monastery yielded enormous quantity of burnt rice. The date of the third structural phase of the eastern monastery arrived at with the help of Red Polished Ware was corroborated by the terracotta sealings with the legend *Om, Devaputra Vihare, Kapilavastu, Bhikhu, Sanghas* found in a large number in 1973. The sealings belonged to third structural phase and were inscribed in Brahmi characters of first-second century A. D. The word 'Devaputra' on the sealings also came handy for dating purposes and so was the case with the square basement of the stupa. The square basement was provided with niches at regular intervals and were meant for keeping sculptures for worship. Image worship in the religion of Buddhism, as is well known, was introduced during the regime of Kushan rulers. A few coins of Huvishka and Kanishka were also recovered from the site. The last phase of the eastern monastery and the end of occupation at Piprahwa was determined with the help of the third phase. So far as the dating on the basis of carbon 14 examinations is concerned it may be pointed out that of three dates available only one i. e. PRL 323 corresponds with the date arrived at with the help of comparative dating. It was sample no. 323 from layer (8) of the eastern monastery and has been dated to $2360 \pm 100 = 410$ B.C. Layer (8) was contemporary to the first phase of the structure of eastern monastery. The other two carbon 14 dates are quite off the mark. They are PRL 322, sample of charred rice from layer (2) of the eastern monastery and 324, a charcoal sample from layer (8) of the same structure. The former has been dated as $2320 \pm 100 = 370$ B. C. and the latter $2230 \pm 130 = 280$ B. C.

G. SUMMARY OF THE RESULTS

The excavation at Piprahwa led to an epoch-making discovery by settling the location of ancient Kapilavastu, which had been eluding the archaeologists for more than a hundred years. A large number of terracotta sealings and a lid of a pot with the legend Kapilavastu which ultimately clinched the identification were found during the course of the excavation. The inscription on the sealings and the lid of the pot which helped in resolving the long standing controversy could be divided into two groups viz. (1) *Om, Devaputra, Vihare, Kapilavastu, Bhikhu Sanghas* and (2) *Maha Kapila vastu, Bhikhshu Sanghas*. The text on the lid of the pot belonged to the first category.

Though the inscription on the casket found by Peppé in 1898 in the stupa at Piprahwa was evident enough to indicate that the stupa enshrined the relics of Lord Buddha, it could not carry conviction amongst the scholars, particularly because of the difference in the date of the inscription and that of the death of Buddha. The relic caskets found in the burnt-brick chambers much below the level of the massive stone box, which contained the inscribed casket, and also distinguished stratigraphically, have now completely dispelled the doubts. That the casket contained the relics of Buddha is further corroborated by the earlier stupa and the terracotta sealing with the legend Kapilavastu. According to Buddhist text *Mahaparinibbanasutta*, the corporeal relics of Lord Buddha were shared by eight communities immediately after his cremation at Kusinara. The Sakyas of Kapilavastu received one share over which they erected a stupa. The words *iyam salila nidhane budhasa bhagavate Sakiyanam* on the casket found by Peppé, fresh relic caskets found in the same stupa and the terracotta sealings lead to one and the same conclusion that the stupa at Piprahwa was first solemnised by the Sakya over one-eighth share of the relics received by them.

The third important result of the excavation rests in establishing that the Kushan kings were closely attached with the sacred site. It was only under their patronage that the stupa and the eastern monastery were embellished in their third stage of construction. So far as the eastern monastery is concerned, the evidence is offered by the word *Devaputra* on the terracotta sealings, whereas the reconstruction the stupa is confirmed by the square base with niches at regular intervals. The niches were provided to keep sculptures and it would not be out of place to mention that image worship in the religion of Buddhism was introduced in India by the Kushan kings only.

H. ACKNOWLEDGEMENTS

In the beginning the excavation work was undertaken on a limited scale with a small team of which the chief assistant was Shri A. D. P. Singh, who has now retired from the post of Superintending Archaeologist. He assisted me till the relics of Buddha were found. After his selection as Deputy Superintending Archaeologist in the Survey Shri Lal Chand Singh, now Superintending Archaeologist replaced him. I must express here that I owe all my success in the arduous work to him. Always prepared to shoulder any responsibility, he stood by my side like a trusted lieutenant even in the darkest hours of crisis. Dr. P. R. K. Prasad, who retired as Assistant Superintending Archaeologist joined me at a later stage. A simple and well-read man, I found him ever prepared to work. The frame work of the chapters on Terracotta figurines, Beads and other minor antiquities was prepared by Shri Lal Chand Singh. Dr. P. R. K. Prasad worked very hard in compiling

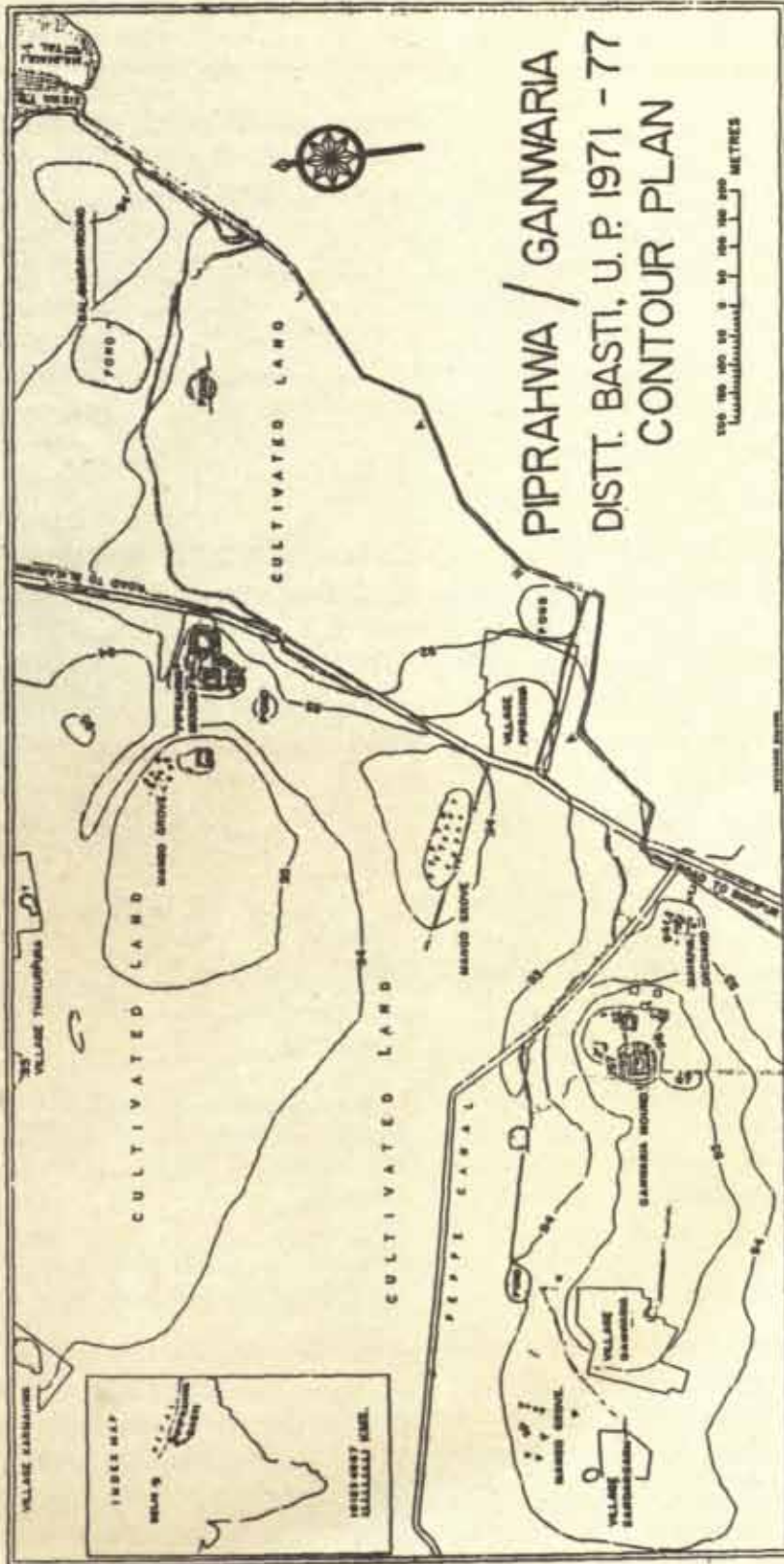


Fig. 2

the chapters on seals and sealings and coins. Syed Jamal Hassan, now Deputy Superintending Archaeologist prepared the chapter on Bone Objects under my guidance.

The standard of any excavation report cannot be treated as high if the illustrations are not of a good quality. For this service I will always remain beholden to Shri M.B. Limaye (now retired), an expert in excavation photography. Shri Piyara Singh also helped me in the photography work at Nagpur. S/Shri Laxminarayana, B. R. Bhagat, Sardar Rajbir Singh, I. M. Tikoo and R. S. Rana of the Headquarters Office at New Delhi took great pains in preparing the illustrations. In the work of drawings, I received the services of Sarvashri L. K. Jain, Mahendra Singh, Basheer Khan, M. D. Puranik, S. V. Sotaone, P. M. Bhope, J. S. Dube and A. K. Ghosh. Shri Vidya Ram Sharma prepared the contour plan of the site. Amongst others from whom I received help in the work in one form or the other are S/Shri D. P. Sinha, Birendra Nath (Dr.), V. K. Chandy, H. C. Chakravarty, N. N. Bose (late), N. K. S. Sharma and Krishna Nand Tripathi.

I. CUTTINGS (fig. 2)

Having yielded the inscribed casket in the year 1898, which happened to be the main clue in the search of Kapilavastu, the stupa was considered to be the most important structure at the site. Hence, a vertical trench 15/-metres wide was laid against it on the western side simply to ascertain the number of structural phases. It was numbered as PPW 1. The rest of entire mound was divided into square trenches on grid pattern in order to expose PPW 2. Each trench measured twenty metres wide with orientation north-south and east-west. In the first year of work in 1971, restricted to one month, the structural phases of the stupa were determined. In addition, a large hall paved with bricks was fully exposed on the north-western fringe of the mound. A monastery was partially exposed on the south-eastern fringe and on the southern side a votive stupa was brought to light completely.

In the year 1972 the work was concentrated on the main stupa which yielded fresh relic caskets. The eastern monastery and structures around the hall were further exposed. Fresh relic caskets from an earlier level in the stupa enhanced the importance of the site, because they were automatically a step forward in the direction of the identification of Kapilavastu.

Digging on a large scale was undertaken in the majestic eastern monastery under a firm belief of unearthing an inscriptional evidence with the legend Kapilavastu in the absence of which the scholars were not prepared to accept the identification. The reward came in the discovery of a large number of terracotta sealings with the legend Kapilavastu inscribed on them, which ultimately clinched the issue of identification.

A cutting in the stupa to confirm the number of structural phases revealed that it was constructed three times. A monastery on the southern side of the stupa was also exposed.

In the year 1974 the remains of a monastery at a distance of about sixty metres to the west of the stupa were brought to light. The cuttings were marked according to grid pattern again under No. PPW 3. Besides exposing the eastern monastery completely another monastery sandwiched between the eastern one and the structures around the large hall was cleared. It was known as northern monastery. Immediately to the east of the stupa a shrine accompanied by a few residential rooms was also excavated in the same year. The shrine was erected over a massive burnt-brick platform.

EXCAVATION AT PIPRAHWA

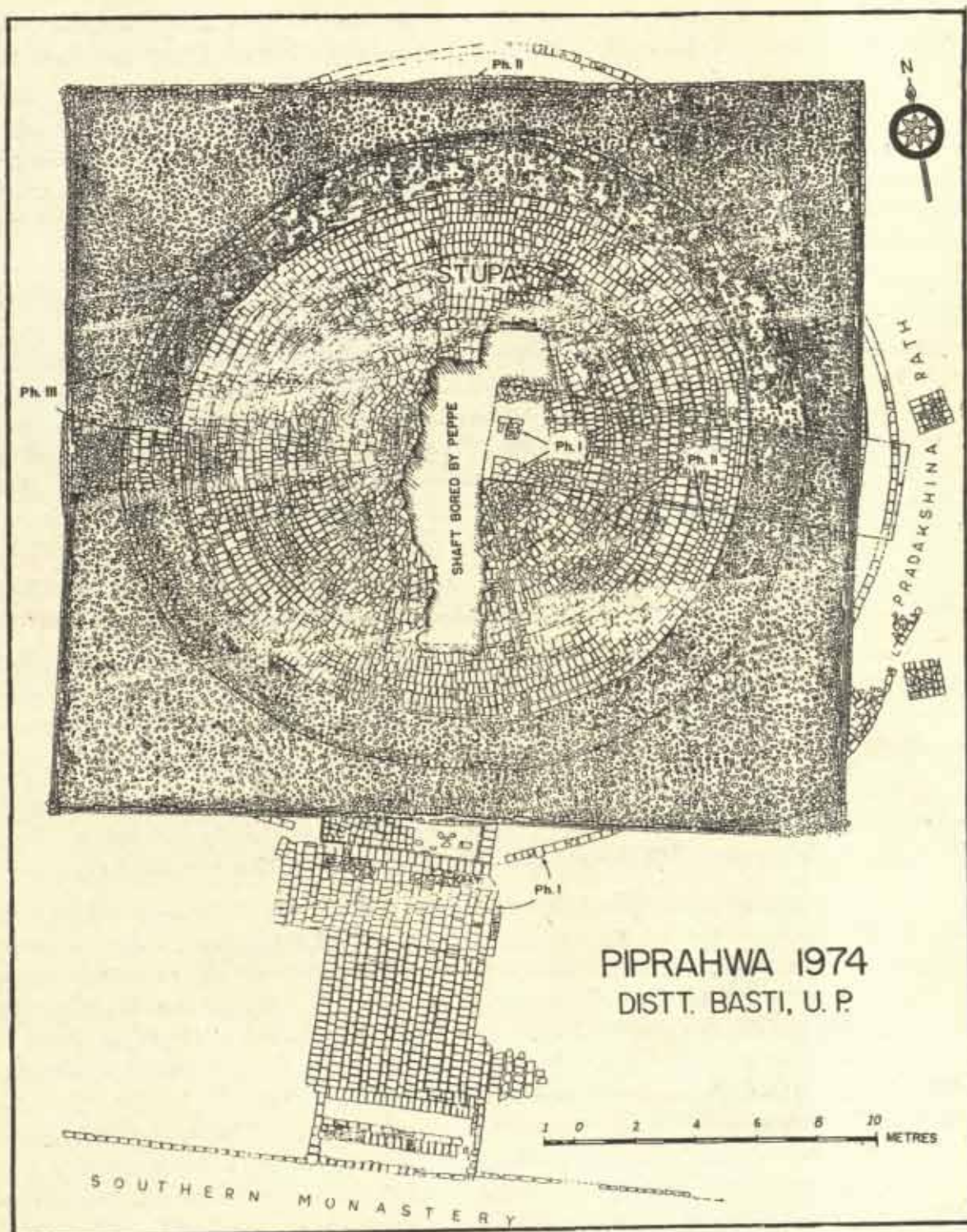


FIG. 3

J. STRUCTURES

1. STUPA.— The stupa (pl. V) at Piprahwa is one of the earliest so far discovered in India. A detailed examination of the stupa with the help of a cutting through it revealed three stages of construction.

Phase I (pl. XII A) was raised by piling up natural earth dug up from the surrounding area. The maximum diameter of the tumulus was 38.90 metres, whereas the height 0.75 metre (fig. 3). On the top of this mound and in the centre two burnt-brick chambers were constructed to keep the sacred relics as described on the preceding pages. A pit was dug in the mud tumulus in order to construct the chambers.

A structure of twelve courses of brick was raised over the two burnt-brick chambers (fig. 4). In between the structure and the chambers there was a mud deposit varying between three to six centimetres. This mud was of the same nature as used in the mud tumulus. The height of the twelve courses of structure was 0.90 metre in all. Two additional bricks were observed at the edge of the structure all around. These bricks were an indication of the working level of the burnt-brick structure, as well as *pradakshinapath* of the first phase. The distance of the *pradakshinapath* from the main structure was 5.20 metres. The width of the *pradakshinapath* was two metres. It was paved with brickbats enclosed by complete bricks on either side. The *pradakshinapath* meets the raised mound just at the point where the slope is abrupt.

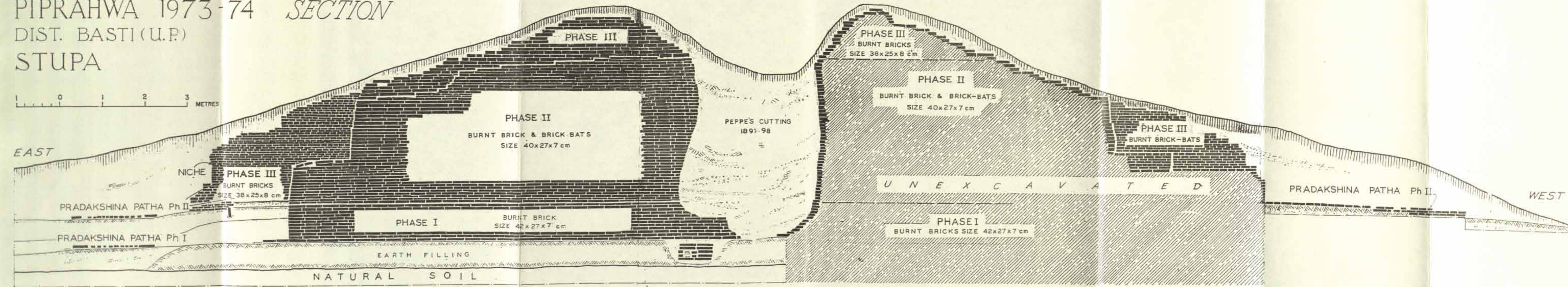
The bricks used in the structure and the *pradakshinapath* were generally $42 \times 27 \times 7$ cm, though of course, a limited number of bricks of the size $40 \times 27 \times 7$ cm, were also used.

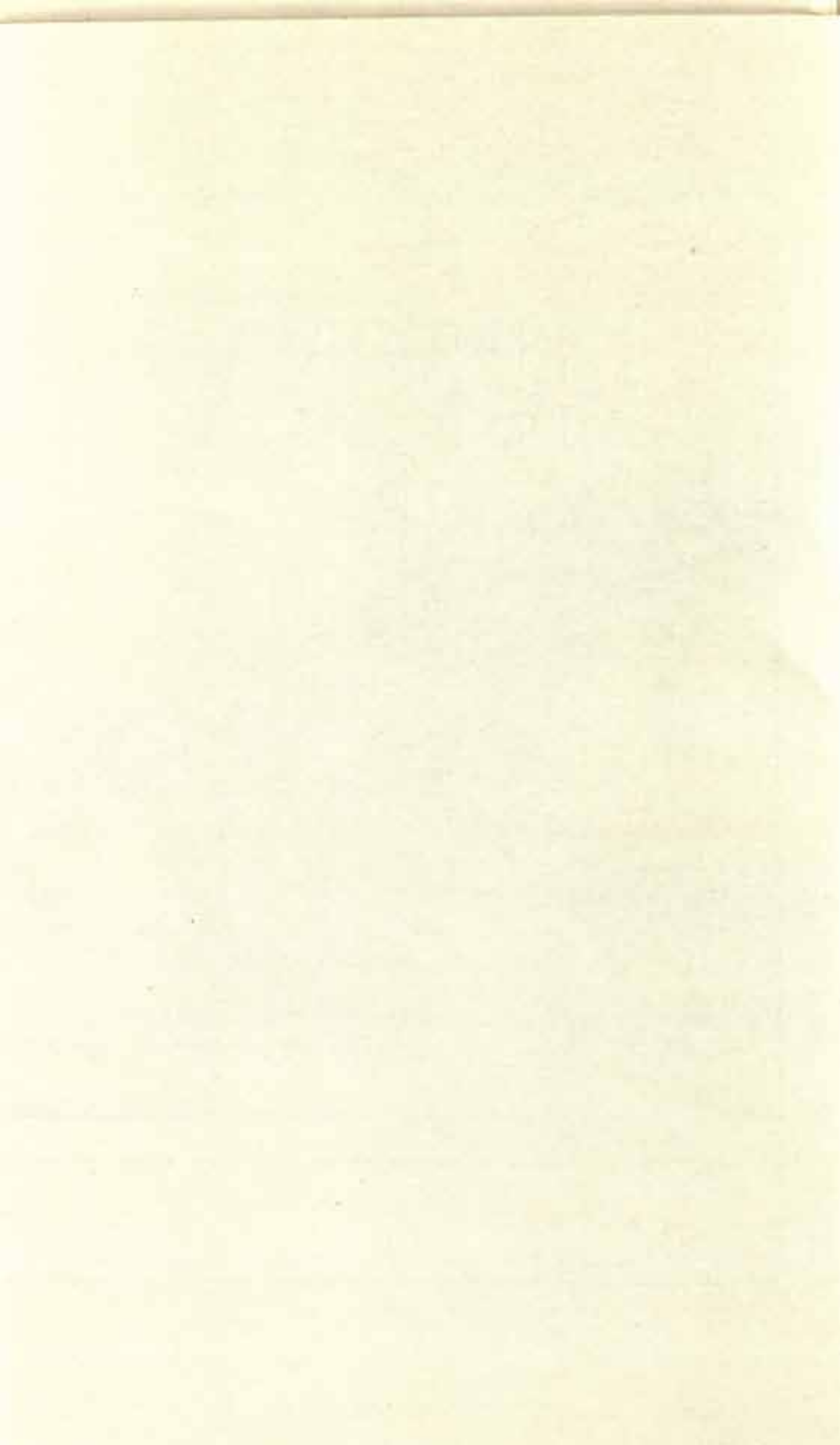
The structure was observed to be flat-topped, but it could not be said for certainty that it was not disturbed at the time of the reconstruction of the stupa in the second phase. It is quite likely that the hemispherical top of the stupa was levelled up to facilitate reconstruction in the second stage. The diameter of the brick structure at the base was 23 metres and the dome 19 metres.

The relics found inside the two burnt-brick chambers belonged to phase I of the stupa. The two soapstone caskets, one each placed in each chamber, contained charred bones, whereas the dishes, one in the northern chamber and two in the southern, probably contained ash.

Phase II (pls. XII B and XIII) compact yellowish clay not very much different from the natural soil was filled up above the two brick courses projecting from the structure of the first phase. The thickness of this deposit was 50 cm. Brickbats in a meagre quantity were also mixed up with the clay. The layer of the clay deposit was sloping towards the side of the *pradakshinapath* and got abrupt at the brick-edged outline. A 35 cm thick deposit of brickbats and debris was noticed above the clay deposit. This deposit was also sloping and striking against the brick-edged outline. Again, above the deposit of brickbats and debris a blackish clay deposit mixed with pebbles and lime was observed. This was the working level of the second stage of the construction of the stupa. In the second stage of the stupa there were two *pradakshinapaths*, either simultaneously in use or the second one was built after a lapse of time. The nature of construction and the position of the first *pradakshinapath* were one and the same, though intervened by the clay and debris deposits of 85 cm. The width of the

PIPRAHWA 1973-74 SECTION
DIST. BASTI (U.P.)
STUPA





pradakshinapath was 2.02 metres. For the construction of the second *pradakshinapath*, quite close to the stupa, a brick-on-edge in a slanting position was inserted as a line of demarcation as also to provide some strength to the *pradakshinapath*. For placing this brick-on-edge the lower layer was further deepened. The top of this brick-on-edge was in line with the bottom-most course of the *pradakshinapath*. The second *pradakshinapath* was only 1.44 metres away from the stupa.

The stupa had two tiers in the second stage of construction. The projection of the lower tier from the main dome measured 1.52 metres. The maximum number of courses of burnt-brick used in the second phase was forty-five, the total height being 4.55 metres. The bricks used in the second phase measured $40 \times 27 \times 7$ cm. The dome was 19 metres in diameter. The entire reconstruction of second phase i. e. dome and projection of the tier rested on the twelve courses of brick of the first phase. The massive sandstone coffer containing the inscribed casket and found by Peppe' in 1898 was of the second phase.

In the Phase III (pl. XIV, also see pl. XII B) a new feature was introduced in the stupa. The base of the stupa was converted into a square from a circular one by which the dimensions of the stupa were enhanced. One side of the square measured 23.50 metres. The space between the drum of the stupa of the second phase and the square base was filled up with bricks and brickbats in a receding fashion towards the base. The maximum diameter of the dome was 23 metres. The two tier system of the stupa in the second phase was encased with the help of this filling and a domical appearance above the square base was visible. The height of the stupa as also the diameter of the dome were increased. Thirteen courses of brick were added over the stupa of the second phase and the diameter was raised to twenty-three metres from nineteen. The total height of the burnt brick courses of the stupa was raised to 6.35 metres. The bricks of the third phase measured 38 to 40×26 to 29×7 to 8 cm. Some of the bricks were wedge-shaped.

The square base of the stupa was embellished by rectangular niches at regular intervals of eighty cm (width) \times 12 cm (depth). In between the niches one pillar made out of cut and moulded bricks was provided.

The plinth of the square base was 1.16 metres high including the niches. In all twenty courses were used in the plinth, nine of them below the niche. In order to present a beautiful appearance moulded bricks were used in the top two courses below the niche.

There was a platform-like structure between the stupa and the *pradakshinapath* of second phase, almost in the centre. It was 1.20 metres square. The platform might have been constructed to place objects of worship over it.

In the third phase of construction only one casket of soapstone was kept. This soapstone casket was found by Peppe in a completely smashed condition at a depth of ten feet only. The third phase of construction of the stupa and the only casket found in it could be dated to Kushan times when image worship in the religion of Buddhism was introduced. The niches were meant for keeping images for worship.

A trench against the stupa to distinguish various phases of construction was laid on the

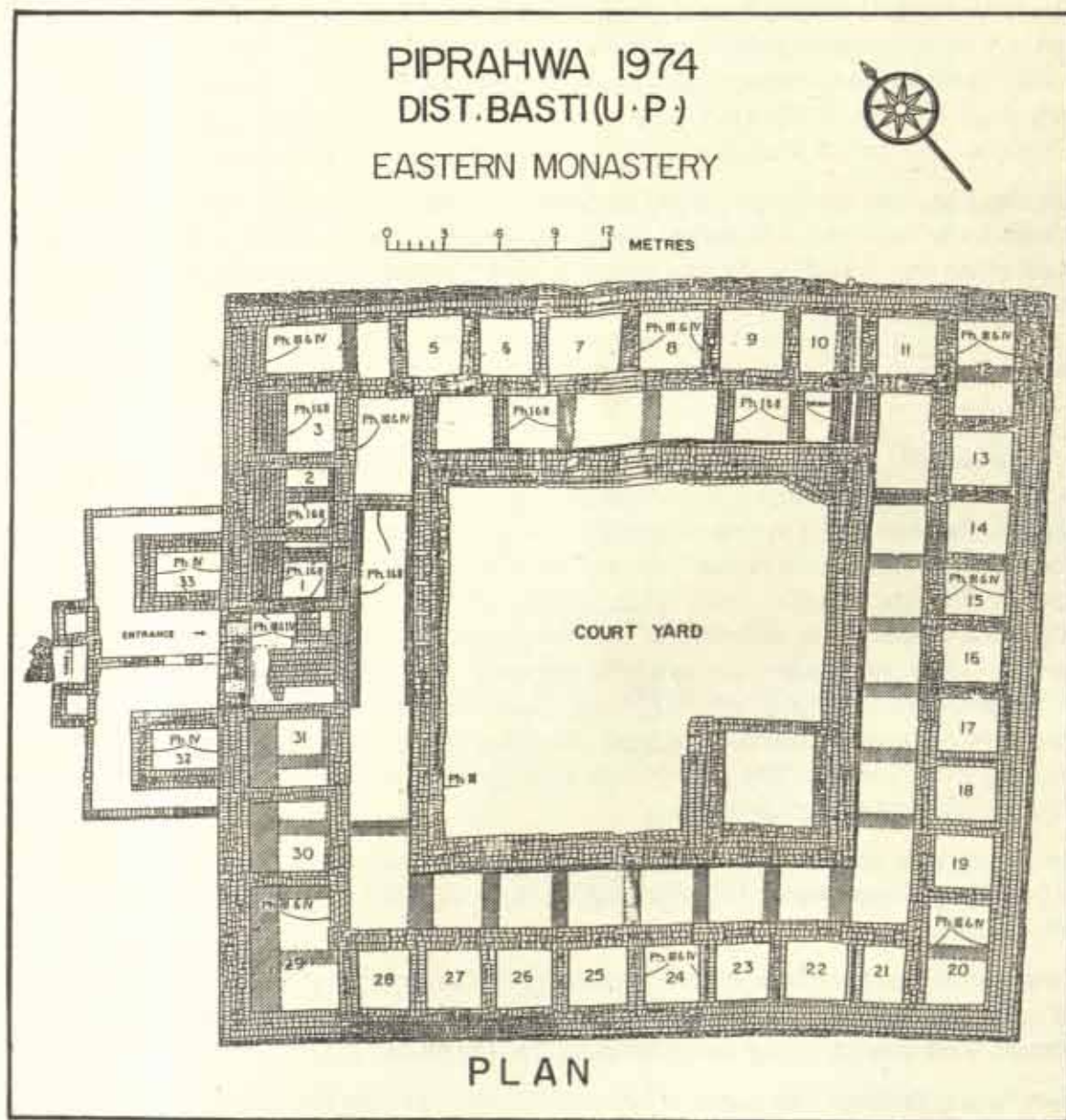


Fig. 5

northern side. The cutting revealed that the deposits of layer (7) and (6) were contemporaneous to phase I of the stupa, layers (5) and (4) to phase II, whereas those of (3), (2) and (1) to phase III. Layers (7) and (6) could be easily assigned to the period of Northern Black Polished Ware with a number of fragments of the same.

2. EASTERN MONASTERY (pls. IV and XV).— Next to the stupa the most impressive structure at Piprahwa was the eastern monastery lying to the east of the stupa, which yielded the sealings with the legend Kapilavastu (fig. 5). In all there were four structural phases in the structure (pl. XVIIA). The planning in the first two phases was alike and similarly the planning of the last two phases was more or less the same (pl. XVI B). The entrance to the monastery was, however, always on the western side facing the stupa. The monastery was constructed around a courtyard, which was in all likelihood open.

But for four cells projecting outside, one on each corner, the monastery was square in shape in the initial two phases, one side measuring 32.30 metres. The central courtyard was also a square, each side being 21.80 metres. In all, there were thirty-three cells in the first two phases, twenty-one around the central courtyard, one on each corner and four each on either side of the entrance.

The access to the cells on corner must have been from the corner cells of the central courtyard. Though the twenty-one cells around the courtyard were mainly of one and the same size measuring 3.20 × 2.90 metres, those on the corners were bigger and measured 5.40 × 2.90 metres. The projecting four rooms, one on each corner varied in measurement from 3.40 × 3.20 to 3.80 × 2.80 metres. Towards the western side of the monastery a covered verandah 2.70 metres wide was provided. The thickness of the walls, both inner and outer, of the monastery was 1.15 metres and of the cross walls 0.85 metre.

All the four phases of the monastery were clearly observed in the trench sunk in the cell on the north-western corner. The foundation trench of the earliest phase was 36 cm wide laid in layer (3) (fig. 6). Brickbats and complete bricks were used to strengthen the foundation. In the upper layer of the foundation only complete bricks were used. It was surprising that the foundation trench as such was missing in the wall towards the eastern side running north-south. There could be only one explanation for this absence. When the construction of the monastery was undertaken initially, the ground level at different places was different. The fact was corroborated by the walls of the cells running east-west. In these walls the foundation trench was at a much higher level than those observed in the other three walls of the corner rooms. There were twenty-two courses of brick in all in the earliest phase. The measurement of the bricks used was 41 to 39 × 27 × to 26 × 6 cm. Lime mortar was generally used as the binding material of the bricks. There was a window in the south-western corner of the cell. The window was sealed in the subsequent second phase of construction with the bricks of the second phase.

As many as seven courses of brick were extant in the second phase of the monastery. The second phase could be easily distinguished with the help of an offset in the walls. The wall of the first phase below was projected by 10 cm. The size of the bricks used in the second phase was 39 × 25 to 23 × 6.5 to 6 cm.

The stratigraphical position of the four phases was as follows :

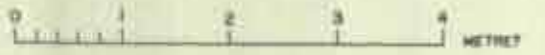
The total number of burnt brick courses in the first phase was limited to eighteen (pl. XVII). The foundation trench of the wall of the first phase was laid in layer (9), the composition of which was sticky compact clay mixed with *kankar*. Layer (8) made up of loose clay was contemporary to the structure of the first phase. A band of brickbats intervened between layers (9) and (8). A layer of yellowish compact clay capped by brickbats and marked as (7) was the distinguishing layer from the second phase. Layers (6) to (4) were contemporaneous to the third phase of the monastery. Layer (6) was composed of loose clay yellowish in texture and capped by brickbats, particularly at the top. The colour of the clay was blackish. Layer (4) constituted to be loose clay yellowish in colour. It was mixed up with small brickbats. Layer (3) was the floor of the fourth phase of construction. The floor was prepared with the help of bricks at the base superimposed by rammed brickbats, which were ultimately covered by lime plaster. Layers (2) and (1) constituted to be the fallen debris of the wall of the monastery. In layer (2) the brickbats were much smaller as compared to layer (1). The wall on the western side of the cell had a feature distinctive of its own. It was covered by lime plaster, which was not observed on any other wall. It is not unlikely that the plaster work was executed at some later date, but there was hardly any ground to confirm it.

Certain distinguishing features not occurring in the corner room described above were observed in the verandah towards the entrance side. First of all, the highest level of the two walls running north-south was not the same. There was a difference of about 25 cm. The level of the wall towards the entrance was lower by 25 cm. Another distinguishing feature was that in the corner room the first phase was demarcated from the second with an offset, whereas in the verandah it was indicated by a deposit of mud in the western wall (towards the entrance). The thickness of the laid up mud was 6 to 3 cm. In the eastern wall (away from the entrance) the same demarcation was provided by an offset as in the corner room. There were seventeen courses of brick in the western wall and only 15 in the eastern one. There can be only one explanation for the difference in the levels. The condition of the two walls at the time of the construction in the second phase was not the same. One of the walls was in a good condition upto a greater height than the other. The height of the walls in the first phase varied from 1.25 metres, whereas in the second phase the height was raised by 46 to 52 cm with the help of seven to eight courses of brick. In the wall of the verandah towards the entrance side the thickness of the brick was 7 cm, whereas in the other wall it was restricted to 6 cm in most of the cases.

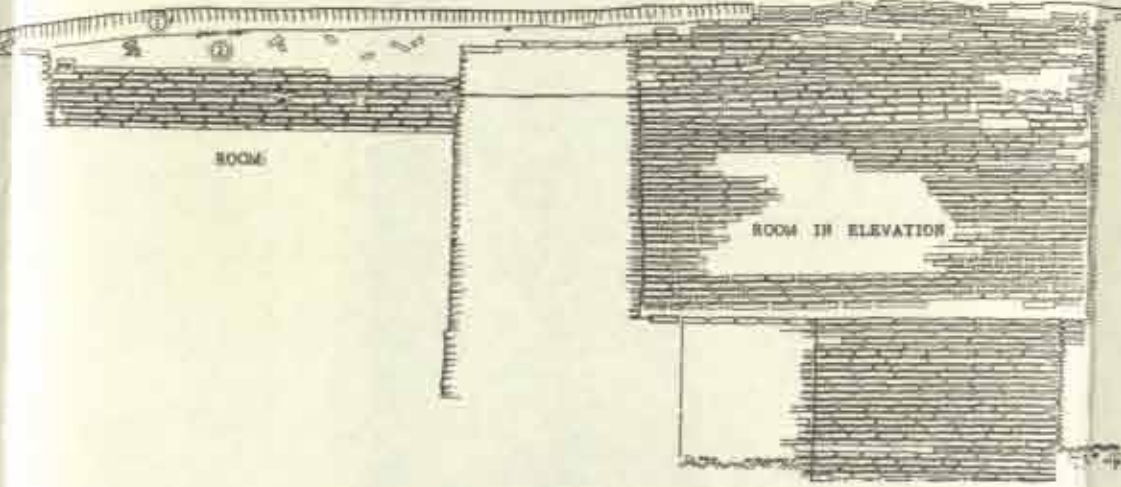
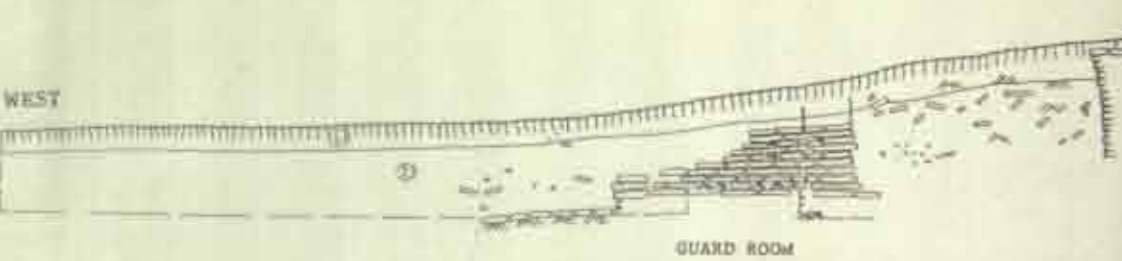
The offset in the third phase of the verandah towards the entrance side varied between 55 to 48 cm. The wall of the second phase projected from the first phase by 55 to 50 cm. Sixteen courses of brick were observed in the third phase. Like the corner cell the wall of the verandah towards the western side was covered by lime plaster.

The planning of the monastery underwent a great change in the last two phases i. e., third and fourth. In these two phases the outer wall of the earlier monastery was converted into inner wall and cells all around the central courtyard were converted into a covered verandah similar to that existing towards the entrance side only in the first two phases. The total area of the monastery was also

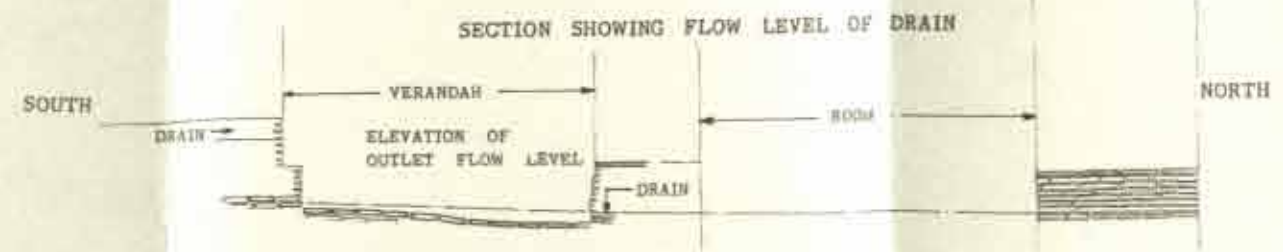
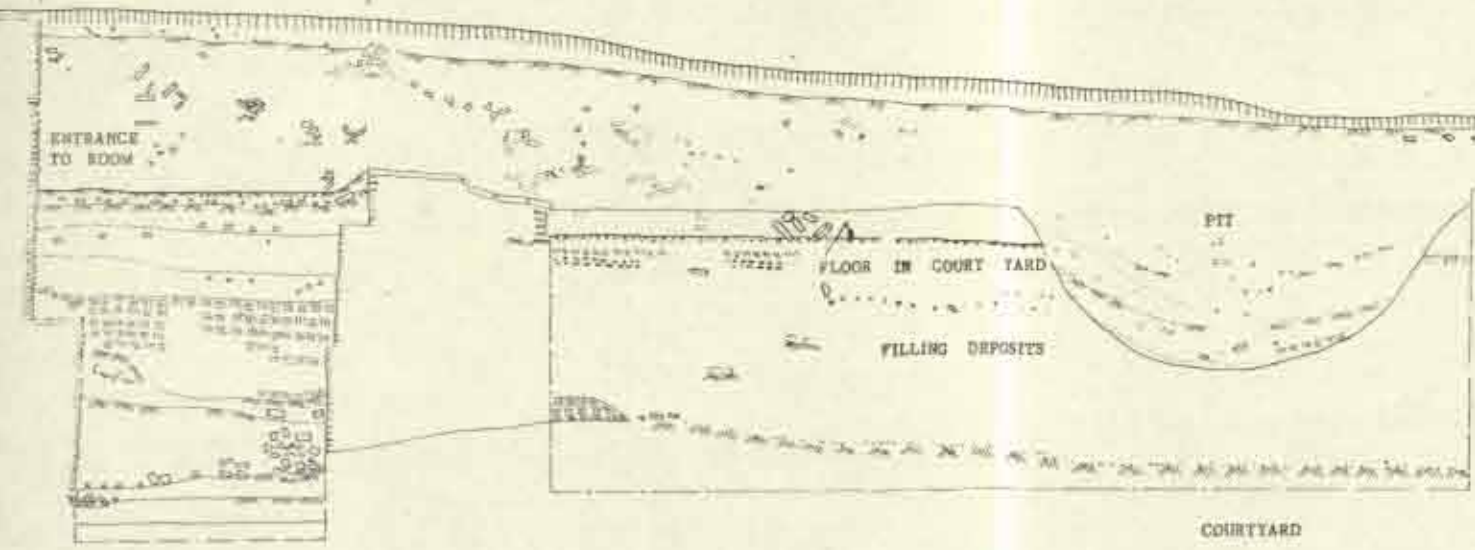
PIPRAHWA 1974
SECTION ACROSS EASTERN MONASTRY



WEST



GALLERY



PASSIVE STRUCTURE



enhanced to 44.10 × 42.70 metre. An outer wall, much thicker than the earlier phases, in alignment to the projecting four cells in the corner was constructed and the position of the cells shifted on the outer side (pl. XVIII). The thickness of the outer wall was 2.05 metre. The projecting four cells, one in each corner, continued to be in use in the last two phases as well. The total number of cells in the third phase was thirty-one. The size of the cells varied between 3.40 to 3 × 3.40 metre. The width of the cross walls continued to be the same i. e. 0.85 metre in the last two phases.

There were fourteen courses of brick in the third phase of construction. The size of the bricks was 38 to 37 × 25 to 24 × 6 to 5 cm. Above phase three doors in all the cells were observed over eight courses of bricks (including floor). The maximum courses of brick extant in the doors were twenty-three. It was revealed by the pieces of charred wooden remains that the doors were having wooden frames. The opening of the door was 1.30 metres wide. The roof was supported on wooden beams. Bricks were probably placed over the interlocked wooden beams. A novel feature of the third phase was a burnt brick drain 40 cm wide (pl. XIX A). The outlet of this drain provided below the floor discharged the refuse water near the north-eastern corner of the monastery (pl. XIX B).

In the last phase of construction the monastery was further elaborated. Two cells towards the entrance side presenting a projected appearance were added, their size being 3.80 × 2.30 metres. In addition, two miniature rooms, probably meant for the watchmen, were constructed just at the two ends of the entrance. They measured 1.70 × 1.50 metre. The width of the verandah was also enhanced in the last phase of construction by constructing a new 90 cm thick wall. The height of the wall containing six courses of brick was 42 cm. In place of 2.70 metres the width of the verandah all around was expanded to 3.20 metres. Indication of wooden pillars was available in the projections of the wall on the corners of the verandah. The pillars were approximately 35 × 25 cm thick. The wooden pillars did not appear to have been placed at regular intervals.

3. ENTRANCE TO THE EASTERN MONASTERY.— The approach to the eastern monastery was provided on the western side facing the stupa with the help of flight of steps, of which three were observed in position. The width of the main entrance was 5.70 metres. In the last phase of construction an enclosure wall was provided in front of the entrance. The steps to the entrance occupy the position of centre in the enclosure wall. The enclosure wall had many sides. There were in all eleven sides but if the side meant for the steps is eliminated, where there is actually no wall, the number will be reduced to ten. On the two sides of the steps two miniature rooms, one on either side, were constructed. They were meant probably for watchmen. The width of the enclosure wall was 39 cm. The maximum extant courses in the wall were eleven, the total height being 85 cm. As a measure of decoration simply, bricks-on-edge were placed in an oblique position on the top of the enclosure wall.

Immediately after climbing the steps of the monastery, a floor of rammed brickbats and lime mortar was provided. The width of the wall was 53 cm. The purpose of the wall could not be determined. It was ultimately covered by the rammed floor. The opening of the entrance was reduced to 3.20 metres with the help of two curtain walls, one on either side just outside the front verandah.

The eastern monastery yielded the most valuable antiquity in the form of terracotta sealings

and a lid of a pot with the legend Kapilavastu which clinched the identification of Kapilavastu conclusively.

4. NORTHERN MONASTERY.—There was another monastery on the north-eastern side of the stupa by the side of the eastern monastery near the north-western corner (pl. XX A). It was far smaller in area than other monasteries and also the poorest in its construction. Two structural phases in all, with a sub-phase in the later one, were distinguished in this monastic complex. The earlier phase could be equated with second phase of the eastern monastery. The general layout of this monastery was similar to the eastern monastery, though of course, without the verandah around the central courtyard. There was a central courtyard immediately around which the cells were constructed.

Nine courses (maximum) of brick were observed in the walls of the earlier phase of the monastery. When the monastery was constructed the ground level does not appear to have been even because the number of courses in the wall at various places is not one and the same. The number of courses was gradually reduced towards the southern side.

In the earlier sub-phase of phase-II, eight courses of brick were observed. The subsequent sub-phase had fifteen courses of brick. Being at a low level the monastery was damaged to a great extent by erosion. Several rooms on the north-eastern corner of the monastery were washed away.

The foundation trench of the structure of the earlier phase was cut into layer (8). This layer is demarcated by a few brickbats. The composition of the soil was yellowish clay mixed up with *kankar*, the total thickness being 35 cm. Layer (7), 53 cm thick was the working level of the structure of the earlier phase. The composition of the layer was compact dark clay with fragments of pottery and brickbats. The layer was demarcated on the top by a regular band of brickbats. Layer (6) was of blackish clay mixed with *kankar*. It was 35 cm thick. This layer was contemporaneous to the first sub-phase of phase- II. Layer (5) was the working level of the subsequent sub-phase. The 38 cm thick layer was full of brickbats and pebbles mixed up with a few fragments of pottery. Layer (4) was composed of brownish clay mixed up with small brickbats, pebbles and fragments of pottery, with an overall thickness of 27 cm. Layer (3) contained blackish clay mixed up with small brickbats. It was 35 cm thick. Layers (2) and (1) were the debris fallen from the walls of the monastery.

In all sixteen cells of the northern monastery could be exposed. The cells on the northern side could not be exposed, because a portion of the monastery was washed away. Hence, it was not possible to determine the exact number of the cells. The cells as a whole were smaller and varied in size between 3.20 × 2.35 to 2.10 × 1.80 meters. The cells of the western wing were too small. They could not be used for residential purposes. The purpose might have been for storing or meditational.

The east-west wing of the monastery, as it was exposed, was 19.30 metres (inner measurement). The wall on the western side was completely eroded, and as such the outer measurement could not be established. The width of the outer wall of the monastery was only 68 cm.

The earlier phase was missing on the western side. The two sub-phases of the later phase only were available. The only possibility for the absence of earlier phase could be that in the later phase more area was covered up and further rooms added.

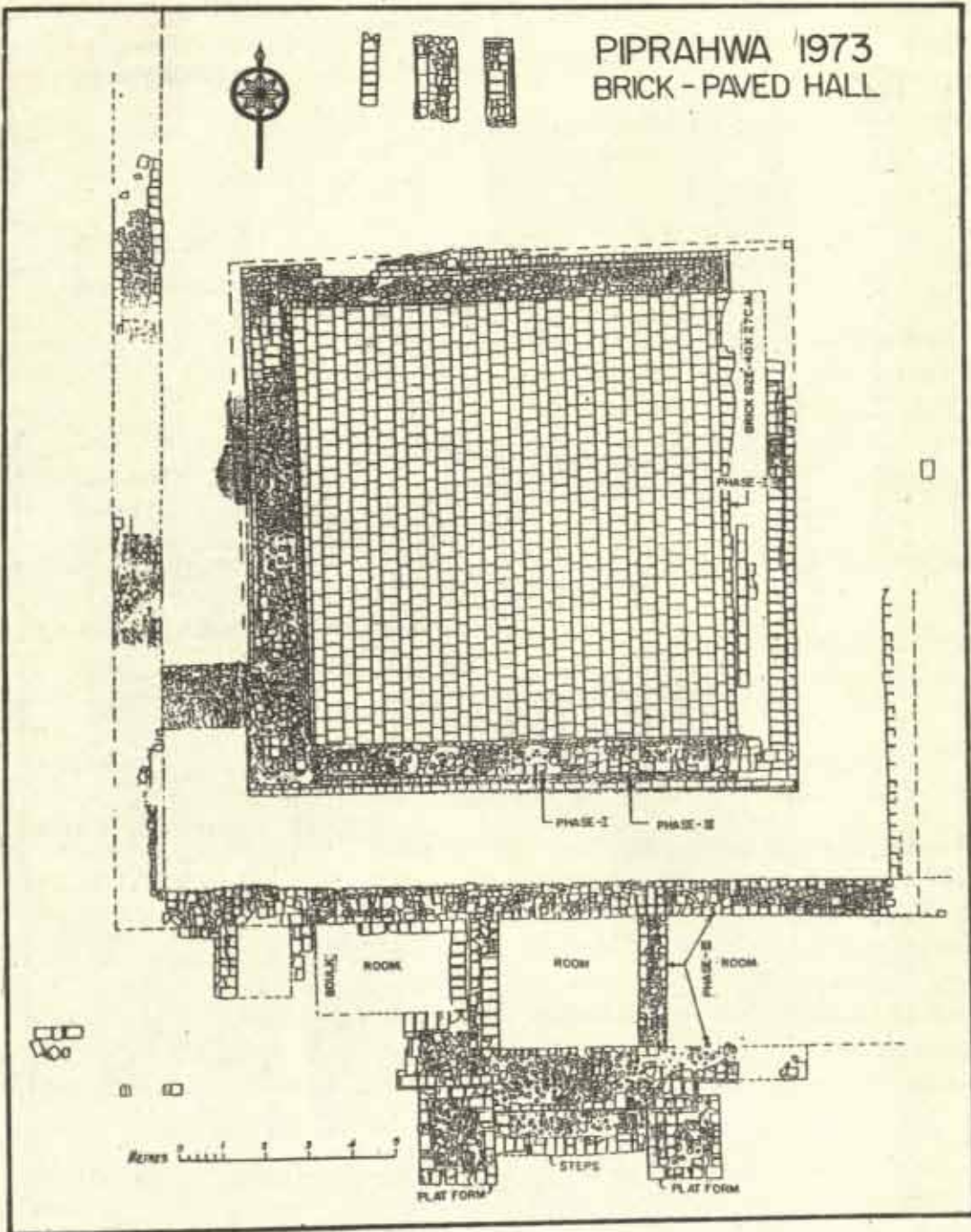


FIG. 7

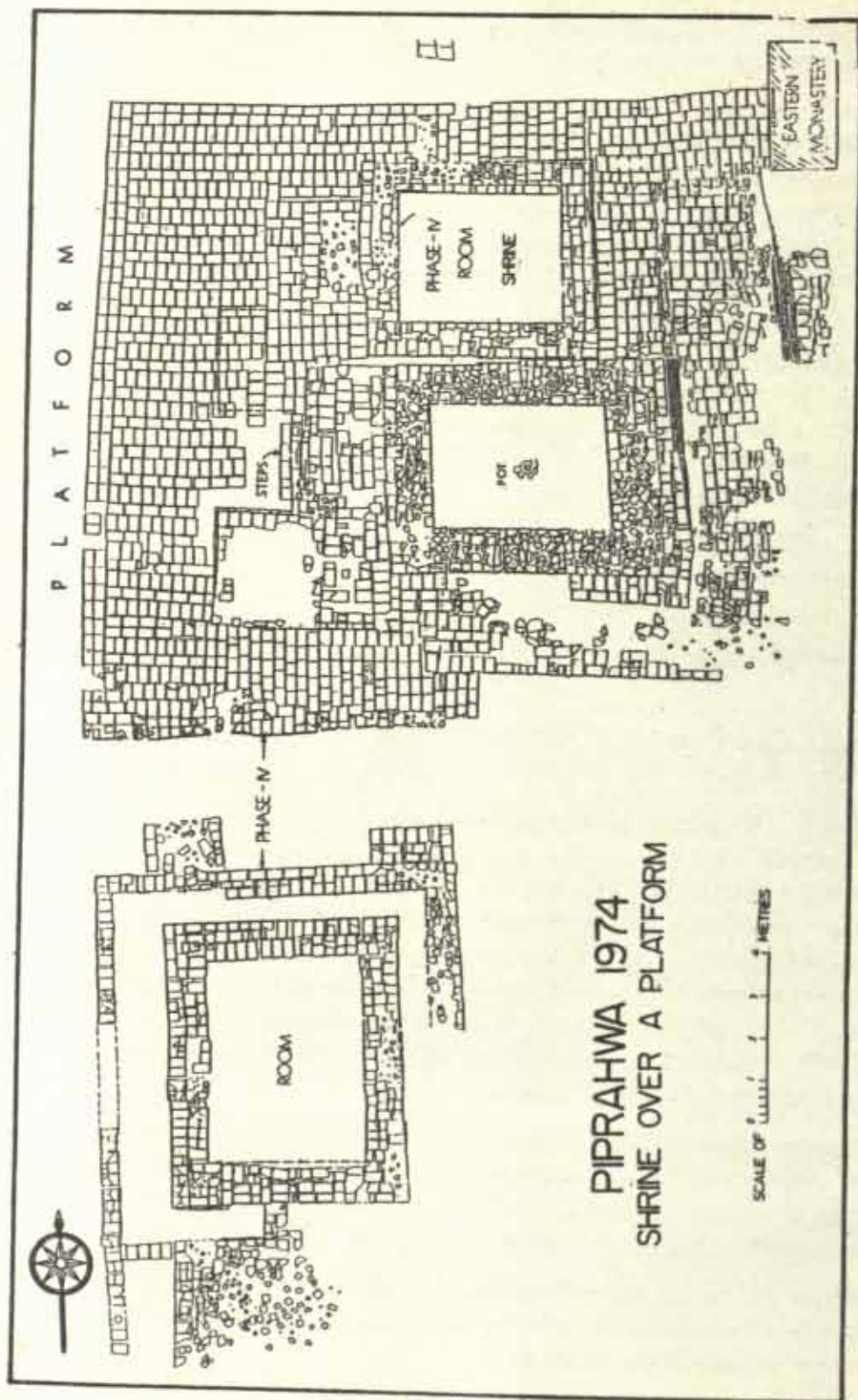


Fig. 9

An outlet for water and refuse from the portico was provided with the help of a long drain which was covered up. The drain was built of burnt bricks and with the gradient slope in it the water and refuse could be easily discharged. Plenty of pot-fragments were found packed in the drain.

The size of the bricks in the portico was 38 length, and thickness 7 to 6 cm respectively.

7. PLATFORM.—In the centre of the eastern side of the stupa and close by the *pradakshinapatha* of the second phases a platform of burnt brick was excavated. The size of the platform was 1.20 metre square. The bricks used in it measured 38×25 to 24×6 to 5 cm. It could be equated with the second phase of eastern monastery. The platform must have been constructed to place objects of worship over it.

8. A BADLY-DAMAGED WALL.—A badly dilapidated wall running from the south-western corner of the eastern monastery to the south was observed. The wall was a little earlier in date than the extensive platform over which a shrine was built nearby. There were in all nine courses of brick in the wall. The wall was found to be tilted towards the eastern side in the form of a bow. Some unusual pressure appear to have been responsible for the tilting. There was an extraordinary feature in the wall. Though there was no binding of the wall with the eastern monastery, the corner of the latter was merged with the former in a tower-like fashion. The wall was completely eroded on the southern side, and hence its exact purpose could not be established.

Along with the wall the platform by its side, over which a shrine was built, had also sunk badly. Continuous erosional activity and undercutting of the structures by the stagnant water must have been responsible for the undue sinking. The portion of the platform, which had sunk was a later addition to the original platform. It was 2.68 metres east-west. Regular damage by water must have necessitated the addition of this platform, as a measure of repair and further protection. The platform on the southern side was badly eroded.

9. SHRINE OVER A PLATFORM.—A shrine-like structure not far from the south-western corner of the eastern monastery was observed close to the stupa on the eastern side. In the shrine both plain and cut to circular size bricks were used (fig. 9). The shrine was 3.15 (north-south inner) × 4.75 (east-west inner) metres in measurement. It was built on a huge burnt brick platform. Above the platform there were seven courses of brick. At the bottom there were two courses of brick above which moulding effect was given with the help of two bricks put one above the other. These bricks were cut to circular in shape. Further above, there were two courses of plain brick. On the top a course of moulded brick was repeated. There were in all three courses of brick in the extensive platform. The platform was 15.10 metres square.

Towards the southern side of the shrine there was a small room. The entrance to this room was provided by a flight of steps on the western side. The size of the room was 2.85 (north-south inner measurement) × 4.50 (east-west inner) metres. In this room a big pot in position was exposed. The room, in all likelihood, was meant for the priest of the shrine. The shrine and the platform belonged to fourth structural phase of the monastery.

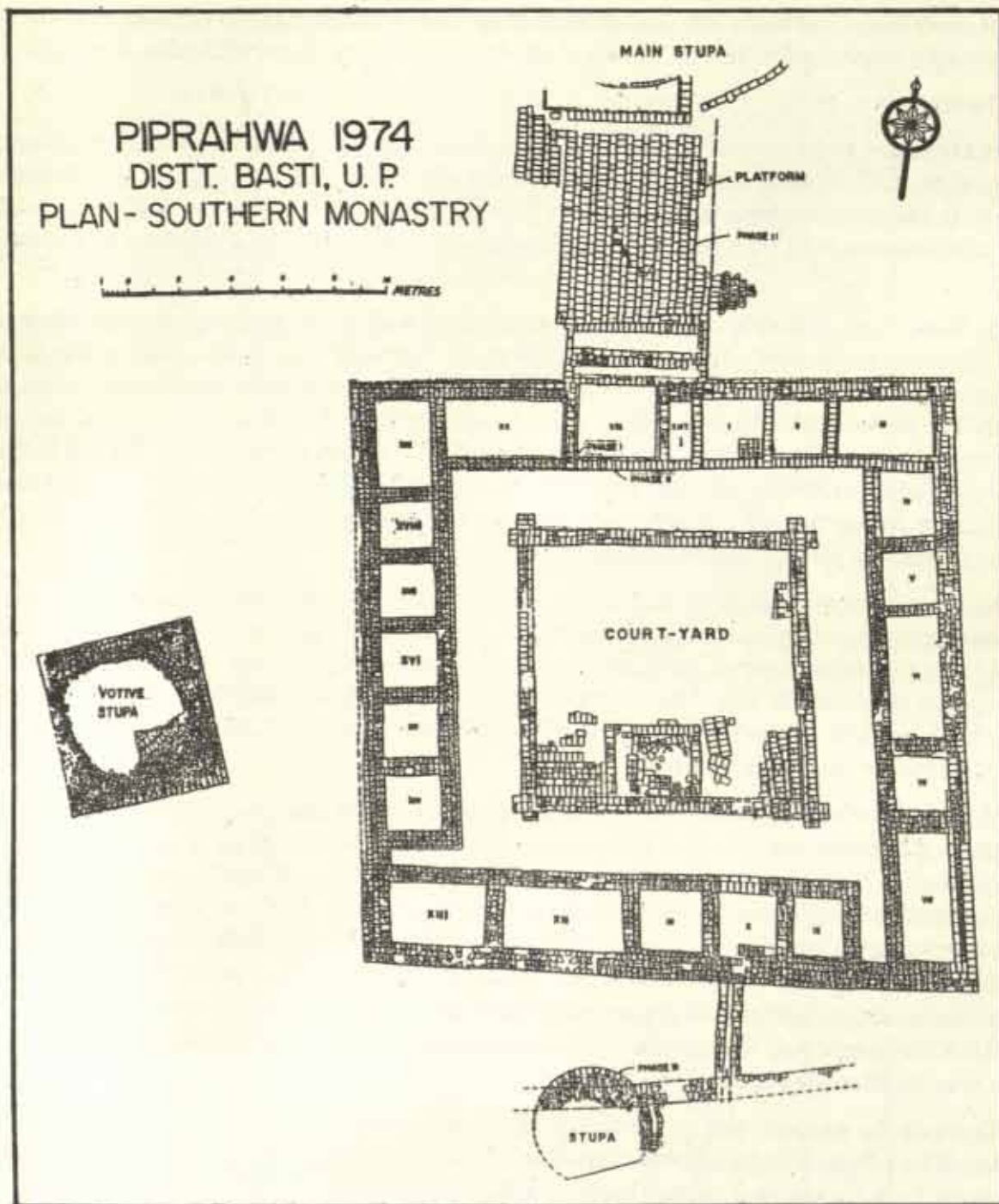


FIG. 10

10. ROOM WITH AN ENCLOSURE WALL.— To the south of the platform about 3.25 metres away there was an enclosure wall with a single room inside (pl. XXI B). This structural complex belonged to phase four. The bricks used in the structure were broken into small pieces mainly because of regular erosional activity. The enclosure wall running east-west was 8.30 metres long. The thickness of the wall was 1.10 metres. It was badly damaged on the southern side and as such the length could not be ascertained. As many as five courses of brick were extant in the enclosure wall. Two platform-like structures projecting towards the northern side from the enclosure wall were noticed. With one complete brick all around the core of the platform was filled up with brickbats. One of the platforms is bigger in size measuring 1.75 (east-west) \times 1.30 (north-south) metres. The smaller platform is 1.90 (east-west) \times 0.85 (north-south) meters in measurement.

The room within the enclosure wall was substantially large. It was 5.05 (north-south) \times 3.60 (east-west) metres. The walls of the room were 0.96 metre thick. Six courses of brick were extant in the room. The size of the brick was 38 to 37 \times 25 to 23 \times 6 to 5 cm.

Within the same enclosure wall another structure in the shape of a platform was noticed. There were five courses of brick in the platform. A major portion of the platform was damaged by erosion. So far as the nature of construction of this platform was concerned, it hardly differed in any manner from the other two platforms on the southern side. At some later stage two small walls between the enclosure wall and the platform were constructed. Their alignment was east-west. A vertical break between the walls and the platform could be very easily seen. Four courses of brick were observed in the wall. The thickness of the wall was 50 cm. Besides the two walls mentioned above, there was another wall running from south to north between the wall of the room and the platform. It contained only one course of brick measuring 38 cm.

11. SOUTHERN MONASTERY.— The monastery to the south was at a distance of six metres from the stupa (pl. XXII). As in other cases this monastery also faces the stupa having its entrance on the northern side. The plan of the monastery was also more or less similar to other monasteries, with the only exception of two galleries in addition to the cells. Taken as a whole the monastery was too poor in its architectural features (fig. 10).

The southern monastery was found to be in a very bad state of preservation. The eastern and a part of the southern wing were badly damaged as a result of erosion.

In all, there were only two structural phases in the monastery. The plan of the monastery was a square, one side measuring twenty-four metres. The planning of the monastery and the number of cells hardly underwent any change in the second structural phase. The number of cells continued to be twenty-one in the second phase. Generally the size of the cells in the southern monastery was too small as compared to other monasteries. The dimension of the cells varied between 4.80 \times 2.20 to 2.10 \times 2.05 metres. In certain cases the cells were too small to be suitable for residential purposes. It was not possible to determine any other purpose for which they might have been used.

The monastery was constructed around a central courtyard and a verandah. The verandah was provided, as in other cases, with the help of a wall. The width of the verandah was 2.40 metres. The outer wall of the monastery was 85 cm thick, whereas the inner and cross walls only 60 to 65

PIPRAHWA 1974
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PLAN-WESTERN MONASTRY



1 2 3 4 5 6 7 8 9 10 METRES

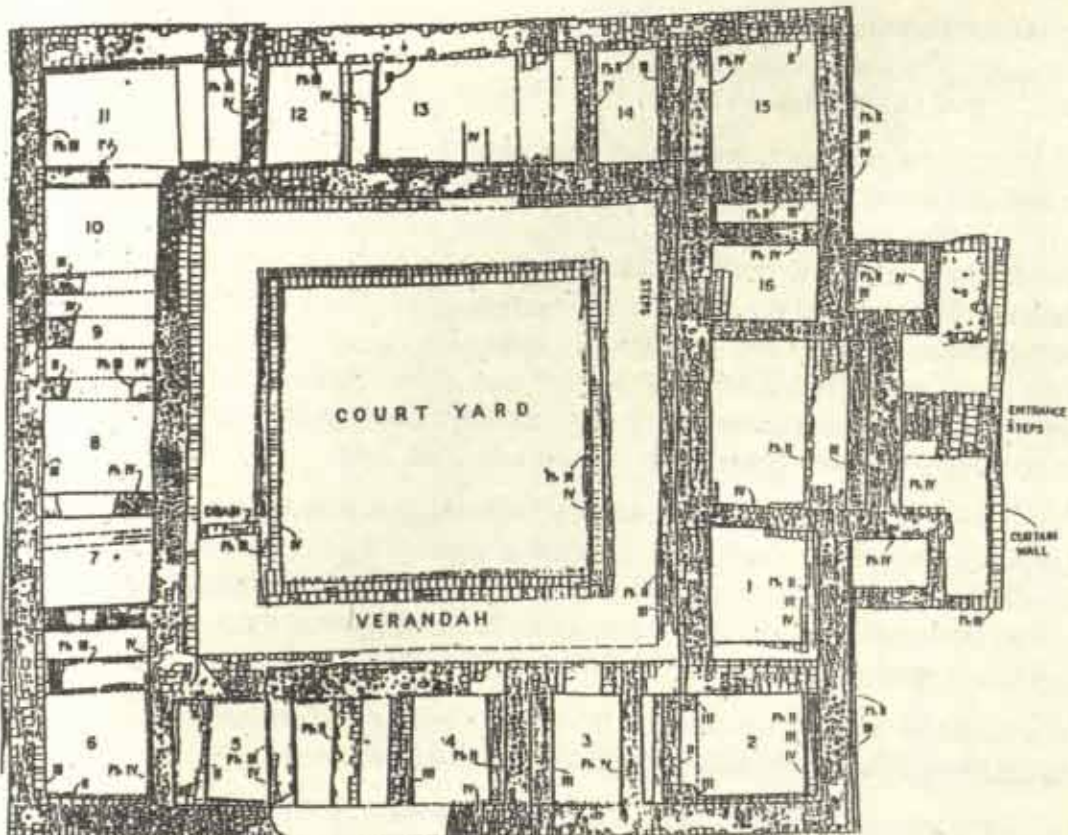


FIG. 11

cm. Two galleries at the south-eastern and south-western corners between the two cells were something new in the monastery. The dimension of the maximum number of courses available was seven and in the second only three. The size of the bricks in the first phase was $40 \times 27 \times 7$ to 6 cm. whereas in phase two $38 \times 24 \times 6$ to 5 cm.

The entrance of the monastery on the northern side facing the stupa was 5.60 metres wide. In all probability the approach was through a flight of steps. Just outside the entrance there was a brick platform connecting the monastery with the stupa. The brick paved approach to the stupa for worship in the earliest stages was probably from this side. The platform was constructed with this end in view only. A rectangular enclosure made of burnt-bricks-on-edge on the southern side of the stupa and touching the brick-paved platform extended further support to the assumption. The enclosure was 1.30×0.85 metres in measurement.

A drain with a 25 cm wide channel was observed on the southern wing of the monastery running north to south. The drain was constructed to discharge the refuse water of the monastery. Further beyond the drain there was a votive stupa with a diameter of 4.80 metres. On the western side of the monastery there was a small votive stupa with a square base. In the beginning the size of the stupa with a square base developed the impression that it might have been constructed to enshrine relics but after the same was opened the votive purpose became apparent. The base of the stupa was 6.35 metres square with the diameter of the dome 5.50 metres.

12. WESTERN MONASTERY.— About hundred metres to the west of the main site of the stupa another monastic complex was exposed in the south-eastern corner of the mango grove (pl. XXIII A). In all three structural phases were distinguished in the monastery (fig. 11). As observed in the eastern most (northern corner) trench the stratigraphy of different structural phases (fig. 12) was as follows :

- (5) Natural soil
- (4) The structure of the first phase was cut into this layer. The top of the layer was the working level of the first phase. The composition of the layer was yellowish compact clay mixed with a few brickbats here and there. The thickness of the layer was 40 cm.
- (3) The structure of the second phase was cut into this layer. The composition of the soil was yellowish clay with brickbat in a line on the top.
- (2) This layer is the occupational deposit of the second structural phase. The composition of the soil was dark yellowish clay mixed up with plenty of brickbats. The brickbats had fallen in different alignments. The thickness of the layer was 40 cm.
- (1) This layer was composed of compact earth blackish in texture and mixed up with very small brickbats. The structure of the third phase was cut into this layer. The thickness of the layer was 15 cm.

The total number of courses observed in the first structural phase was five. Above the two bottom most courses there was a projection of about 3 cm. In the top three courses the total extant

height of the structure of the first phase was 32 cm. The size of the bricks used was $33 \times 25 \times 7$ to 5 cm.

More courses of brick were available in the second structural phase. There were as many as eleven courses of brick with a total height of 72 cms. The structure of the second phase was distinguished by an offset over the first structural phase. The size of the bricks used was 38×24 to 25×7 to 5 cm.

The structure of the third phase was found to be in a badly damaged condition. The maximum available height comprising of eight courses of brick was 46 cms. On the northern side the courses were limited to two. The size of the brick was 37×24 to 23×7 to 5 cm.

Like the other monasteries, the cells were constructed around a central courtyard. Though the monastery was not exposed completely the number of cells in the first phase could be easily determined. They were sixteen in all. The size of the cells ranged between 4.20 to 3.70×3.20 metres. The monastery is square in plan with one side including outer walls being 25 metres. The thickness of the outer wall was 1.00 metre and of the inner one only 0.75 metre.

Though the number of cells in the second phase remained the same i. e. sixteen, their alignment and area underwent a substantial change. The largest cell measured 5.90×3.30 metres, whereas the smallest one 3.30×3.10 metres.

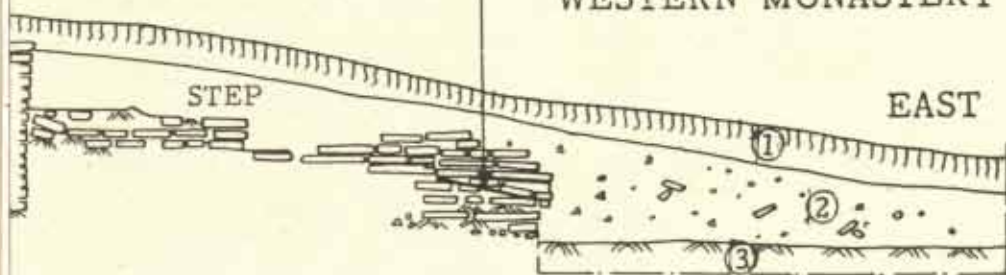
An enclosure wall was added to the monastic complex in the second phase. The enclosure wall did not run all around the monastery. The nature of this enclosure wall was similar to that observed at the entrance of the eastern monastery. On both the sides of the entrance the enclosure wall was erected to a restricted length. There were nine courses of brick in the enclosure wall. The entrance on the east facing the stupa was 1.12 metres wide. The distinguishing feature of this enclosure wall was in its having only three sides, when it happened to be many-sided in eastern monastery. The maximum length of the enclosure wall was 11.20 metres, the two turning sides being 1.73 metres. The thickness of the enclosure wall was 38 cm. The size of the bricks used was 38 to 37×25 to 23×6 to 5 cm. The approach to the monastery was provided through a flight of steps.

At the back of the enclosure wall there were three rooms, the central room being bigger. The two rooms at the end were very small having a size of 2.35×1.50 metres. The small rooms must have been built for the watchmen, because they could not be used for residential purposes.

Another new addition in the second phase was a brick wall all around the central courtyard. The thickness of the wall was 70 cm. With the help of this wall a verandah between the central courtyard and cells was provided. The size of the bricks used in the wall was 38 to 37×26 to 24×6 cm. The area of the courtyard inside the wall meant for the verandah was almost a square measuring 10.75 (north-south) $\times 10.35$ (east-west) metres. The maximum number of courses available in the wall were nine. The thickness of the walls of the monastery varied between one metre to seventy-five centimetre.

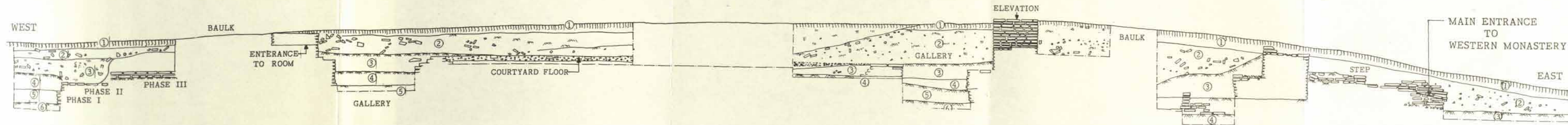
When the construction of the monastery was undertaken in the second phase, the structure

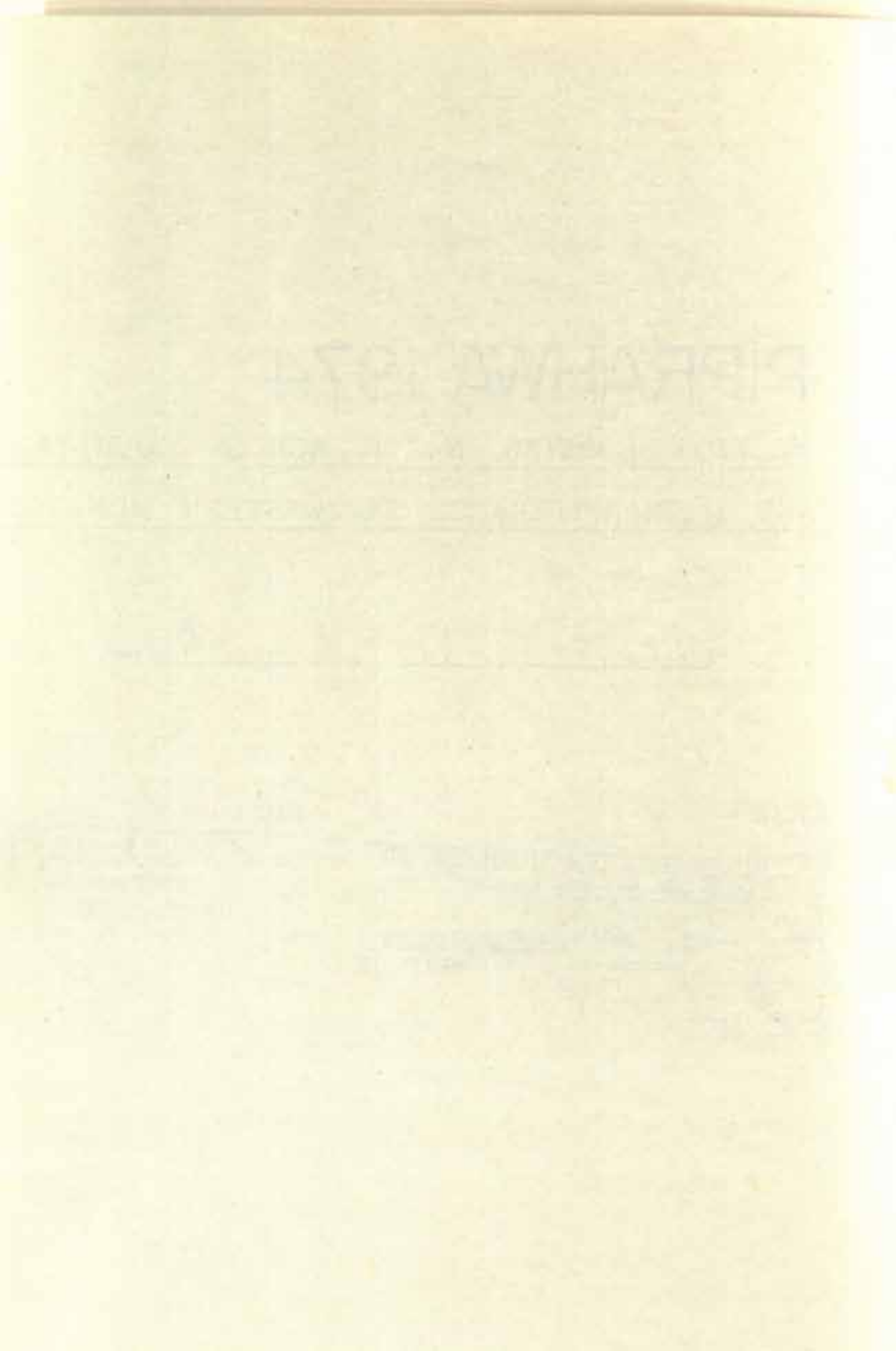
MAIN ENTRANCE
TO
WESTERN MONASTERY



PIPRAHWA 1974

SECTION LOOKING NORTH, ACROSS COURTYARD
AND MAIN ENTRANCE TO WESTERN MONASTERY





of the first phase was in a very dilapidated condition, almost completely in ruins. The bricks at several places were robbed completely.

The third phase of the monastery continued to be almost the same as the second one but for the change of alignment of cross walls at a few places. The thickness of both the outer and inner walls was 95 cm and of the cross walls 65 cm. The number of rooms also continued to be sixteen. The two rooms, one on either side of the entrance on the east, remained in use. The thickness of the wall meant for the verandah was reduced to 38 cm. The entry to the cells from the central courtyard and verandah was provided with the help of a flight of steps. Several doors opening in the verandah around the central courtyard were observed. The size of the bricks used did not differ from structural phase two. The maximum number of brick courses available in the wall was fifteen.

K. INTERPRETATION OF THE PIPRAHWA VASE INSCRIPTION

Piprahwa vase inscription was considered to be one of the earliest Brahmi inscriptions and as such the text and interpretation thereof attracted the attention of many scholars round the world. First of all, the inscription was read and interpreted by G. Buhler. He read the inscription as '*Ya salalanidhane Buddhasa bhagavata (Sa) Sakiyana sukiti bhatinam Sabhaginikana Saputadalana*'. As it is necessary, Buhler did a little restoration in the inscription in order to interpret the same in a proper manner. After restoration he read the inscription as '*(I) ya sal (i) lanidhane Budhasa bhagavata (Sa) Sakiyana Sukitibhatinam Sabhaginikana Saputadalana*'. He translated the inscription in the following manner:

'This relic shrine of divine Buddha (is the donation) of the Sakya Sukiti and his brother (i.e. either of Sukiti's brothers' or of Sukiti and his brother's), associated with their sisters, sons and wives.

According to the interpretation of Buhler, presented by him in a preliminary note, the relics contained in the vase were those of Buddha, which the Sakyas of Kapilavastu received as one-eighth share at Kusinara, immediately after his cremation. Besides referring to the relics of Buddha, the inscription came out to be the first document on the Sakyas.

A. Barth read the inscription and interpreted it almost at the same time and in the same manner as Buhler, though independently of each other. The text of the inscription, according to Barth, was as follows:

iyam Salilanidhane budhasa bhagavate

Sakiyanam Sukitibhatinam

Sabhagininkanam Saputadalanam

He translated the inscription thus: "This receptacle of relics of the blessed Buddha (is the pious gift) of the Sakyas, the brothers of Sukiti (or Sukiti and his brothers), jointly with their sisters, their sons and their wives".

V. A. Smith observed two lines in the inscription and read the same in the following way:

Line 1 : "*Iyam salila nidhane Budhasa*

bhagavate Sakiyanam Sakiyanam Sukiti Bhatinam

Line 2 : *Sabhagini Kanam Saputra dalanam "*

The interpretation presented by Smith is a little confusing. He said that the depositors believed the fragments of bone to be part of the sacred body (*Sariram*) of Gautama Buddha himself complicating the entire issue he expressed again that, "The Sakyas of Kapilavastu as the relics of the master at the time of the cremation. It is possible that the Piprahwa stupa, which is only eleven miles from Kapilavastu, may be that erected by the Sakya brethren immediately after the death of Gautama". Smith was not clear enough whether the stupa at Piprahwa over the corporeal relics of Buddha received by them after cremation at Kusinara or of the Sakyas massacred by Viddabha. on account of his statement that Piprahwa was only eleven miles from Kapilavastu.

T. Bloch held a view different from that of Smith and observed only one line in the inscription. He said, "This inscription is in one line only, round the hemispherical lid of the urn, with the exception of the two syllables *yanam*, which stand above *Saki*". He read the inscription in the same order as Barth.

The translation rendered by Rhys Davids was slightly different from that presented by Buhler. He interpreted the inscription thus:

"This shrine for the relics of the Buddha, the August One, is that of the Sakyas, the brethren of the Distinguished One, in association with their sisters and with their children and wives". Rhys Davids like Buhler and Barth, was also of the opinion that the stupa at Piprahwa was the same which, according to the Buddhist text *Mahaparinibbanasutta*, the Sakyas of Kapilavastu had raised immediately after the Master's death and cremation over their share of relics.

Poschel did not change the interpretation of Rhys Davids basically, but approached it in a different manner. He objected to the idea of gift or of pious act and introduced the words, "Pious foundation" in their place. With this modification he translated the inscription thus:

"This receptacle of the relics of the blessed Buddha is the pious foundation of the Sakyas, of the brothers with their sisters, with their children and their wives".

J. F. Fleet was the first scholar who changed the order of the text of the inscription. He was of the opinion that the record did not begin with the word *iyam*, as believed by other scholars, but *Sukitibhatinam*. The ground for the change in the order, as expressed by Fleet, was the engraving of *yanam* of the word *Sakiyanam* above *Saki*. He felt that *Sakiyanam* was apparently the last word to be engraved and the available space having been exhausted, *yanam* was put above *Saki*. Thus according to Fleet the inscription should be read as *Sukiti-bhatinam Sabhaginikanam Saputa-dalanam iyam Salila-nidhane Buddhasa bhagavate Sakiyanam*.

Fleet interpreted the inscription in two different ways which are inconsistent with each other. In the initial stages he considered the relics to be of Buddha himself. With this view he translated the inscription thus:

"Of the brethren of the well-famed one, together with (their) sisters (and) together with (their) children and wives, (is) this receptacle (or deposit) of relics of Buddha, the Blessed One, (namely) of the Sakiyas".

Though the reading of the inscription by Fleet continued to be the same, he gave an altogether new interpretation a year later in the following lines:

"Of the brethren of the well-famed one, together with (their) little sisters (and) together with (their) children and wives, this (is) a deposit of relics (namely) of the Kinsmen of Buddha, the blessed one".

On the basis of the above translation Fleet tried to impress upon the scholars that the relics were not of his Kinsmen. The number of the Kinsmen, as believed by him, were more than several hundred and for each one of them an object was placed inside the stone box. In order to justify his new interpretation he emphatically said, "The record in fact commemorates, an enshrining of relics, not of Buddha himself, but his Kinsmen, with their wives and children and unmarried sisters. And now we see the meaning of the curious nature of the articles numbering more than seven hundred, which were found in the stupa alongwith the inscribed vase".

Elucidating his interpretation further, Fleet said that the Kinsmen of Buddha were the Sakyas of Kapilavastu massacred by king Vidudababha, son of Presenajit as a revenge of the stinging reproach by the Sakyas on account of his mother having been a slave girl of the Sakyas. The argument of Fleet that *Budhasa Sakiya* meant "the Kinsmen of Buddha" is not convincing enough. He said, "In the expression *Budhasa Sakiya*, "The Kinsmen of Buddha" - an expression which assuredly was not invented for the occasion, but must have been an habitual one - I find the older form of the tribal name. The Sakiya, the Kinsmen of Buddha became known as the Sakiyas, after no doubt, the time when he had passed away. "There is no justification in Fleet's assumption that *Budhasa Sakiya* was changed into Sakiyas after the death of Buddha. The Sakya community should have been proud in associating the name with Buddha rather than dropping it.

In order to justify his interpretation Fleet propounded the theory of another Kapilavastu in the form of general cemetery, where Sakyas were massacred by Vidudabha and which was in fact shown to Hiuen Tsang as Kapilavastu. Fleet wanted to convey by his statement that the old Kapilavastu, occupied by the Sakyas, which he identified with Tilaurakot, was completely destroyed and thereafter the new Kapilavastu was founded at Piprahwa to enshrine the relics of the Kinsmen of Buddha. Fleet did not try to see that no Buddhist text has recorded that the town of Kapilavastu was at any time completely destroyed, which necessitated the founding of a new Kapilavastu. On the other hand, the record in *Mahaparinibbana Suttanta* specifically mentions that at the time of the death of Buddha the Sakyas were prosperous enough to go to Kusinara, receive one-eighth share of the corporeal relics and build a stupa over them after a befitting ceremony. Buddhaghosa in his commentary on Dhammapada has also corroborated that on the death of Buddha, there were still left at Kapilavastu, some of the Kinsmen of Buddha, in sufficiently prosperous condition to receive a portion of his relics, and to build there a stupa over them. In such a situation the question of a new Kapilavastu is ridiculous. Moreover, Tilaurakot has not furnished any evidence of destruction in the excavations.

Sylvain Levi proposed two interpretations of the inscription. According to the first one the relics were of Buddha consecrated by the Sakyas, his pious brothers, together with their families. The second interpretation of Levi is similar to that of Fleet. He believed that the relics had nothing to do with Buddha. They are of the Sakyas, his pious brothers, who, according to the well-known legend, were massacred by Vidudabha, together with their wives and little children.

While dealing with the inscription of Piprahwa vase and the various interpretations of the scholars, A. Barth declared the translation of M. Senart to be the best of all and perfect. Senart translated the inscription thus:

"This receptacle of relics of the blessed Buddha of the Sakyas (is the pious gift) of the brothers of Sukirti, jointly with their sisters, with their sons and their wives".

Without going into the details of the merits and demerits of various interpretations presented by different scholars an attempt was made to analyse the inscription in the light of the latest work and discoveries during the course of excavation at Piprahwa. The analysis was confined to two main issues, viz., the date of the inscription and the actual information conveyed by it.

Buhler always remained on the look out for some evidence or the other to push back the initial date of writing in India. He, therefore, declared the inscription vaguely to be anterior to Asoka, during whose time writing is said to have been introduced in the country in the third century B. C. Buhler died before furnishing an account of the reasons, which led him to push back the date so early. However, there can be only two reasons for the same. Firstly, the absence of signs for lengthened vowels and secondly, his interpretation of the inscription. Though several scholars treat the first reason to be adequate enough for an early date, the same cannot be justified. Notation of long vowels is generally ignored in early records. It is entirely absent from one of the inscriptions of Ramgarh hill, which no scholar has ever attempted to assign a date prior to Asoka. With one single exception the sign is equally absent from the copper-plate inscription of Sohgauna.

According to Buhler's interpretation of the inscription, as already mentioned, the relics contained in the inscribed soapstone vase were of Buddha, which the Sakyas of Kapilavastu received as one-eighth share at Kusinara immediately after his cremation. There being a wide gulf between the date of the death of Buddha in 483 B.C. and the time of Asoka, Buhler was not in a position to reconcile his interpretation without declaring the inscription to be anterior to Asoka. He was, however, very cautious in not assigning a specific date to the inscription.

Since the fresh relic caskets were picked up from the deposits contemporaneous to the period of Northern Black Polished Ware during the course of excavation in 1972, they could be dated easily to fifth-fourth centuries B.C., earlier in date than the inscribed casket discovered by Peppé at a higher level in 1897-98. The synchronisation of the date of the fresh caskets with the date of the death of Buddha confirmed that the newly discovered caskets were the original ones, consecrated by the Sakyas at Kapilavastu over their one-eighth share of the corporeal relics of Buddha received by them at Kusinara, after his cremation. The terracotta sealings in a large number followed by a lid of a pot with the legend Kapilavastu, found during the course of excavation at Piprahwa, further corroborated that the stupa at Piprahwa was the same, which was first constructed by the Sakyas over the relics

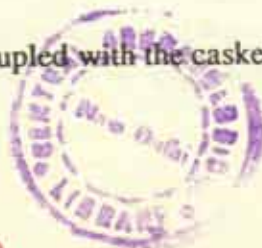
of Buddha. The new caskets dispelled another doubt, which was a source of constant anxiety to scholars. There was no unanimity amongst them in so far as the interpretation of the inscription is concerned. Some of them believed rightly that the relics were of Buddha, whereas others held the opinion that the relics were of the Kinsmen of Buddha massacred by Vidudabha. Now, it is certain that the fresh relics are of Buddha and the inscribed casket found by Peppé in 1897-98 simply recalled an earlier consecration and was engraved at the time of reconstruction of the stupa. The massive coffer containing the inscribed casket was placed inside the stupa at the time of its reconstruction as a measure of religious zeal. In this connection the statement of Sylvain Lévi, made in the beginning of the century and quoted above, is of particular interest. He said that the inscription merely recalled a more ancient consecration, and that it was probably cut on the occasion of the reconstruction of the stupa.

The indiscriminate destruction caused by the shaft bored by Peppé in 1897-98 rendered it impossible to establish that the bone fragments contained in the inscribed casket were a part of those in the earlier and original caskets and, if so, how they were taken out. Further, the legend that Asoka broke open all the eight stupas raised over the corporeal relics of Buddha and distributed the relics amongst eighty-four thousand stupas, should not be taken too seriously.

Taking into consideration all the details mentioned above, there is hardly any basis, now, to justify that the inscription is anterior to the time of Asoka. The next very important issue is the purport of the inscription. In order to understand the inscription in proper perspective, it is necessary to recall that the massive stone coffer found by Peppé in 1897-98 contained five caskets. During the course of latest excavation as well, five vessels, two soapstone caskets and three dishes, were observed to be embedded in the two burnt brick chambers. The identical number of five in both the cases must have a bearing on the meaning of the inscription. The five vessels cannot be said to contain mortal remains of five different individuals, because this presumption would lead to an incredible belief that all the five died at one and the same time. All the vessels contained the relics of Buddha in one form or the other.

The primary concern and interest to the scholars should, now, be the people who donated the five vessels, each containing the mortal remains of Buddha. These five communities or individuals have been very clearly visualized in the interpretation presented by A. Barth. They are (1) Sakyas, (2) brothers of Sukirti (or Sukirti and his brothers), (3) their sister (i.e. sisters of Sukirti) (4) their sons (i.e. the sons of the sisters of Sukirti) (5) their wives (i.e. wives of the sons of the sisters of Sukirti). However, the author is rather inclined to construe the text a little differently than that by Barth. The depositors seem to be the (1) Sakyas, (2) the brothers of Sukirti (of good deeds or of lofty fame i. e. an appellation of Buddha and not Sukirti and his brothers, second alternative suggested by Barth), (3) of his sisters (Sukirti's, rather Buddhas, (4) their sons as also (5) their wives. This translation leads to new conclusion that the blood-relations of Buddha also got some portion of the mortal remains of Buddha, besides the Sakyas, and all of them being members of the Sakya community enshrined their portions alongwith the Sakya people in general.

In the light of the latest discoveries at Piprahwa coupled with the caskets found by Peppé,



the arguments of Fleet that the caskets contained the relics of the kinsmen of Buddha, massacred by Vidudabha, have hardly any grounds to stand upon. The earlier interpretation presented by him is, therefore, much more valid.

L. SALARGARH

In the revenue jurisdiction of village Salargarh and about 200 metres east of the ancient site of Piprahwa a small low-lying mound was subjected to excavation. During the course of excavation another stupa and an adjoining monastic complex were brought to light. The monastery in this complex was not quadrangular on plan with the central courtyard and cells all around. At Salargarh, the monastery happened to be rectangular on plan with one set of rooms behind the other. The larger axis of the monastery was east-west. The overall area which could be brought to light by the limited excavation was 31.40 metres (east-west) \times 8.50 metres (north-south). The approach to the monastery was from the northern side with the help of a flight of steps (pl. XXIII B). A high plinth was most probably provided to the monastery as a measure of protection against water-logging conditions. The number of steps used in the stair was a clear-cut indication of this feature. The steps projected from the main wall of the monastery by 3.00 metres. Within the area partially excavated, as many as eleven rooms could be exposed. The size of the largest room was more than 6×2.80 metres, whereas the smallest one measured 3.35×2.25 metres. When one set of rooms was behind the other, it was natural to have inter-connection between them. In addition to the passage between rooms, one behind the other, there was inter-connection between the side rooms as well. The opening of the doors varied from 0.90 to one metre. The thickness of the outer wall could not be ascertained, but the inner walls were one metre thick.

Traces of an enclosure wall all around the monastery were observed. In all, there were three stages of construction in the monastery (pl. XXIV). The three stages could be dated between 2nd century B.C. and 1st century A.D.

On the northern side of the monastery, at a distance of about 30 metres, remains of a stupa, similar to the stupa at Piprahwa, were brought to light. In its initial stages the stupa was circular in plan. The maximum diameter was 5.50 metres. In the later stages, most probably during Kushana times, when image worship was introduced, the base of the stupa was converted into a square, one side being 10.85 metres. The remains were so badly damaged and eroded that the existence of niches in the square base could not be established.

According to the size of the bricks, the circular stupa was of the same date as the second phase of the stupa at Piprahwa.

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CHAPTER II EXCAVATION AT GANWARIA—THE TOWN COMPLEX

I. INTRODUCTION

As a general practice, stupas and connected monasteries were not clubbed together with the main township. They were always located a little away from the main habitation area and township, because, worship, the purpose for which stupas were constructed, needed a calm and quiet atmosphere, free from the hustle and bustle of a raucous city-life. The same was true in the case of Kapilavastu. However, once the stupa consecrating the relics of Buddha was established on the basis of the inscribed relic casket corroborated firmly by the terracotta sealings with the legend Kapilavastu from the eastern monastery at Piprahwa, it was not difficult to strike the remains of the township. After a limited exploration they were encountered at a nearby high mound in the village jurisdiction of Ganwaria, about a kilometre south-west of the ancient site of Piprahwa (pl. XXV). Indications regarding the remains of the township were available in the trial trench sunk on the south-western periphery of the mound in 1972, the year in which fresh relic caskets were discovered in the stupa at Piprahwa. The trial trench yielded rich antiquities in contrast to the negligible quantity from the ancient site of Piprahwa. Antiquities in a rich measure could be expected only from a habitation area and not from Piprahwa, which was simply a monastic establishment. After all, monks were not expected to possess wealth in any form or shape. Besides the rich and varied antiquities, occupations with a much earlier beginning were also revealed in the trench.

The habitation area at Ganwaria was extensive enough. It was spread in 300 metres from north to south and 270 metres from east to west. The maximum occupational debris at the mound was seven metres. Though the extent of the ancient site was much more, a large chunk of it was converted into cultivable land. The site was marked by two conspicuous mounds, the one on the western side being larger, whereas the eastern one smaller. In a manner, similar to Piprahwa, both the mounds were tapped in the past in search of wealth. They were considered to be stupas and hence the central portion was excavated, leaving behind a depression. The digging appears to have been abandoned when the central area was found to be bereft of burnt bricks and any wealth as such.

II. AIM OF THE EXCAVATION

No doubt relic caskets, terracotta sealings and lid of a pot with legend Kapilavastu had been of great help in locating the whereabouts of Kapilavastu, the picture of the entire complex would have continued to remain incomplete unless and until the remains of the main township were exposed. The occupation at Piprahwa started only after the construction of the stupa in which the corporeal relics of Lord Buddha were enshrined immediately after his cremation at Kusinara. The monasteries at Piprahwa followed the construction of the stupa, for the monks to reside. The main town of

Kapilavastu, however, had a much earlier beginning. Hence, to present a complete picture of the whole complex of Kapilavastu, it was essential to expose the remains of the establishment of an earlier period. Large scale excavations were, therefore, started at Ganwaria in 1974-75.

III. SUMMARY OF RESULTS

During the course of excavation at Ganwaria, burntbrick structures spread over a very large area were brought to light. The burntbrick structural activity in such a large area was a testimony to the identification of the site with the ancient town of Kapilavastu. The earliest inhabitants at Ganwaria, however, lived in houses made of mud walls of which the roof was supported on wooden posts. A part of a wooden post was found in position.

In the beginning, it appeared that the habitation of the earliest Period was restricted to the western periphery of the site. During the course of further excavation the earliest settlers were observed to occupy other areas as well. The houses of mud in which they lived were a victim of the regular scourge of inundation. As a measure of protection from the constant threat, the inhabitants raised high platforms of mud for occupation. The mud was dug out from the nearby areas and was so similar to the natural soil that in the early stages it was a source of great confusion. When the ingenuity of the inhabitants in protection against flood with the help of mud platform did not succeed they had ultimately to switch over to burnt bricks. The structures of burnt brick were raised only in Period II. The evidence of burnt brick structure at Ganwaria in sixth-fifth century B. C. is the earliest so far reported from any site in India, particularly northern India.

The entire occupational deposit at Ganwaria could be divided into four Periods.

Period I datable between 800 and 600 B.C. was characterized by fine grey ware; black polished ware; red ware vases and dishes with reddish rim and greyish bottom associated with the Painted Grey Ware in western part of northern India; red ware bowls and dishes with mirror-like polish occasionally painted in black dots and circles; glass beads and bangles.

Period II was distinguished by the appearance of the Northern Black Polished Ware, a red ware painted in black horizontal bands and other associated wares. Bone points in an appreciable quantity also occurred in this Period. A date between 600 and 200 B.C was assigned to the Period.

Period III belonged to Sunga times with its beginning in the second century B.C. and end by the beginning of the Christian era. Besides typical pottery types, the Period was characterized by numerous variety of characteristic terracotta figurines in a large number.

Period IV was characteristically Kushana, dated from the beginning of the Christian era to the close of the third century. Buddha heads and other terracottas in a large quantity, Kushana coins, beads of terracotta and semi-precious stones and terracotta sealings were the principal antiquities of the Period.

The excavation at Ganwaria has yielded, besides other antiquities, a rich variety of terracottas. As a matter of fact the site can be treated as a mine of terracottas. Of them, beautiful heads of Buddha seated on double lotus throne in a contemplative mood holding the fingers of his left hand into the right; heads with a peculiar head-dress exhibiting foreign features; warriors; drummers;

demons; mother with a child in her lap; ornamented female figurines with elaborate coiffure and decorated anklets in their feet; dancing figures; a three-eyed head (Siva) with heavy Kundalas in the ear; and human figurines with elaborate drapery. Various kinds of animal figurine were also very attractive. A minutely carved stone *chakra*, similar to those observed on the abacus of Asokan pillars; a pair of heavy anklets (according to some door handles) in copper alloy; copper and silver coins; terracotta stamps, dabbers, beads, bangles, wheel and gamesmen; beads of glass and semi-precious stones; stone weights; chisels, sickles, arrow-and dagger-heads, knives, and a razor in iron; and a highly polished legged-quern with a pestle in stone were the other important antiquities. In the concluding season of excavation, two hoards of coin were found, one of silver punch-marked, sixty-four in number, and the other of copper of Kushana times, thirty-seven in number.

IV. CHRONOLOGY

The chronology of the site could be worked out on a sound footing with the help of a number of tangible evidences. Of all the ceramics found during the course of excavation, Northern Black Polished Ware was treated as the datum for the purpose of chronology, particularly because of its quantity. The lowest layer in which the ceramic occurred was (11) and it continued to be present till layer (7). The widely accepted date of Northern Black Polished Ware in Northern India by the archaeologists is between 600 and 200 B.C. Hence, the occupational debris of layer 11 to 7 was assigned the same date. There was an occupational deposit of 2.50 metres below layer 11. Period I was represented by layer 16 to 12, which yielded various types of ceramics like grey ware, fine red ware, red-slipped ware, chocolate-slipped ware and coarse red ware, in addition to black polished ware. Of late, with the information forthcoming from a number of sites excavated in eastern Uttar Pradesh in recent times, it has become evidently clear that the ceramic anterior to Northern Black Polished Ware in this part of the country was the black polished Ware. Added to it was the most characteristic shape in grey ware in the form of a wide dish with a red rim and grey bottom and interior. In a few cases the bottom was black. Dishes of this type have been reported from the earliest levels of Painted Grey Ware Period at Ahichchhatra in Bareilly district of Uttar Pradesh. Similar is the case with red ware vases found in Period I at Ganwaria. To be on the safer side after taking into consideration both the contemporaneity of certain wares along with the thickness of deposit below with obliquely cut rim. A few cast coins along with Punch-marked coins also corroborated the date.

Numerous antiquities and pottery distinguished precisely the date of the last Period IV at the site. In the first instance a large number of Kushana coins, besides those of Mitra and Panchala dynasties established the date of the Period without any hesitation. A sealing of Wima Kadphises was of great importance in deciding the chronology of the Period. A large number of terracotta figurines including Buddha head and figures exhibited typical features of the Kushana period. In pottery sprinkler of the Red Polished Ware along with fragments in a substantial quantity were of great help in settling the date.

The only carbon 14 date available for the site was wide off the mark. It was sample no. PRL 325, charcoal from layer 15 contemporary to lower levels of Period I. The date arrived at was $4740 \pm 210 = 2790$ B.C.

V. CUTTINGS (fig.2)

The occupation at Piprahwa had its beginning only after the *mahaparinirvana* of Lord Buddha when he was cremated and his corporeal relics were solemnised in the stupa by the Sakyas over their share. Kapilavastu town, however, was established at a much earlier date. In order to ascertain, therefore, the earliest date of occupation at the site and the various stages through which the township passed ultimately the latest time till it remained under occupation, a vertical trench was numbered as GNW 1. With the help of this trench, which was very rich in antiquities, the entire occupation at the site could be divided into four Periods without any break. Period I was dated between eighth and sixth century B.C., Period II between sixth and second century B.C., Period III between second century B.C. and beginning of the Christian era and the last Period between beginning of Christian era and the beginning of fourth century.

Once various Periods were determined on the basis of characteristic antiquities, large scale excavations were planned to determine the planning of the site as a whole. With this end in view the excavations which followed were undertaken on a grid pattern. The trench which ultimately covered the entire mound was numbered as GNW 2.

VI. STRATIGRAPHY

Layer 17 was the natural soil at the site. Layers 16 to 12 represented Period I, layer 11 to 7 Period II, layers 6 to 4 Period III and layers 3 to 1 Period IV. There was a marked difference in the composition of the layers below 11, which was a clear-cut indication of the change in the Period. The composition of layers 14, 13 and 12 was so deceptive that in the beginning when the excavation was in progress in the rooms of the larger structural complex, they were wrongly taken to be part of the natural soil. The clue to earlier occupation came from a number of pits observed in almost every room. The myth was finally exploded by the undisturbed occupation of the earliest Period represented by mud walls, which was observed when the pits were being cleared in one of the rooms. It was during the course of this operation that a mud wall in the room was noticed for the first time. A decomposed wooden post was observed in position by the side of the mud wall. Remains of an animal were also found on the other side of the mud wall.

VII. STRUCTURES

(a) Residential Structures

PERIOD I.—As already pointed out the inhabitants of the earliest occupation at the site lived in houses made of mud walls. The houses were devoid of any systematic planning in their construction. Their plan also was not uniform. Some of the houses were observed to be circular in plan. The maximum thickness of the walls was 0.85 metre and minimum 0.65 metre (pl. XXVI A). A few post-holes and a wooden post found in position established that the roofs of the houses were supported on wooden posts (pl. XXVI B). Details of the planning of the mud houses could not be determined on account of destruction of the entire area by regular inundation. The occupation was badly disturbed by water action, so much so that the exposition of the mud walls was rendered a difficult task. Infact, in several cases the mud walls appeared to have been lost in wilderness. However, the alternate bands of sand and silt left as remains of water action, were helpful enough in striking the remnants of the

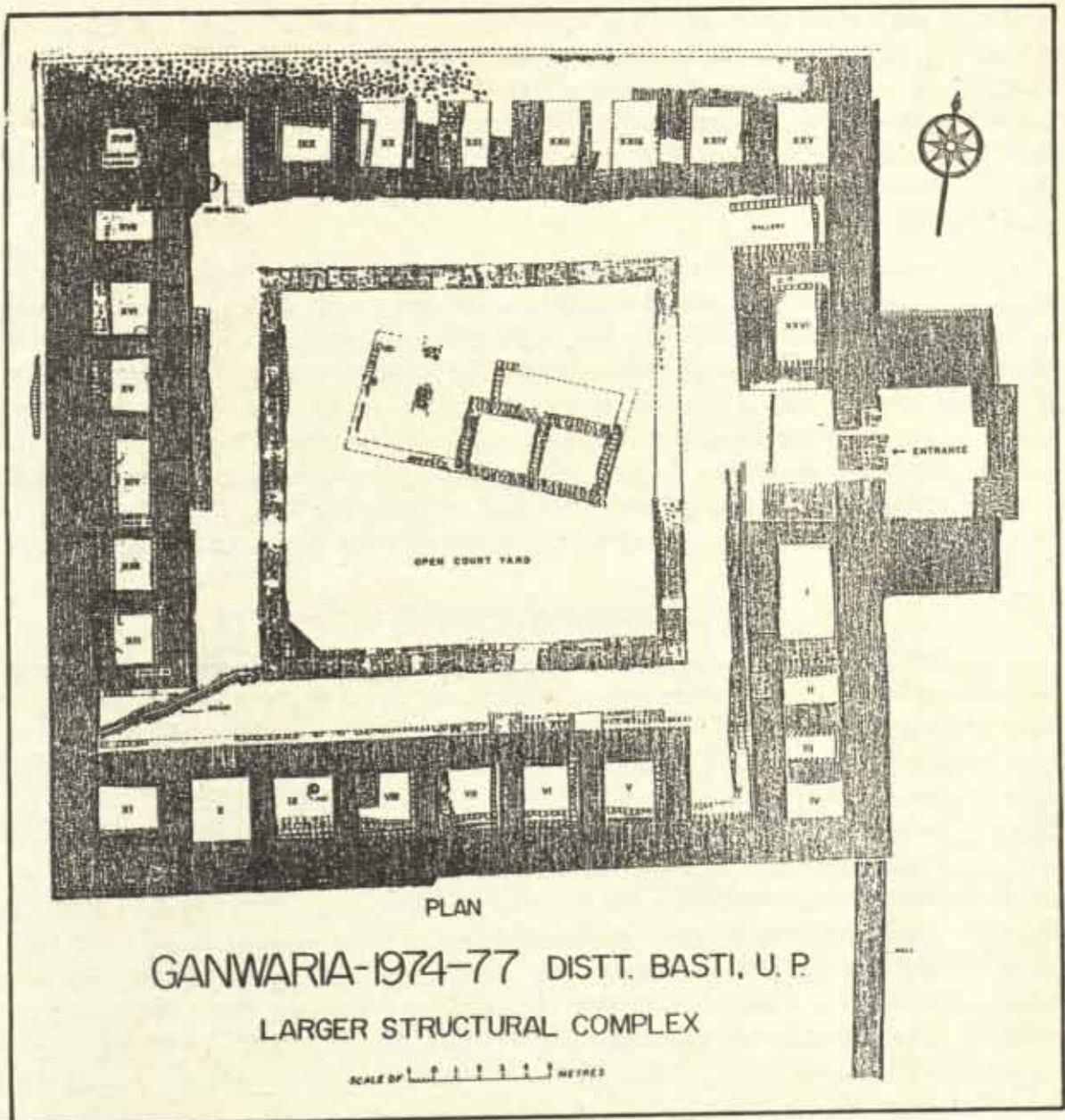


FIG. 13

mud walls. The alternating bands ended abruptly wherever a portion of the mud wall was left behind. The mud walls were composed of compact clay of dark greyish colour. Water played such a devastating havoc that the occupation was almost completely wiped out with the result that the remains of only one room could be established. It was circular on plan. In another trench, remains of a mud wall could be traced only to a restricted length, the rest of it having been washed away. There was no trace of any other wall. They must have been completely washed away. The mud walls of Period I were laid in layer 12 and the maximum extant height which could be observed in excavation was 1.30 metres.

PERIOD II.—The prosperous condition of the inhabitants in Period II was reflected in brisk burnt brick structural activity planned on a systematic line in contrast to the haphazard planning of mud walls in Period I. Mention has already been made of the mud-platforms, which the inhabitants raised to overcome the regular scourge of inundation. The burnt brick structures were erected over these platforms. Rampant destruction, sometimes it was observed, led to revolutionary changes and the same was true in the case of the population at Kapilavastu. In addition to raising mud-platforms, the inhabitants brought about a revolutionary change in switching over to the use of burnt bricks in their structures rather than continuing to erect structures of mud walls. Though the structures of mud wall were confined to the western parts of the site, the burnt brick structures were spread over a much larger area.

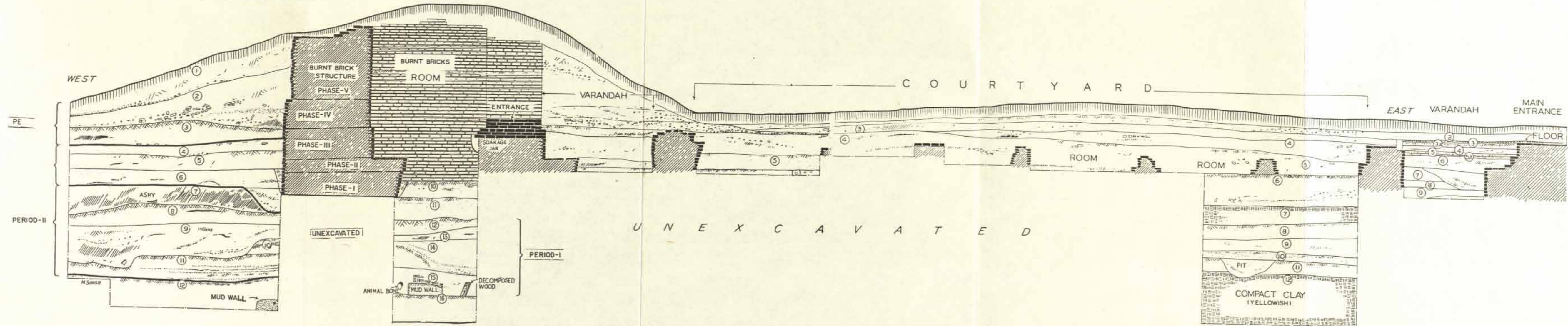
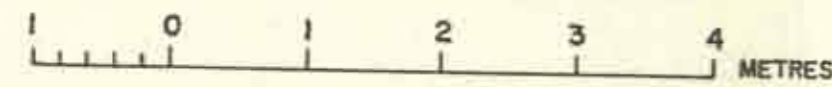
1. LARGER STRUCTURAL COMPLEX

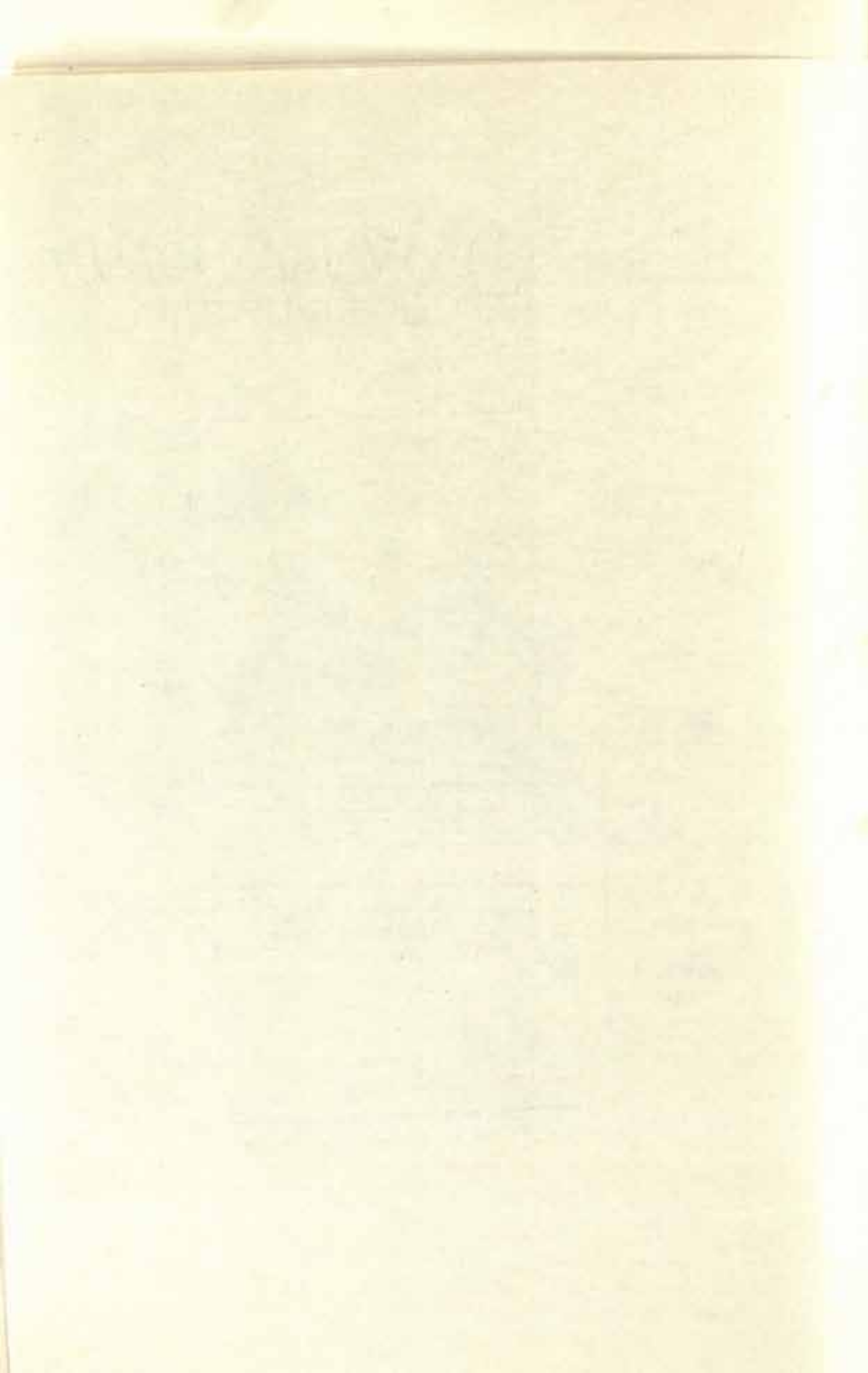
Of all the burnt brick structures at Ganwaria, the largest and most massive was the one located very close to the western periphery of the mound (pl. XXVII). The structure occupied an area of thirty eight metre square (fig. 13). In all five phases could be distinguished in the structure, of which the planning was very simple (pl. XXVIII). The rooms were constructed around a central courtyard 16.70 metre square. On each corner of the structure the rooms were intercepted by a rectangular gallery. The alignment of each gallery was different from one another. The longer wing in the southern arm was north-south oriented, that in the western arm east-west oriented that in the northern arm south-north oriented and that in the eastern arm west-east oriented. The gallery of the southern arm occupied the south-eastern corner of the structure, that of the western arm in the south-western corner and that of the eastern arm in the north-western corner. The longer wing of each gallery was 2.80 metres, whereas the width was only 2.50 metres. But for the rooms in the central courtyard, there were twenty-five rooms in all in the structure in phase IV (pls. XXVIII and XXIX). The number was raised to twenty-six in the last phase (pl. XL). The size of the rooms was generally 2.85 × 2.60 metres. The two rooms on either side immediately behind the entrance were most spacious. In between the rooms and the central courtyard there was a covered verandah supported on one metre thick wall. The width of the verandah was 2.80 metres. The thickness of the outer wall of the complex was a little more than two metres and that of the inner one 1.70 metres. The cross walls were a little more than one metre thick.

The structure had an impressive projected gateway on the eastern side. Two bastion-like platforms, projecting outside, were constructed at the entrance to present a majestic appearance. The bastion had two projections from the outer wall of the complex. Each bastion measured 5.30 metres

GANWARIA 1975-77 DIST. BASTI (U. P.)
LARGER STRUCTURAL COMPLEX

SECTION





east-west and 3.45 metres north-south. Moulded bricks were used in the topmost courses of the bastion. As an additional attraction, three corners were provided at the western end of each bastion. With a view to restrict the entry of the visitors, two curtain walls facing each other and projecting from the bastions, were raised at the easternmost fringe of the entrance (pl. XXIX). In front of the two walls there was a pavement made of brickbats using complete bricks in the fencing. The opening of the second entrance, however, continued to be 2.35 metres (same as the first one). As revealed by squarish sockets on either end of the entrance, two flaps of wooden frame appear to have been used to slam the door.

The larger structural complex embodied certain extraordinary architectural features. Complete bricks were used only in the facing of the walls and the core was filled up with brick bats. The bricks used in the last two phases were rubbed before firing, which ultimately presented a glittering appearance, after they were set in position in the structure. The smooth surface of the bricks rendered by the rubbing provided additional strength to the structure.

In spite of the fact that changes in the alignment of walls in different phases were observed, the planning of the larger structural complex, as a whole, continued to be similar in all the phases. A major part of the changes was covered up under the extraordinarily thick walls of the last two phases. In the light of minor alterations in the structure it was presumed that the number of rooms 25 and galleries 4 remained the same in all the phases. In the last phase the number of rooms was raised to twenty-six with the help of a partition wall. Some scholars, who happened to visit the site, were of the view that the partition wall as such was constructed to provide stair for approach to the first floor of the building. Since the size of the rooms was so much restricted after the so-called partition wall, the purpose of the same ultimately for steps appeared to be credible enough. The conspicuous absence of any door for entrance in the narrow rooms was another evidence in support of the stairs. Of course, no steps as such could be observed during the course of excavation (pl. XXX). In addition to the number of rooms around the central courtyard and verandah as mentioned above, there were three rooms located in the central courtyard itself. These three rooms were in use only in phases IV and V. The size of these rooms was 2.60 × 2.40 metres (pl. XXXI).

Since the structures of earlier phases were levelled up before reconstruction, doors of the last two phases only could be observed. The doors of phase four were 1.65 to 1.25 metres in width, whereas of phase five 1.25 to 1.20 metres only. In certain cases the doors were ultimately sealed.

This feature was noticed only in three rooms viz. nos. 11, 12 and 14. Some of the rooms were interconnected.

In the south-western corner of the central courtyard a small triangular platform with burnt-on edge was found attached to the verandah inside the courtyard in phase four. A covered burnt brick drain for the discharge of refuse water originated from the very platform with its outlet in the south-western corner of the structure (pl. XXXII). The width of the drain was sixty-five centimetre.

In the earlier phases, particularly phase one, the refuse water was being discharged in ring wells and soaked jars (pl. XXXIII). The diameter of a ring well in phase one was 85 centimetre. Enclosures with the help of brick-on-edge were constructed in phase four for keeping household objects.

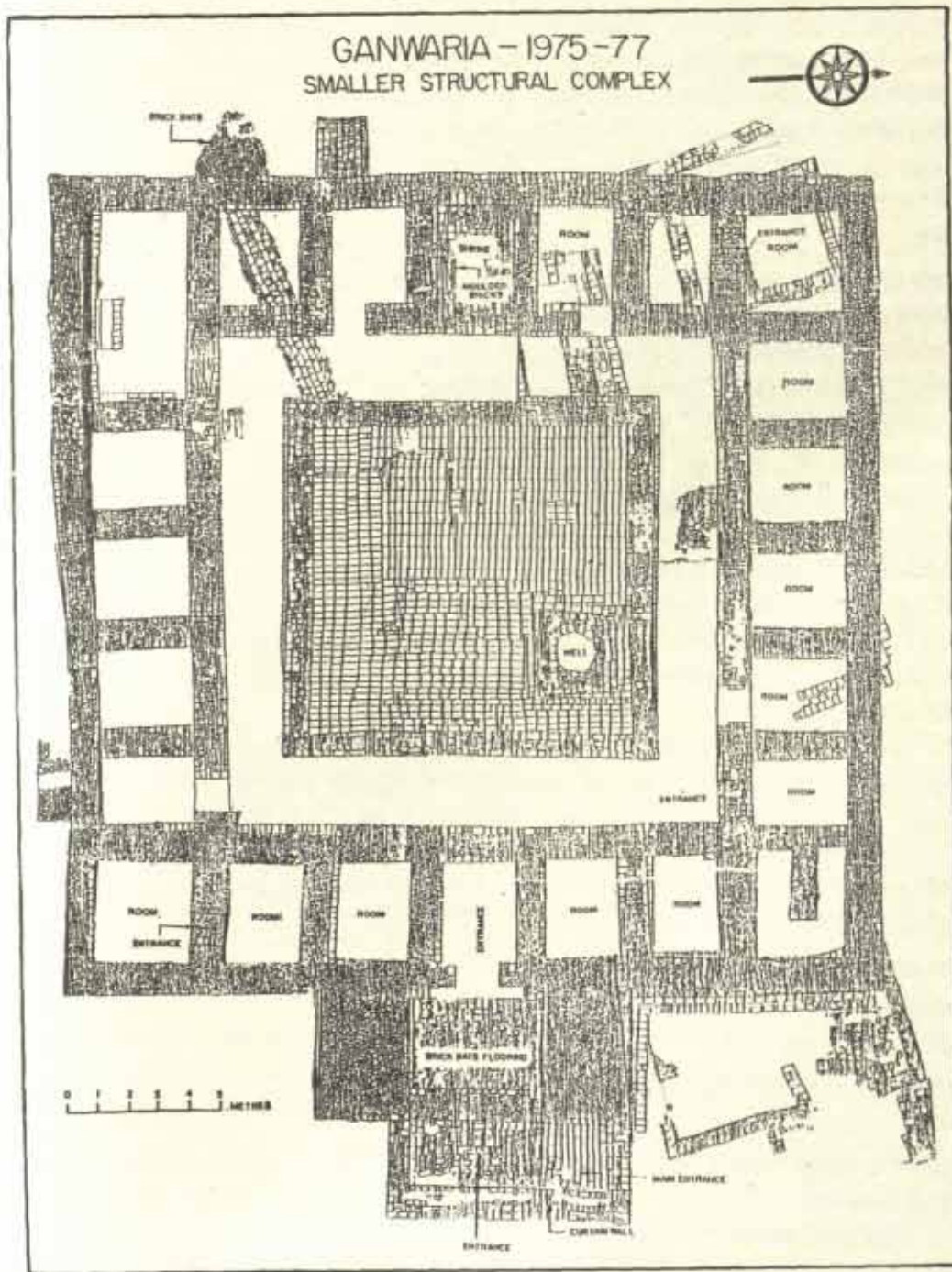


FIG. 15

The flooring as a general rule was made of brick jelly, though in phase four a brickbat flooring was also provided. However, such a type of flooring was confined only to a few rooms. The flooring of the central courtyard was also made of brick jelly.

A burnt brick wall, 1.32 metres thick, was exposed in the south-eastern corner of the larger structural complex. It joined the outer wall near the south-eastern corner. The maximum number of courses available in the wall were ten, the total height being 0.61 metre. Complete bricks were not used in the construction of the wall. The purpose of the wall could not be determined. It might have been constructed to provide an enclosure to the front side of the entrance. The alignment of the wall was north-south and no turning could be observed. It belonged to phase four of the larger structural complex. The stratigraphy (fig 14) of the five different phases of the larger structural complex and their approximate dates were as under:

Phase I laid in layer 10 - 6th-5th century B.C.

Phase IV laid in layer 9 - 5th-4th century B.C.

Phase III laid in layer 8 - 4th-3th century B.C.

Phase IV laid in layer 6 - 2nd century B.C.

Phase VA laid in layer 3 - Beginning of the Christian era

Phase VB laid in layer 2 - 1st century A.D.

The first three phases of the structure belonged to Period II of the site, the fourth to Period III and the fifth to Period IV.

The measurement of the bricks of the five phases were as mentioned below :—

Phase I - 37 to 36 × 23 to 21 × 8 to 7 cm.

Phase II - 35 × 22 to 21 × 8 to 7 cm.

Phase III - 37 × 25 × 24 × 7 cm.

Phase IV - 38 to 37 × 23 to 21 × 8 cm.

Phase VA - 35 to 34 × 19 to 18 × 7 cm.

Phase VB - 33 × 23 to 21 × 8 cm.

2. SMALLER STRUCTURAL COMPLEX

The smaller structural complex was located towards the north-east of the larger structural complex at a distance of about forty metres (pl. XXXIV A). The gateway or the main entrance of this complex also happened to be towards the east (fig. 15).

The smaller structural complex occupied an area of a little more than twenty-six metres, of though it was much smaller in dimensions as compared to the larger structural complex, the opening of the entrance was wider. It was 3.15 metres when the same was restricted to 2.35 metres in the larger one. Two projection bastion-like platforms, similar to the larger structural complex were constructed in this structure as well to present an impressive appearance of the gateway. The projected bastion-like platforms measured 4.15 × 2.80 metres. A low-lying burnt brick wall 1.00 metre thick was also

erected in line with the edge of the platforms. The intervening space in-between this wall and the main entrance was paved with bricks. In the last stage of reconstruction of the structure, the main entrance was sealed with the help of a curtain wall. The thickness of this wall was 0.68 metre. It was erected at a distance of 3.60 metres from the bastion-like platforms and connected with them by means of projecting walls at either end. The space between the later and earlier walls at the main entrance was paved with burnt bricks. When the main entrance was sealed with the help of the curtain wall a narrow entrance, 1.20 metre wide only, was provided on the northern side.

There was hardly any difference in the construction of the bastion-like platforms when compared with the larger complex. Complete bricks were used in the facing, whereas the interior was filled up with brick bats. The only difference which could be made out was that the bricks used in the facing were not rubbed before firing.

In all, there were five phases in this structure as well. But for a few exceptions the planning of the smaller structural complex was also on the same lines as the larger one, particularly in the last two phases. The rooms were all constructed around a central courtyard and a verandah. The central courtyard in this case, however, was paved with bricks. It was 10.70 metres square and the flanking wall of the front of the rooms was 2.20 metres. The existence of the courtyard paved with bricks right from the earliest stage of the structure could not be determined. In order to ascertain it the removal of the later structures was essential. It was, however, not considered desirable. The last phase in which the pavement of bricks was observed was Phase IV and it continued to be in use in Phase V without any appreciable change in the ground level.

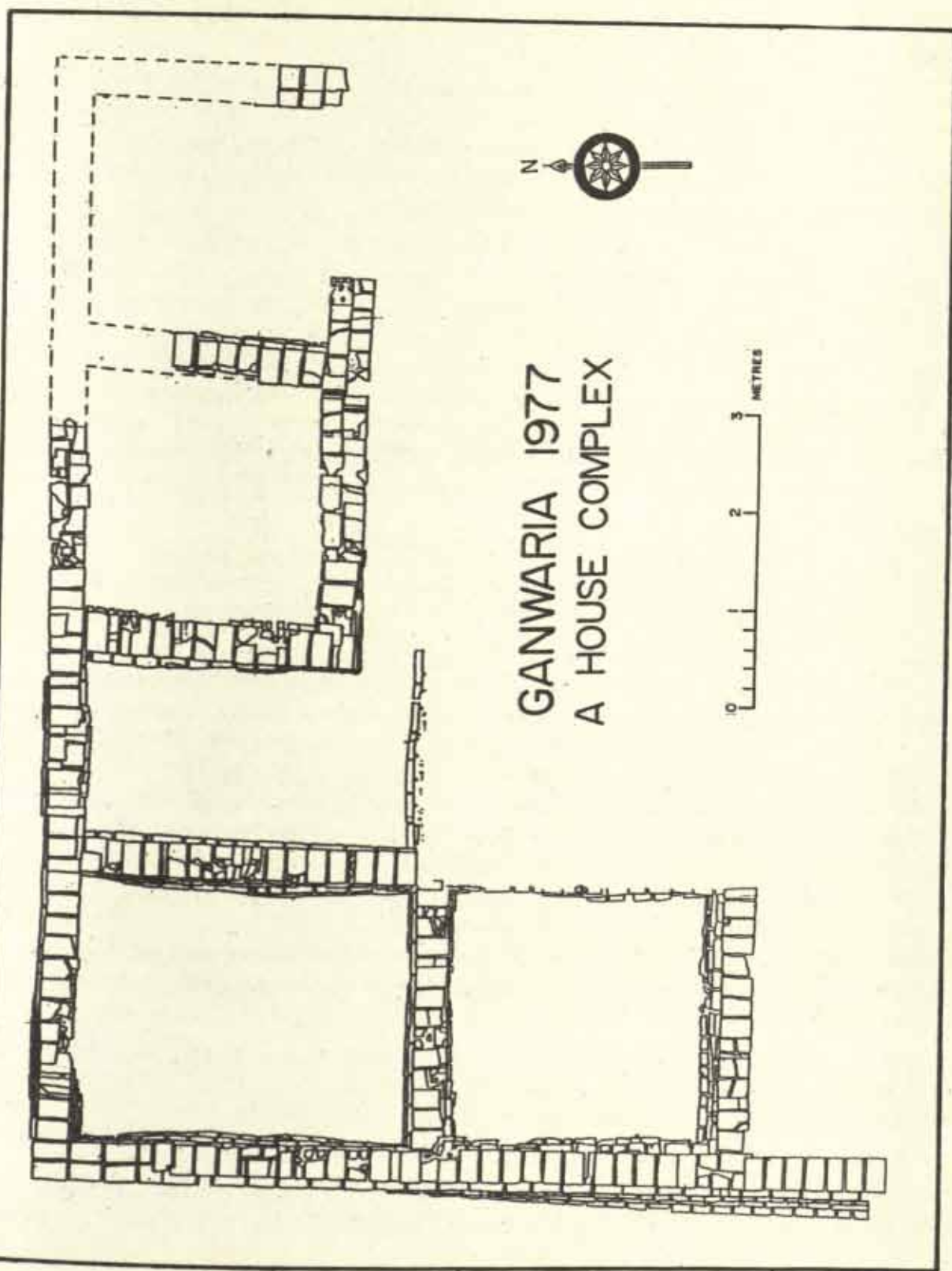
Like the larger structural complex a covered drain for the discharge of refuse water was connected with the central paved courtyard on the south-western corner. Unlike that in the larger complex, this drain had certain turns at right angles. The width of the drain was 0.60 metre.

In the north-eastern corner of the paved courtyard there was a small well with a maximum diameter of 1.25 metres (pl. XXXIV B). Like the paved courtyard, it was not possible to ascertain the earliest phase, when the well was constructed.

Another novel feature of the smaller structural complex was a privy in the north-eastern corner (pl. XXXV). Unlike the larger structural complex there was only one gallery in this complex. The gallery connected the privy with the central courtyard. In order to maintain privacy, the access to the small room meant for privy was provided through another small room connected with the gallery. Traces of any door between the two small room could not be observed. The wall separating the two small rooms did not run right through, but ended abruptly. Sockets for door were not observed in this wall. The method adopted to close this opening for regular use could not be established.

In accordance with the dimension of the structure the outer and inner walls of the smaller complex were much less thick. In this case, however, there was no difference in the thickness of the outer and inner walls, both being 1.05 metres. The cross walls were 0.95 metre thick.

The total number of rooms in the last two phases i.e. phases IV and V, were twenty-one excluding the privy located in the north-eastern corner (pl. XXXVI). The room on the south-east corner was the most spacious, measuring 6.10 × 3.10 metres. The other rooms generally measured



GANWARIA 1977
A HOUSE COMPLEX

FIG. 16

3.10 × 2.30 metres. Entrance to each room was approximately one meter wide with its opening in verandah.

In the last phase of construction i.e. phase V, the regular flow of water through the drain, most probably forceful, particularly on account of heavy rainfall, that the outer wall on the south-western end was affected badly. As a sequel to damage, the wall was rendered out of plumb, so much so that it had almost reached the point of collapse. Instead of reconstructing the wall, as a safety measure, a retaining wall to provide support to the main wall was raised.

But for the conversion of one of the rooms, opposite the main entrance, into a shrine in phase V, the general planning of the complex remained one and the same in phases IV and V. Moulded bricks were used in converting the room into a shrine (pl. XXXVII). The total number of rooms i.e., twenty-one, however, did not change. So far as the lay-out of the structures in the preceding three phases is concerned, it must be emphasised that changes with fundamental variations were very frequent. It was, however, not possible to trace out the planning of the preceding phases, because that would have entailed to complete destruction of the structures of phases IV and V, which was not considered desirable. The frequent changes in planning in different phases were much more marked in the northern half of the complex. Brick measurements of each phase were the same as in larger structural complex.

The presumption in the beginning that the occupation in Period I was confined to the western fringe of the site was refuted when excavation was conducted up to the natural soil in the rooms of the smaller structural complex.

Though in a very much disturbed state, the existence of the occupation in the earliest Period could be observed easily. Houses of mud wall, the characteristic feature of Period I did not, however, come to notice. It is not unlikely that the mud walls were completely washed away by the calamity of regular inundation. It has already been stated on the preceding pages that with great difficulty one or two mud walls could be traced. Even where they were found, they happened to be in a badly eroded state. Another feature repeated in this area was the existence of large number of pits in the mud platform raised for occupation. Human agency did not appear to be always responsible for these pits. The huge pits in many cases were caused by erosion. The inhabitants were not free from the scourge of regular inundation, inspite of the well thought out measure of raising high mud platforms for occupation. Location of the site in an area with a heavy annual rainfall was the source of constant worry and anxiety to the inhabitants, particularly when their houses were of mud walls. They were free from this regular devastation only when they switched over to the construction of burnt brick structures in place of mud.

Layer No. 12 happened to be the natural soil in the area of the smaller complex. Layer No. 11 was the occupational debris of Period I. The succeeding layer No. 10 constituted to be the high mud platform, the top of which was regularly eroded, presenting an undulating surface.

3. HOUSE COMPLEX ADJACENT TO THE LARGER STRUCTURAL COMPLEX

Very close to the southern arm of the projected entrance of the larger complex, a house with a number of rooms built in phases III and IV was exposed (pl. XXXVIII A). The total number of rooms

in the house, was four with verandah-type gallery in the front (fig. 16). The alignment of the rooms was north-south. They were all interconnected with each other. The maximum size of the rooms was about 4×2 metres. The width of the gallery towards the northern end was a little more than one metre. In the first phase i.e. phase III, the maximum number of brick courses available in the house was four, whereas in the succeeding phase the available number was eight. In front of the gallery there was a miniature platform-like structure, which might have served the purpose of the basement of a wooden post. There was, however, no groove in the centre.

Juxtaposed to the westernmost wall of the house, there was another parallel wall leaving a very deep depression in-between. The bottom of the depressed portion was paved with bricks. The alignment of the two walls so close to each other with the pavement of bricks in-between presented an appearance of a drain. Certain unusual features, however, raised doubts in accepting the same as a drain. First of all the drain in comparison to the structure it flanked, was too much. Further the side walls of the drain were not at all affected by the water running through it, through it, though the pavement as such had sunk. The existence of another structure on the western side, of which the flanking wall formed a part, could also not be ignored. A cross wall attached to the flanking wall towards the west further confirmed that the structure was not a drain. The pavement in-between the two walls appeared to have been provided for servicing.

4. HOUSE COMPLEX IN-BETWEEN THE LARGER AND SMALLER COMPLEX

While excavation was in progress in the area falling between the larger and smaller structural complex to co-relate the stratigraphical position of the two, a house complex with four rooms was brought to light (pl. XXXVIII B). They were constructed in two phases, which could be equated with phases III and IV of the larger structural complex. The orientation of the rooms was east-west. The size of the rooms varied from 2.75×2.65 to 2.55×2.10 metres. In the earlier phase the number of rooms was restricted to three. The structure was extended in the western side in the succeeding phase when another room was added. The extension measured 4.25 metres. The northern arm of the wall was completely washed away and as such the picture of the extended room could not be determined.

On the northern side of the house, a small platform-like and a circular structure, probably a wall, on the western side were noticed. Both the structures could be assigned to phase IV. A long wall on the eastern side of the house complex was also exposed. The purpose of the wall could not be established. It was about 0.45 metre thick.

Digging deeper in the area, it was again observed that high mud-platforms were raised by the inhabitants as a safety measure for their dwellings. As already stated on the preceding pages, the platforms were regularly eroded inspite of the fact that they were high enough. The regular damage can be accounted for only by heavy rainfall in the area. All efforts to trace out the remains of the occupation of Period I were futile. The remains of the earliest occupation including the mud wall of the structures must have been completely washed away by frequent flooding, which left behind a deep scar on the platforms.

5. SMALL HOUSE COMPLEX ON THE NORTHERN SIDE OF LARGER STRUCTURE

A small house complex with only two rooms and a verandah was excavated on the northern side of the larger structural complex (pl. XXXIX A). Initially the structure comprised only two rooms without the verandah. The idea of a verandah came only in phase IV, when the same was added to the rooms already in existence in phase III.

The rooms, however, continued to be in use in phase IV. The orientation of the entire structure was north-south, but the verandah in the later phase was added both towards the south and the east. Both the rooms were almost of the same size, the larger axis (north-south) measuring 2.90 metres and the smaller one (east-west) 2.65 metres. No care was taken to maintain the uniformity in the size of the verandah added to the south and the east. The verandah on the south measured 2.90 (east-west) \times 1.45 (north-south) metres, whereas the one added to the east was wider. It was 4.90 (north-south) \times 1.50 (east-west) metres. Presuming that the occupations below the structure must be similar to other areas, excavation in lower levels was not undertaken.

6. HOUSE COMPLEX ON THE NORTHERN SIDE OF SMALLER STRUCTURAL COMPLEX

A huge house complex, spread over a large area, and comprising several rooms, brick-paved hall, gallery and well, was exposed very close to the northern arm of the smaller structural complex (pl. XXXIX B). The area being low-lying, a major portion of the structure was washed away. The house was constructed in phases III and IV of the larger structural complex. The overall area occupied by the house was 21.50 (east-west) \times 15.00 (north-south) metres. Three rooms of the eastern arm of the structure were a little more intact. A gallery 1.10 metre wide also existed on the side. Generally the walls of the structure were 0.55 metre thick, but the wall of the gallery was 1.10 metre thick. The gallery on the eastern side did not run right through the structure on the northern side. An enclosure looking like a room was also there on the south-eastern side. In-between the rooms a cistern-like structure measuring 2.70 (north-south) \times 3.30 (east-west) metres was exposed (pl. XLA). The bricks of the side walls of the cistern were laid in a receding fashion. The bottom of the cistern was paved with brick bats.

On the northern side of the structure a well having an inner diameter of 1.10 metre was brought to light. All around the well brick pavement was provided in order to prevent slush while draining water. The bottom of the well could not be reached on account of water table, though as many as sixty-three courses of brick were exposed (pl. XLB).

A huge brick-paved platform, which must have served the purpose of a hall, was observed on the north-western end of the structure. The maximum area of the hall must have been 6.50 \times 5.80 metres. On the south-western corner of the house, there was another brick-paved platform. Being badly eroded, the maximum area covered by it could not be determined.

There must have been a large number of rooms accompanied by other architectural members in the structure, but they were so badly eroded that the details could not be made out. The eastern wing of the structure was a little more preserved.

A big room adjacent to the north-eastern corner of the entrance of the smaller structural complex was exposed. It belonged to phase III. The size of the room could not be determined, because the walls towards the western side were extending below the smaller structure. By the side of this room on the northern side, there was a thick wall in a north-east-south-west alignment. The wall was about a metre thick. It was not possible to ascertain its purpose, because on the south-west it went below the smaller structure and on the north-eastern side it was completely eroded. This wall also belonged to phase III.

7. ROOM AND A VERANDAH

Located towards the north-eastern corner of the smaller structural complex a room attached with a verandah was excavated. It was built in two phases. In all, there were five courses of brick available in phase III and only four in phase IV. Since the structure was very close to the edge of the mound, it was almost completely eroded. The size of the room was approximately 3.90 (east-west) × 3.80 (north-south) metres. The width of the verandah could not be ascertained.

8. HOUSE COMPLEX WITH THREE ROOMS AND A GALLERY

A little away on the northern side of the larger and smaller structural complexes and situated in-between them there was a house complex with three rooms and a gallery towards the north. The room on the northern side was almost a square, one side measuring 2.90 metres. The southern room was also a square though much smaller, one side measuring 2.50 metres. Running a little obliquely, the gallery on the northern side was 1.45 metre wide. The thickness of the walls was 0.40 metre. Immediately outside the gallery on the north-eastern and a huge storage for with a diameter of about a metre was also exposed. There were two phases of construction in the house, which could be equated with phases II and IV of the larger structural complex.

9. CISTERN-LIKE STRUCTURE

Attached on the western side of the above complex, a beautiful cistern-like structure was exposed (pl. XLI). Though in the beginning the structure was supposed to be a cistern meant for storing water, a close study led to reasonable doubts. The bottom of the cistern was paved with bricks. It was three metres deep. Each course of the brick of the side walls was laid in an offset fashion with the result that, the area on the top was 2.20 × 1.80 metres, which was reduced to 1.40 × 0.80 metres at the bottom. In the absence of any trace of water-effect on the side walls of the structure, the presumption of its having been a cistern was completely ruled out. The structure must have served some ritualistic purpose like offering of rice on particular religious occasions. The structure was constructed in phase IV.

10. HUGE ERODED HOUSE COMPLEX ON THE EASTERN SIDE

Close by on the eastern side of the three-roomed house complex mentioned above, a large house spread over an area of 14.50 × 7.50 metres was brought to light. The structure was almost completely eroded and as such the details of the room, verandah etc. could not be made out. The thickness of the walls was 0.50 metre. On the north-eastern end of the house there was an eroded brick-paved platform. The actual phase in which the structure was built could not be determined.

11. WELL

Near the north-western end of the above-mentioned eroded house-complex there was a well with a maximum diameter of 0.90 metres. There must have been a brick-paved platform all around the well as indicated by the eroded remains. It was constructed in phase IV.

12. HOUSE COMPLEX ON THE WESTERN SIDE OF THE WELL

Remains of a house complex completely eroded were observed on the western side of the well. But for the thickness of the wall, which was 0.40 metre, it was not possible to ascertain any other detail.

13. ANOTHER HOUSE COMPLEX FURTHER WEST

Remains of yet another house complex in a badly eroded condition was excavated further west of the above house. It occupied a large area measuring 9.60×3.30 metres. Amongst the details of the structure, only a room measuring 2.2×1.80 metres could be established. The structure was built in two phases viz. III and IV. The thickness of the wall in phase III was 0.50 metre, which was reduced to 0.40 metre in phase IV.

14. RICKETY WALL

A rickety wall of the latest days of occupation at the site was brought to light on the eastern side of the above-mentioned house complex. The thickness of the wall was 0.40 metre. The wall must have formed part of a poor dwelling in the last adverse days of the people.

With the help of scanty remains of the rickety wall on all sides, it could be assessed that the rooms in the last stage were fairly big as compared to earlier phases.

15. HOUSE COMPLEX ON THE NORTH

On the northern side of all the structures mentioned above and close to the north-eastern end of the rickety wall a better preserved remains of a house were brought to light. Though it was not possible to bring out the entire picture of the house complex, the remains of at least four rooms could be established. The biggest room measured 3.00×2.50 metres, whereas the smallest 2.50×1.30 metres. The thickness of the wall was 0.40 metre. The structure was built in phase III and continued to be in use in phase IV.

16. HOUSE COMPLEX BELOW SHRINE 2

The Chinese pilgrim Hiuen Tsang has recorded in his travel document that the residential structures of the earlier Period were converted into shrines or monasteries. In order to verify the statement, a limited portion of the north-western corner of shrine 2 was removed to see if there were residential remains below shrine 2 was located close to the south-eastern corner of the smaller structural complex. During the course of excavation, a residential structure with a north-south orientation was brought to light. In all, three structural phases were distinguished in the structure (pl. XLII A).

Of the first phase as many as six courses of brick were available in a partly exposed room in the south-western corner. The size of the room was 2.80 (north-south) \times 2.75 (east-west) metres. The

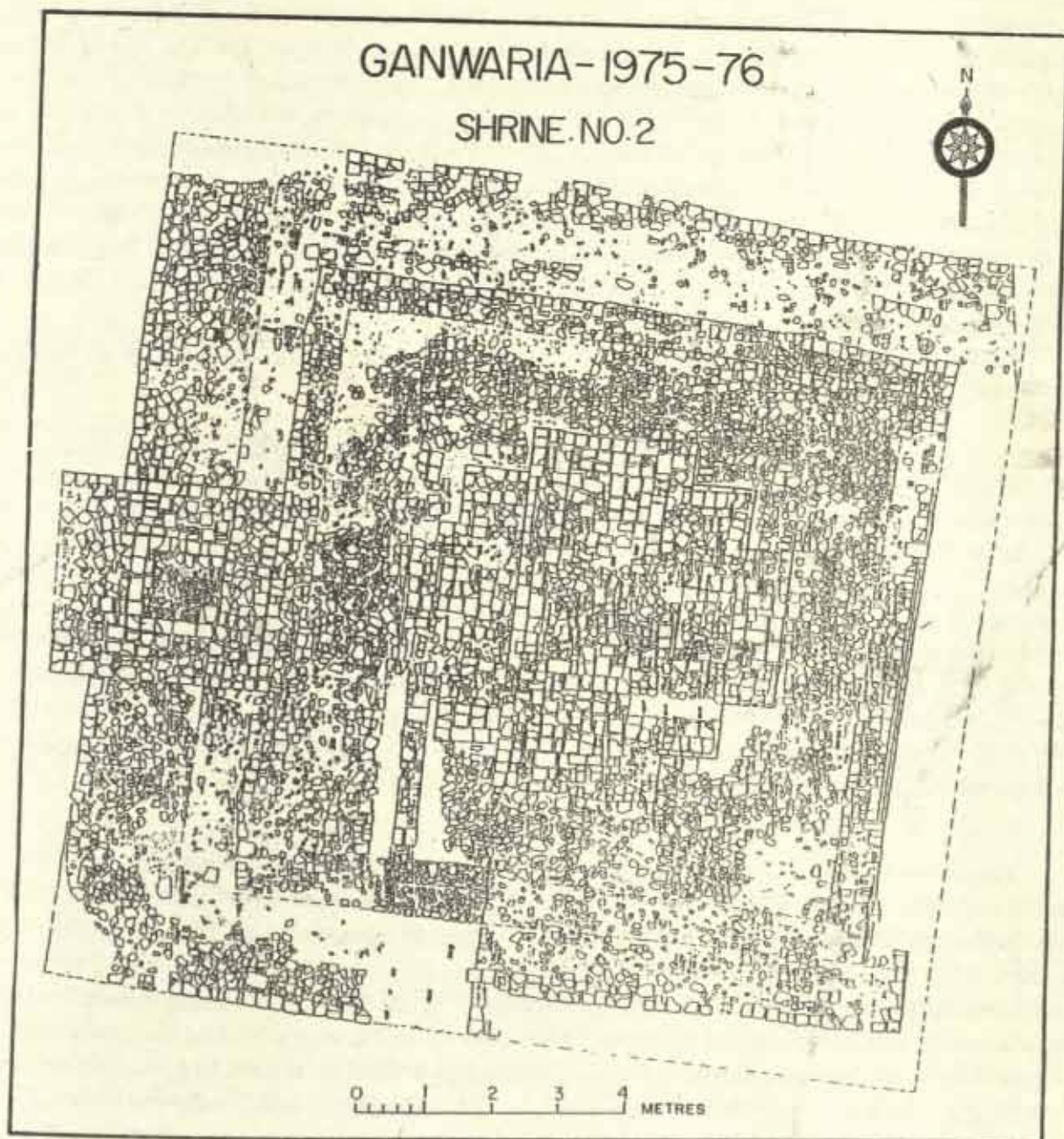


Fig. 17

width of the wall could not be determined on account of limited excavation and superimposing structures. The room of the first phase continued to be in use in phase II when the complex was extended towards north by the addition of another room, a little bigger in size. The size of the room was 3.45 (north-south) \times 2.75 (east-west) metres. In all, five courses of brick of phase II were available. In the third phase of construction the complex was made more elaborate. It was extended further east and the rooms of the earlier phases continued to be in use. The extension in the third phase of construction was very well-marked by a vertical joint. The third phase of construction comprised a gallery, 1.90 metres wide, with an entrance towards south and a room 2.35 metres square in size on the eastern side. The maximum number of courses in phase III of the structure during the course of the excavation was seven. Traces of further elaboration of the structure were available in the eroded remains observed on the eastern side.

The three phases of the construction in the structure could be easily equated with the first three phases of the larger structural complex.

B. Ecclesiastical structures

The Kushana kings, particularly Kanishka, were very much devoted to the religion of Buddhism. It was during their regime that religious activity at Kapilavastu was revived and many structures, particularly ecclesiastical were raised. The religious zeal of the Kushana kings was responsible for the elaboration of the eastern monastery at Piprahwa, which ultimately clinched the issue of the identification of Kapilavastu. The religious zeal had its influence on the town site of Kapilavastu as well. Besides raising structures over the earlier ones, the Kushana kings built four main shrines. In addition, one room just opposite the main entrance of the smaller structural complex as already mentioned, was also converted into a place of worship with the help of moulded bricks. The shrine yielded a unique terracotta image of Buddha. The Lord is seated on a double lotus throne in a contemplative mood holding the fingers of the left hand into the right.

1. SHRINE 1

The shrine was located on the northern side of the larger structural complex (pl. XLII B). The shrine occupied an area of 6.65 \times 6.00 metres having two phases, both belonging to Period IV of the site. In the beginning there was a simple shrine 2.30 metres square with a 0.50 metre thick wall all around. After a lapse of time, the shrine was made more elaborate and an enclosure wall towards the entrance side on the west added. The enclosure wall covered an area of 2.50 metres square. Along with the enclosure wall a brick-paved platform 1.60 metres wide was also added on the northern side. It is quite likely that the brick platform was constructed all around to be used as a *pradakshinapatha*. A drain in the wall on the southern side of the shrine was provided in addition for the outlet of water.

A wall 0.33 metre thick was observed below the shrine, projecting towards the northern side from the brick-paved platform. The wall must have formed part of a residential structure over which the shrine was raised. This was in conformity with the house complex exposed below shrine 2 described above.

On the northern side of the shrine an irregular brick platform was brought to light. The bricks used in the platform were wedge-shaped, the longer side of which measured 0.20 metre. The exact

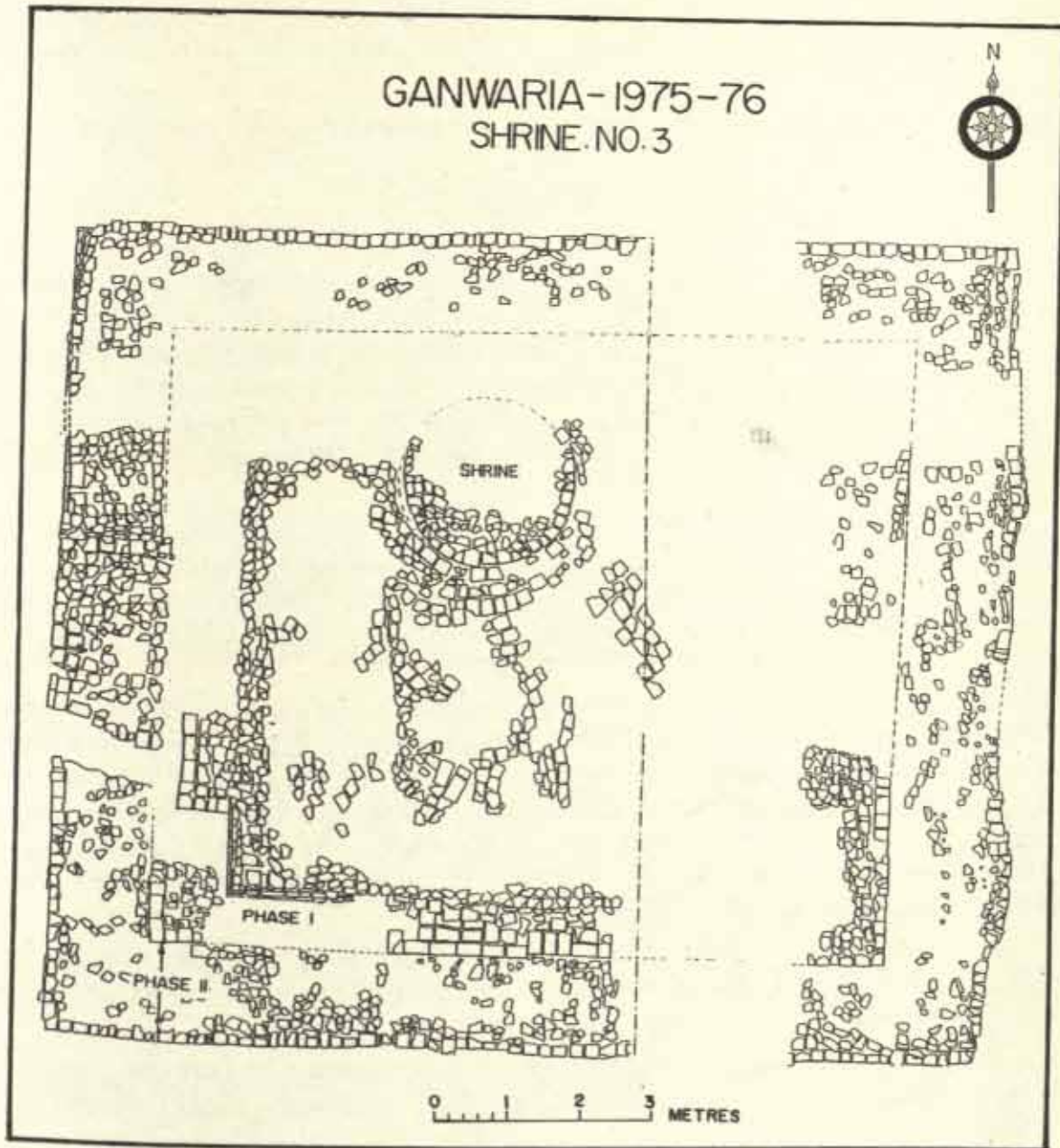


FIG. 18

shape and purpose of the platform could not be established on account of the damage by erosion. However, the wedge shape of the bricks gave the impression that it might have been used for some ritualistic purpose. Since the platform was very close to the shrine, its association with the latter could not be ruled out.

The two phases of construction could be equated with phases VA and VB of the larger structural complex.

2. SHRINE 2

Of all the four shrines, shrine 2 was the most magnificent and elaborately constructed (pl. XLIII A). The shrine was built in two stages (fig. 17). In the beginning, the main shrine was measuring 9.50 metres. Certain unusual features in the shrine distinguished it from others. Firstly, the shrine was not located in the centre of the platform. It was slightly towards the back of the platform. This unusual feature, however, had no bearing if the steps provided in front of the shrine for entrance towards the western side were also taken into account. As a matter of fact they were part and parcel of the shrine complex. The entrance with the help of flight of steps was projected towards the west by about a metre.

The second unusual feature of the shrine was a number of corners, when all other shrines were square in shape. In this case the shrine had twelve corners and consequently twelve sides. Just behind the entrance the side of the shrine measuring 5.70 metres happened to be the largest. The back of the shrine was only 2.50 metres long. The smallest side of the shrine was only 0.70 metre long. In all, the shrine measured 5.70 (north-south) \times 4.10 (east-west) metres.

After a lapse of time the area of the shrine was enhanced by the addition of an enclosure wall 1.70 metres thick. The intervening space of about 0.80 metre between the platform and the enclosure wall was filled up with brickbats. The pavement of the brickbats must have been used as *pradakshinapatha*. With the addition of the enclosure wall the over all area of the shrine was increased to a little more than 13 metres square. In the centre of the enclosure wall, a projected entrance with the help of steps was provided. The width of the entrance measured 3.15 metres, which projected from the enclosure wall by 9.90 metres.

The shrine belonged to Period IV of the site and datable to the structural phases VA and VB of the larger structural complex. All the shrines at Ganwaria could be bracketed within the same chronological horizon.

The shrines brought to light during the course of excavation at Ganwaria constitute a very interesting group in the study of architecture. It was for the first time that shrines of such an early date in brick were observed. Moreover, the earliest shrines in India comprised simply of a square *mandapa*, whereas the shrines at Ganwaria were very elaborate in their construction.

Shrine 2 occupied the most important place at Ganwaria. It yielded several Buddha heads, one of which was having a halo behind the head.

3. SHRINE 3

Shrine 3 was located very near shrine 2 in the south-eastern fringe of the mound. The architectural features of this shrine were almost similar to shrine no. 2, though it was not so elaborate

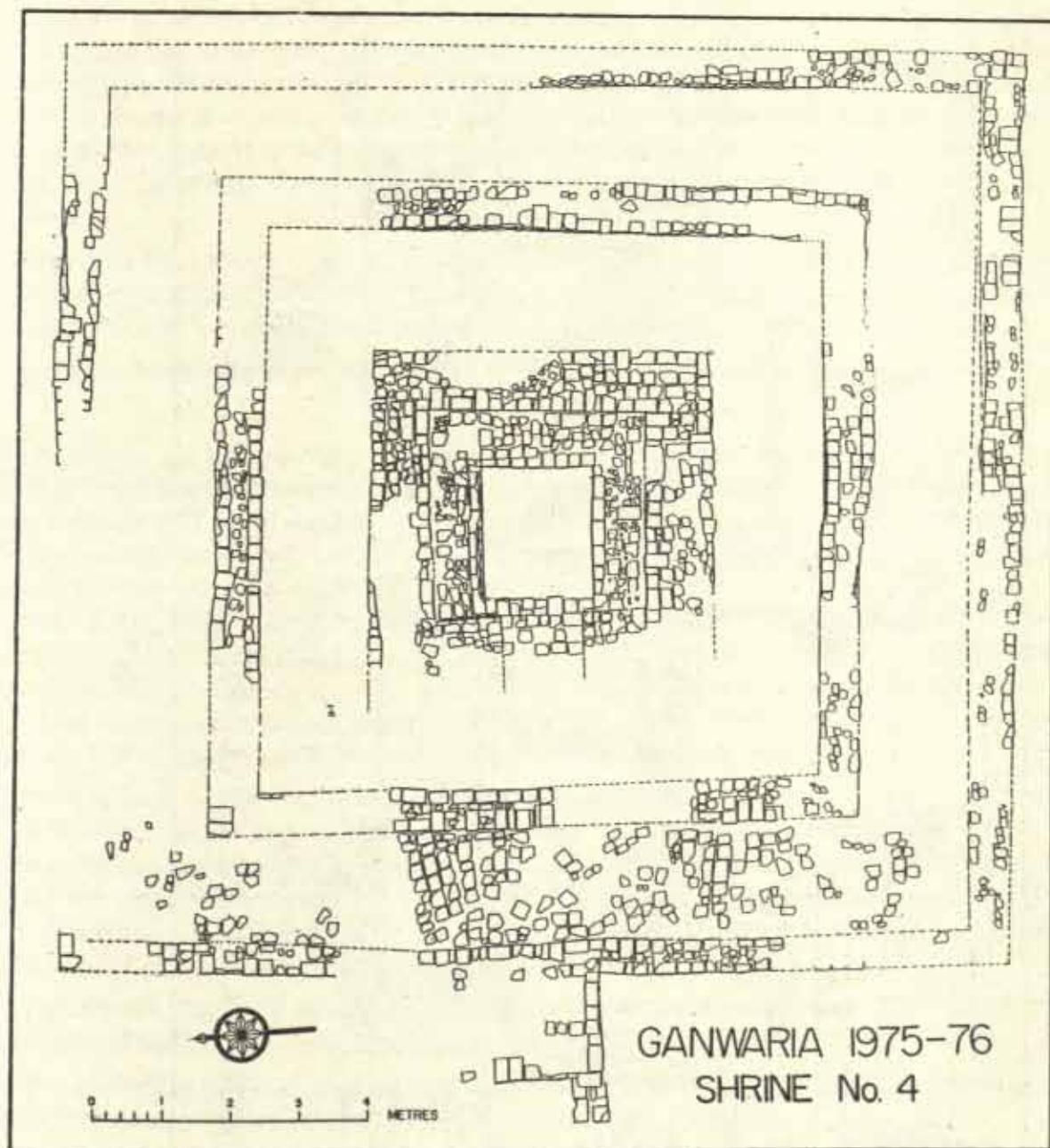
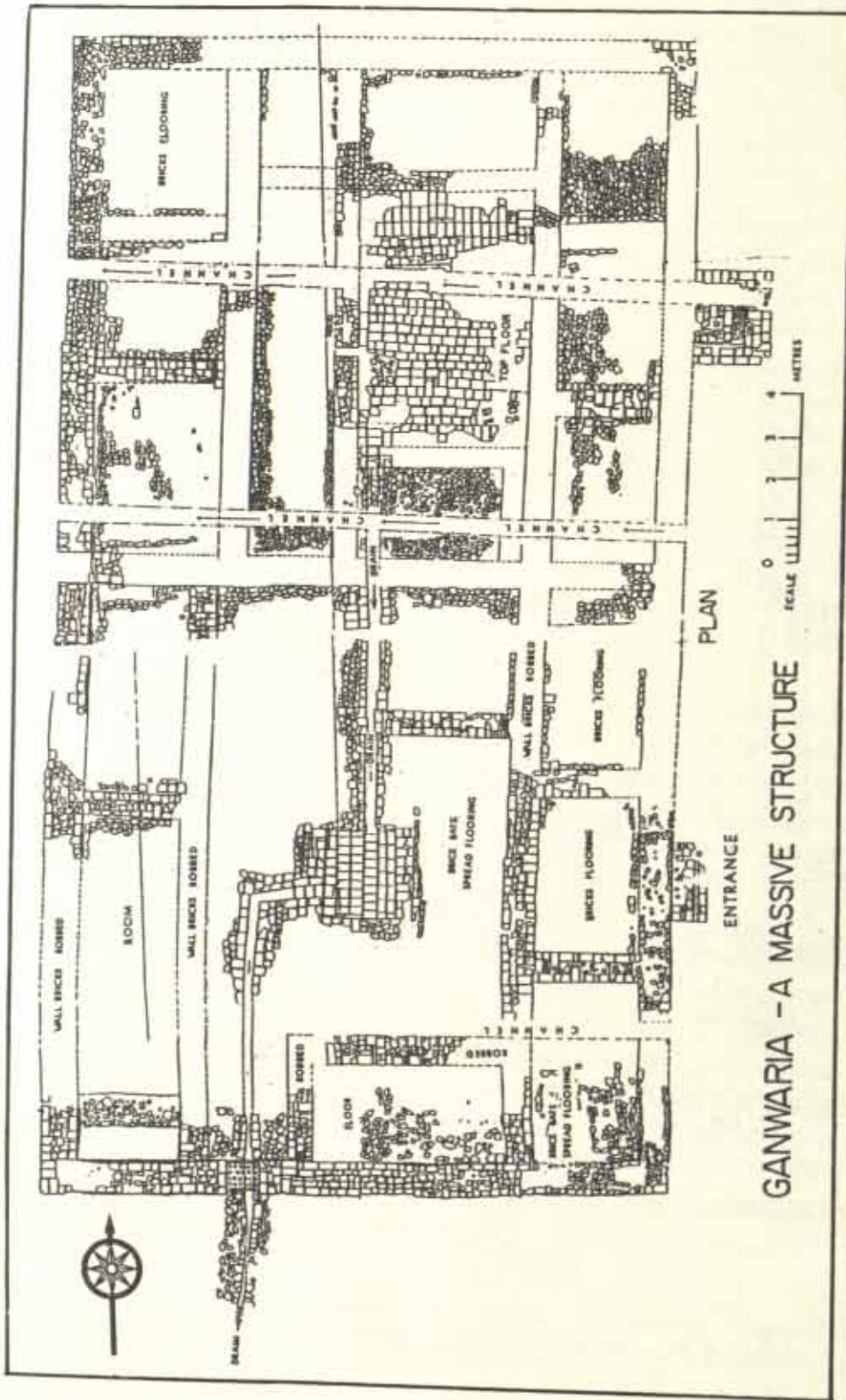


FIG. 19



GANWARIA - A MASSIVE STRUCTURE

FIG. 20

(fig. 18). Like others, this shrine also had two stages of construction. In the initial stages, a platform 10.65 (east-west) × 9.15 (north-south) metres was constructed for the erection of the shrine. The main part of the shrine could not be traced on account of heavy erosion. However, a stupa-like construction was observed near the north-eastern corner of the platform. Whether the stupa formed a part of the shrine or the heavy erosion was responsible for the circular remains of the structure could not be determined. The diameter of the so-called stupa was 2.50 metres. The entrance to the shrine, similar to others, was towards the western side. The projection exposed to a very limited extent measured 0.70 metre.

After a short lapse of time an enclosure wall, 1.30 metres wide was added to the shrine to make it more elaborate. With the addition of the enclosure wall the entire area of the shrine became 13.50 (east-west) × 11.80 (north-south) metres.

Shrine 3 also belonged to phases VA and VB of the larger structural complex.

4. SHRINE 4

Located on the eastern fringe of the mound, the architectural features of shrine no. 4 were slightly different from other shrines (pl. XLIII B). In the initial stages of construction itself, provision for an enclosure wall was made. The main shrine, rectangular in plan measuring 1.90 (east-west) × 1.55 (north-south) metres, was erected over a 4.90 metres square platform (fig. 19). The platform was found to be eroded on the western side with the result that the traces of the entrance also had disappeared. The shrine, including the platform over which it stood, was enclosed within a wall, a little more than 0.60 metre thick. The enclosure wall was erected at a distance of 1.60 metres from the platform. The intervening space must have been used as *pradakshhinapatha*, though there were no remains of brick or brickbats pavement. The overall area of the shrine, including the enclosure wall in the initial stages, was 9.30 (east-west) × 3.60 (north-south) metres.

In the second stage of the construction of the shrine, another enclosure wall at a distance of 1.80 metres from the earlier one was raised. Indications of brickbat pavement in-between the two enclosure walls were available towards the entrance side on the west. The enclosure wall of the second stage was a little less than 0.60 metre thick. The projection for the entrance towards the west was 1.50 metres. After the erection of the second enclosure wall the entire area of the shrine was enhanced to 14.30 (north-south) × 14.00 (east-west) metres.

A small wall about 0.50 metre thick, appeared below the projected entrance. This wall must have formed part of earlier residential structures as observed below other shrines.

The chronological position of shrine 4 was the same as other shrines. It belonged to phases VA and VB of the larger structural complex.

5. UNIDENTIFIED MASSIVE STRUCTURE

Located in a south-easterly direction from the entrance of the larger structural complex and to the south-west of shrine 2 there was a massive block of a structure of an unusual nature comprising several room and two courtyards in the centre. The massive structure had two stages of construction (pl. XLIV). In the initial stages the area covered by the structure was only 15.12 (east-west) × 13.80 (north-south) metres (fig. 20). The main entrance to it was from the eastern side with a flight of steps provided in the centre of the front wall (pl. XLV A). Bricks-on-edge were used in the steps, which

projected from the wall by 1.90 metres. The outer wall was 0.80 metre thick, whereas the inner one ranged between 0.65 and 0.70 metre. Immediately behind the steps, three rooms almost equal in size, were provided. The size of the room was 3.70 (north-south) \times 2.50 (east-west) metres. Behind the three rooms towards the western side a beautiful central courtyard flanked by two rooms were constructed. The central courtyard was 5.95 (north-south) \times 4.10 (east-west) metres. The room on the northern side of the courtyard was 2.90 (north-south) \times 4.10 (east-west) metres, whereas the one on the southern side was a little smaller than the north-south side, being restricted to 2.40 metres. A special feature of the courtyard was the provision of a covered drain 0.30 metre in width on the southern side for the outlet of water (pl. XLV B).

On the western side of the courtyard only two rooms were planned, of which one was a gallery-like which measured 9.20 (north-south) \times 1.90 (east-west) metres. Adjoining the gallery was a small room on the northern side measuring 2.40 (north-south) \times 1.80 (east-west) metres.

Yet another set of rooms was observed towards the western side of the structure. This set had three rooms in all. Two of them were square in shape measuring 3.00 metres, whereas the third was slightly bigger and rectangular, with one side measuring 3.55 metres, the other side remaining the same.

After a lapse of time when the structure was found to be inadequate for the purpose it was constructed, another square block, planned almost on the same lines was added towards the southern side. Another entrance with a flight of steps was provided to the new block. The new block was a little more than 15.00 metres square. The entrance to this block was not so well built as the earlier one. In this case it projected from the main wall by 0.80 metre only, when the projection in the earlier one was 1.90 metres. Probably the number of steps in the later structure was also less.

Like the earlier block there were three-rooms immediately behind the entrance. They were of different size ranging between 4.50 (north-south) \times 2.50 (east-west) and 3.50 \times 2.50 metres. Behind this set of rooms a bigger courtyard than the earlier one was exposed. The courtyard was almost a square, with one side measuring a little more than 7 metres. In the centre of the courtyard there was a reservoir. It was enclosed by two rooms, one each on the north and the south. The room towards the southern side was larger, measuring 4.60 (east-west) \times 2.50 (north-south) metres. The room on towards the southern side was larger, measuring 4.60 (east-west) \times 2.50 (north-south) metres. The room on the northern side measured 3.80 \times 2.50 metres.

On the north-western corner of the central courtyard a room, measuring 2.75 \times 2.50 metres was constructed. Just behind the courtyard towards the western side there was a gallery-type room, the area of which was 8.30 (north-south) \times 2.50 (east-west) metres. On the southern side of the central courtyard there were two rooms. One of them was fairly big with an area of 4.60 \times 2.50 metres, whereas the other room was without a wall on the northern side. It measured 2.50 \times 1.30 metres. In the southern wall a small door, meant probably for servicing or private purposes was provided. The width of the door was only 0.80 metres.

The most attractive feature of the structure, as a whole, was the provision of the drain connecting the courtyard of the earlier block with the reservoir located in the courtyard of the later block. In the courtyard the later block the drain takes two turns first to the west and then to the south. The refuse

EXCAVATION AT GANWARIA

water was ultimately discharged on the southern side of the structure. Before the ultimate emission the drain had its course below the narrow entrance provided in the southern wall.

Both the blocks of the massive structure were constructed in phase V of the larger structural complex and the time lag between the two stages of construction appeared to be negligible. The determination of the planning of the structure had presented great problems, because the bricks were robbed from almost each area. The robbing of the bricks from the walls rendered the assessment of the planning much more complicated. The central courtyards, reservoir and the drain were paved with complete bricks, but for the flooring in the rooms only brickbats were used. Complete bricks were also absent from the walls. Bricks already available at the site were reused in the construction of this massive complex.

The exact purpose of the structure could not be established. No doubt the location of the school mentioned by the Chinese pilgrim Hiuen Tsang in his travel documents fits in well with this structure, it is premature to declare the purpose of the structure with certainty.

CHAPTER III SEALS AND SEALINGS

Sealings found in a large number during the course of excavation at Piprahwa must be treated as an epochmaking discovery in the ancient history of India, primarily because they have settled the precise location of Kapilavastu, which had been eluding the archaeologists since long. In addition to the sealings with the legend Kapilavastu, which helped in identifying the ancient town, there were a few other sealings as well, both from Piprahwa and Ganwaria, besides two seals from the latter site. Kapilavastu was the capital of the chief of the Sakyas, Suddhodana, father of Gautama Buddha. It was Kapilavastu where Gautama Buddha, as prince Siddhartha, spent the first twenty-nine years of his life before ultimately renouncing the world in quest of salvation for the emancipation of humanity at large. In the entire collection of seventy-seven sealings and two seals, those carrying the legend of Kapilavastu are of paramount importance in identifying the ancient place. Piprahwa is not the first site, where the location of an ancient place has been settled, with the help of the legend on the sealings. There are numerous other places like Nalanda, Ratnagiri, etc., where, on the basis of sealings, the location of the ancient place was declared and accepted by scholars. Nalanda owes its present name to the discovery of sealings with the same legend, because the place was well known earlier as Bargaon. No site has so far turned out eventually to be a place other than that mentioned on the sealings.

The following abstract from the Presidential address of D.C. Sircar delivered before the august body of Indian History Congress at Bombay in 1980 will be very pertinent in this context.

“Similar has been the case with the location of the city of Kapilavastu, the capital of the Sakya people. Its name has, even from ancient times, been often wrongly written as ‘Kapilavastu’ due to wrong Sanskritisation, Pali-Prakrit *vatthu* standing for both the Sanskrit words *vastu* (an object) and *vaastu* (a habitation). Literary evidence was inadequate for the definite location of the Sakya city so that some scholars were of the opinion that it stood at the site of modern Tilaurakot in the Nepalese Tarai while another group of them preferred to locate it at the village of Piprahwa lying in the same neighbourhood but falling in the Basti District of Uttar Pradesh in India, actually on the northern fringe of the district, immediately to the south of the Nepalese border. Excavations were recently carried out at both Tilaurakot in Nepal and Piprahwa in India by the officers of the Archaeological Survey of India; but Tilaurakot yielded no antiquity offering evidence on the point whereas more than forty seals belonging to the *Kapilava (vaa) stu bhikshu-sangha* (community of Buddhist monks of Kapilavastu) living in the Devaputra-vihara which seems to have been a monastery named after the Kushana King Kanishka I (c. A.D.78-102) often called ‘Devaputra’ have

been unearthed at Piprahwa. Thus the evidence in favour of Piprahwa as the site of Kapilavastu seems to be conclusive but it has naturally failed to satisfy the Nepalese who feel that their country is being deprived of being the homeland of the Buddha, and a suggestion has been offered that the matter may be put up to the UNESCO for decisions whether Kapilavastu should be identified with Piprahwa in India or Tilaurakot in Nepal. A funny idea indeed!"

Since the site of Kapilavastu, on account of its associations, turned into a pilgrimage centre for the Buddhists in subsequent times, different class of people, including nobles and kings enriched the site by issuing seals and sealings in token of their memorable visit to the site.

The majority of the sealings refer to various monastic institutions or organisations, while 15 only carry the names of different individuals as described below. Almost all of them are well baked tablets of terracotta.

SEALS

The two seals have the inscription on their flans engraved or incised, probably in a negative form, so as to produce the legends in relief, when impressed on any soft material. On the back of each seal, a ridged-butt projection was provided by pressing two sides for a grip to hold. The projected part is perforated for passing a string required for easy handling and also to serve as a means to pull the seal back after making the impressions. Thus, they are stamp seals, which are generally used for impressing on wet clay with pressure. The legends they carry on their faces appear to be of a pictographic nature, probably of a non-Indian origin.

SEALINGS

The study of the sealings reveals that they were not prepared in any systematic manner for achieving uniformity. Some of them were made out of fine alluvial clay and well fired, resulting into a bright brick-red colour. The weight of such sealings is much more than those, which contain more combustible material. The colour of the latter is not bright red. They vary from each other in size and shape and in a few cases lumps of clay were used to impress and produce the sealings of an irregular shape. This feature is observed mostly in case of sealings on individuals, which were prepared by different agencies. However, there is some uniformity in the sealings issued by the local monastic organisations, so far as the material and the method of preparation are concerned. They are of two shapes i.e., (i) round-based and (ii) flat-based.

In the first category, small clay balls with one side flat were taken and pressed into impressions, turning them into neatly prepared tokens with rounded back. Considerable care was taken to see that no extra clay projects out on the sides at the time of pressing. The flat surface is even with the legend in relief and back rounded, both neatly finished.

In the case of some sealings of individuals, the sal incuse, either square, rectangular or elliptical, has been pressed deeply on clay lumps of irregular shape.

In the second category (flat based) the sealings have been shaped like a tablet with deep impressions and projecting ridge around the incuse. The common feature noticed in almost all the

cases is that the flat base normally contained one or two deep channel-like grooves across the width either in the middle or a little sideways, the latter in a very few cases (pl. XLVI A, 3 - 6).

With the device of folding extra clay, provision for perforation has been deliberately made in a limited number of sealings other than those falling in the above two categories (pl. XLVI A, 1-2). The perforation might have served the purpose of tying to any packet or latter. The baked condition of the tablets with grooved back goes against the impression that they were the 'string marks' caused at the time of affixing the seals. The opinion of some scholars that, the unbaked sealings affixed on the packet and letters might have been duly baked at their destination and kept as records, is also equally unconvincing. They simply indicate the probable process of preparation.

It appears that the clay balls were kept over a plain surface and pressed with the negative impression of the seals. While doing so, a thin reed or strip of fibre was kept under these tablets to avoid the possibility of their sticking to the surface. In certain cases, where the need could not serve the purpose, the sealings were detached with the help of a sharp stick or flat-edged instrument as evidenced by such marks on either end of the groove. The concave bend at the back of some tablets appears to be the result of fixing over a cylindrical pipe or similar such round-surfaced object during the process of manufacturing. This method might have been very convenient to the makers in producing the sealings in large numbers followed by drying and baking them.

The grooves formed over the reverse might have helped in affixing them on stringed packets with some glue-like substance. A small depression was also deliberately caused in a few cases at the centre of the back, probably to hold some additional glue substance for fixing them to the latters, packet, etc. (pl. XLVI B).

In an isolated example, the sealing appears to be unbaked, but the material is sufficiently hard to retain the shape and legend. The clay in this case might have been mixed with special ingredients to form a sticky paste, which helped in retaining the shape after drying. It is a small clay ball pressed on all the four sides with fingers to form a cubical piece, which was kept over the packet and impressed with seal.

Of the two processes of manufacturing, as described above, the former required considerable time and talent, while the latter was helpful in mass production.

The break-up of the entire collection is as follows:

(i) Seals	2
(ii) Sealings	77
(a) monastic establishments/organisations	63
(b) personal—both royal and private	14

SEALS

1. GNW (Ganwaria site): 1421 (Registration number); elliptical (shape); flan 22 × 28 (measurement), perforated ridged-but at the back to hold; total height 19 mm. The legend (?) is

in grooved lines encircled by a linear border, representing two unidentified monograms or pictographs side by side. The seal is an unslipped terracotta piece (pl. XLVI C, 1).

The seal was found in the second room from the west of the northern wing of the smaller structural complex.

2. GNW, 676: This is a baked terracotta seal with a red slip. The flan of the surface is elliptical measuring 30 x 27 mm. The design is engraved or incised within a circular linear border 22 mm. in diameter. At the back a ridged-belt with a perforation has been provided for a grip. Total height of the seal is 24 mm. The design is rather leading to a very shallow depression. The legend (?) represents unidentified pictographs in three rows one below the other (pl. XLVI C, 2).

The two seals could not be identified properly. It is felt that both may be of a non-Indian origin. S. Malayandi, a scholar from Madras, was of the opinion that the former represents the then language i.e., the Chinese language of the Han dynasty, spoken in Northern China during the period of Northern dynasty and records the name of Tor-Chung or Tao-Ching, one of the members of party of the Chinese pilgrim Fa-hien.

The second seal, again according to the same scholar, is a Nasi script which is in part a word picture script (ideograms) comparable with Nicholas collections from Yunan province of China, belonging to Tibeto-Burmese group of the Sino-Tibetan languages.

Though the observations of Malayandi were very tempting in the light of the identification of Kapilavastu, they did not receive support from any of the scholars including Chinese, who were consulted in the matter.

SEALINGS

A. Monastic organisations. Four varieties with different legends were available in the group. They were as follows:-

1. *Om, Devaputra Vihare, Kapilavastu, Bhikhu Sanghas*
2. *Maha, Kapilavastu, Bhikshu Sanghasa*
3. *Chu (.....) traya Bhikshu Sanghasa*
4.*Not possible to decipher*

There were twenty-two sealings, in all, in variety no. 1 of which three were worn out and five fragmentary and not much helpful for the purpose of study. In variety no. 2 thicker sealings were available, of which five were very much worn out and nothing could be made out of them. The rest eight are described below. In variety number 3, only one out of five sealings was in a good state of preservation. The rest four were defaced to such an extent that nothing could be made out of them. However, they were helpful in reconstructing the text of the legend over the sealings to some extent. Under variety no. 4, twenty-three sealings in all were found, of which only six could be studied, the rest being worn-out.

All the above-mentioned sealings were recovered from various monasteries excavated at Piprahwa. Varieties 1, 2 and 3 were found during the course of excavations from different cells (rooms) of the monastery, which is located to the east of the Great Stupa and the sealings variety no. 4 were picked up from another monastic complex, which is situated a little away from the main stupa in a westerly direction.

The details of the sealings in a good state of preservation are furnished below :-

Variety No. 1

All the sealings in this variety are circular in shape though they were made out of different seal discs. The clay tablets were of different size and shape. Adequate care was not taken to give a good finish to the sealings.

1. PPW; 65: Circular, 26 mm diameter, well baked; channelled groove or raised mark in the flat recourse.

Above: in the centre of the top symbol 'Om'.

Below: legend in three lines in Brahmi characters of early Kushana period. The entire legend in addition to the symbol of 'Om' on the top is as follows :-

Devaputra Vihare

(Ka) pilavastu sa

Bhikhu sa (.....) (pl. XLVII A, 1)

2. PPW; 65 circular, 24 mm diameter, crudely finished; cracked sides; flat reverse with reed groove across

Above: symbol, Om in the top centre.

Below: legend in three following lines:

Devaputr Vihare

Kapilavastu (-)

Bhikh (u) (.....) (pl. XLVII A, 2)

3. PPW: 54: circular, 26 mm. diameter; traces of double-lined border around; flat reverse with double reed marks; crudely-finished but well-baked red terracotta (pl. XLVII B, 1).

Above : Symbol 'Om' in the top centre.

Below : legend in three following lines

Devaputra Vihare

Kapilavastu Sa

Bhiku Sanghasa

4. PPW; 66: circular; 24 mm. diameter; traces of triple-lined border around, lump of clay in irregular shape; concave reverse with a reed mark, well-baked red terracotta (pl. XLVII B, 2).

Above : Symbol of 'Om' in the top centre

Below : legend in the following three lines:

Devaputra Viha (re)

Kapilavastu Sa

Bhikhu Sanghasa

5. PPW; 76: lump of clay (77 × 66 mm), appears to have been pressed over a wide flat-surfaced object, which had a perforation in the middle. Over this convex-surfaced lump the seal was impressed. The impression of the sealing was perfectly circular (27 mm diameter). The flat rugged impression of the reverse had a knob-like projection of 20 mm width and 18 mm height, without any reed-grooved mark. It is a well-baked terracotta piece.

Above : symbol of 'Om' in the top centre.

Below : legend in the following three lines:

Devaputra Vihare

Kapilavastu Sa

Bhikhu Sanghasa (pl. XLVIII A)

The overall shape of the piece appears to be of a lid with a knob, though the purpose may not be the same. The symbol of 'OM' and the legend were encircled by a double-lined border.

6. PPW; 57: circular ; 26 mm diameter ; a little convex reverse with thick. ('mm') terracotta tablet.

Above : symbol of 'Om'

Below : legend in the following three lines:

Devaputra Vihar (-)

Kapilavastu sa

Bhikhu Sa (-) (pl. XLVIII B, 1)

7. PPW; 63: circular, 24 mm diameter, flat reverse with a deep irregular depression, probably caused while detaching the sealing in a leather hard state from the surface before baking, well-baked into a red tablet. Legend in sharp letters:

Above : symbol of 'Om' in the top centre.

Below : legend in the following three lines:

Devaputra Vi (--)

Kapilavastu sa

Bhikhu sa (--) (pl. XLVIII B,2)

8. PPW, 127: circular, 28 mm diameter, flat reverse with double reed-marked grooves; black well-baked terracotta tablet. Legend within double-lined border almost well preserved.
Above : symbol of 'Om' in the centre.
Below : legend in the following three lines:
Devaputra Vihare
Kapilavastu sa
Bhikhu Sanghasa
9. PPW, 123: fragmentary; circular; 26 mm diameter; flat reverse with a shallow broad groove of 24mm width across; almost half of the well-baked red tablet intact.
The extant legend in three lines reads:
(---) putre vihare
(---) Lavastu sa
(---) Khu sanghasa
10. PPW, 58: fragmentary; circular; 21 mm diameter; uneven reverse; red terracotta tablet well-baked. Legend in three lines with 'Om' at the top encircled in a double-lined border reads:
Devaputra Vihare
Kapilavastu Sa
Bhikhu Sanghasa
11. PPW, 125: circular; 25mm diameter; worn-out; concave reverse with a deep groove; damaged on either end; red-baked tablet.
Above : symbol of 'Om' in the top centre
Below : legend in the following three lines:
(Deva) putra viha (re)
(Ka) pilavastu (Sa)
Bhikhu Sangha (Sa)
12. PPW, 55: circular; 23mm. diameter; worn-out; uneven flat reverse with a groove to a side; brownish-baked tablet.

Above : Symbol of 'Om' in the top centre.

Below : legend in the following three lines

Devaputra Viha (re)

(Ka) pilavastu (Sa)

Bhikhu Sanghasa

13. PPW, 67: fragmentary; one-fourth of the sealing only is intact; flat reverse; well-baked. "Legend" within a double-lined border is as follows:

Kapilava (--)

Bhikhu Sangha (--)

14. PPW, 124: fragmentary; convex reverse with a groove towards a side; red-baked; worn-out. The extant legend reads as follows:

--vaputra vi (—) re

--pilavastu (sa)

(--)-Sanghasa

Variety 2

15. PPW, 48: circular, 22mm diameter; lower portion off the flan is pressed with fingers spoiling the circular shape; well-baked blackish terracotta tablet; concave reverse with a single shallow reed-grooved mark.

Legend in three lines in bold character is as follows (pl. XLIX A, 1):

Maha

Kapila (va) stu

Bh (i) kshu San (gha) (Sa)

16. PPW, 51: circular; fragmentary; 21 diameter; uneven rough reverse; well-baked red terracotta piece. The impression of the seal has been made over an uneven clay. Available legend in three lines reads as follows (pl. XLIX A, 2);

(-) ha

(-) pilavastu

Bhikshu Sanghasa

17. PPW, 53: circular, 21 mm diameter; well-baked red terracotta tablet with a little concave bent reverse. Legend in three lines, of which lowest one is slightly defaced, reads as follows (pl. XLIX B, 1):

(-) *ha*

Kapilavastu

Bh (-) Ksh (-) Sanghasa

18. PPW, 77: circular; 21mm diameter; flat reverse with single-channelled groove indenting on either side; well-baked, but worn-out terracotta tablet. Legend in three lines, in blunt, but bold characters, reads as follows (pl. XLIX B, 2):

Maha

Kapilavastu

Bhikshu Sanghasa

19. PPW, 52: circular; 21mm diameter; flat reverse with double reed-grooved marks; well-baked terracotta tablet. Legend, in three very much defaced lines; reads as follows:

Maha

Kapilavastu

Bhikshu Sanghasa

20. PPW, 50: circular; 21mm diameter; flat reverse with marks of folding of extra clay on either side causing two grooved channels; red-baked. The worn-out legend in three lines reads as follows:

Maha

(-) *pilavastu*

(-) *Kshu San (gha) Sa*

21. PPW, 109: circular; 19mm diameter; flat reverse with a single-channelled groove; well-baked thick piece. Legend in three lines, in bold but worn-out characters, reads as follows:

(-) *ha*

(-) *pilava (-)*

Bhikshu San (-) Sa

22. PPW, 80: circular; 19mm diameter; flat reverse with a single-channelled groove; red-baked tablet. Worn-out legend in three lines reads as follows:

Maha

Kapilavastu

(-) *K (-) Sa (-) (-)*

COMMENTS

The *Mahaviharas* at Sarnath and Kusinara were designated appropriately as *Sadharmachakra* and *Mahaparinirvana vihara* commemorating the memories and associations of these places with the Great Teacher Buddha. Similarly *Gandha-Kutis* are also believed to have been so called, as they were full of fragrance emitted by the body of the Buddha

The *vihara* at Kapilavastu, therefore appears to have derived its name appropriately from the Great Teacher, who might have also been known as *Devaputra*, which became familiar as a title at a later date and assumed by the Kushana rulers like Kujula Kadphises, Kanishka and others. It is quite plausible on account of the fact that Buddha as a prince spent more than one third of his life at Kapilavastu, before he renounced the world for Enlightenment. He also sanctified the place by his visit during the life time of his father and later as well.

The stupa at Piprahwa was enlarged at a later stage during the time of Kushana emperor, Kanishka, and all viharas surrounding the Great Stupa seem to have been amalgamated into one composite *Bhikshu Sangha*, which assumed the name of *Maha Kapilavastu Bhikshu Sangha*, loosing their individual identity. In the amalgamation of the *Bhikshu Sangha* of the *Devaputra Vihara*, the eastern monastery appears to have taken a lead. Thereafter the Mahayana sect started appearing on the scene. In addition, Sanskrit was patronized simultaneously with Prakrit, which in course of time receded into the background.

Almost all places associated with Buddha had their monastic order named after important incidents in the life of the Teachers. In certain cases the *viharas* were named after the donors as well. In the case of Piprahwa, however, it is not convincing enough to think that the *vihara* was so named after Kanishka, who assumed the title of *Devaputra* and also to presume that it lost its identity soon afterwards with the amalgamation of all the monasteries into one. The provenance of the sealings of both the organisations in one and the same monastery indicates the transitional period; immediately before the *Mahasangha* came into prominence. The *Bhikshu Sangha* of the *Devaputra* vihara, evidently of eastern monastery, swalled into a *Bhikshu Sangha* of Great Kapilavastu incorporating other monastic orders too that existed on other sides of the stupa and in the immediate neighbourhood like Salargarh, giving place to a new name Maha Kapilavastu after the township, where it was founded. The separate entity of the *Devaputra Vihara* came to an end thereafter.

VARIETY 3

23. PPW, 108: circular; 23mm diameter; well baked flat reverse with two shallow reed marks side by side. The impression of the legend was obliterated even at the time of preparation, as observed from the finger impression supressing the legend. However, traces of a conch shell are seen above, followed by two lines of the legend below. The legend is as follows:

cha (-----)

Bhikshu (-) *ngaha* (-)

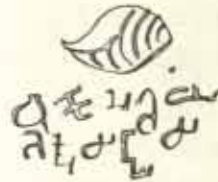
24. PPW, 26: Sealing; 24mm. diameter; well-baked; flat reverse; sharply cut single-channelled groove on the reverse.

Above : a conch shell

Below : Legend in two lines as follows (pl. L A)

Vu'chu (Kula) traya

Bhikshu Sanghasa



In the first line the name of the Bhikshu Sangha is not clear. It may be *Vukula traya* or *chukulatraya*. Both the above-mentioned sealings belong to one category and indicate only one order. They were found in one trench. Three more sealings, which are very much worn out, also belong to this variety with the same provenance.

25. PPW, 61: circular; 22mm diameter; traces of conch shell and the legend below in two lines; flat reverse with a double shallow-channelled groove and in the middle a shallow depression, deliberately caused probably for affixing to the packet or cover with some gum substance.
26. PPW, 78: circular; 22mm. diameter; flat but concave reverse; no channelled groove; traces of conch shell and below it traces of a legend similar to no. 24 above.
27. PPW, well-baked; circular; 22mm. diameter; flat reverse with channelled groove; overall rectangular.

Above : conch shell

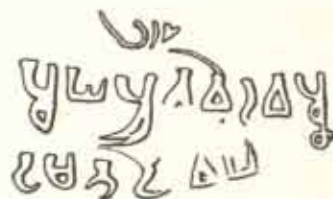
Below : legend in two lines very much worn-out

VARIETY 4

28. PPW; 163; circular; 28mm. diameter; rounded reverse; neatly finished; well-baked terracotta. Within the double-lined border over the flan the legend in two lines can be observed. The surface is having a little convexity with the result that in all the sealings this central portion is relatively worn-out, obliterating the legend in that part. The legend on all the sealings in this variety is so much worn-out that nothing can be made out of it clearly.

Above : Symbol of 'Om'

Below : legend in two lines. *Ma Ya putave (-) Va mu Da Mata De (Va pu—)* (pl. L B).



29. PPW, 149: circular; 27mm diameter; rounded reverse; well-baked terracotta; neatly finished legend within a double-lined border.
 Above : 'Om' in symbolic form
 Below : legend in two lines as above.
30. PPW, fragmentary; circular flan; 27mm. diameter; rounded reverse; red baked; well-finished terracotta token.
 Legend within a double-lined circular border.
 Above : traces of symbol 'Om'
 Below : legend in two lines as above (pl.L C)
31. PPW; circular; 25mm diameter; rounded reverse; red-baked terracotta; central portion of the flan much worn-out leaving the traces of legend on the periphery encircled by a double-lined border.
 Above : defaced symbol of 'Om'
 Below : legend in two lines as above.
32. PPW; circular; 27mm. diameter; rounded reverse; well-baked red terracotta; much worn-out; legend encircled in double line.
 Above : traces of 'Om' symbol
 Below : legend in two lines as above.
33. PPW, 160: fragmentary and brittle, circular, 27mm diameter; rounded reverse; well-baked red terracotta piece. Legend encircled in double-lined border as above.

SEALINGS (PERSONAL)

A. Royal (Sealing of Wima Kadphises)

1. GNW; 809; circular; 24mm diameter; red-baked terracotta; perforated from right side to back probably to tie with a letter of packet; flat reverse.

The following figures, symbol and legend can be observed within the circular flan.

Above : Siva seated cross-legged matted hair; two-handed, holding *trisula-parasu* in the right hand and double-pronged *vajra* in the left.



The legend below the figure in a line reads as follows:

Ka phu putra vimasya (pl. LII A). The letters in the legend are in early Kushan characters.

Wima Kadphises is known as a devotee of Siva from the title on his coins. '*Sarvaloka Isvarasa Mahisvarasa*', and also by the Siva type coins issued by him. In the present sealing too, Siva seated with matted hair has been depicted holding *trisula-parasu* in the right hand and a double-pronged *parasu* in the right hand and a double-pronged *vajra* in his left. In this context it may be mentioned that Siva is also known as Sulapani and Asani because of these attributes.

This sealing of Wima at Kapilavastu is an evidence of great importance, both in the history of the Kushanas as well as the site of Kapilavastu.

Hitherto, the scholars were of the opinion that Kanishka was the first Kushan ruler, who penetrated into eastern India up to Pataliputra. The present sealing now makes it clear that Wima Kadphises was the earlier Kushan general who not only invaded Pataliputra but also visited Kapilavastu. As already stated, Kapilavastu was a centre of pilgrimage for the Buddhists. The father of Wima Kadphises known as Kujula Kadphises also happened to be a devotee of Buddhism as evident from the title of *Devaputra* adopted by him. The sealing of Wima Kadphises in Brahmi characters and in Sanskrit language suggests that he wielded control over the land east of Mathura, where both Brahmi and Sanskrit were popular amongst the people.

Unlike the coins, which travel to distant lands, the presence of a terracotta sealing of the ruler at Kapilavastu indicates beyond doubt the influence and hold of the early Kushan ruler Wima Kadphises in this part of the country during pre-Kanishka period itself.

SEALINGS (PRIVATE)

2. GNW, 914: rectangular; 15 × 19mm; rounded reverse; black-baked terracotta

Above : legend in a line reading *Le Kha Ka Sa*. The legend is in pre-Kushan characters of 1st century B.C. (pl. LII B) Below: eight-rayed star to left and a Svastika to right

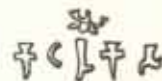


The sealing might be of a writer (*lekhaka*) indicating the profession or official position under an authority (?).

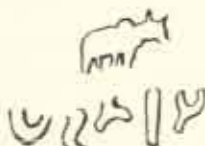
3. GNW, 170: elliptical; 21 × 12mm. A baked ball of terracotta impressed over the flan with a *triratna* symbol on the top.

Below : there is a legend in Brahmi characters of 1st century A.D.

Legend : *Katurakasa* (pl. LII C)



4. The legend might be a proper name Kataruka, probably a Buddhist.
 GNW, 672: circular, 18mm diameter; flat reverse with a channelled groove horizontally across the length; baked-red terracotta, neatly finished.
 Above : In the centre a standing bull facing right.
 Below : The legend in Brahmi character of 1st century A.D.
 Legend : *Hatatarasa*
 This appears to be the name of an individual.



5. GNW, 206: circular, 14mm diameter; a small ball of baked clay, not finished.
 Legend across in one line of Brahmi characters of first century A.D.
 Legend : *Ana (nta) ka sa*
 Below : a conch shell
 This sealing might be of an individual Anantaka



6. GNW, 492: circular, 21mm diameter; round reverse; red-baked terracotta
 Above : traces of symbol 'Om' or a conch shell
 Below : across a legend, of which first two letters are intact. The letters are in Brahmi characters of Kushan period
 Legend : (*vithu*) (pl. LI D)



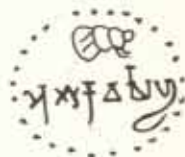
7. PPW, 110: Square; 10 × 11mm; a small lump of clay pressed on sides making it a square tablet. The impression is very deep and sharp. A deep channelled-groove is seen on the back which is concave. The sealing is light brownish in colour and appears to be unbaked. The sealing has a beaded border around.

Above : A small fly or bee facing right.

Kushan characters

Legend : *Asoka Varma Sya* (pl. LII A)

It might be the name of an individual.



8. GNW, 186: elliptical with segmented borders followed by linear one; 27 × 17mm; convex bent reverse with sharp channelled-groove across; well-baked red terracotta tablet.

Above : either a throne in front view or an architectural member i.e. the *Sikhara* part of an entrance or a gate-house

Below : legend in Brahmi characters of third century A.D.

Legend : *Kundabhata* (pl. LII B)

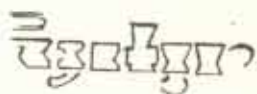
It might be a personal sealing of an individual, probably a priest.



9. GNW, 137: elliptical; 29 × 20mm; encircled by a linear border; much worn-out; convex revers having traces of a channelled groove. Worn-out legend reads as follows

(*De*) *va vi Kra Ma Di (rya)* (pl. LII C)

The legend is in the characters of third century A.D. It was probably a sealing of a royal person.



10. GNW, 673: square; 14mm; impressed on a tiny lump of clay; round reverse; black-baked tablet; partly broken.

The legend looking like a monogram is defaced. A hollow cross beside a taurine or letter *M* a to right can be observed (pl. LII D)



SEALS AND SEALINGS

11. GNW, 1: A clay bell of 28mm width, faceted on two opposite sides and impressed with a conch hump bull to left followed by an indistinct legend below. It is well-baked, but very much worn-out. Bull has been used as a symbol on many sealings of different periods. In the absence of a legend, the sealing cannot be assigned to an individual.

But for sealing no. 1 of Wima Kadphises, the Kushan ruler, the rest of the sealings in this group are to be taken as personal sealings of individuals, holding some position in the then society. Sealing no. 2 might possibly be a writer either in the services of the state or holding a status of his own.

	PPW clear	Worn out	GNW clear	Worn out	Total
I Seals	—	—	2	—	2
II Sealings <i>Monastic</i>					
A. <i>Devaputra Vihara</i>	19	3	—	—	22
B. <i>Mahakapilavastu</i>	8	5	—	—	13
C. <i>Bhikshu Sangha</i>	2	3	—	—	5
D. Western Monastery <i>Personal</i>	6	17	—	—	23
E. Individuals	1	1	8	2	12
F. Unassignable	—	—	2	—	2
Grand Total	36	29	12	2	79

CHAPTER IV

COINS

Coins play a very significant role in the reconstruction of the early history of India. It is much more so in the case of towns like Kapilavastu, whose existence even was lost into oblivion. Though coins found in excavation cannot be considered as a firm basis for determining chronology, they at the same time are very valuable for important informations on various dynasties as also economic condition of the times. In all, the excavations at Kapilavastu yielded one hundred and sixty-three coins, of which only thirteen were from Piprahwa. A silver punch-marked coin occurred in the debris lying over the eastern monastery, and hence could not be dated firmly. The same might be equated with Red Polished Ware found in Phase III of the monastery. A restricted number of Ayodhya coins, a couple of wheel-spoked copper coins and a piece of uninscribed cast copper coin were not associated with any stratified level. Some of the Kushana coins were yielded by stratified deposits with the help of which particular structural phase could be firmly dated. They included a couple of copper coins of Wima Kadphises and several coins of Huviska exhibiting the king riding elephant, seated cross-legged or seated upon throne. On the reverse are observed *MAO*, *AOPO* or *MIORO*. In addition to the coins mentioned above, a number of early varieties viz., a copper bar coin, several uninscribed cast coin, Panchala and Ayodhya coins and also an Indo-Sassanian copper coin belonged to Periods III or IV of the site. Silver accounted for seventy-two coins in the entire collection and the rest ninety-one happened to be in copper. The total collection included two hoards at Ganwaria (the township), one comprising sixty-four silver punch-marked coins and the other thirty-seven Kushana copper coins. The following abstract will furnish the details of the coins like their classification, material and provenance at a glance.

Abstract of coins from Kapilavastu

S.No. Types & Metal	Piprahwa		Ganwaria		Total
	Clear	Worn	Clear	Worn	
	out		out		
<i>Silver</i>					
1. Kosala type	-	-	1	-	1
2. Punch-marked (stratified)	1	2	3	-	6
3. Punch-marked Hoard	-	-	64	-	64

COINS

4. Indo Sassanian	-	-	1	-	1
<i>Copper</i>					
5. Bent Bar	-	-	-	1	1 beyond
6. Cast coins	1	-	4	1	6 study
7. Inscribed (Sabhati)	-	-	1	-	1
8. Panchala	-	-	3	-	3
9. Ayodhya big	2	2	2	-	6
10. Ayodhya small	-	-	-	1	1
11. Unassignable					
i) Triratna symbol	-	-	1	-	1
ii) Pellets-Circular	-	-	1	-	1
iii) Wheel-spoked	2	-	5	-	7
12. Kushana (stratified)	5	8	7	1	21
13. Kushana Hoard	-	-	31	6	37
14. Unidentified worn out beyond study	-	-	-	5	6
Total	11	13	124	15	163

A cup-shaped silver punch-marked coin of Kosala from Ganwaria

The present coin from the stratified deposits of the site is a thin broad silver piece of irregular shape with rounded corners and shallow concave bottom. Coins of this cyphate nature, reported from different sites in India, are popularly called as cup or saucer-shaped coins. It appears to have been made out of a silver globule of specific weight by flattening into a thin piece and punching groups of symbols on both the sides (pl. LIII A).

The details of the coin are as follows:

Metal - Silver


Shape - Irregularly roundish

size - 2.8 × 2.5 cms

Weight - 2.1600 grammes / 33-35 grains.

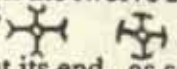
Obverse : A group of four symbols, broad and big in size, as described hereunder, has been punched.



- (1) A hexagram (*Shatkona*) with a pellet in the centre, formed by two triangles placed one over the other with their apex opposite to each other.
- (2) To the right and above symbol No. 1 another symbol which appears partially over the flan and looks like a group of five crescents with a pellet in each of their curves, encircling a central pellet.
- (3) To the left and below symbol no. 1, a taurine or *nandipada*.
- (4) Below symbol no. 2 to the right of the flan a partially visible *tripada* or serpentine symbol i. e., three horizontal -like curves encircling a central pellet.

Reverse : Nine small symbols as shown in the drawing below, are seen punched side by side all over on flan. Interestingly for broad and big symbols are seen punched on one side which has been considered as obverse on account of the important characteristic symbols in contrast to a group of nine smaller symbols thickly punched all over the flan on the reverse. Though the thick impression of the symbols might have contributed to the cyphate nature of the coin, it is more reasonable to assume that the flattened metal piece struck with four broad symbols was deliberately hammered and shaped with concave bend. It was then restruck with smaller punches on the concave side. Thus, the coin is appreciably thin in fabric and brittle in nature with a few cracks developing along the ridges.

Typologically coins of this archaic type which are punched with one to four symbols appear to be earlier to coins marked with groups of five symbols and reported from different parts of the country. They are purely local in character with their provenance confined to a particular reign or locality. These are, therefore, called local coins. Different variety of such coins have been displayed in Museums¹ at Lucknow, Patna, Bombay, Taxila, etc. They have also been reported from regions such as western Bihar, Konkan, Kasi, Kosala, Surasena, Gandhara and Manipur. P. L. Gupta² is of the opinion that they are anterior to the rise of the Magadha empire and belonged to the then existing *Mahajanapadas and Janapadas*.

The present coin with its symbols on the obverse can be compared with the Kosala coins in the Lucknow Museum reported by Durga Prasad³. However, there is a variation in the combination of the symbols. While the serpentine or *tripada* symbol is observed on all the twelve coins published by Durga Prasad followed by a "four armed symbol" of two varieties:  i.e., four arms to a central circle each terminated either by a *chatra* or by a crescent at its end, as second symbol, the taurine symbol occupies the second place in the present coin. Hence, this coin can be treated as a new variety, though the remaining symbols are comparable with those in class LB, (coin No. 3 and 4) of Durga Prasad⁴.

Of the nine symbols on the reverse of the coin, seven are similar to those mentioned by Durga Prasad⁵. Symbols eight and nine appear to be unknown. Unlike the coins of five-punched series the symbols in the present case are accommodated side by side over the flan without any overlap.

The present coin can be easily classified with those coins in the Lucknow Museum, which

have been published by Durga Prasad and are believed to belong to Kosala region. Hence, they are taken as the issues of Kosala Janapada before it was annexed by the Magadha empire during the middle of 5th century B. C. It is said that they were in circulation from the Buddha and Pre-Buddha times to the time of Ajatasatru of Magadha, who is credited with the expansion of the Magadha kingdom far and wide by annexing several neighbouring princely states. No coin from Ganwaria, however, has occurred in deposits earlier than the last quarter of fourth century B. C. on the basis of stratigraphy.

The coin is in a much worn-out condition weighing 2.1600 grammes (33.35 grains). With a probable loss of 0.755 grammes (about 12 grains) in weight during the period of circulation this coin appears to be nearer to the 25 *rattis* standard weight (2.915 grammes or 45 grains) under light weight coins category as against the 32 *rattis* standard weight coins of 5 symbol punch *Karshapanas* reported widely from different parts of the country. The metrology of this coin as well as the typological series suggested by Durga Prasad would indicate its 25 *rattis* standard weight which is a *pada* (1/4) *Satamana* of the earlier coins of 100 *rattis* *Satamana* said to be prevalent in the life time of Buddha and even earlier.

Though this lone specimen could not be subjected to chemical analysis for assessing the purity of metal content, similar series obtained from other sources are reported to contain 88 to 93.6% of silver, which is a clear indication of prosperous conditions at the time.

The provenance of the coin at Kapilavastu has its own significance against the backdrop of the fact that the Sakya principality, though enjoying an independent status, had acknowledged the political suzerainty of the Kosala *Janapada*.

PUNCH-MARKED COINS

The earliest evidence of coins from the excavations at Kapilavastu happens to be of silver punch-marked coins which include a hoard of sixty-four coins found in a small unslipped red ware miniature pot at Ganwaria (GNW). Six punch-marked coins in all were collected from stratified deposits both from Ganwaria and Piprahwa. Among them two coins from Piprahwa (PPW) were worn-out to such an extent that they cannot be studied.

Nature of the finds and fabric

The sixty-eight coins under study can be divided into two groups particularly on the basis of shapes viz., (i) rectangular (57 coins) and (ii) round⁹ (11 coins). The shapes indicate the method of preparation. Coins of the former group (rectangular), which are more in number, are cut pieces from beaten metal sheets in irregular sizes and shapes roughly squarish or rectangular. Some of them have been struck from long metal strips also. While the pieces cut from metal strips exhibit finished edges on alternate sides, those from metal sheets indicate the cut marks on all the four sides caused by a sharp straight-edged chisel. In general corners of the latter, some or all the four, are found clipped converting their shape into a polygon. The clippings evidently were in the process of adjustment to a required standard weight by cutting away the excess weight.

The round-shaped coins (second group) seem to have been made out of silver globules or

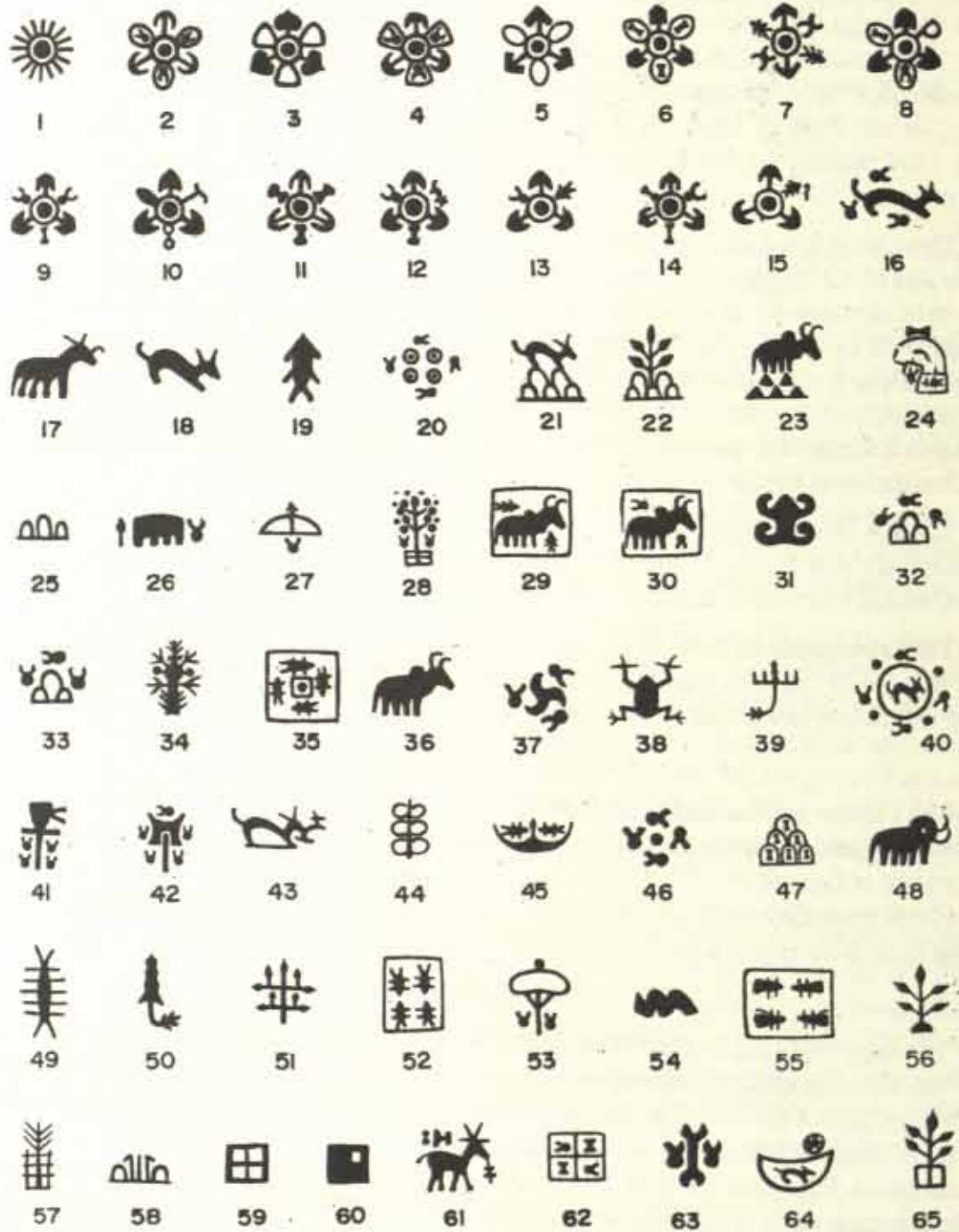


FIG. 21

droplets of specific weight by flattening them into thin pieces, which in this process assumed different shapes such as circular, oval, elliptical and other irregular roundish shapes leaving the edges unfinished. In a few cases the edges developed cracks in the process of flattening rather than punching of the symbols at a later stages as generally believed.

Both the groups mentioned above do not conform to any definite size and thickness and as such it appears that no attention whatsoever was paid by the mint masters in producing a particular shape and standardising the form of this ancient coinage. It is likely that coin dummies with specific weight were obtained by the royal mints from the smiths to imprint them into currency. In this process the clipped corner-bits were also re-used by smelting and preparing them again into flattened globules. They were supplied along with the square pieces to the mints as evident from the coins of both the shapes occurring in one and the same Variety, Group and Class as well. However, one feature commonly noticed in both the groups is that thinner coins have wider flan, while the coins of smaller flan are thick and dumpy.

Against the backdrop of this particular feature the fabric of the coins can broadly be classified into thin, medium and thick, apparent enough even amongst the flattened globules. Interestingly some of the group combination of the symbols appear only on a particular fabric. This fact further suggests that the smiths were preparing the metal sheets in different gauges at different times, which is also reflected in the case of flattened globules of the concerned periods carrying the same group of symbols.

The coins in the hoard are as a whole in a good state of preservation. One stray coin from the stratified deposit is very much worn-out rendering the symbols obscure. In general coins of thin and medium fabric are comparatively more worn-out than those of thicker fabric, the appearance of some of which is fresh.

Metal

Though the coins have not been subjected to any chemical test and analysis to ascertain the purity of metal, coins of the thin and medium fabric seem to be purer in quality of metal from their physical appearance than the dumpy and thick variety, which lacks colour and fineness in general¹⁰.

Symbols on the obverse (fig. 21)

The coins are punched with different bold symbols always in groups of five on the obverse and a number of miniature marks, ranging to nine, on the reverse. In a few cases the reverse is left plain without any mark. Unlike those on the obverse, the marks on the reverse appear to have been punched on different occasions as some of them appear fresh whereas others worn-out. Some of the miniature marks appear on the obverse also, though rarely, perhaps punched by an oversight. No symbol of the obverse in bold type appears on the reverse.

The symbols are fully punched methodically around the periphery of the coins of wider flan without overlap, although not with uniform pressure, which precludes the appearance of their form

in full. They seldom follow any orientation. On the coins of narrow flan the symbols are seen only in parts. In addition they often overlap with each other followed by striking defect. All these factors together create confusion in their identification. Even common motifs on different coins are not uniform in design due to the fact that they are the impressions from different punches.

The symbols have a narrow incuse closely running around the design, broadly making circular or rectangular form according to the general outline of the symbols, covering the minor curves of the design as well. The outer incuse and interstitial depressions are conspicuously clear, separating the motif from the background into relief in the same plane. However, in a few cases, where the impression is crisp and full, certain motifs are connected with the background on one side, since the incuse has not been cut all around (coins 23 & 50).

The imperfect impression of the symbols, their partial accommodation over the flan without any orientation and overlap with each other, in addition to the countermarks of the reverse symbols followed by variations in the designs of the motif often lead to the confusion, so far as the identification of the symbols and their combinations are concerned. In spite of all these problems, the published designs of the symbols and their combinations over the coins reported from other sites serve as guideline in identifying the symbols and classifying the coins into their Classes, Groups and Varieties. Even then, there are some short-comings in correct identification of certain symbols and restoration of their complete forms, which have been discussed in the following pages.

Now turning again to the symbols, the coins in the present collection with a combination of five-symbols, generally known as the 'Imperial Series', can be classified into 34 Varieties having 21 Group marks and 18 Class marks respectively as 5th, 4th and 3rd symbols. The six-armed symbol in its different forms and the sun symbol are considered as constant, since they occur on all the coins as second and first marks.

The distinct relative variation in fabric as thin, medium and thick also makes it possible to some extent to divide the coins into three series as detailed below. In general the variation coincides also with the change of symbol combination in different series.

I	Series in thin fabric		
	4 Classes	4 Groups and	5 Varieties.
II	Series in medium fabric		
	5 Classes	8 Groups and	15 Varieties
III	Series in thick fabric		
	9 Classes	9 Groups and	14 Varieties.

A clear demarcation between these series and their association with particular symbol-combinations in a fabric particularly in Series I and II are not possible as some varieties of symbol-combinations occur in two fabrics. It is, therefore, presumed that the time lag between them was very short. The presumption is supported by relative wear and tear of the coins in different Classes. It is not, however, possible to assign a definite chronological sequence to the periods of their issue.

Gupta¹¹ with his wide experience has presented a tentative chronology of the symbol-combinations in Classes, Groups and Varieties and attributed different periods to them suggesting a probable sequence, which appears to be more reasonable and has been generally accepted as a basis to classify the punch-marked coins.

Classification

Coins in the present collection have been classified and illustrated (pls. 2 to 6) according to the classification number in the Amaravati hoard for easy reference and comparison. Almost all the varieties of the present collection are noticed in the Amaravati Hoard, which is the largest so far known in the country. Some varieties also occur in several other hoards reported from different parts of the country, a reference to which has been made.

The present collection of three Series can be attributed to three periods, respectively I, II and III, corresponding to periods III, IV and V of the Amaravati Hoard. These periods, however, have no relationship with the various cultural periods at Ganwaria.

Series I and II

Coins I to 4 of the hoard and one stray coin from the stratified deposit have been classified under Series I and coin No. 5 to 37 under Series II.

The fabric of the coins in both the Series ranges from thin to medium with a very little distinction to separate them categorically. A few coins are, however, very much worn-out and their size also is relatively wider. Thus, they form a separate group under Series I, while the rest have been grouped under Series II (medium fabric), although there is no striking difference between the two, particularly because of their worn-out condition. It is interesting to note that the coins of these Series carry more marks on the reverse. Of these marks many do not occur on the coins of Series III. As discussed later, the greater number of marks also explains that they were minted earlier and remained in circulation for a longer time.

Series III

Coin numbers 38 to 64 of the hoard and 3 other stray coins from stratified deposit form a distinct group by their conspicuously thick fabric in dumpy pieces cut into short bits. The flattened globules even of this group depict the feature of thick sections. Many coins of the group are fresh looking and carry a single mark on the reverse. They have, therefore, been grouped under Series III.

It will be clear from the illustrations, that the coins of Series I have animals as Class mark, whereas coins of Series II have either a Hill surmounted by a dog/hare, or a bull, or a Tree, or a Hill in an arched frame. The coins of Series III have exclusively a Hill or a Tree in railing or other objects as Class mark.

Chronology

As suggested by Gupta¹² the coins of Series I (equated to period III of Amaravati Hoard) are datable to the times of Sisunaga and his successors i. e. 440-364 B. C.

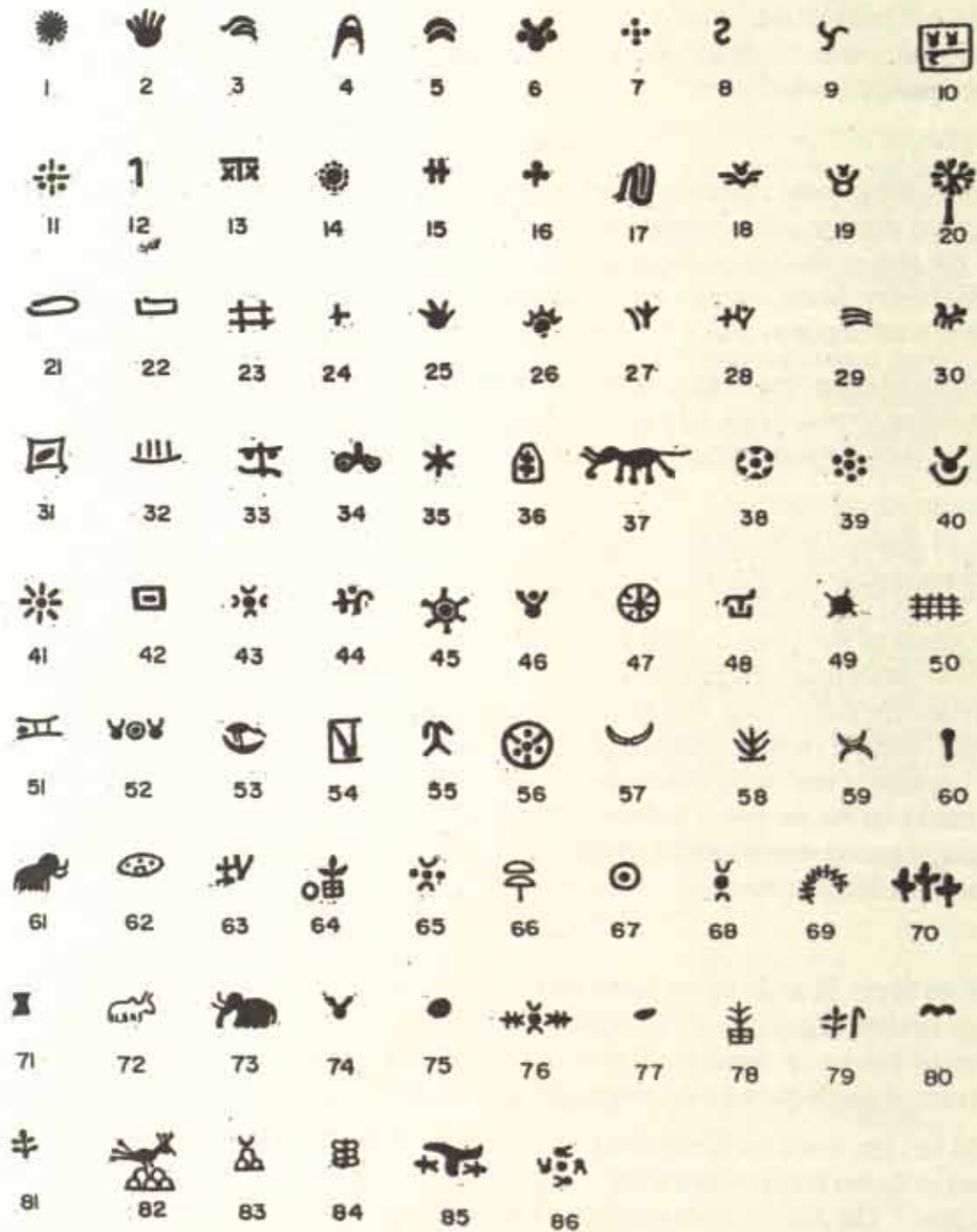


FIG. 22

Similar coins of Series II (equated to period IV of Amaravati Hoard) have been attributed by Gupta to the Nandas, i. e., 364-324 B. C. and the coins of Series III (equated to period V of Amaravati Hoard) to Chandragupta Maurya and Bindusara i.e., 324 B.C. or 272 B.C. Coins of subsequent period i. e., Asokan are not available in the present collection.

The coins of Series III carry largely on their reverse the symbol of either a Crescent mounted three-peaked hill, Peacock-mounted five-peaked hill, or a Caduceus as the only mark. These marks are generally considered as Mauryan. Among them the Crescent-mounted three-peaked hill mark, which is associated with archaeological objects of the Mauryan period, is taken as the royal symbol of Asoka, who is believed to have got this symbol punched over his series of coin. Coins with this symbol amongst the group on the obverse do not find a place in the present collection. However, the presence of the symbol on the reverse of certain coins of all the three Series suggests their circulation as legal currency during the period of Asoka when this royal symbol was affixed as a token of approved legal tender as detailed below.

Significance of the marks on the reverse (fig.22)

The symbols punched on the reverse of the coins are smaller in size and numerous in variety. They often range from 1 to 9 on some coins, while a few are left without any symbol. Though the flan of the coin is often wide enough to accommodate all the symbols side by side, they are seen punched in clusters haphazardly, sometimes even overlapping, on account of which identification is difficult in certain cases. Some of these symbols occur on several coins indicating that they were punched by one agency. It is obvious from a few coins, the reverse of which are left blank, that these marks were not punched at the time of their initial issue. However, it is not certain that these marks were punched all at a time at a date later than their initial issue as some of the symbols appear to be worn-out, whereas others are fresh. They do not also exhibit any methodical punching. It is, therefore, evident that they were punched during the course of their circulation at different times by different agencies. Hence, the general belief is that these are the marks punched by the coin-testers attesting to their accuracy in weight and purity of metal when they were in circulation. Kosambi¹³ considered them as marks of the coin-tester *rupadarsaka* or *rupatraka* of Kautilya, punched at regular intervals of time, probably once in twelve years. In such a situation maximum number of coins, if not all, should bear identical marks on their reverse.

This is, however, not the case. In addition the number of marks varies on different coins of one and the same Class, Group and Variety. Further, a few worn-out coins of lesser weight indicative of a longer period of their circulation are either having a blank reverse or only a few marks, whereas some coins relatively less worn-out carried the maximum of 9 marks in the present collection. Thus, it is apparent that some coins, though in circulation for a longer period were not subjected to test.

Significant it is to note that a single mark or two are seen on maximum number of coins (26 out of 30 including 2 with blank reverse) in Series III, while in Series I and II those with more than 3 symbols (on 4 out of 5 in Series I and 26 out of 33 in Series II) ranging upto 9 are maximum in number. It is also pertinent to observe in this connection that the marks found on the coins of Series

III are also found to occur on coins of Series I and II, whereas the marks of Series I and II are conspicuously absent from the coins of Series III. Variation in the occurrence of marks in such a manner indicates that the coin testers used different marks at different times. Hence, the coins of earlier Series were marked at a subsequent stage also at the time of testing.

It would be clear, therefore, that these marks were not put as a routine at regular intervals of time, but were marked as and when they were presented for testing. In a situation like this the question of the contingency which necessitated the presentation of the coins from testing before an authority remains to be answered.

The presence of different Classes, Groups and Varieties of coins in hoards makes it evident that coins of different periods were in circulation simultaneously along with those of the concerned periods. Since the face value of the coins was based on the quality and quantity of metal, unlike the present day paper currency, they might have been allowed as legal tender, inspite of the changes in the governing authority. In such circumstances they were required to be tested by the authorities in different regions, who certified by affixing their mark over them. Kautilya ordained the *rupadarsaka* (coin-tester) to charge a percentage for the checking of the coins.

Coinage in ancient India was local in character. People of different regions were not in regular communication with each other and, therefore, the coinage of one part was unfamiliar to the other. Exchange of money between different regions was not a normal practice. Under such circumstances it would have been easy to introduce forged coins also in the guise of legal currency in any region not familiar with the currency of other regions. Hence, the duty of the *rupadarsaka* was to certify the currency of other regions too as valid in order to eliminate the forged ones from circulation. It appears to have been necessary on the part of the traders, whenever they exchanged their money in other regions, to get the same stamped by the coin-testers. In doubtful cases the coins were presented before the tester and got attested. It was beneficial both to the state as a source of revenue as well as to the public, who could get genuine money for exchange of their goods in trade.

These reverse marks seem to have been affixed by the coin tester as a certificate both in the contingency of the change in the Government as well as the change of the region in which the coin was used. The coins, considered as doubtful, so far as their purity was concerned, were also attested to in the same manner. In this way the presence of several marks on some coins, and some without a single mark along with the marks of the later Series on the earlier coins can be explained. The coins with a blank reverse appear to have not crossed the region of their issue or their purity was not questioned. On the other hand those carrying marks might have frequently changed the region of their issue and remained in circulation for a long time before they were kept in the hoard. The presence of the Asokan mark (crescent-mounted three-peaked hill) on the coins of earlier series suggests that they continued to be used as a legal tender even during the time of Asoka duly attested by the royal mark on the reverse.

Mint Freaks

Coins of the 'Imperial Series' are found invariably punched with five-symbol combinations. Yet, there are a few coins in which one of the symbols in the group combinations is missing. In certain

cases a symbol has been punched twice. They are considered as mint freaks occurring during the course of manufacturing. Several other defects have also been noticed on the coins found elsewhere¹⁴. However, in the present collection only four mint-freak coins as detailed below have been noticed.

1. On coin no.2 of Series I there are only four symbols punched instead of five. The missing symbol is the Class mark, the third symbol of this group combination, which ought to have been the unicorn/rhinoceros facing right. Conspicuously two counter marks punched on the obverse are unusual, because in normal course they should appear on the reverse.
2. On coin no.43 of Series III again only four symbols are present. The missing symbol is the fourth symbol Group mark, which in this group-combination is the Dog with a pup held in mouth. In this case also a counter mark is seen indistinctly on the obverse.
3. On coin no.13 the fourth symbol, the Dog with a pup held in mouth, is repeated twice side by side. It is in a worn-out condition without any trace of counter marks on the obverse. Indistinct traces of a symbol, which is considered as second symbol, can be observed.
4. On coin no.47 of Series III the Sun Symbol is punched twice and the fourth symbol in this group combination, which ought to have been the Dog holding the pup in mouth, is missing.

The counter marks as found on the obverse of these freak coins cannot be said to have been used as substitutes for the missing marks, as they occur in a few other cases as well in which all the five symbols are punched. They can also not be the traces of the concerned symbols appearing faintly.

The weight of a majority of the coins (50 out of 68) ranges between 2.915 and 3.240 gms (40-50 grains). Amongst the balance of 20, the weight of 15 coins is above 3.240 gms (50 grains) including a single coin with a maximum weight of 3.494 gms (53.94 grains). Of the other coins three are below 2.915 gms (40 grains), which include a much worn-out coin with a maximum weight of 2.3098 gms (35.67 grains). Allowing a margin of 0.648 to 0.972 gm (10 to 15 grains) for normal wear and tear in their long circulation, the coins of the present collection fall under the group of 32 *rattis* weight standard of *karshapanas* supposed to be equivalent to 3.79 gms (58.56 grains) standard weight¹⁵. The loss of 10 to 15 grains (maximum 1 gm) is quite reasonable for a long period of circulation, changing hands and regions. However, it cannot be said that every coin of lower weight is older as all the coins of the earlier period were not in circulation. Some of them might have been collected in the hoard earlier, while a few later coins formed a part of it after having remained in circulation for a longer time. In general the older coins are of a lesser weight as compared to those in the later issues. This fact is corroborated by the present collection.

Classification of symbol combination

While describing the Varieties among the coins after classification, the method adopted by Gupta in the classification of Amaravati hoard of Punch-marked coins has been followed in numbering the Classes, Groups and Varieties in order to avoid confusion. A reference to similar varieties available in other hoards has also been given with the same end in view.



FIG. 23

The coins in all, belong to three Series I, II & III which in chronological sequence are comparable to those of Periods III, IV and V in Amaravati hoard. The Classes, Groups and varieties available in each series have been denoted respectively by Roman numerals, Roman capital letters and Arabic numerals respectively. The Series have been indicated by corresponding Roman numerals of the period. Thus, for instance III, IV-A-2 refers to coins of Variety 2 in Group A under Class IV belonging to Series III. However, in cases of a single Variety in a Group or a single Group in a class, the corresponding Variety number or Group letter has been dropped.

Among the two permanent symbols the rays of the sun symbol appeared only partially in many cases. The rays of the Sun wherever visible are sixteen in number. It is, therefore, taken for granted that the Symbol had sixteen rays uniformly in all the cases. The pattern of the symbol is similar to the illustrated one (no. 1).

The full form of the second permanent symbol i. e., the six-armed symbol (nos 2 to 15) and other symbols (nos. 16 to 60) as well have been compared and restored, wherever they were partially visible. Though the restorations are based on the design of the concerned variety reported by Gupta in Amaravati Hoard, deviations have been duly pointed out. In spite of the fact that the designs of the arrow-head in the six-armed symbol are different from one another, the variations have not been taken seriously.

The symbols in the illustration have been shown in order of first constant symbol, second constant symbol, third Class symbol, fourth Group symbol and fifth variety symbol. They have similarly been referred to in the text. The illustrations are an eye-copy of the symbols observed clearly on the coins. The varieties available in the hoard have been described in detail in the following lines alongwith comparisons with those available in the Amaravati Hoard.

Symbol combinations and their classification (pls. LIII B-C, LIV and LV)

Series I

The coins in this Series are five in all with a thin fabric and broad flan. One of the coins is roundish made out of flattened silver globule and the other four are cut pieces. All of them are worn-out. The second permanent symbol i. e., the six-armed symbol, varies in design from each other. The third Class-symbol is exclusively animal in this Series.

Of the five coins one has come from stratified deposit, whereas others were found in the hoard. They have been classified into four classes with five Groups and five Varieties (fig. 23).

1. One coin (no.1) of this variety is available. This variety is known from several hoards found in different parts of the country including Lalganj, Kausambi, Hathuma, Mathura (all in U.P.) and Machhuatoli (in Bihar). Some coins in Amaravati hoard, Big Bhir mound hoard and a single coin from Raichur hoard belonging to earlier period were restruck with this variety. In the present collection it is altogether fresh.

Out of six marks on the reverse only one, the crescent-mounted three-peaked hill, appears fresh and others are worn-out.




















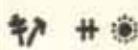



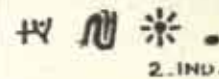

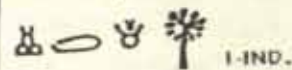
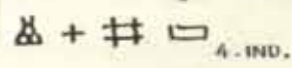

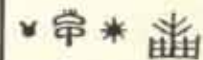







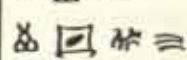
5						 1-IND.
6	,					
7	"		"			
8	"		"			
9	"	"	"	"	"	
10	"		"			 2-IND.
11	"	"	"	"	"	PL.
12	"	"	"	"	"	
13	"	"	"	"	"	 1-IND.
14	"	"	"	"	"	 4-IND.
15	"	"	"	"	"	 1-IND.
16	"	"	"	"	"	
17	"	"	"	"	"	 3-IND.
18	"	"	"	"	"	
19	"	"	"	"		
20	"	"	"	"		 3-IND.
21	"	"	"	"	"	
22	"	"	"	"	"	

FIG. 24

2. One coin (no.2) belongs to this variety. It is thin and wider, but worn-out. It contains only four out of five symbols of the Class, with the third symbol, obviously unicorn or rhinoceros facing right missing on account of which it is considered as a mint freak and, therefore, a rare piece.

The triangular *mandapas* in the second symbol are left blank. All the symbols are punched side by side along the periphery without overlap. The obverse carries, besides the four bold symbols, three smaller marks which ought to have been affixed on the reverse. Among the marks on the reverse the crescent-mounted three-peaked hill symbol appears fresh in contrast to other worn-out marks.

It is a rare variety not found in any of the hoards reported from Uttar Pradesh. Three coins each have been reported from the hoards of Machhuatoli (Patna) and Ramna (Patna) in Eastern India.

3. One coin (no. 3) belongs to this variety. It is of thin fabric, wider flan and worn-out and has been made out of flattened globule. The symbols are fully and methodically punched along the periphery side by side. The triangular *mandapas* of the second symbol contain a taurine in each. Similar coin has been reported in the hoards of Lalganj (3 coins), Gorakhpur (4 coins), Allahabad (1), Kausambi (1), Hathuma (1), Mathura (3) (all in U.P.), Machhuatoli (Patna), (33) and Amaravati (A.P.) (68).

4. One coin (A) of this variety is available from the mid-levels of Period II at Ganwaria, dated between 400 and 300 B.C. Of the marks on the reverse some are indistinct. In the second symbol the *mandapas* are elliptical and blank.

Amongst the hoards in U.P. a single coin of this variety has been reported from Gorakhpur.

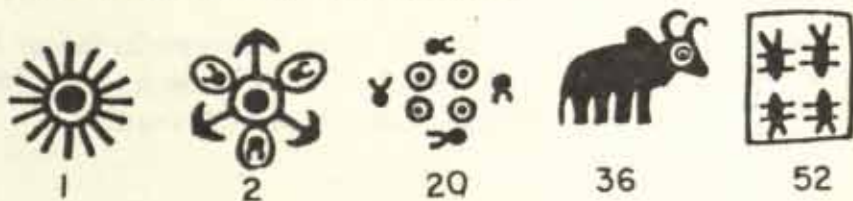
5. Of this variety only one coin (no.4) is available in the hoard. Of medium fabric but worn-out, it has only two marks on the reverse. The second symbol has *damaru* in the elliptical *mandapas*, of which only one is visible over the flan. The fifth symbol appears only partially.

Machhuatoli (Patna) and Lucknow Museum hoards contain one coin each of this variety.

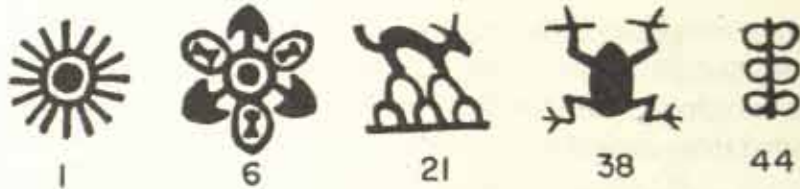
Series II

Coins of this group are comparatively of medium fabric. Six out of 33 coins under this series are flattened globules, while the rest are cut pieces. During the time of collection for the hoard, coins of this series appear to have been in larger circulation. The reverse marks are of numerous varieties, the maximum number being nine on some coins. A few varieties represent pieces in thin fabric also.

The third symbol is largely a five-peaked hill with a standing dog or hare or bull or a tree over it or a three-peaked hill in an arched frame. In all, five Classes with 8 Groups and 15 Varieties of symbol combinations are found in this Series (figs. 24-24).



6. A single specimen (no. 5) of this variety is available in the collection. It is less worn-out and comparatively of a thin fabric. It is a rare variety with very few parallels. Mayurbhanj (Orissa) and Machhuatoli hoards in Eastern India have yielded one coin each of this variety. The devices appear in bold relief (fig.26,6)



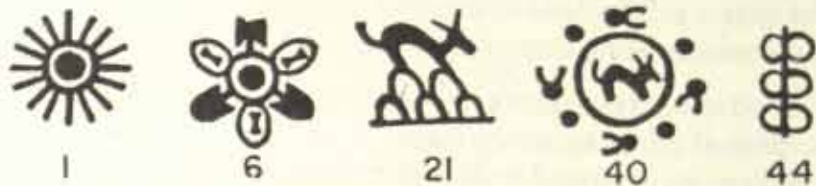
7. Of this variety only one coin (no.6) is available. It is relatively less worn-out and carries only two marks on the reverse. The fabric is medium. Unlike the coins of Amaravati hoard wherein only one round arm of the second symbol contains *damaru*, in this case all the three arms contain *damaru*, which is fully visible in two arms and partially in the third arm. The fourth symbol is indistinct and visible only partly.

Coins of this variety occur in Lalganj hoard (1 coin), Mathura hoard (1 coin), Lucknow Museum Treasure Trove 28/1916 (1 coin), Machhuatoli hoard (7 coins) and Gorhoghat hoard (1 coin).



8. One coin (no.7) belongs to this variety. It is flattened globule with two marks on the reverse. The second symbol is partially visible with only one round arm with a taurine, unlike Amaravati and other hoards, where the round arms of this symbol are empty. The identification of the fourth symbol is tentative as the tip of the lower tail portion alone appears over the flan.

Lalganj, Kausambi, Gorakhpur hoards from U. P. and Machhuatoli and Ramna hoards from Patna contain this variety.



9. Two coins (nos. 8 &9), a globule and a cutpiece, belong to this variety. Coin No. 8, relative by fresh looking, carries one reverse mark, while the other has three marks. Allahabad and Mathura hoards in U. P. and Chandraketurgh in West Bengal contain this variety.







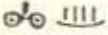
































































23						OBV.  I. IND. 
24	"	"	"	"		     4-IND.
25	"	"	"	"	"	  2-IND.
26	"	"	"	"		      
27	"	"	"	"	"	  
28	"	"	"	"		      2-IND.
29	"	"	"	"	"	     
30	"			"		   OBV.
31	"				"	   
32	"	"	"	"	"	   3-IND.
33	"	"	"	"	"	 1-IND.
34	"	"	"	"		   1-IND.
35	"					  
36	"	"	"	"	"	 
37	"	"	"	"	"	  1-IND.

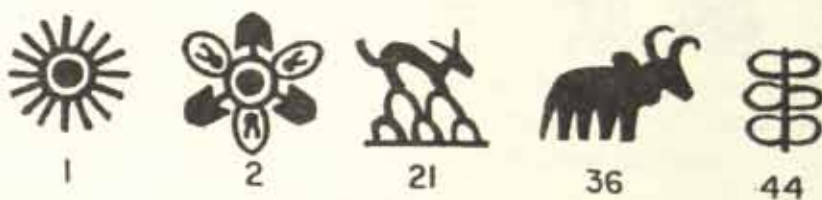
Fig. 25



10. 9 Coins (nos. 10-18) belong to this variety. Of them seven carry 4 to 8 marks on the reverse, one is plain and the ninth has two marks. The fabric of this variety seems to range from thin to medium with wider flans indicating the period of transition and probable earlier position in the Series. The presumption, however, needs confirmation from the study of larger number of coins of this variety. In any case the wider circulation of this variety is indicated by the fact that it is reported from almost all the hoards in South India and most of the hoards in North India. As many as 299 coins of this variety have been reported in Amaravati hoard.



11. One coin (no.19), belongs to this variety. Of thin fabric and wider flan, the coin has only one symbol on the reverse. Though scarcely represented by one or two coins, almost all the hoards of U.P. like Lalganj, Gorakhpur, Gokulvan, Harha, Muthura, Lucknow Museum and Machhuatoli (Patna) contain this variety.



12. 3 Coins (nos. 20 to 22) belong to this variety. Of medium fabric and wider flan the fourth symbol is indistinct on coin no. 20. It is a widely represented variety in many of the hoards from U. P. and Eastern India.



13. One coin (no.23) belongs to this variety. It is of a medium fabric. A counter mark is seen on the obverse which ought to have been affixed on the reverse. The design of the fifth symbol is connected with the background on one side.

Lalganj and Mathura hoards from U. P. contain one coin each of this variety.



14. There are two coins (nos. 24 &25) in this variety. Coin no. 24 is of thin fabric . It is a flattened globule having wider flan with all symbols punched methodically along the periphery without overlap. It is worn-out and carries maximum number of marks on the reverse. Coin no. 25 is of medium fabric with 4 marks on the reverse. This variety is represented by one to three coins in Gorakhpur, Allahabad and Mathura hoards in U. P.



15. Two coins (nos. 26 &27) are available in this variety. Coin no. 26 carried seven marks on the reverse. Coin no.27 has only 3 marks on the reverse. The third symbol on the obverse is indistinct. This variety is known from Gorakhpur, Allahabad, Kausambi, Harha and Mathura hoards in U. P. by one to three coins.



16. Two coins (nos. 28 &29) are of this variety. Both are much worn-out . They carry 8 and 9 marks on the reverse. On the obverse of coin no. 29 two counter marks can be seen, of which a bold taurine mark is again repeated twice on the reverse, Lalganj and Mathura hoards in U.P. represent this variety by 2 coins each.



17. One coin (no. 30)of this variety is available in the hoard . With the change of the Class symbol the change in design of the second symbol is interesting to note. Trace of another second symbol partially unprinted are visible. It is likely that another variety of second symbol was attempted

initially but subsequently rectified by punching the proper symbol of the group-combination. A smaller counter mark is also seen on the obverse.

It is a known variety, though represented by small numbers in most of the hoards from U.P. and Eastern India.

18. Three coins (nos. 31 to 33) belong to this variety. Coin numbers 32 and 33 are flattened globules. Coin no. 33 has a wider flan with symbols punched without overlap and appears almost fresh with only two marks on the reverse. This is a known variety represented almost in all the hoards from U. P. and Eastern India.

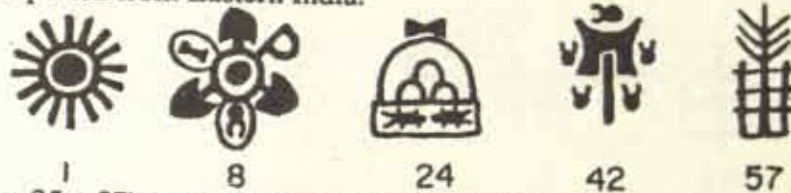


The hill below the bull in the third symbol is seen only marginally, the major portion being out of the flan in all the three cases.



19. One coin (no. 34) is of this variety. Of medium fabric, it carries four marks on the reverse, of which the crescent-mounted three-peaked hill mark is fresh looking.

This seems to be a rare variety represented in a very few hoards like Mathura in U. P. Two coins only have been reported from Eastern India.



20. 3 Coins (nos. 35 to 37) come under this variety, of which the last one is a flattened globule. The details of the second symbol are out of the flan in two cases, while in the last one *damaru* is seen in one of the visible round arms of the symbol. In Uttar Pradesh Lalganj, Gorakhpur, Kausambi, Mathura and Lucknow Museum hoards are having this variety in scanty numbers ranging upto 5.

Series III

In all there are 30 coins in this series, including 3 from stratified deposits. Conspicuously all of them form distinctly a separate series by the thick nature of their fabric with short and dumpy shape and narrower flans. The flattened globules also have the same characteristics. In this Series the incuse of the symbols also are smaller than those on the earlier Series. It is interesting to note that the reverse marks on many of the coins of this Series are restricted and fresh looking, indicating that they were not very old at the time of hoarding. Crescent-mounted three-peaked hill, peacock-mounted five-peaked hill and caduceus symbols are the marks which often occur on the reverse.










































38						
39	"	"	"	"	"	 PL.
40	"	"	"	"	"	 
41	"	"	"	"		
42	"	"	"	"	"	
43	"	"	"	"	"	
44	"	"	"	"	"	
45	"	"	"	"		 I-IND.
46	"	"	"	"	"	
B	"	"	"	"	"	PL.
47	"	"	"	"	 	   
48	"					  
49	"	"	"	"	"	  
50	"					 
51	"	"	"	"		

FIG. 26







































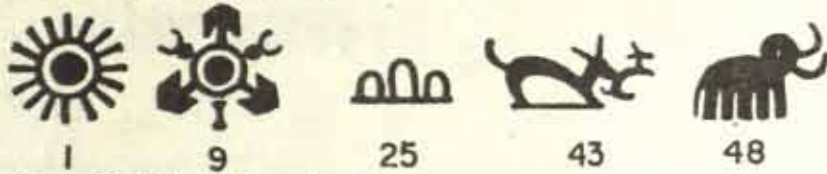
52							1-IND.
53	"	"	"	"	"		2-IND.
54	"	"	"	"	"		
55	"	"	"	"	"		
56	"	"	"	"	"		
57	"	"	"	"	"		
58	"	"	"	"	"		
59	"	"	"	"	"		
C	"	"	"	"	"		
60	"		"	"			‡
61	"						
62	"						
63	"	?					
64	"			"			
D	"			"		PL.	

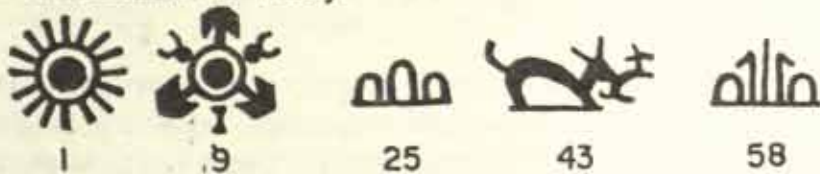
FIG. 27

The Class symbol in this Series is a three-peaked hill, or a fruit bearing Tree in railing or a Hill in a square frame accompanied by other miscellaneous objects. The second symbol too changes according to the class symbol. In all 9 Classes with 9 Groups and 14 Varieties of symbol combinations have been observed in this series (figs. 26-27).



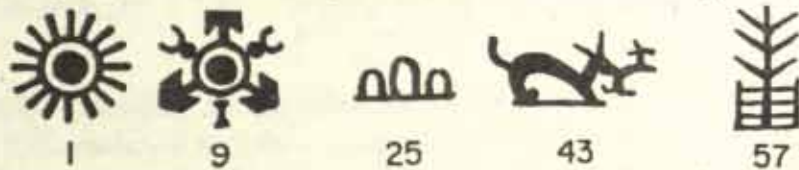
21. Three coins (nos. 38-40) of this variety have been found. Coin no. 38 is a flattened globule. All the three are fresh-looking. Two of them are struck with crescent-mounted three-peaked hill as reverse mark only.

It is a known variety almost all over the country. Lalganj, Gorakhpur, Kausambi, Gokulvan and Mathura hoards in U.P. contain this variety.



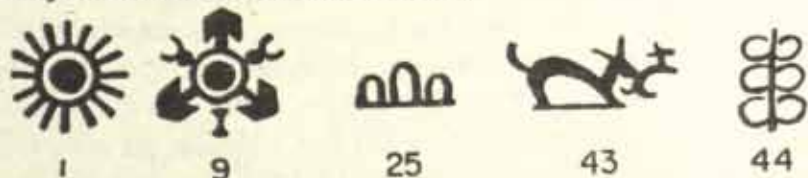
22. Four coins (nos. 41 to 44) belong to this variety. Coin no. 41 is a flattened globule and the rest are cut pieces. The second symbol is indistinct on coin no. 41. The fourth symbol is absent on coin no. 43 with its place being occupied by an indistinct mark, which might be a mint freak.

It is a popular variety represented in many hoards in Uttar Pradesh in good numbers.



23. Two coins (nos. 45 and 46) are of this variety in the hoard, besides one coin(B) from the stratified deposit at Piprahwa dated to 200 B.C. The last coin is very much worn-out weighing only 2.3098 gms (36.67 grains). It is a flattened globule with patches of decupercification on both the sides concealing the clarity of the symbols. Over this the fourth symbol is punched twice, one above the other. It is, therefore, a mint freak. The second symbol is indistinct. The reverse is plain with no marks. The fabric of the rest two pieces also appears to be of medium thickness with wider flans.

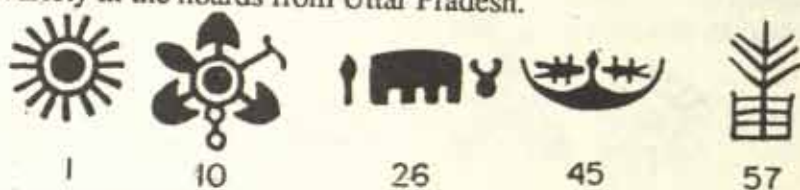
It is a known variety in the hoards of Uttar Pradesh.



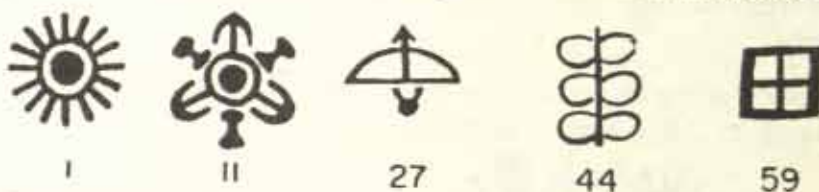
24. There is a single coin (47) in this variety. The third arm of the second symbol which is to hold *damaru* has gone out of the flan. This is a mint freak with two sun symbols punched over

it. The fourth symbol is indistinct. The reverse carries four marks which is the maximum in this series. The loops of the fifth symbol do not touch each other as observed on some coins at Amaravati.

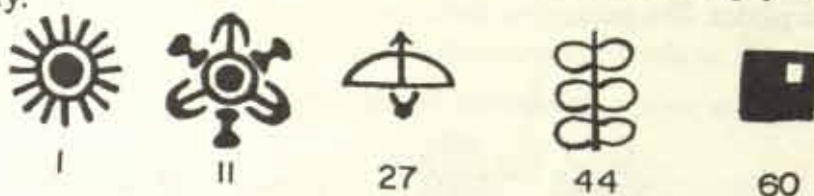
It is a known variety in the hoards from Uttar Pradesh.



25. Two coins (nos. 48 & 49) belong to this variety. The details of the second symbol except the dumb bell in one of the arms are not available on any coin. A countermark is seen on the obverse of coin no. 48.



26. One coin (no.50) is of this variety. The fourth symbol has loops separated from each other. The coin appears to be fresh. The outline of the incuse of the fourth symbol in the dye is open on one side and as a result connected with the background. Distinctly visible in this coin, it is a common feature in many cases. It is comparatively of a medium fabric with wide flan having symbols punched all around the periphery.



27. This is a new variety of coin not reported earlier. There is only one coin (no.51) of the variety in the hoard. The fifth symbol is not a square with four divisions, but a square with only one depressed quadrant. Only one *damaru* of the second symbol appears over the flan. The fourth symbol has circles separated from each other.



28. In all there are nine coins (nos. 52-59 and C) including one (C) from the stratified deposit of Ganwaria dated to 200 B.C. The minor mark on the back of the animal in the fifth symbol in its varied forms has five other sub-varieties as seen in the Amaravati hoard (pp.88 and 85). In the present case four coins depict the minor mark as shown above whereas in the case of others it could not be observed because of partial appearance over the flan. Hence, no sub-division in this variety is possible. Coins of this sub-variety were reported for the first time in the Amaravati hoard. The occurrence of such coins in the present collection is the second of its kind. However, the variety of

the fifth symbol with other minor marks on the back of the animal has been widely reported from almost all the hoards of the country. Thus, it is clear that the variety had a wide distribution during the period. Of the nine coins three are flattened globules. All of them are in fresh condition, mostly with one mark on the reverse.



29. One coin (no.60) belongs to this variety. The circles of the fourth symbol are detached from each other. This is a known variety reported from other hoards in Uttar Pradesh.



30. One coin (no. 61) is available in this variety. The third rounded arm of the second symbol is not available over the flan. The other two are fish and taurine. It is interesting to note that the mark on the reverse is similar to the fourth symbol on the obverse, though smaller in size. This variety differs from the Amaravati ones in the case of the second symbol. Kausambi, Gokulvan and Mathura hoards in Uttar Pradesh contain this variety.

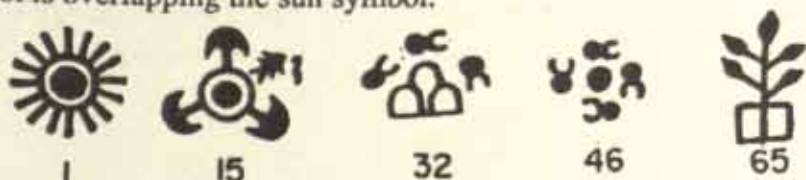


31. One coin (no.62) is of this variety. The details of the second symbol except the *damaru* in one arm are not available.

It is a known variety in the hoards from Uttar Pradesh.



32. One coin (no. 63) belongs to this variety. The second symbol is not traceable raising a doubt about its presence at all over the flan. The flan is too small to accommodate the symbols in full. The fourth symbol is overlapping the sun symbol.



It is a rare variety represented in a few hoards, Gokulvan being one among them.

33. One coin (no.64) is of this variety. The second symbol with the details in its arms is not clear variety not known in the hoards from Uttar Pradesh.



34. One coin from the stratified deposit of Ganwaria is of this variety. The identification of the fifth symbol which overlaps the sun symbol is uncertain. Of the second symbol only one arm with taurine is seen. This is represented in a very few hoards like Gokulvan and Mathura in Uttar Pradesh.

CONCLUSION

A study of the Punch-marked coins in detail reveals that when they were deposited in the hoard, coins of Series III were in use alongwith those of Series II. In addition, coins of Series I also appears to have been used, though in a very restricted number. They were simply stray coins gradually disappearing from the scene. They were very much worn-out. The coins of Series II followed the pattern of Series I to some extent, so far as the fabric is concerned. They happened to be the common currency, changing hands and regions widely along with the coins of Series III. The time lapse between the issue of the coins of Series III and the hoarding was not long. Though the coins of Series III, according to the comparative study with the coins of Amaravati Hoard, should have been issued sometimes in the last quarter of fourth century B. C., there is hardly any evidence to confirm it on the basis of stratigraphy. The earliest punch-marked coin found in the stratified deposit and grouped under Series I can in no case be dated to a period earlier than the last quarter of fourth century B. C. The earliest date which could be assigned to coins of Series III on the basis of stratigraphy is second century B. C.

It appears that the coins were kept in the hoard probably during the later half of second century B.C.

There is not a single coin, either in the hoard or from stratified deposits, which carry the crescent-mounted three-peaked hill, generally believed to be the symbol of Asoka¹⁶, as Class symbol.

The hoard appears to be a private collection of an individual buried in the habitation area between larger and smaller structural complex at Ganwaria. The hoard indicates the prosperous condition of the people. The name of the ancient site of Ganwaria can now be easily added to the list of those sites which are considered to be of great importance in the study of coins. Besides yielding a new variety in Series III, the coins from Ganwaria are very valuable in studying the relationship with other contemporary sites in India.

APPENDIX A
Details of the coins

<i>S.No.</i>	<i>Classification</i>	<i>Shape</i>	<i>Size</i>	<i>Wt. in gms</i>	<i>Wt. in grains</i>	<i>Relative Amaravati Classification No.</i>
1	2	3	4	5	6	7
1.	I-I--	RC	20×14mm	3-3722	52-06	AM III.I-4
2.	I-II-1	RC	22×18	3-0037	46-37	AM III.I-5
3.	I-II-2	E1.	21×19	3-2154	49-63	AM III-II-6b
4.	I-III--	Sq.	16.5×16.5	3-2996	50-93	AM III.IV.A1
5.	II-I--	RC	17×14	3-1050	47-94	AM III-VIII-1
6.	II-II-A	RC	19×15	3-0029	46-67	AM IV-I A2
7.	II-II-B	R	19×17	3-3366	51-51	AM IV.VIII-B1
8.	II-II-C-	R	18×16	3-2084	49-52	AM IV.VIII.E.2
9.	" "	Sq	17×15	3-0002	46-31	" "
10.	II-II-D-1	Sq	18×17	3-0175	46-61	" "
11.	" "	RC	17×13	3-0144	46-54	" "
12.	" "	Sq	16×16	3-0150	46-55	" "
13.	" "	RC	21×13	3-0261	46-72	" "
14.	" "	Sq	18×18	3-2020	49-43	" "
15.	" "	RC	18×15	3-2960	50-87	" "
16.	" "	Sq	17×16	3-2042	49-45	" "
17.	" "	RC	19×17	3-3768	52-14	" "
18.	" "	RC	18×16	3-1672	48-90	" "
19.	II-II-D2	Sq	19×18	3-2486	50-13	AM IV-VIII.F.3
20.	II-II.D-3	Sq	17×15	2-8758	44-40	AM IV-VIII.F.4
21.	" "	RC	19×15	3-3174	51-20	AM " "
22.	" "	RC	19×14	3-0389	46-92	" "

1	2	3	4	5	6	7
23.	II-III-D-4	RC	20×16	3-0354	46-86	AM IV-VIII-F-6
24.	II-II-D-5	E1	22×18	3-2398	50-00	AM IV-VIII-F-7
25.	" "	RC	17×15	3-0354	46-85	" "
26.	II-II-D-6	RC	20×15	3-0316	46-80	AM IV-VIII-F-8
27.	" "	Sq	16×16	3-0276	46-75	" "
28.	II-II-D-7	Sq	19×19	3-1868	49-18	AM IV-VIII-F-10
29.	" "	RC	20×17	3-0345	46-85	" "
30.	II-III--	Sq	18×16	3-0272	46-74	AM IV-IX-A-3
31.	II-IV-1	RC	20×15	3-3866	52-29	AM IV-IX-A-2
32.	" "	E1	19×16	3-2314	49-88	" "
33.	" "	R	21×19	3-4016	52-52	" "
34.	II-IV-2	RC	21×15	3-2726	50-50	AM IV-X-3
35.	II-V--	RC	20×14	3-0376	46-90	AM IV-XI-4
36.	" "	RC	19×15	3-2100	49-55	" "
37.	" "	E1	20×16	3-2544	50-22	" "
38.	III-I-1	RC	17×15	3-0451	47-00	AM V-I-1
39.	" "	E1	18×15	3-3384	51-54	" "
40.	" "	Sq	15×14	3-0422	46-97	" "
41.	III-I-2	R	11 dia	3-4356	53-02	AM V-I-2
42.	" "	RC	13×9	3-0432	46-97	" "
43.	" "	RC	15×9	3-0300	46-78	" "
44.	" "	RC	14×9	3-0362	48-88	" "
45.	III-I-3	RC	19×15	3-0322	46-82	Am V-I-3
46.	" "	RC	18×14	3-1926	49-27	" "
47.	III-I-4	Sq	15×14	3-0291	46-77	AM V-I-6
48.	III-II--	RC	17×13	3-0674	47-35	AM V-II-A-1
49.	" "	Sq	16×16	3-0427	46-98	" "

COINS

1	2	3	4	5	6	7
50.	III-III-1	RC	17×15	3-2248	49-78	AM V-IV-A-1
51.	III-III-2	Sq	15×14	3-0227	46-67	New
52.	III-IV-1	Sq	14×13	3-0122	46-50	AM V-IV-A-1
53.	" "	RC	18×13	3-0240	46-69	" "
54.	" "	RC	15×13	3-0129	46-51	" "
55.	" "	E1	16×13	3-3492	51-70	" "
56.	" "	E1	17×14	3-4940	53-94	" "
57.	" "	E1	17×15	3-0338	46-64	" "
58.	" "	RC	14×12	3-0282	46-75	" "
59.	" "	Sq	14×12	3-0191	46-64	" "
60.	III-IV-2	Sq	13×12	3-0321	46-81	AM V-IV-B-2
61.	III-V--	Sq	15×14	3-0299	46-78	AM V-V-B-2
62.	III-VI--	Sq	14×12	2-0435	46-99	AM V-VI-1
63.	III-VIII--	Sq	13×13	3-0315	46-80	AM V-VIII-2
64.	III-VIII--	RC	15×12	3-0202	46-63	AM V-XIII-1
D.	III-IX--	RC	15×11	3-0024	46-35	AM V-XIII-2

APPENDIX-B

Abstract of classification of coins

<i>Series</i>	<i>Class Group Variety</i>	<i>Symbol group</i>	<i>No. of Coins</i>	<i>Sl. No. of coins</i>	<i>Remarks</i>
1	2	3	4	5	6
I	I--	1,2,16,34,48	1	1	
	II-1	1,3,17,35,49	1	2	
	-2	1,4,17,35,48	1	3	
	III--	1,5,18,36,50	1	A	

1	2	3	4	5	6
II	IV--	1,6,19,37,51	1	4	
	I--	1,2,20,36,51	1	5	
	II A-	1,6,21,38,44	1	6	
	II B-	1,-,21,39,48	1	7	
	II D-1	1,6,21,40,44	2	8&9	
	II D-2	1,2,21,36,48	9	10 to 18	
	II D-3	1,2,21,36,53	3	20-22	
	II D-4	1,2,21,36,44	1	23	
	II D-5	1,2,21,36,54	2	24 & 25	
	II D-6	1,2,21,36,56	2	26 & 27	
	II D-7	1,2,21,36,51	2	28 & 29	
	III--	1,7,22,36,48	1	30	
	IV-1	1,2,23,41,48	3	31 to 33	
	IV-2	1,2,23,41,53	1	34	
	V--	1,8,24,42,57	3	35 to 37	
	III	I-1	1,9,25,43,58	3	38 to 40
I-2		1,9,25,43,58	4	41 to 44	
I-3		1,9,25,43,67	3	45,46 & B	
I-4		1,9,25,43,44	1	47	
II--		1,10,26,45,57	2	48 to 49	
III-1		1,11,27,44,58	1	50	
III-2		1,11,27,44,64	1	51	
IV-1		1,12,28,44,61	9	52-59 & E	
IV-2		1,6,28,44,62	1	60	
V--		1,13,29,46,63	1	61	
VI--		1,14,30,47,48	1	62	
VII--		1,?,31,46,64	1	63	
VIII--		1,15,32,46,65	1	64	
IX--	1,?,33,46,63	1	D		

COINS

Series I 4 Cl. 4 Gr.	5 varieties	5 coins 1 to 4 & A.
Series II 5 Cl. 8 Gr.	15 varieties	33 coins 5 to 37
Series III 9 Cl.	4 Gr.	14 varieties 30 coin 5 to 64, B. C. &D

APPENDIX-C

Marks on the reverse of coins

<i>Pd. & variety</i>		<i>No. of Coins</i>	<i>PL</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>Marked on obv.</i>
I	I--	1	-	-	-	-	-	-	1	-	-	-	
	II-1	1	-	-	-	-	-	-	-	1	-	-	
	II-2	1	-	-	-	-	-	-	-	1	-	-	3
III--	1	-	-	-	-	-	-	-	-	-	1	-	
	IV--	1	-	-	1	-	-	-	-	-	-	-	
			-	-	1	-	-	-	1	2	-	1	
II	I--	1	-	-	-	-	1	-	-	-	-	-	
	IIA-	1	-	-	1	-	-	-	-	-	-	-	
	B-	1	-	-	1	-	-	-	-	-	-	-	
	C-2	2	-	1	-	1	-	-	-	-	-	-	
	D-1	9	1	-	1	1	2	1	2	-	1	-	
	D-2	1	-	1	-	-	-	-	-	-	-	-	
	D-3	3	-	-	-	1	1	-	1	-	-	-	
	D-4	1	-	-	-	-	1	-	-	-	-	-	
	D-5	2	-	-	-	-	1	-	-	-	-	1	
	D-6	2	-	-	-	1	-	-	-	1	-	-	
	D-7	2	-	-	-	-	-	-	-	-	2	-	1
	III--	1	-	-	-	1	-	-	-	1	-	-	1
	IV--1	3	-	-	2	-	-	-	1	-	-	-	
	IV--2	1	-	-	-	-	1	-	-	-	-	-	
V--	3	-	-	1	2	-	-	-	-	-	-		
			1	2	6	7	7	1	4	1	3	1	

EXCAVATIONS AT PIPRAIWA AND GANWARIA

III	I-1	3	-	2	1	-	-	-	-	-	-	1
	-2	4	-	4	-	-	-	-	-	-	-	
	-3	3	1	1	1	-	-	-	-	-	-	
	-4	1	-	-	-	-	1	-	-	-	-	
	II--	2	-	-	-	2	-	-	-	-	-	
	III-1	1	-	1	-	-	-	-	-	-	-	
	III-2	1	-	1	-	-	-	-	-	-	-	
	IV-1	9	-	7	1	1	-	-	-	-	-	
	-2	1	-	-	1	-	-	-	-	-	-	
	V--	1	-	1	-	-	-	-	-	-	-	
	VI--	1	-	1	-	-	-	-	-	-	-	
	VII--	1	-	-	1	-	-	-	-	-	-	
	VIII--	1	-	1	-	-	-	-	-	-	-	
	IX--	1	1	-	-	-	-	-	-	-	-	
			2	19	5	3	1	-	-	-	-	

Series	No. of coins		No. of reverse marks							Marked on obv.		
	0	1	2	3	4	5	6	7	8		9	
I	5	-	-	1	-	-	-	1	2	-	1	1 with 3 marks
II	33	1	2	6	7	7	1	4	1	3	1	2 with 1 mark
III	30	2	19	5	3	1	-	-	-	-	-	1 with 2 marks 2 with 1 mark
		68	3	22	12	10	8	1	5	3	3	1

APPENDIX -D

Series & classification	No. of coins	Weights in grains											
		36	44	45	46	47	48	49	50	51	52	53	54
1.	I-I--	1											1

COINS

Series & classification	No. of coins	Weights in grains											
		36	44	45	46	47	48	49	50	51	52	53	54
2.	II-1	1					1						
3.	II-2	1								1			
4.	III--	1									1		
5.	IV--	1						1					
	Series-I	5					1	1		1	1		1
6.	II-I--	1					1						
7.	II-A	1									1		
8.	II-B	1									1		
9.	II-C	2					1			1			
10.	II-D 1	9					4		1	2	1		1
11.	II-D 2	1									1		
12.	II-D 3	3			1		1					1	
13.	II-D 4	1					1						
14.	II-D 5	2					1			1			
15.	II-D 6	2					2						
16.	II-D 7	2					1			1			
17.	III--	1					1						
18.	IV 1	3								1			2
19.	IV-2	1									1		
20.	V--	3					1			1	1		
	Series II	33			1		14		1	7	4	3	3
21.	III I-1	3					2					1	
22.	I-2	4					2		1				1

Series & classification	No. of coins	Weights in grains											
		36	44	45	46	47	48	49	50	51	52	53	54
23.	I-3	3	1				1				1		
24.	I-4	1					1						
25.	II--	2					1	1					
26.	III-1	1								1			
27.	III-2	1					1						
28.	IV-1	9		1			6					1	1
29.	IV-2	1					1						
30.	V--	1					1						
31.	VI--	1					1						
32.	VII--	1					1						
33.	VIII	1					1						
34.	IX	1					1						
Series III		30	1	1			20	1	1	2		2	2

SELECT EARLY COINS FROM PIPRAIWA-GANWARIA (pl. LVI)

Apart from the silver punch-marked coin of Kosala type and Imperial series and a single piece of Indo-Sassanian silver coin the excavations have yielded quite a good number of copper coins from the stratified deposits. The coins can be classified into the following series.

1. Cast copper coins
2. Inscribed coin of ' Sabhatisa (Subhuti ?) .
3. Panchala coins.
4. Ayodhya coins.
5. Unassignable coins.
6. Kushana coins

Numismatic evidence of diverse kinds from a single site with a wide time-bracket speaks

about the flourishing condition of the small Himalayan township of the Sakyas. It was an important centre of pilgrimage having contacts with the rest of the country for a considerably long time .

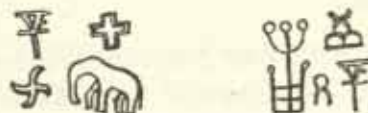
In the following pages barring the Kushana coins, which have been dealt with separately, select coins from the rest of the series as mentioned above have been described. Cast copper coins (pl. LVIA-1 to 5).

Of the seven coins discovered, only five clear cast copper coins are described here; four from the site of Ganwaria and one from Piprahwa. They are mentioned below in order of the site, registration number, layer, metal, shape, measurements and weight.

- S.No. 1. GNW; No. 1523; (5); copper; squarish; 1.3 cm; wt. 3.0380 gms (47 gr).
 S.No. 2. GNW; No. 1259; pit sealed by (5); copper; squarish; 1.3 cm; wt. 3.0661 gms. (47.03 gr).
 S.No. 3. PPW; No. 21; (2); copper; square; 1.4 cm; wt. 3.5262 gms (54.5 gr).
 S.No. 4. GNW; No. 2052; (10); copper; squarish; 1.5×1.3 cm; wt. 2.0948 gms (32.03 gr).
 S.No. 5. GNW; No. 97; surface; copper; squarish; 1.5×1.4 cm; wt. 2.0362 gms (31.5 gr).

Basing on the basis of the combination of the symbols the above-mentioned coins can be classified into two groups as described hereunder :-

Group I (S.NO.1 and 2 above).



Obverse

A triangle-headed standard (*Indra-yashtri*) and a hollow cross (*vedi*) to its right in the top row followed by *svastika* below the standard, and an elephant with hanging trunk walking to left below the cross in the lower second row.

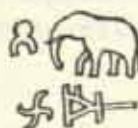
Reverse

A three-branched tree in railing to the left, a three-peaked hill surmounted by a crescent to the right top, followed by a triangle-headed standard at its bottom and a taurine (*nandipada*) with its two-forked arms turned down and depicted between the Tree and the standard.

Group II: In this group there are two varieties according to the arrangement of the devices on the obverse.

Obverse (Variety A)

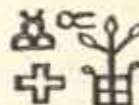
An elephant with hanging trunk walking to left depicted to the right on the top row, and a taurine with its forked arms turned down placed to the left in front of the elephant, a *svastika* below the taurine and a triangle-headed standard placed horizontally below the elephant in the bottom row.



Reverse

Three-branched tree in railing to the right, a crescent-mounted three-peaked hill to left top and below this a hollow cross to the left bottom. A taurine is placed side wise with its arms turned to right between the peaked-hill and the leaves of tree in railing.

In Variety B the order is changed as given below:

*Obverse (Variety B)*

An elephant with hanging trunk walking to left, depicted to the right bottom with a triangle-headed standard placed vertically to the left in front of the animal, and the *svastika* and taurine with its forked arms turned down, placed side by side on the right top above the Elephant.

The order of the devices on the reverse is similar in both the varieties A & B.



Variety A in this group is a known one corresponding with variety K mentioned by Allan in his catalogue¹⁷.

The interesting point of difference between the two groups is that the triangle-headed standard is repeated on both the sides in the first group, while in the second group it is the taurine symbol that occurs on both the sides. The hollow cross is shifted from the obverse to the reverse in place of triangle-headed standard which finds its place on the obverse only.

But for coin no.4 which is slightly worn-out, other coins are in a fairly good condition and the symbols can be identified clearly. Coin no. 4 belongs to Variety B of Group II. The form of the coins makes it evident that they were cast in moulds. The surplus metal in the shape of a lug at some places in the periphery with a clear line of demarcation can be observed in the thickness of the coins.

The weight of the coins ranges between 2.0362 gms and 3.5262 gms (31 gr. to 54.5 gr.) indicating their probable standard weight as 57 gms which is equivalent to the standard weight of a *Karshapana* of 32 *rattis*.

Coins 1, 2 and 4 have been recovered from levels dated between the last quarter of fourth century to third century B.C. later levels. Coin no. 5 is a surface find. In this connection it must be pointed out that the site yielded several Punch-marked silver coins in association with these cast coins.

Cast coins of this type have been reported from a large number of ancient sites in North India. The southern most limit of their provenance so far known is Vidisa region in Madhya-Pradesh¹⁸ extending upto Vidarbha, where such coins have been reported from Pauni¹⁹.

Though these uninscribed cast coins cannot be assigned to a particular dynasty, as observed by Allan, they are usually reported from the sites which yielded Punch-marked silver coins and are probably of the same period²⁰.

Similar coins from excavation at various ancient sites also show that they were current during NBP and post-NBP periods down to the Kushana age²¹.

Gupta is of the opinion that these coins were in circulation from 3rd century B. C. to 3rd century A. D. and in all likelihood were not manufactured after the first century B. C.²².

Rama Prasad Chanda attributed such coins found in excavations at Sarnath to the Sunga period²³, while similar coins from Bulandibagh excavations were assigned by Durga Prasad to Mauryan period²⁴. Durga Prasad felt that since the crescent surmounted three-peaked hill symbol and the hollow cross appear on certain objects, decidedly belonging to Mauryan period, the coins with the symbols must be of Mauryan times.

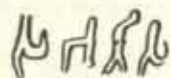
Inscribed coin of Sabhati (pl. LVI A-6)

S.No ; GNW ; 1181, (4) copper, circular ; 1.8 cm; wt. 3.5162 gms (54.25 gr.).

This is a die-struck coin very much worn-out. Brass appears to be much more in the metal content of the coin on account of its yellowish look.

Obverse

But for a crescent-shaped symbol in the middle it is worn-out; below the crescent a four-lettered legend SA BHA TI SA written horizontally in Br̥hmi characters of second century B.C. (fig.8)



Reverse

Blurred but traces of a device which looks like an elephant trunk hanging, walking to left is faintly visible.

Although it is very much worn-out, the pressure of the die imprinted the legend and the device deeply and as such they are clear.

The legend is sharp with clear-cut linear and elongated verticals in Sa Bha and Ta. In the absence of any parallel the coin cannot be assigned to any known king. While describing two copper coins from Mathura region Cunningham read the legends as *Rajna Balabhutisa* and assigned a date of second century B. C. to them²⁵. Though the above coins are typologically different from the coin of Ganwaria, the close similarity of the legends on both is tempting enough to read the legend on the present coin as *Subhutisa*. Though the characters SA and Bha in the legend are very clear, 'u' is absent.

The Macedonian writers give a long list of aristocratic and republican states with which the Greeks under Alexander came in contact. Among them a Sabhuti state situated near the Kathian territory comprising the region east of Ravi (Hyderabotes) including the districts of Lahore and Amritsar²⁶ finds a mention. There is no basis, however to establish any relationship between the present coin and the state of Sabhuti. The name of the issuer of this coin, therefore, continues to remain unknown.

Panchala coins

Three Panchala coins, all of copper, were found during the course of excavations. They are as follows :

- S. No. 7. GNW; 745; (1); Circular; dia. 1.3 cm; wt. 5.4028 gms (83.5 gr.)
 S. No.8. GNW; 622; (1); Circular; dia. 1.8 cm. wt. 5.9856 gms (77 gr.) (pl. LVIA -7)
 S. No.9. GNW; 2085; (1); Circular; dia. 1.8 cm. wt. 4.300 gms (67.25 gr.)

The coins were struck with a die containing three Panchala symbols in a square incuse. Conventionalised forms of tree in railing, *srivatsa* and *nandipada* are the three symbols.

Obverse

The three typical Panchala symbols are found struck in a square incuse. A legend in Brahmi appears partially on the coin. It may be *Suya*.

Reverse

In all cases the symbols or devices are completely obliterated.

The coins are a known type of the Panchala series and the probable legend of *Suya* on one coin might be taken to refer to Suryamitra of the Panchala rulers as the issuer of the coin.

In the absence of any legend on the other two coins it is not possible to attribute them to any ruler.

Coin No. 8 appears to have been made of debased copper with more of brass in the metal content.

Coins of the Panchala rulers have been reported as far as Basti (U.P.) in the east²⁷.

Ayodhya Coins

In all seven coins of the Ayodhya rulers have been recovered from the excavations, of which three are from Ganwaria and four from Piprahwa. They are as follows :

- S. No. 10. GNW; 1361; (6); roundish; dia 1.9 cm, wt. 6.3982 gms (98.75 gr.).
 S. No. 11. GNW; 1382, (2); oval; 2 × 1.8 cm; wt. 4.5644 gms (70.45)gr). (Pl. LVI A - 8)
 S. No. 12. PPW; 35; (2); roundish, dia 1.8 cm; wt. 4.9606 gms (76.5 gr.)
 S. No. 13. PPW; 13; (2); round; dia 1.8 cm; wt. 4.9562 gms (76.5 gr). (Pl.LVI A - 9)

The fifth and sixth coins are completely worn-out without any trace of devices. Another

miniature coin of the series is also very much worn-out. Hence, the details of those coins have not been furnished. They all belong to a single type which is described below.

Obverse

Humped bull standing to left facing a standard which is indistinct in three cases. In one case a faint legend (SA) gha ma (ta) appears below the feet of the animal. In other cases the last two letters Ma ta are distinct.

Reverse

Peacock to right in front of a palm tree. Below, a wavy line. These devices are seen in case of two coins only, while the symbols on the rest are completely defaced. The die struck coins mentioned above are evidently the issues of the Mitra rulers of Ayodhya, who ruled in the first and second centuries A.D.²⁸ Amongst the rulers of Ayodhya, Ayumitra, Satyamitra, Devamitra, Vijaymitra are the four known rulers whose coins depict the bull and peacock devices. Since the legend on the coins from Kapilavastu are too faint, it is not possible to determine the king who issued them. They have, therefore, been simply classified under the series of Ayodhya coins on the basis of the types.

The bird on the reverse of these coins has been identified by Cunningham²⁹ and Smith³⁰ as a cock while Allan³¹ felt that it was a Swan (*hamsa*). On the basis of his identification Smith classified the coins as "Cock and Bull" series. A clear picture of peacock does appear on the coins of the present series, but there is no cock.

The heavy line below the palm tree and peacock may as well represent a river rather than a serpent. Bajpai identified the river as Sarayu³².

Unassignable Coins :

There are eight coins which can be grouped into three types, but they cannot be assigned to any known ruler and region in the absence of any legend over them. But for one coin, the variety of all other coins is altogether new and cannot be compared with any coin published so far.

Type I

S. No. 14; GNW; 1904, copper, square; 1.8 cm; wt. 3.1608 gms. (48.75 gr). (pl. LVI B-1)

Obverse

Indistinct but for the blurred-out line, which appears to be of a humped-bull to right facing a standard.

Reverse

In the centre of the flan there is a *Triratna* symbol within a 'U' curved crescent terminated on the other side with widened ends. Four blunt pellets, one in each corner, appear within the square incuse.



A coin in Indian Museum published by Smith³³ and described under unassignable coins in miscellaneous variety seems to be a close parallel to the present coin.

While observing the devices Smith appears to have mistaken the blurred *triratna* symbol as a three-peaked hill and studied the coin in a topsy turvy manner with the result the 'U' shaped curve appeared as an arch covering the so-called arched hill. From the devices which appear clearly over the present coin, it is certain that the so-called three-arched hill is a *triratna* symbol accommodated within a 'U' shaped crescent.

The reverse of the coin published by Smith, which is in fact the obverse, shows a humped bull standing to right facing a triangle-headed standard in the front within a railing. This does not seem to be the tree with a bird on it pecking the bull as described by Smith. Though the details of the devices over the obverse of the present coin are worn-out, their outline indicates similarity to those on the coin of Smith.

Allan has classified another coin of similar type from British Museum³⁴ under uncertain coins. He observed three-peaked crescent-mounted hill symbol in four corners on the reverse. The symbols on the present coin, however, are so much obliterated that pellets only can be seen.

Thus, it is not possible to assign the coin to any known ruler and region. A coin of this type is not known so far.

Devices, almost similar with minor variations, however, appear on the coins issued by Kumuda Sena of Ayodhya³⁵. Though the conclusion might be hazardous on account of the meagre evidence, the coin having been issued by any of the ruler of Ayodhya prior to Kumuda Sena needs a serious investigation.

Type II

S. No.15. GNW; 1524; copper; circular; dia 1.4 cm; wt. 0.0557 gm (-0.035 gr.)



Obverse

A meandering line divides the flan into two, each half containing three pellets in a row.

Reverse (Blurred)

The coin is a very thin piece. Since the above devices have not been noticed on any other coin, it is not possible to assign it to any ruler or region (pl. LVI B-2)

Type III

In all seven coins of this variety as described below have been found.

S. No. 16. PPW; 8; (2); circular; dia 1.1 cm; wt. 1.0090 gms (15.5 gr.) (pl. LVI B-3)

- S. No. 17. PPW; 22; surface; roundish; 9×1.0 cm; 0.7132 gm (11 gr.).
 S. No. 18 GNW; 880; (2); rectangular; 1.4×1.0 cm; 2.0429 gms (31.5 gr.).
 S. No. 19 GNW; 1583; (3); circular; dia 1.1 cm; 1.0154 gms (17 gr.). (pl. LVI B-4)
 S. No. 20 GNW; 1690; (1); circular; dia 1.2 cm; wt. 1.0959 gms (17 gr.). (pl. LVI B-5)
 S. No. 21 GNW; 1924; (5); rectangular; 0.9×1.0 cm; wt. 1.0040 gms (15.5 gr.). (pl. LVI B-6)
 S. No. 22 GNW; 926; (1) rectangular; 0.9×0.7 (pl. LVI B-7)

Obverse

A four-spoked wheel prominently depicted.

Reverse (blank)

These are miniature coins in copper prepared both by casting and die striking techniques. Coins manufactured by the former method have a lug of extra metal at one or two places along the periphery. It was formed during the process of making.

Two rectangular pieces in the collection (S. Nos. 21 & 22) attest to the process of die striking.

A four-spoked wheel on the coins of some of the Magha rulers of Kosambi appear as a subsidiary symbol over the back of the primary symbol bull. Though the possibility is far-fetched the present coins might, therefore, be the issues of the Maghas in lower denomination with their subsidiary symbol.

Similar coins, as many as thirty seven, have been reported from the excavations at Tilaurakot in the Nepalese Tarai. Though the four-spoked wheel symbol is found on earlier coins as well, exclusive use of this device on a coin is hitherto unknown and not reported from any other site. It was, therefore, presumed that the coins of this type were the local issues of the ancient Tilaurakot region when it was an independent state. The excavator has however, not assigned any date to them. According to a rough analysis of the provenance the coins can be placed in the third-second century B.C.

KUSHANA COINS

The number of the Kushana coins from Kapilavastu complex as a whole is next only to Punch marked coins. In all, the excavations yielded fifty-eight Kushana coins, of which forty-five were found at Ganwaria, the main township and thirteen at Piprahwa, the monastic complex. Out of the forty-five coins from Ganwaria, thirty-seven were in a hoard. All the Kushana coins were made of copper. In the collection of fifty-eight coins, fifteen were completely worn-out. They could be assigned to Kushana kings only on the basis of their types and heavy weight. Amongst the remainin 43 coins, which are in semi-worn-out state, four are of Wima Kadphises, twenty-four of Kanishk and fifteen of Huvishka. The weight of the coins is identical to other published coins and varies from 13 gms (201-50 gr.) to 15 gms (232 gr.) in the case of the coins of Wima Kadphises, 14.086 gms (21 grs.) to 17.385 gms, (263 gr) in the case of case of Kanishka; and 9.0216 gms (139gr.) to 14.098 gn

(217 gr.) in the case of Huvishka. It is felt that the variations in weight are owing to the carelessness on the part of the mint authority with due allowance to wear and tear in circulation³⁶. Taking into consideration the variations in weight the coins can be broadly grouped into two denominations of the Kushana times viz., *Panas* and *ardha-panas* weighing about 16 gms and 8 gms respectively.

Coins of Wima Kadphises (pl. LVIC-1)

The details of the four coins of Wima Kadphises are as follows :

No. 1. PPW; 177; (6); circular, wt. 15.0396 gm (232 gr.)

Obverse

Bearded figure standing to left, wearing a diadem and helmet, offering into an altar with his right hand, the left hand resting on the hip. To his left is a trident battle axe combined and to right a club kept vertically.

Reverse

Two-armed Siva standing, facing, holding a long shaft with a trident or a spear in the raised right hand, the left hand resting over the hump of the bull at the back, on which he is leaning and a taurine to right. Other details, if any, are not visible. This is a known type of coin of Wima Kadphises who is depicted invariably as Siva on his coins on the reverse. He was probably converted to the Saiva faith as indicated by his title "*Mahisvara*" on gold coins.

The other three coins also belong to this type.

No. 2. GNW; 846; (2), circular ; 13.0582 gms (201.50 gr.) (pl. LVIC-2)

No. 3. GNW; 124; (2), circular ; 13.0756 gms (201.75 gr.)

No. 4. PPW; 20; (1), circular ; 14.0210 gms (217.50 gr.)

Coins of Kanishka (pl. LVI C-3-8)

Of the 24 coins of Kanishka, 20 are from the hoard, one from the site of Piprahwa, and 3 from Ganwaria. The last four are from stratified deposits.

So far as the minting technique is concerned dummies or coin blanks were crudely made into irregular round form in general with a thick section. The coin devices were die-struck on both the sides as evident from the edges developing cracks. The devices having passed out of the flan are also not clear in some cases. In majority of the cases, however, the devices appear only partially on account of light printing.

With a variation in the deity the well known type of the copper coins of Kanishka i.e., "The king at altar and the deity is represented by six types in the collection from Kapilavastu. As already stated, almost all the coins are in a worn-out condition. Hence, it is not possible to make out the details of the devices clearly, both on the reverse. With a few prominent features as a basis the coins can, however, be classified beyond doubt. In certain cases although the traces of the legend in Greek characters are visible on the obverse of the coins, the subtle distinction could not be possible whether

the legend represents the Greek "Basileous Basileon Kanishon" (*BACIAEYC BACIAEWN KANHPKOY*) or the Persian "Sho Kaneshki" (*SPAO KANHKPKI*), which are the two varieties of legend generally found on the copper coins of Kanishka. An effort has been made to spell out the legend on the obverse and the name of the deity on the reverse in all those cases where they could be made out. In other cases the deity has been identified and classified accordingly on the basis of other characteristics of the coin.

MAO TYPE (MAO Persian Moon God)

1. GNM (Ganwaria); 922 (Registration no.) ; roundish (shape) dia 2.6 cm; wt. 14.0498 gms (216.75 gr.). (pl. XIII -3)

Obverse

Traces of standing king at altar.

Reverse

Standing deity to left, much obliterated.

One hand of the deity is extended in a pointing manner and the other rests at the hip near the sword. The legend at the back in faded Greek characters appears to be *MAO*.

2. GNW; 1924; (5); roundish; dia. 2.5 cm; wt. 14.0134 gms (216.15 gr.)

AOPO TYPE : (AOPO-Fire God)

3. GNW; 847; (1); round; dia. 2.4 cm, wt. 14.0150 gms (216.25 gr.). (pl. LVIC-4)

Obverse

Standing king to left, upper portion flaked off, wearing long heavy coat, trousers, heavy boots and holding a spear in the left hand.

Reverse.

Deity standing to left, holding an indistinct object in the right hand; left hand resting on the hip; legend to the right in Greek characters appears to be *AOPO*.

4. PPW; 176; (5) ; round; dia. 2cms. wt. 16.0186 gms (247.25 gr.).

Obverse

Standing king to left, upper portion out of flan, offering with the stretched right hand into an altar, wearing long overcoat, trousers and heavy boots. A linear border is seen in the lower portion.

Reverse

Standing deity to left with the right hand stretched and left resting on the hip. A linear border on the right.

5. GNW; coin No.3 of the hoard; round; dia; 2.5 cms, wt. 15.0843 gms (232.75 grs.) (pl. LVI C-5)

Obverse

Standing king to left offering into an altar with the stretched right hand, the lifted left hand holding an indistinct object, probably spear, wearing long coat and trousers.

Reverse

Standing deity with stretched right hand and left hand on hip. Legend in Greek characters *AOPO* to the right. Incuse of the die over the flan is seen to the right.

6. GNW; Coin no.5 of the hoard; round; dia. 2.6 cm; wt. 14.156 gms (216.25 grs.) (pl.LVI-6)

Obverse

Standing king offering into an altar. Legend in Greek characters.

Reverse

Standing deity to left, holding an indistinct object in the right hand, and left hand on hip; Kadphises symbol to left.

The above coin evidently belongs to the Class II copper coins of Kanishka over which the Persian legend in Greek characters is seen. Seven more coins of this *Athshe* (*AOPO*) type were found in the hoard.

7. GNW; Coin no.1 of the hoard; roundish; dia 2.5 cm; wt. 16.213 gms (247.25 gr.)
 8. GNW; Coin no.2 of the hoard; roundish; dia 2.7 cm; wt. 15.0670 gms (232.50 gr.)
 9. GNW; Coin no.4 of the hoard; roundish; dia 2.4 cm; wt. 16.0269 gms (247.25 gr.)
 10. GNW; Coin no.6 of the hoard; roundish; dia 2.5 cm; wt. 16.0032 gms (247.00 gr.)
 11. GNW; Coin no.7 of the hoard; roundish; dia 2.5 cm; wt. 15.0726 gms (232.50 gr.)
 12. GNW; Coin no.8 of the hoard; roundish; dia 2.6 cm; wt. 14.0866 gms (217.25 gr.)
 13. GNW; Coin no.9 of the hoard; roundish; dia 2.3 cm; wt. 15.0863 gms (232.75 gr.)

OADO Type (OADO-Mercury)

14. GNW; Coin no.13 of the hoard; roundish; dia 2.6 cm; wt. 15.0929 gms (233 gr.) (pl. LVI-7)

Obverse

Bearded king standing to left, holding a spear in the left hand and offering into the altar by the right hand. Wears a long over-coat, trousers and heavy boots. Legend in round in Greek characters obliterated (...) PKI on the left; and faded letters which appear to be (*KOPANO*) on the right.

Reverse

Male bearded figure running to left, head rayed, holding up expanded dress with both hands. Kadphises symbol to left. Legend: *OADO* in Greek characters to right.

This coin is evidently bearing the Persian legend in Greek characters on the obverse. All other

details are obliterated.

Another coin (15 below) is also having the traces of a similar legend on the obverse.

Other coins of the same type

15. GNW; Coin no.10 of the hoard; round; dia 2.6 cm; wt. 16.0126 gms (247 gr.) (pl.LVI C-8)
16. GNW; Coin no.11 of the hoard; round; dia 2.6 cm; wt. 16.0314 gms (247.37 gr.)
17. GNW; Coin no.12 of the hoard; roundish; dia 2.6 cm; wt. 15.0966 gms (233 gr.)
18. GNW; Coin no.14 of the hoard; round; dia 2.5 cm; wt. 16.0125 gms (247.12 gr.)

NANA Type: (NANA-Venus)

19. GNW; Coin no.20 of the hoard; round; dia 2.5 cm; wt. 16.0035 gms (247.0 grs.) (pl.LVI D-9)

Obverse

King standing to left offering into the altar, wearing long over-coat and trousers and holding a spear in left hand .

Legend: Traces only, not clear.

Reverse

Draped goddess, standing to right , nimbate, legend in Greek characters (NA) to the left. Kadphises symbol to right.

OKPO Type (OKSHO-Siva)

In all, five coins of this type have been found. All of them are from the hoard. Two are in a little better state of preservation, while the rest three are very much worn-out .

20. GNW; Coin no.15 of the hoard; roundish; dia 2.6 cm; wt. 15.0907 gms (247.12 gr.). (pl. LVID-10)

Obverse

Standing king to left offering into the altar. Being worn-out only the traces of the device can be made out.

Reverse

A four-handed Siva standing in front within a linear circular border, partially visible on the top of the flan , nimbate, holding a drum in upper left hand, and a trident with a long shaft in the upper right hand . Attributes in the lower two hands cannot be made out . The lower part of the flan is worn-out.

Legend: to the right in Greek character OKP (-).

Evidently this coin belongs to *OKSHO* type.

21. GNW; Coin no.17 of the hoard; round; dia 2.5 cm; wt. 16.0760 gms (247.12 gr.) (pl.LVI D-11)

Obverse

King standing to left and offering into the altar. Other details are worn-out.

Reverse

Four-handed Siva, standing facing, holding in the lower left hand an indistinct object supposed to be an antelope, Kadphises symbol to left. Other details are worn-out.

22. GNW; coin no.16 of the hoard; roundish; dia 2.3 cm; wt. 17.0096 gms (247.12 gr).
23. GNW; coin no.18 of the hoard; round; dia 2.6 cm; wt. 14.0394 gms (216.65 gr).
24. GNW; coin no.19 of the hoard; roundish; dia 2.4 cm; wt. 17.0385 gms (263.00 gr).

Coins of Huvishka: (pl. L VID-12-16)

Unlike the copper coins of Kanishka in which the standing king before altar appearing on the obverse is the only type, there are three varieties in the available 15 coins of Huvishka, representing the king on the obverse as (1) mounted on an elephant to right, (2) seated cross-legged in Indian fashion over a cushioned seat lifting his left hand up and keeping his right hand near his chest, and (3) king seated with his left leg cross-folded and right leg lifted up with the feet resting over the throne.

In all there are ten coins in class no.1 (seven from the hoard and three occurring in the stratified deposits) four in class no.2 (three from the hoard and one from the stratified deposits). There is a single coin from the hoard in class no.3.

Again class no.1 is represented by two varieties of coin as per the devices on the reverse. One of them is having the standing deity described as MAO by the legend to the right, and the other with the legend AOPO as the represented deity.

Variety No. 1, MAO Type

1. GNW; coin no. 21 of the hoard; roundish; dia 2.3 cm; wt. 12.0749 gms (186.31 gr.) (pl. LVID-12)

Obverse

Blurred figure of king mounted on elephant facing right.

Reverse

Standing deity to left, right hand stretched, left hand kept at the hip, crescent at the back of the head, beaded border encircling the reverse device, partially imprinted on the top portion of the flan. The deity wears a long coat. Legend: on the right within the beaded border in Greek characters appears partially and can be read as M (AO). This coin is similar to coin illustrated in pl. XX, 10 by Cunningham.

2. GNW; coin no. 26 of the hoard; roundish; dia 2.4 cm; wt. 14.0446 gms (216.75 gr.) (pl. LVID -13)

Obverse

King mounted on an elephant, facing right, holding a long spear in right hand. Other details cannot be made out.

Reverse

Two-armed standing deity, right hand extended, left hand with the sword at the hip, crescent at the back of head. Kadphises symbol to the left. Other details are obliterated.

3. GNW; coin no. 22 of the hoard; roundish; dia 2.5 cm; wt. 14-0271 gms (216-50 gr.)
4. GNW; coin no. 25 of the hoard; roundish; dia 2.5 cm; wt. 14-0985 gms (217-50 gr.)

Variety No. 2 AOPO Type

5. GNW; coin no. 24 of the hoard; roundish; dia 2.6 cm; wt. 14-0372 gms (216-63 gr.). (pl. LVID-14)

Obverse

King mounted on elephant to right, holding probably a goad and not a long spear. Other details cannot be made out.

Reverse

Two-armed standing deity, right hand stretched and left hand at the hip wearing a long coat.

Legend : to the right of the deity in Greek characters (-) OPO; Kadphises symbol to the left.

This is similar to coin illustrated in pl. XX, 18 by Cunningham.

6. GNW; coin no. 23 of the hoard; triangular with corners rounded; dia 2-6 c. ; wt. 14-0445 gms (216-75 gr.).
7. GNW; coin no. 27 of the hoard; unsymmetrical roundish; wt. 13-589 gms (201-50 gr.).
8. PPW; (1) semi-elliptical; dia 2-3 cm; wt. 9-0216 gms (139-25 gr.)

Since coin no.8 is a thin piece weighing only 9-0216 gms. It can be an *ardhapana* of the ancient nomenclature as against the standard weight of 16 gms of the *Panas*.

The devices on the reverse of the coin made a deep incuse when struck, indicating the probable method of minting the coins. The coin dummies were die-struck with the die of the reverse devices on the upper flan, keeping them on the anvil over which the devices of the obverse in negative form were incused, so that both the devices were imprinted simultaneously when the coin was struck.

9. GNW; 1047; irregular; dia 2-5 cm; wt. 12-0872 gms (186-50 gr.).
10. GNW; 542; (1); round; dia. 2-5 cm; wt. 12-984 gms (186-75 gr.).

Class II, MIORO Type

In class II of the present collection of the coins of Huvishka, while the king on the obverse

is depicted as seated on cushions cross-legged in Indian fashion, the reverse depicts only one variety with the deity representing the Greek Sun-god, MIORO.

11. GNW; coin no.28 of hoard; round; dia; 2.7 cm; wt. 14.0048 gms (216.08gr). (pl. LVID-15)

Obverse

The king seated over the cushions, cross-legged in Indian style, left hand lifted up and right hand kept over the chest. Other details cannot be made out.

Reverse

Two-armed standing deity to left, radiating, right stretched hand holding an object which looks like a pair of callipers, while the left hand grasps sword at the hip. His upper garment extends upto the knees. Kadphises symbol to the left and legend to the right in Greek characters MIOR (O) in a worn-out condition. A beaded border partially visible in the lower part of the flan encircles the devices.

12. GNW; coin no. 29 of the hoard; semi-elliptical; dia. 2.5 cm; wt. 14.0048 gms (216.08 gr.).
 13. GNW; coin no. 30 of the hoard; irregular; dia 2.4 cm; wt. 13.0414 gms (202 gr.).
 14. PPW; 17; (2) elliptial; 2.4 × 2.1 cm; wt. 11.0287 gms (170 gr.).

Class III :

15. GNW; coin no. 31 of the hoard; round; dia. 2.4 cm; wt. 14.0009 gms (216 gr.). (pl. LVID-16)

Obverse

King seated over the cushion, left leg crossed and right leg raised up with feet resting over the cushion. Other details are defaced.

Reverse

Two-armed standing deity, right hand stretched and left hand at the hip. Other details cannot be made out. The deity over this coin could not be identified.

The Hoard

Of the thirty-seven coins in the hoard six coins are worn-out. Amongst the remaining thirty-one, Kanishka is represented on twenty coins in five types and Huvishka on eleven coins in four types. When the hoard was collected during the period of Huvishka, the coins of Kanishka appear to have been in wide circulation along with those of Huvishka.

INDO-SASSANIAN COIN FROM GANWARIA

The earliest coin from the excavations at Kapilavastu is the cup-shaped Kosala type silver punch marked coin and the latest Indo-Sassanian silver coin of the Pratihara times of the late ninth century. A.D.

The Indo-Sassanian coin in debased silver is a lone specimen. It is crudely designed with irregular roundish shape having 1.7 m. dia, weighing 3.774 gms.

The devices over the coin are as follows :

Obverse

Crudely designed human head to right represented by a group of thick dots and a blunt curved line. A letter 'Sri' in Nagari character in front of the head.

Reverse

Crudely designed Sassanian fire-altar and other marks.

On the basis of the similarity of the symbols on this coin with those on other Indo-Sassanian group of coins bearing the legend *Sri Vighraha*, the present coin could be attributed typologically to Sri Vighraha or Vighrahapala, who is considered to be a member of the Pratihara dynasty of Kanauj holding control of a large territory in Northern India. According to inscriptions followed by their similarity in weight and symbols with the Sassanian proto-types,³⁷ coins of such type are known as *drammas*.

Coins of the same fabric but with different symbols like the bore-incarnation of Vishnu, *Adivaraha* accompanied by the legend *Srimadadivaraha* have been attributed to Pratihara king, Bhoja Deva I of Kanauj (c. 850-900 A.D.), who bore the title *Adivaraha*.

The present coin is almost similar to that of Sri Vighraha reported from Sarnath³⁸. Its occurrence at the place indicated that the site continued to remain under occupation even after third century A.D.

References

1. Coins punched with 1 to 4 symbol groups and cup-shaped local series which do not come under the type of Imperial series bearing five-punched symbol groups, are reported from several sites, as reported in the following publications:-
Durga Prasad, *Numismatic Supplements XLV*, p.9. 1-3, p.12, pl.6-8, p.13, pl.6-8, No.XLVII, p.76; P. L. Gupta, *JNSI XXIV*, pp.134-136; *JNSI*, XXVII, pp. 80-82, pl.XI, 1 & 2; E. H. C. Walsh, *JNSI* II, pp. 15-78, *JNSI* V, p.13-16, plate 1; C. Veldettare, *JNSI XXXIX*, pp.8. 17 ; XL, pp. 82-85; A. S. Alteker, *JNSI* IX, p.1; Nath Sha, *JNSI* III-1, pp.51-52, pl.IVB; Prayag Dayal, *JNSI* III, 1941, pp.140-141 (Presidential Address); D. C. Sircar, *Studies in Indian Coins*, p. 350, pl. II, 10; P. L. Gupta, *Coins*, pp.14-15, pl.1,8 & 9; A. N. Lahiri, *JNSI*, XXXV, pp. 1-38, pl. 1; and J. Allan, *Catalogue of coins from Ancient India*, Part I, pp. 1-10, Introduction, plate XIV and XV.
2. *JNSI XXIV*, pp. 134-136
3. Durga Prasad, Classification and significance of the symbols on the Silver Punch Marked coins of Ancient India, *Numismatics Supplement No. XLV* (for 1934) of the *Journal and Proceedings of the Asiatic Society of Bengal*, Vol. XXX, pl. 1-3.
4. *Ibid*, pls. Nos. 3 and 4 of coins.
5. *Ibid*, pls. 22-24
6. Coin types like bent bar appear to have maintained their individuality and continued to be in circulation along with the imperial series for sometime in Gandhara region.
Durga Prasad, *Numismatics Supplement No. XLVII*, p.77.
7. Though in the beginning Durga Prasad was of the opinion that these coins belonged to 24 *ratti* standard weight of *Purana* group (*NS. XLV*, p.10) he changed his opinion later on and attributed them to *Pada* groups of 25 *ratti* standard weight (*NS. XLVII* p.77)
8. *JNSI* I. XXXIX, p.11

9. These terms have not been used in strict geometrical sense, but as a matter of convenience.
10. For a detailed discussion please see P. L. Gupta, *The Amaravati Hoard of Silver Punch-marked coins*, pp.3 & 4.
11. Gupta, P. L., *The Amaravati Hoard of Silver Punch-Marked coins*, p.149.
12. *Ibid.* p. 145 ff.
13. Kosambi, D. D. *New Indian Antiquary*, IV, pp. 34-35.
14. Gupta, P. L., *op.cit.* pp.110 ff
15. This appears to be the theoretical weight of 32 *rattis* (58-56 gr.) basing on the supposed weight of 1 *rattika* equal to 1.83 grs. by Cunningham. This is, however, very much doubtful, because the coins seldom exceed 54 grains. Similar is the case with most of the hoards found in other parts of the country.
16. Durga Prasad, *op. it.*, pp. 61-62; Gupta, P.L., *op. cit.*
17. John Allan, *Catalogue of Indian coins in British Museum* p. 89, Pl. XI-II
18. D. R. Bhandarkar, *ASIAR 1913-14*, pp. 213, 221, 224, Pl. LXIV, 24 to 26
19. A. M. Shastri, *JNSI*, XXXIII (1971), pp. 112-114, Pl. IV-3
20. John Allan, *JNSI*, LXXIV
21. Altekar and Misra, *Excavations at Kumrahar*, p. 86, S. No.1, P. 94, S. No. 24
22. P. L. Gupta, *Coins*, p.18
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26. S. K. Chakravarti, *Tribal coins of North India, Numismatics Supplement*, Vol. II, (Reprint) pp. 31 ff and p. 32 fn
27. *CIII*, Vol. II, p. 106
28. V. A. Smith, *Catalogue of the coins in Indian Museum*, Calcutta, Vol. I (Oxford 1906), p. 145
29. A. Cunningham, *CAI*, pp. 93- 94, pl. IX 12-17
30. V. A. Smith, *op. cit.* pl. XIX, 17-19
31. J. Allan, *op. cit.*, Introduction, p.89
32. K. D. Bajpai, *Indian Numismatic Studies*, p.96
33. V. A. Smith, *op. cit.*, p.201, pl. XXIII, 2
34. Allan, *op. cit.*, p.285, S. No. 45, pl. XLVI, 7
35. Smith, *op. cit.*, p.150, pl. XIX, 15 & 16
36. A. Cunningham, *Coins of Mediaeval India*, p.49
37. *Ibid.* p. 49.
38. Krishna Kumar, Some Indo-Sassanian coins from Sarnath, *JNSI*, XXXV, pp. 241-245, Coin No. 7, Pl. XVI.

CHAPTER V

BEADS

Of course, inner light of wisdom and perfection should have been treated as the principal requisite of beauty in a human being, it has always been subordinated to physical attractions, which always received maximum attention. Ever since the beginning of existence men and women, more so the latter, have made vigorous attempt to enchant people by their physical attractions. Besides multiple varieties of cosmetics and drapery to enhance the glamour of the physical appearance, ornaments adorning different parts of the body worked as the simple but most appealing aid. Amongst all ornaments brought in use by human beings from time immemorial, beads can be treated as the simplest, commonest and the oldest. They were used both by the elite class as well as the lower class of people in the society, the distinction between the two being the preciousness of the material of which the bead was manufactured.

Beads in various materials happen to be the most popular ornament recovered from the excavations. Since the poorer class of people far outnumber the elite class, terracotta beads, being the cheapest, were the largest in number. As many as eight hundred and fourteen beads of terracotta were collected from the excavations, both at Ganwaria and Piprahwa. The plasticity of material for producing any shape depending on the liking of the people and easy availability, besides the low cost within the means of common man, were various factors responsible for the popularity and general appeal for beads in terracotta. A clear picture of their distribution in different levels of occupation has been presented in the chart at the end.

The limited area of operation in the cultural deposits of Period I yielded twenty-nine terracotta beads. Two hundred and twenty-nine beads were encountered in Period II. The largest share went to Period III accounting for three hundred and seventy-five beads. One hundred and eighty-one beads were recovered from the occupation of Period IV. As a whole, the beads were of different shapes and design for which different techniques were adopted. Amongst the shapes, noteworthy are vase-shaped, areca-nut-shaped, spherical, globular, barrel, cylindrical, tubular, drum-shaped, disc-shaped and pendant beads of various types. Wheel-turned, moulded and hand-made were the three methods adopted for manufacturing the beads. The method or technique depended on the needs and requirements for particular shapes and designs.

In general fine clay was used for manufacturing the beads. Special care was taken while

selecting the clay for areca-nut and vase-shaped beads for which fine-grained alluvial soil brought by the streams was available. Vase-shaped beads of different size and shape happen to be the most popular variety and dominate the entire occupation right from the earliest times. In addition, four areca-nut shaped and a single specimen of hand-made truncated bicone bead of irregular surface were found in Period I. Both the varieties were fired in closed kiln under reducing conditions to produce a grey-coloured surface.

Vase-shaped beads are angular or circular in shape with disc-like or collared rim and truncated or ringed bottom. They are invariably fired under oxidized condition resulting in a red-coloured surface occasionally treated with a slip or wash. A few specimens with a black fabric bear the testimony of a closed kiln firing under reducing conditions. A large regular perforation has been used in all the specimens of vase-shaped beads.

Areca-nut-shaped beads happen to be the next in order of popularity. They are made invariably of fine clay on a fast wheel and baked very well in a closed kiln under reducing conditions resulting in a black smoky-grey or grey surface. Some of these beads have been treated with a slip or wash, a restricted number having been further burnished. The beads have a flat, concave or convex bottom and truncated top and bear close striation marks. Amongst areca-nut-shaped beads, red-coloured surface as a result of firing under oxidized conditions is rarely found.

Next in number are the spherical beads of various size. They are hand-made with an irregular surface, generally baked in closed kiln under reducing conditions to present smoky-grey or black surface. They are generally devoid of any surface treatment. Specimens of bead baked under oxidized conditions resulting in a red surface are not altogether absent. Some of them exhibit a red slip coating on the surface.

The pendant beads are of different shape namely crescent, tubular, cylindrical, or bar-like with perforation at both the ends. A cylindrical circular pendant bead has got perforation on the top only, which indicates that it was meant for suspension. A red-shaped pendant bead having extended ends at bottom has been provided with a socket-hole, besides a longitudinal perforation. Another pendant bead with six sides has got perforation across, in addition to a large socket-hole. All the pendant beads are largely hand-made and fired both in a closed kiln under reducing conditions producing grey surface as well as under oxidized conditions resulting in a red surface. The latter is occasionally devoid of any treatment.

The perfect skill exhibited by the globular beads with smooth round surface, varieties in barrel, cylindrical, tubular and drum-shaped beads and the mould-made specimens, like one truncated bicone tubular, one short truncated convex bicone disc bead and pendant beads of different variety bear ample testimony to the artistic of the people.

Illustrated Specimens (pl. LVII A)

1. A hand-made cylindrical pendant bead with flattened extended corners and perforated ends. Made of fine clay, treated with a chocolate slip and well-baked under oxidized condition. From the upper level of Period III.
2. A hand-made crescent-shaped pendant bead of irregular section. Made of fine clay and well-baked under oxidized conditions. Perforation at the end. Broken at the centre. From the lower level of Period II.
3. A hand-made reel-shaped pendant bead with extended ends at bottom to make it reverse 'T' shaped, circular longitudinal perforation and an extra socket-hole from one side. Made of fine clay and well-baked at high temperature under reducing conditions resulting in grey colour. From the upper level of Period IV.
4. A hand-made cylindrical circular pendant bead with a flat top for large regular perforation for suspension. Made of fine clay and well-baked. Lower part damaged. From the upper level of Period II.
5. A pear-shaped bead tapering to top with a truncated ring-shaped apex and slightly convex bottom. Concentric lines are there all around the body. It is made of fine clay, treated with a red slip and well-baked. From the lower level of Period IV.
6. A hand-made short cylindrical circular bead with concavo-convex sides. It is made of fine clay, treated with a red polish and well-baked. From the middle level of Period III.
7. A small-sized spherical bead. From the lower level of Period IV.
8. An areca-nut-shaped bead with a flat bottom. It is made of fine clay and fired under oxidized conditions. From the middle level of Period III.
9. A hand-made disc bead of circular shape. It is made of fine clay and well-baked. From the upper level of Period III.
10. A hand-made convex bicone disc bead of circular shape. It is made of fine clay, treated with a red slip and well-baked. From the middle level of Period IV.
11. A miniature globular bead in grey colour, partly damaged. From the lower level of Period IV.
12. A hand-made bead of hemispherical shape with a concave bottom. It is made of fine clay and well-baked under reducing conditions resulting in a grey surface. From the lower level of Period III.
13. A hand-made medium sized spherical bead. Fired under oxidized conditions. From the middle level of Period III.

14. Similar to no. 13 with an irregular surface. From the upper level of Period III.
15. A hand-made small-sized spherical bead. From the lower level of Period III.
16. A hand-made small-sized spherical bead. It is made of fine clay, treated with a red slip and well-baked. From the upper level of Period III.
17. A hand-made long barrel circular bead with perforated ends, one of them being damaged. It is made of fine clay and well-baked. From the lower level of Period II.
18. A hand-made tubular bead. From the middle level of Period III.
19. A hand-made long barrel circular bead with perforated ends, one of them being damaged. From the lower level of Period III.
20. A hand-made long barrel circular bead with perforated ends. From the lower level of Period III.
21. A hand-made tubular bead of an irregular shape. It is made of fine clay, treated with a yellow slip and well-baked at high temperature under reducing conditions resulting in a grey colour. From the middle level of Period III.
22. A variant of no. 19. From the lower level of Period III.

(pl. LVII B)

1. A cylindrical circular pendant bead with a slightly out-curved flattened concave bottom. There is perforation against the cylindrical body for suspension. It is made of fine clay, well-baked under oxidized conditions leading to red colour. It is also treated with red slip. From the lower level of Period III.
2. A hand-made barrel-shaped bead with an irregular surface. It is made of fine clay, treated with a red slip and not well-baked. From the middle level of Period III.
3. A vase-shaped medium-sized circular bead with a damaged rim. It is made of fine clay and fired under oxidized conditions. From the lower level of Period III.
4. A large pear-shaped bead with a flat bottom bearing string-cut marks. The top is truncated. It is made of fine clay, treated with a red slip and well-baked under oxidized conditions. From the middle level of Period II.
5. A vase-shaped annular bead with an internally bevelled rim, deeply grooved constricted neck and flat ring-bottom. It is made of fine clay, treated with a fine red polish and well-baked under oxidized conditions. From the middle level of Period II.
6. A vase-shaped annular bead with a disc-like rim and flat ring bottom. It is made of fine clay, treated with a bright red slip and fired under oxidized conditions. From the middle level of Period II.

7. A vase-shaped short circular bead with disc-like rim and truncated flat bottom. It is made of fine clay treated with a red slip and fired under oxidized conditions. From the middle level of Period III.
8. A vase-shaped standard circular bead with an internally bevelled rim. It is made of fine clay, treated with bright red polish and fired under oxidized conditions. From the lower level of Period III.
9. A vase-shaped standard annular bead with an internally bevelled rim and deeply grooved constricted neck. It is made of fine clay, treated with a red slip and fired under oxidized conditions. From the upper level of Period III.
10. A miniature vase-shaped annular bead, partly damaged internally bevelled rim and flat ring-bottom. It is made of fine clay, treated with a red slip and fired under oxidized conditions. From the middle level of Period II.
11. A vase-shaped short annular bead with an internally bevelled rim, deeply grooved constricted neck and concave bottom. It is made of fine clay, treated with a red slip and well-fired under oxidized conditions. From the middle level of Period I.
12. A vase-shaped annular bead with an internally bevelled rim, grooved constricted neck and sharp-cut flat bottom. It is made of fine clay, treated with a red slip and well-fired under oxidized conditions. From the middle level of Period I.
13. A vase-shaped bead with a collared rim, pear-shaped profile and flat bottom. It is made of fine clay, but not well-fired. From the lower level of Period III.
14. A vase-shaped medium-sized circular bead with a disc-like rim, constricted neck and flat truncated base. It is made of fine clay, treated with a red slip and fired under oxidized conditions. From the upper level of Period II.
15. A vase-shaped bead with a disc-like rim and truncated bottom. It is made of fine clay mixed with mica particles and fired under oxidized conditions. From the middle level of Period II.
16. A vase-shaped bead with a disc-like rim, globular profile and flat bottom. It is made of fine clay, but ill-fired. From the lower level of Period III.
17. A vase-shaped standard circular bead with a collared rim and truncated flat bottom. It is made of fine clay, treated with a red slip and fired under oxidized conditions. From the lower level of Period III.
18. A vase-shaped standard circular bead with a collared rim and flat bottom. It is made of fine clay, treated with a fine red slip and fired under oxidized conditions. From the lower level of Period I.

19. Similar to no. 18, but miniature in size. From the lower level of Period I.
20. A vase-shaped circular bead with a collared rim, globular profile and flat bottom. It is made of fine clay, treated with a red slip and fired under oxidized conditions. From the lower level of Period III.

(pl. LVIII A)

1. A vase-shaped annular bead with an inconspicuous disc-like rim. It is made of fine clay, well-baked at high temperature under reducing conditions leading to a smoky-grey surface. From the lower level of Period III.
2. A hand-made small-sized spherical bead. It is made of fine clay, well-baked at high temperature under reducing conditions resulting in a grey colour. From the middle level of Period III.
3. A hand-made small-sized spherical bead. It is made of fine clay, well-baked at high temperature under reducing conditions leading to a grey colour. From the middle level of Period III.
4. A hand-made solid cubical pendant bead with six sides, trapezoid in section and round sides, bearing cross perforations and a socket hole over the apex (fifth side). It is made of fine clay and well-baked at high temperature under reducing conditions resulting in a smoky-grey colour. From the middle level of Period IV.
5. An areca-nut-shaped bead with truncated tapering top, concentric lines incised all around the body and concave bottom. It is made of fine clay, treated with a black slip and well-baked at high temperature under reducing conditions. From the middle level of Period IV.
6. An areca-nut-shaped bead with a slightly concave base and apex. Made of fine clay, treated with a fine ashy-grey polish and baked at high temperature. From the upper level of Period I.
7. A miniature globular bead. From the lower level of Period III.
8. An areca-nut-shaped bead with a concave base and truncated apex. It is made of fine clay and treated with a fine black polish. From the upper level of Period II.
9. A vase-shaped bead with a disc-like rim with mica particles and fired under oxidized conditions. From the middle level of Period I.
10. A hand-made medium-sized spherical bead. It is made of fine clay and well-baked. From the middle level of Period III.
11. A variant of no. 10. From the upper level of Period III.
12. Another variant. From the middle level of Period III.

13. Yet another variant. From the lower level of Period IV.
14. Another variant, smoky-grey in colour. From the middle level of Period III.
15. A medium-sized globular bead. From the upper level of Period II.
16. A variant of no. 10 with irregular perforation. It is blackish in colour. From the upper level of Period III.
17. A hand-made elongated drum-shaped bead, circular in shape. It is made of fine clay and well baked at high temperature under reducing conditions resulting in a smoky-grey surface. From the lower level of Period III.
18. A variant of no. 10 fired under oxidized conditions. From the upper level of Period II.
19. A hand-made small-sized globular bead. It is made of fine clay, treated with a grey polish and well-baked at high temperature under reducing conditions resulting in a smoky-grey colour. From the upper level of Period III.
20. A hand-made long truncated bicon circular bead. It is made of fine clay and well-baked at high temperature under reducing conditions leading to a smoky-grey colour. From the lower level of Period III.
21. A hand-made elongated cylindrical drum-shaped circular bead. Made of fine clay and well-baked at high temperature under reducing conditions resulting in grey surface. From the lower level of Period III.
22. A hand-made small-sized short truncated convex bicon circular bead. It is made of fine clay and well-baked at high temperature under reducing conditions resulting in smoky-grey surface. From the middle level of Period IV.
23. A mould-made long truncated bicone tubular bead. It is made of fine clay mixed with mica particles and ill-baked smoky-grey surface. From the middle level of Period IV.
24. A hand-made drum-shaped bead with a circular uneven surface. Made of fine clay and well-baked at high temperature under reducing conditions resulting in a grey surface. From the middle level of Period I.

Terracotta Beads

Period I			Period II			Period III			Period IV		
L	M	U	L	M	U	L	M	U	L	M	U
3	9	17	35	90	104	150	107	108	81	59	41
29			229			375			181		

Beads in other Materials

Beads in materials other than terracotta were not so common, since the number of the people who could afford to use them were restricted. The other materials included the precious stones as well, which were rarest in number on account of their value, scarce availability and difficult manufacturing. It was, therefore, beyond the capacity and means of common folk to think of bringing beads of precious stones in their use. The privilege of their use depended on the economic condition and status of the individual in the society. The general condition of the society could be easily gauged by the number of beads in precious stones in comparison to those in terracotta or other cheaper material.

The excavations at Piprahwa-Ganwaria yielded 275 beads in various materials, a limited number of them in precious stones. Beads of copper have been dealt with separately under metal objects. The total number of beads in other materials included nineteen pendant beads. Amongst them, four were from Period I, one from the lower, two from the middle and one from the upper levels. The total number of beads in Period II were 54, twenty being from the lower, twenty-three from the middle and the rest eleven from the upper levels. With a total number of 154 beads in Period III, eighty were found in the lower levels and thirty seven each in both middle and upper levels. In Period IV there were only 63 beads, twelve occurring in the lower, nine in the middle and forty-two in the upper levels, which included the surface collection as well.

The materials used for manufacturing the beads in semi-precious stones were carnelian, agate, crystal, quartz, onyx, sardonyx, jasper, chalcedony, schist (touch stone), faience, amethyst and heliotrope. Glass, ivory, coral, paste and soapstone were the other materials used for the purpose. Special care was taken to select the material for a particular type and shape of the bead, which clearly exhibits the skill and expertise in bead-making technology. The absence of waste materials and occurrence of only three specimens of unfinished beads, two in schist and one in glass, make it evidently clear that Piprahwa-Ganwaria was not a factory site for mass production of beads. However, it cannot be said that the inhabitants of the place were completely ignorant regarding the process of bead-manufacturing. The occurrence of a polishing stone with different sizes of grooves and channels indicates that beads could be cut and polished according to the requirement and taste of the people by the local artisans. One of the glass beads with vertical projected grooves on upper surface prepared out of a mould and found at Rajghat in Period III as well is a very good evidence to establish some sort of relationship between the two sites.

Beads of glass, carnelian, agate and crystal were more in number, accounting for eighty-seven, sixty-six, thirty-nine and twenty-one respectively. Of the rest sixty-two beads, ten were produced in onyx; eight each in chalcedony and paste, seven each in sardonyx, jasper and ivory, four each in coral and quartz and heliotrope, faience, amethyst and soapstone, one each. The total number of beads in Period IV (upper levels) multiplied by the inclusion of surface collections, though the

frequency as a whole is far less as compared to the preceding periods. Period III at Ganwaria has yielded the maximum number of beads and pendants in all materials. Faience, onyx, carnelian, and glass with a single specimen in each were represented in Period I.

Glass beads account for the largest in number. Of the total eighty-seven beads collected from all the Periods, one was from Period I (upper level); nineteen from Period II; fifty-two from Period III and rest fifteen from Period IV. Amongst the common shapes represented were spherical (inclusive of standard circular, oblate and ellipsoid), barrel, cylindrical, multifacet geometrical, convex bicone/cone inclusive of flattened opposite sides, disc beads of different shapes inclusive of collared variety and other beads like eye-shaped and elongated vase-shaped.

Carnelian in semiprecious variety happens to be the next in order of frequency, the total number being sixty-six. Like glass, carnelian also figured in all the periods. Occurring right from the middle levels of Period II with a long cylindrical square bead, it continued in Period II with seventeen specimens, eight in the lower and nine in the middle levels. Period III yielded twenty-eight carnelian beads, of which fifteen, five and eight were recovered respectively from the lower, middle and upper levels. The rest twenty were from Period IV, of which a large number of thirteen happened to be surface collection. Of the other seven, four were from lower and three from the middle levels. The major shapes in carnelian were spherical, mostly standard circular; convex bicone; cone inclusive of flattened opposite sides; pendant, mostly of dagger shape, cylindrical; barrel; disc beads of different shapes; and etched beads exhibiting designs like hollow cross and circles, bands and dots arranged in spiral circle. Carnelian happened to represent maximum number of pendants and beads of etched variety.

Agate was next in order of popularity with a total number of thirty-nine beads. Amongst them twenty-one specimens figure in Period III and the rest eighteen equally divided in between Periods II and IV of the site. The common shapes of bead in agate were barrel accounting for twelve; convex bicone/cone inclusive of flattened opposite sides, nine; spherical of standard circular oblate and ellipsoid, seven; cylindrical, pendant, etched bead, two each; and geometrical, one.

Crystal had twenty-one beads to its credit, out of which four occurred in Period II, three in the middle and one in the upper levels; fourteen in Period III, five each in the lower and middle and four in the upper levels; three in Period IV, two in the lower and one in the upper levels. The main shapes in crystal were confined to convex bicone/cone and barrel, seven each; geometrical, three; cylindrical, two; spherical and disc, one each.

Onyx, like carnelian, was the other semi-precious stone which was represented in all the periods of the site. Of the total ten beads, one each occurred in the middle levels of Period I and lower levels of Period II; five in Period III, four from the lower and one from the upper levels; and three from Period IV, all from the upper levels. The principal shapes were restricted to barrel (six); pendant (three), all of them being leech-shaped; and convex bicone (one).

8. Long, cylindrical, circular, etched carnelian bead. From the lower level of Period II.
9. Prominent-ridged dagger-shaped pendant carnelian bead with suspended pointed end, made of carnelian. From the lower level of Period IV.
10. Prominent-ridged dagger-shaped pendant carnelian bead with suspended pointed end. From the upper level of Period III.
11. Ridged dagger-shaped pendant bead with suspended pointed end in carnelian. From the upper level of Period III.
12. Prominent-ridged dagger-shaped pendant carnelian bead with suspended pointed end. From the upper level of Period III.
13. Prominent-ridged dagger-shaped pendant agate bead with suspended pointed end. From the middle level of Period II.
14. Long, tapering, cylindrical, circular pendant bead of chalcedony. Perforation on the thicker end. From the middle level of Period III.
15. Long, barrel, circular, etched carnelian bead carrying a design of two lines. From the middle level of Period III.
16. An amulet pendant bead of an axe shape in agate. From the lower level of Period III.
17. Cylindrical disc bead made out of carnelian carrying an etched design of two lines. From the lower level of Period III.
18. Semi-circular, disc, barrel, pendant bead of carnelian with double perforation. From the lower level of Period III.
19. Semi-circular, disc-shaped pendant in carnelian with double perforation end truncated segment section. From the middle level of Period II.
20. Square, disc-bead in carnelian with diagonal perforation, hollow cross-etched design within a border. From the middle level of Period II.

(pl. LIX A)

1. Long, barrel, circular, agate bead with banded lines. From the lower level of Period III.
2. Long; barrel, circular, heliotrope bead. From the middle level of Period III.
3. Long, barrel, circular, agate bead. From the lower level of Period III.
4. Standard cube (square) with corners chopped off into triangles to make it twelve-faceted. It is made of agate. From the lower level of Period IV.
5. Long, barrel, circular agate bead. From the upper level of Period III.

BEADS

6. Long, truncated bicone, hexagonal bad in agate. From the lower level of Period III.
7. Long, barrel, triangular agate bead. From the lower level of Period III.
8. Long, barrel, circular etched bead of paste. From the upper level of Period IV.
9. Long, barrel, triangular onyx bead. From the upper level of Period IV.
10. Long, cylindrical, circular coral bead with double grooved neck on one end, the other being damaged. From the upper level of Period III.
11. Long, cylindrical, circular agate bead. From the lower level of Period III.
12. Long, convex bicone, hexagonal agate bead with opposite flattened sides. From the upper level of Period IV.
13. Long, barrel, square onyx bead. From the upper level of Period IV.
14. Short, truncated, convex bicone, triangular onyx bead. From the upper level of Period III.
15. Long, barrel triangular agate bead with banded lines. From the middle level of Period IV.
16. Long, convex, bicone, hexagonal agate bead. From the middle level of Period III.
17. Long, convex, bicone, hexagonal agate bead with two opposite flattened sides. From the lower level of Period II.
18. Long, barrel, circular onyx bead with alternate bands of white and black. From the lower level of Period III.
19. Long, barrel, circular onyx bead. From the lower level of Period III.
20. Long, truncated, convex, bicone, hexagonal agate bead with two opposite flattened sides. From the middle level of Period IV.
21. Standard barrel, circular agate bead with banded lines. From the lower level of Period II.
22. Standard barrel, circular onyx bead. From the upper level of Period IV.
23. Standard circular agate bead. From the lower level of Period II.
24. Short, truncated, convex cone, square agate bead. From the lower level of Period II.

(pl. LIX B)

1. Standard circular eye bead of glass. From the middle level of Period III.
2. Standard circular bead with naturally formed eye design in sardonyx. From the lower level of Period IV.
3. Standard circular eye bad of agate. From the middle level of Period III.

4. Standard circular chalcedony bead with eye design. From the lower level of Period III.
5. Standard circular sardonyx bead with etched design of white dots arranged in spiral circles. From the upper level of Period IV.
6. Standard circular carnelian bead. From the upper level of Period III.
7. Standard circular chalcedony bead. From the middle level of Period II.
8. Standard circular carnelian bead with etched design of white dots arranged in spiral circles. From the lower level of Period III.
9. Standard circular carnelian bead. From the lower level of Period II.
10. Short oblate, circular carnelian bead. From the lower level of Period III.
11. Standard circular carnelian bead. From the upper level of Period IV.
12. Short oblate, circular carnelian bead. From the middle level of Period II.
13. Standard circular chalcedony bead. From upper level of Period III.
14. Standard circular sardonyx bead with natural design of circles. From the lower level of Period IV.
15. Standard circular carnelian bead. From the upper level of Period IV.
16. Standard circular chalcedony bead. From the middle level of Period III.
17. Standard circular agate bead with natural designs. From the lower level of Period III.
18. Short, barrel, circular carnelian bead. From the lower level of Period III.
19. Standard circular carnelian bead. From the middle level of Period II.
20. Standard circular chalcedony bead. From the middle level of Period III.

(pl. LX A)

1. Standard circular paste bead. From the middle level of Period III.
2. Short, cylindrical, rectangular bead of glass with corners chopped off to make it twelve-faceted. From the middle level of Period III.
3. Short, cylindrical, square paste bead with corners chopped off in triangular shape to make it twelve-faceted. From the middle level of Period III.
4. Short, oblate, circular ivory bead. From the middle level of Period III.
5. Standard, circular melon glass bead with vertical grooves all around, prepared-out of mould with cut marks on either end. A gold paint above the surface is superimposed by another glass coating. From the lower level of Period III.

BEADS

6. Standard barrel, circular paste bead. From the upper level of Period III.
7. Standard ellipsoid, circular ivory bead. From the lower level of Period II.
8. Long ellipsoid, circular, lug collared glass bead with golden coating over the surface. From the middle level of Period II.
9. Standard circular paste bead. From the middle level of Period IV.
10. Standard convex bicone, square ivory bead. From the upper level of Period IV.
11. Short, truncated convex, bicone paste bead. From the upper level of Period IV.
12. Standard barrel, circular paste bead. From the lower level of Period III.
13. Standard cylindrical, circular paste bead. From the lower level of Period III.
14. Roughly triangular agate disc bead with rounded corners. From the lower level of Period II.
15. An oblate disc bead of agate. From the middle level of Period III.
16. Short, truncated, convex cone, irregular circular soapstone bead. From the lower level of Period III.
17. Elongated vase-shaped bead of glass. From the middle level of Period IV.
18. Long, cylindrical, square glass bead. From the upper level of Period IV.
19. Oblate, disc ivory bead with circular section. From the middle level of Period IV.
20. Long barrel, circular ivory bead. From the lower level of Period III.

(pl. LX B)

1. Standard oblate, circular, unfinished bead (without perforation), made of schist. From the upper level of Period III.
2. Scaraboid pendant bead with a truncated and segmented section in schist. From the lower level of Period IV.
3. Standard, truncated bicone, pentagonal jasper bead cut into ten facets. From the upper level of Period III.
4. Standard ellipsoid circular, unfinished bead (without perforation) of schist. From the upper level of Period III.
5. Long, leech-shaped pendant bead of onyx. From the lower level of Period III.
6. Long, leech-shaped pendant bead of onyx with thread design in concentric lines. From the lower level of Period III.

7. Long, barrel, hexagonal agate bead. From the upper level of Period IV.
8. Short barrel, irregularly circular agate bead. From the upper level of Period II.
9. Standard barrel, circular glass bead. From the lower level of Period II.
10. Long leech-shaped lenticular onyx pendant bead. From the middle level of Period I.
11. Standard barrel, circular ivory bead. From the middle level of Period II.
12. Short barrel, circular agate bead. From the lower level of Period III.
13. Circular, disc micro bead of agate. From the lower level of Period III.
14. Ellipsoid, circular glass bead. From the lower level of Period III.
15. Long, ellipsoid, circular agate bead with white-etched designs of spiral circle. From the middle level of Period III.
16. Long barrel, circular agate bead. From the middle level of Period II.
17. Standard cylindrical, circular glass bead. From the lower level of Period II.
18. Short barrel, circular onyx bead. From the lower level of Period II.
19. Standard convex bicone, square agate bead. From the upper level of Period IV.
20. Long barrel, circular glass bead. From the lower level of Period III.

(pl. LXI A)

1. Short barrel, circular glass bead. From the lower level of Period III.
2. Standard cylindrical, circular glass bead. From the lower level of Period II.
3. Short barrel, circular glass bead. From the lower level of Period III.
4. Short truncated convex cone, circular glass bead. From the lower level of Period III.
5. Standard cylindrical, circular glass bead. From the lower level of Period III.
6. Standard circular glass bead. From the upper level of Period III.
7. Short barrel, circular, micro bead of glass. From the upper level of Period IV.
8. Short barrel, circular glass bead. From the middle level of Period III.
9. Short barrel, circular glass bead with red colour coating over the surface. From the lower level of Period III.
10. Standard convex cone, square glass bead. From the lower level of Period II.
11. Long cylindrical, circular glass bead. From the upper level of Period III.

BEADS

12. Short barrel, circular agate bead. From the upper level of Period IV.
13. Standard circular glass bead (without perforation). From the upper level of Period II.
14. Short cylindrical, circular, micro glass bead. From the lower level of Period III.
15. Short oblate, circular, micro glass bead. From the middle level of Period III.
16. Standard cylindrical, circular glass bead. From the middle level of Period II.
17. Short barrel, circular glass bead. From the lower level of Period III.
18. Short oblate, circular glass bead. From the upper level of Period III.
19. Standard cylindrical, circular jasper bead. A micro specimen of its class. From the lower level of Period III.
20. Short cylindrical, circular glass bead. From the lower level of Period III.

(pl. LXI B)

1. Lozenge-type standard truncated, convex bicone, square glass bead. From the lower level of Period II.
2. Long truncated, convex bicone, circular glass bead. From the level of Period II.
3. Standard truncated, convex bicone, square glass bead. From the lower level of Period III.
4. Standard truncated, convex cone, circular glass bead. From the upper level of Period III.
5. Standard convex bicone, square glass bead. From the lower level of Period III.
6. Ellipsoid circular glass bead. From the middle level of Period III.
7. Standard cub made of glass with cut and rounded corners to make it twelve-faceted: From the upper level of Period III.
8. Standard circular glass bead. From the lower level of Period III.
9. Long barrel, hexagonal glass bead. From the middle level of Period II.
10. Long barrel, hexagonal glass bead. From the upper level of Period IV.
11. Long barrel, square, lug-collared glass bead. From the middle level of Period III.
12. Standard triangle-shaped glass bead, six faceted, hexagonal in section. From the upper level of Period I.
13. Elliptical-shaped glass bead, rectangular and lug-collared. From the upper level of Period IV.
14. Oblate-shaped disc glass bead with a rectangular section. From the middle level of Period III.

15. Long barrel, square glass bead. From the lower level of Period IV.
16. Barrel-shaped disc bead with lug-collar ends made out of glass. From the lower level of Period III.
17. Long cylindrical, circular, lug-collared glass bead. From the middle level of Period II.
18. Long cylindrical, circular, one side lug-collared bead of glass. From the upper level of Period III.
19. Long barrel, circular, lug-collared glass bead. From the lower level of Period III.
20. Long cylindrical, circular, lug-collared glass bead. From the upper level of Period III.

(pl. LXI C)

1. Standard barrel, circular jasper bead. From the lower level of Period III.
2. Long barrel, circular jasper bead. From the upper level of Period IV.
3. Carnelian disc bead, truncated, convex bicone bicone and hexagonal. From the lower level of Period II.
4. Short barrel, circular jasper bead. From the upper level of Period III.
5. Standard truncated, convex bicone, square carnelian bead. From the lower level of Period II.
6. Short truncated, convex bicone, square carnelian bead. From the upper level of Period III.
7. Standard convex bicone, square carnelian bead. From the upper level of Period IV.
8. Standard truncated, convex bicone, square carnelian bead. From the upper level of Period IV.
9. Short convex cone, circular carnelian bead. From the upper level of Period IV.
10. Short truncated, convex bicone, hexagonal carnelian bead. From the upper level of Period IV.
11. Standard truncated, convex bicone, square carnelian bead. From the middle level of Period III.
12. Irregular spheroid sardonyx bead. From the upper level of Period IV.
13. Short barrel, circular chalcedony bead. From the lower level of Period III.
14. Long cylindrical, circular coral bead. From the upper level of Period III.
15. Standard cylindrical, circular coral bead. From the lower level of Period III.
16. Short truncated, convex bicone, triangular carnelian bead. From the upper level of Period III.
17. Short oblate circular jasper bead. From the upper level of Period III.
18. Standard convex bicone, triangular carnelian bead. From the lower level of Period III.

19. Standard truncated, convex bicone, triangular carnelian bead. From the upper level of Period IV.
20. Long cylindrical, circular, lug-collared carnelian bead. From the lower level of Period III.
21. Short cylindrical, circular jasper bead with wider perforation to make it a ring bead. From the middle level of Period III.
22. Short oblate, circular chalcedony bead. From the upper level of Period III.
23. Short barrel, cylindrical coral bead with wider perforation to make it a ring bead. From the lower level of Period III.
24. Short barrel, circular coral bead with wider perforation to make it a ring bead. From the lower level Period III.

(pl. LXII A)

1. Long truncated, convex bicone, hexagonal quartz bead with two opposite flattened barrel sides, one being more prominent than the other. From the lower level of Period III.
2. Long cylindrical, square crystal bead. From the middle level of Period III.
3. Long barrel, pentagonal (unsymmetrical) crystal bead. From the lower level of Period II.
4. Long convex bicone, irregular, hexagonal crystal bead. From the lower level of Period III.
5. Short truncated, convex bicone, heptagonal crystal bead. From the lower level of Period IV.
6. A disc crystal bead with six sides, two larger ones being pentagonal. From the upper level of Period II.
7. Short truncated, convex bicon, hexagonal crystal bead with two opposite flattened side. From the lower level of Period III.
8. Short oblate, circular chalcedony bead. From the upper level of Period III.
9. Long truncated, convex bicone, hexagonal crystal bead with two opposite flattened sides. From the upper level of Period III.
10. Long truncated convex bicone, hexagonal quartz bead with two opposite flattened sides. From the upper level of Period III.
11. Standard barrel hexagonal crystal bead. From the upper level of Period III.
12. Long barrel, truncated bicone, irregular pentagon crystal bead. From the upper level of Period III.
13. Long barrel, circular crystal bead. From the upper level of Period III.

14. Long cylindrical, pentagonal (irregular) crystal bead. The pentagonal section is arranged in triangle. From the lower level of Period III.
15. Long barrel, hexagonal crystal bead. From the middle level of Period III.
16. Long barrel, crystal bead with irregular circular sides. From the middle level of Period III.
17. Lozenge-type multi-faceted pentagonal, barrel crystal bead. From the upper level of Period III.
18. Standard circular crystal bead. From the middle level of Period II.
19. Standard circular chalcedony bead. From the middle level of Period III.
20. Short convex bicone, circular crystal bead. From the middle level of Period III.

(pl. LXII B)

1. Long cylindrical, square carnelian bead. From the lower level of Period III.
2. Long cylindrical, square carnelian bead. From the middle level of Period I.
3. Long cylindrical, square carnelian bead. From the middle level of Period II.
4. Long cylindrical, square carnelian bead. From the upper level of Period IV.
5. Long cylindrical, square carnelian bead. From the lower level of Period III.
6. Long barrel, circular carnelian bead. From the middle level of Period II.
7. Long cylindrical, square sardonyx bead. From the middle level of Period III.
8. Long barrel, triangular carnelian bead. From the lower level of Period III.
9. Long barrel, circular sardonyx bead. From the upper level of Period II.
10. Long truncated, convex bicone, hexagonal carnelian bead with two opposite flattened sides. From the middle level of Period II.
11. Long cylindrical, square carnelian bead. From the upper level of Period IV.
12. Long convex bicone, hexagonal carnelian bead with two opposite flattened sides. From the upper level of Period III.
13. Long barrel, triangular carnelian bead. From the upper level of Period IV.
14. Short cylindrical, circular carnelian bead. From the lower level of Period II.
15. Long truncated, convex bicone, hexagonal carnelian bead with two opposite flattened sides. From the lower level of Period III.

Period-wise distribution of semi precious stone beads, pendants including glass, ivory, coral, soapstone, paste etc.

S. No.	Material	Period I			Pd. II			Pd. III			Pd. IV			Total
		Lower	Middle	Upper	L	M	U	L	M	U	L	M	U	
1.	Glass	—	—	1	4	7	8	29	11	12	2	1	12	87
2.	Carnelian	—	1	—	8	9	—	15	5	8	4	3	13	66
3.	Agate	—	—	—	6	2	1	14	5	2	1	3	5	39
4.	Crystal	—	—	—	—	3	1	5	5	4	2	—	1	21
5.	Quartz	—	—	—	—	—	—	1	—	3	—	—	—	4
6.	Onyx	—	1	—	1	—	—	4	—	1	—	—	3	10
7.	Heliotrope	—	—	—	—	—	—	—	1	—	—	—	—	1
8.	Sardonyx	—	—	—	—	—	—	—	1	—	2	—	3	7
9.	Coral	—	—	—	—	—	—	2	2	—	—	—	—	4
10.	Ivory	—	—	—	1	1	—	2	1	—	—	1	1	7
11.	Jasper	—	—	—	—	—	—	2	1	3	—	—	1	7
12.	Schist (touch-stone)	—	—	—	—	—	—	1	—	2	1	—	—	3
13.	Paste	—	—	—	—	—	—	2	2	—	—	1	3	8
14.	Faience	1	—	—	—	—	—	1	—	—	—	—	—	1
15.	Chalcedony	—	—	—	—	—	—	2	3	2	—	—	—	8
16.	Amethyst	—	—	—	—	—	—	1	—	—	—	—	—	1
17.	Soapstone	—	—	—	—	—	—	1	—	—	—	—	—	1
G.T.		1	2	1	20	23	11	80	37	37	12	9	42	275
		4			54			154			63			275

SEMI PRECIOUS STONE BEADS

Period-wise/type-wise distribution of beads/pendants in different materials

S. No.	Material	Standard Circular Spheroid					Oblate/Ellipsoid							
		Pd.I	Pd.II	Pd.III	Pd.IV	Pd.I	Pd.II	Pd.III	Pd.IV					
1.	Glass	—	—	3	—	2	—	1	—	3	2	—	—	4
2.	Carnelian	—	1	2	—	2	1	1	—	—	1	—	—	—
3.	Agate	—	1	—	—	4	—	—	—	—	—	—	—	—
4.	Crystal	—	—	1	—	—	—	—	—	—	—	—	—	—
5.	Quartz	—	—	—	—	—	—	—	—	—	—	—	—	—
6.	Onyx	—	—	—	—	—	—	—	—	—	—	—	—	—
7.	Heliodope	—	—	—	—	—	—	—	—	—	—	—	—	—
8.	Sardonyx	—	—	—	—	—	—	1	—	—	—	—	—	—
9.	Coral	—	—	—	—	—	—	—	—	—	—	—	—	—
10.	Ivory	—	—	—	—	—	—	—	—	1	—	—	—	—
11.	Jasper	—	—	—	—	—	—	—	—	—	—	—	—	—
12.	Schist (touch-stone)	—	—	—	—	—	—	—	—	—	—	—	—	—
13.	Paste	—	—	—	—	—	—	1	—	—	—	—	—	—
14.	Faience	—	—	—	—	—	—	—	—	—	—	—	—	—
15.	Chalcedony	—	—	1	—	2	1	—	—	—	—	—	—	—
16.	Amethyst	—	—	—	—	—	—	—	—	—	—	—	—	—
17.	Soapstone	—	—	—	—	—	—	—	—	—	—	—	—	—
		—	2	4	1	10	4	4	3	4	—	—	—	—
		E M L	E M L	E M L	E M L	E M L	E M L	E M L	E M L	E M L	E M L	E M L	E M L	E M L
		—	7	18	10	—	4	12	—	6	—	—	—	

S. No.	Materials	Convex Bicone with Faceted sides				Pendants				
		Pd.I	Pd.II	Pd.III	Pd.IV	Pd.I	Pd.II	Pd.III	Pd.IV	
1.	Glass	—	—	4 1	— 2	—	— 1	1 1	— 1	
2.	Carnelian	—	— 1	1 — 1	—	—	1 1	3 2 3	— 1 1	
3.	Agate	—	1	1 — 1	— 1 1	—	— 1	1 —	—	
4.	Crystal	—	—	—	—	—	—	—	—	
5.	Quartz	—	—	1 —	—	—	—	—	—	
6.	Onyx	—	—	—	—	— 1	—	2 —	—	
7.	Heliotrope	—	—	—	—	—	—	—	—	
8.	Sardonyx	—	—	—	—	—	—	—	—	
9.	Coral	—	—	—	—	—	—	—	—	
10.	Ivory	—	—	—	—	—	—	—	—	
11.	Jasper	—	—	—	—	—	—	—	—	
12.	Schist (touch-stone)	—	—	—	—	—	—	—	— 1	
13.	Paste	—	—	—	—	—	—	—	—	
14.	Faience	—	—	—	—	—	—	—	—	
15.	Chalcedony	—	—	—	—	—	—	— 1	—	
16.	Amethyst	—	—	—	—	—	—	—	—	
17.	Soapstone	—	—	—	—	—	—	—	—	
		—	1 1	3 1 1	— 1 1	— 1	1 2	6 3 3	1 1 1	
		E M L	E M L	E M L	E M L	E M L	E M L	E M L	E M L	
		—	—	—	—	—	—	—	—	
		—	2	5	2	1	3	12	3	
									9	19

E = Early; M = Middle; L = Late

BEADS

S. No.	Materials	Etched Bead									Total			
		Pd. I			Pd. II			Pd. III				Pd. IV		
1.	Glass	—	—	—	—	—	—	—	—	—	—	—	—	87
2.	Carnelian	—	—	—	2	2	—	4	1	—	—	—	—	66
3.	Agate	—	—	—	—	—	—	2	—	—	—	—	—	39
4.	Crystal	—	—	—	—	—	—	—	—	—	—	—	—	21
5.	Quartz	—	—	—	—	—	—	—	—	—	—	—	—	4
6.	Onyx	—	—	—	—	—	—	—	—	—	—	—	—	10
7.	Heliotrope	—	—	—	—	—	—	—	—	—	—	—	—	1
8.	Sardonyx	—	—	—	—	—	—	—	—	—	—	—	1	7
9.	Coral	—	—	—	—	—	—	—	—	—	—	—	—	4
10.	Ivory	—	—	—	—	—	—	—	—	—	—	—	—	7
11.	Jasper	—	—	—	—	—	—	—	—	—	—	—	—	7
12.	Schist (touch-stone)	—	—	—	—	—	—	—	—	—	—	—	—	4
13.	Paste	—	—	—	—	—	—	—	—	—	—	—	—	8
14.	Faience	—	—	—	—	—	—	—	—	—	—	—	—	1
15.	Chalcedony	—	—	—	—	—	—	—	—	—	—	—	—	8
16.	Amethyst	—	—	—	—	—	—	—	—	—	—	—	—	1
17.	Soapstone	—	—	—	—	—	—	—	—	—	—	—	—	1
		—	—	—	2	2	—	6	1	—	—	—	1	275
		E	M	L	E	M	L	E	M	L	E	M	L	
		—			4			7			1			
													12	275

E = Early
M = Middle
L = Late

CHAPTER VI

GLASS BANGLES

Amongst ornaments with which the human beings, particularly the womenfolk, have been adorning themselves to add beauty to their physical appearance, bangles can be considered to be very popular. Though ornaments of different values as a whole have attracted the attention of the ladies right from the beginning of existence, they always attached maximum importance to the bangles in their hand. Besides being treated as very sacred for the married ladies, they were one of the ornaments of distinction of women folk from their opposite sex in ancient times and the tradition as such continues to be alive even now. In Indian tradition widows are not expected to use glass bangles in their hand. Bangles were manufactured of different materials like gold, silver, copper, shell and glass, but the most popular amongst all of them happened to be glass ever since it was invented. Bangles in other materials were meant for special occasions, but even on those special occasions bangles of glass continued to occupy their hand. In general, glass bangles were used by the ladies permanently.

Bangles of glass, though restricted in number, occurred at the ancient site of Ganwaria in all the periods of occupation. In all, the excavations yielded two hundred and thirty-three fragments of glass bangles including the finger ring. Of them the minimum number of nine were recovered from Period I and maximum one hundred and fourteen from Period III. Seventy-five bangles were reported from Period II and the rest thirty-five from Period IV. The occurrence of the bangles in a limited number in Period I can also be accounted for by the limited area exposed during the course of excavation. It is strange that the earliest levels of Period I were bereft of a single glass bangle when the material as such did occur in the lowest deposits. A close study of the glass bangles revealed that Period I yielded only monochrome translucent variety. The limited number of colours available in the variety were light green, blue and orange. Since all of them were reported from middle to upper levels of Period I, they could be easily assigned a date of 7th-6th century B.C. Nagda and Ujjain in Madhya Pradesh have yielded similar variety of bangles from cultural deposits assignable to a date of 6th-5th century B.C. They occurred at Sravasti in Uttar Pradesh in association with the Northern Black Polished Ware. Opaque bangles, as it appeared, were introduced in Period II. They were mostly monochrome, the colour generally being black, though other colours like green of various shades, cream and blue were not altogether absent. A restricted number of bichrome bangles in brown colour over a black surface were also found. The bangles of opaque variety were ornamented in simple brown and yellow bands, a combination of both intertwining with each other over a black base and dot designs often placed within a circle.

In polychrome bangles, ten pleasing colour combinations as found in Period II were very common in Periods III and IV of the site. Grooved design happened to be very popular in monochrome type of bangles. The design was observed both in translucent and opaque varieties, the former being stratigraphically earlier than the latter. The bangles were generally plano-convex, semi-circular and hemispherical in section, though specimens of rectangular, triangular, trapezoidal and pentagonal section were also encountered.

ILLUSTRATED SPECIMENS (pl. LXIII A)

1. Fragment of a glass bangle, opaque, plano-convex in section, bichrome with a red coating over basal black surface. From the lower level of Period III.
2. Fragment of a glass bangle, opaque dark green, semi-circular in section and plain in design. From the middle level of Period IV.
3. Fragment of a glass bangle, translucent, plano-convex in section, bichrome, decorated in a pattern of two parallel bands of light blue and yellowish green colour over an ashy base. From the middle level of Period III.
4. Fragment of a glass bangle, opaque black in colour, plano-convex in section and plain in design. From the middle level of Period IV.
5. Fragment of glass bangle, opaque, hemispherical in section, bichrome with a black upper surface over an ashy base. From the middle level of Period IV.
6. Fragment of a glass bangle, opaque, black in colour, rectangular in section and plain in design. From the upper level of Period II.
7. Fragment of a glass bangle, translucent, sky blue in colour, spheroid in section and plain in design. From the lower level of Period IV.
8. Fragment of a glass bangle, opaque black in colour, pentagonal in section and plain in design. From the upper level of Period III.
9. Fragment of a glass bangle, opaque, hemispherical in section, bichrome with dark green top and ashy sides and base. From the middle level of Period IV.
10. Fragment of a glass bangle, opaque, pentagonal in section, polychrome, decorated with a pattern of oblique dirty white stripes over a black surface. The stripes are further decorated in herring-bone pattern on one side. The other side has also been ornamented with yellow, white, black and blue colours filled in the intervening spaces. From the upper level of Period III.
11. Fragment of a glass bangle, translucent, pentagonal in section, polychrome, decorated in a pattern of six stripes in alternate colours of green and brown, white and green over a light green surface. From the lower level of Period III.

12. Fragment of a glass bangle, opaque, trapezoid in section, polychrome, decorated in a pattern of dark yellow stripe over a light yellow base. The dark yellow stripe has been further ornamented in irregular green and chocolate designs above oblique lines in chocolate colour. From the upper level of Period IV.
13. Fragment of an unsymmetrical glass bangle, opaque, roughly circular in section, bichrome, decorated in a pattern of chocolate stripe on a yellow base. From the upper level of Period IV.
14. Fragment of a glass bangle, opaque dirty white in colour, elliptical in section and plain in design. From the middle level of Period III.
15. Fragment of a glass bangle, opaque, hemispherical in section, bichrome, decorated in pattern of yellow stripe above an ashy band. From the upper level of Period II.
16. Fragment of a glass bangle, opaque, black in colour, rectangular in section, decorated in grooved design on either side forming a ridge in between. From the middle level of Period III.
17. Fragment of a glass bangle, opaque, black in colour, plano-convex in section and plain in design. From the upper level of Period II.
18. Fragment of a glass bangle, translucent, sky blue in colour, plano-convex in section and plain in design. From the lower level of Period II.
19. Fragment of a glass bangle, translucent, deep red in colour with a series of pressed diamond decoration on top. The section is rectangular when cut in the centre of the diamond and triangular when cut near the meeting point of two diamonds. From the middle level of Period I.
20. Fragment of a glass bangle, translucent, dark green in colour, hemispherical in section with incised ribbed decoration on the top. From the upper level of Period I.
21. Fragment of a glass bangle, opaque, black in colour, plano-convex in section and plain in design. From the middle level of Period III.
22. Fragment of a glass bangle, opaque, black in colour, plano-convex in section and plain in design. From the middle level of Period III.
23. Fragment of a glass bangle, opaque, dirty white in colour, semi-circular in section and plain in design. From the lower level of Period III.
24. Fragment of a glass bangle, opaque, black in colour, plano-convex in section, and decorated in a grooved pattern. One of the sides is sharpened, while the other is raised in a semi-circular manner. From the upper level of Period II.

(pl. LXIII B)

1. Fragment of a glass bangle, translucent, light green in colour, semi-circular in section, decorated in a grooved design on the top. From the upper level of Period II.

2. Fragment of a glass wristlet, translucent, light blue in colour, triangular in section and plain in design. From the upper level of Period III.
3. Fragment of a glass bangle, translucent, light green in colour, plano-convex in section and plain in design. From the upper level of Period I.
4. Fragment of a glass bangle, opaque, plano-convex in section, bichrome top carrying decoration in two parallel bands of brown colour over a black surface. From the middle level of Period II.
5. Fragment of a glass bangle, opaque, plano-convex in section, polychrome, top decorated in intertwining bands of brown and yellow colour over a black base. The top is further decorated by a thick block, yellow in colour. From the lower level of Period III.
6. Fragment of a glass bangle, opaque, trapezoid in section, polychrome, decorated in a pattern of dark brown upper surface over an ashy layer. The top dark brown surface is decorated in blue vertical line enclosed by a white circle over a white surface. From the upper level of Period III.
7. Fragment of a glass bangle, opaque, plano-convex in section, polychrome, decorated in a pattern of three parallel bands, chocolate, white and brown in colour over a black surface. From the upper level of Period III.
8. Fragment of a glass bangle, opaque, rectangular in section, polychrome combination of bands in light blue and yellow colours, decorated in a pattern of twine bands in brown and yellow flanked by broad yellow bands. From the upper level of Period III.
9. Fragment of a glass bangle, opaque, dark green in colour, semi-circular in section and decorated in a grooved design on the top, Form the middle level of Period III.
10. Fragment of a glass bangle, opaque, blue in colour, plano-convex in section and decorated in two series of slanting lines on the top. From the upper level of Period III.
11. Fragment of a glass bangle, translucent, blue in colour, semi-circular in section, and plain in design. From the lower level of Period III.
12. Fragment of a glass bangle, translucent, light green in colour, triangular in section and plain in design. From the upper level of Period I.
13. Fragment of a glass finger ring, translucent, light green in colour, hemispherical in section and plain in design. From the upper level of Period III.
14. Fragment of a glass bangle, translucent light yellow in colour, plano-convex in section and plain in design. From the upper level of Period II.
15. Fragment of a glass bangle, opaque, light green in colour, semi-circular in section, decorated in a grooved pattern on top. From the lower level of Period III.
16. Fragment of a glass finger ring, translucent, orange in colour, triangular in section with a pointed ridge on the top, plain in design. From the lower level of Period III.

CHAPTER VII

A HEAD IN RED SANDSTONE

A head of Indra in stone found at Piprahwa speaks of the perfection achieved by the artists in producing art objects in the beginning of the Christian era. Executed in red sandstone, each and every detail of the head have been brought out with a sound knowledge of proportions followed by a masterly skill in presentation. Like a king the tall cap-like crown over the head presents a majestic appearance. The crown, resting over a decorated strap-like band around the head, has been divided into vertical compartments with the help of thick bands. The central compartment is broad and embellished by long criss-cross oblique lines. It is flanked on either side with narrow compartments carrying leaf-like design in relief. The strap-like band around the head is also decorated in an indented pattern between two horizontal bands in relief. A knot-like design can be observed in it, in addition, on either end of the face. Besides the third eye, the facial expression is full of all *lakshanas* (attributes) of a *mahapurusha* (great man). Half-closed eyes, indicative of absorption in meditation, symmetrical and well-proportioned nose, thick lips, blooming cheeks and long ears are all characteristic of a god. The third eye has been shown in a rather unsymmetrical manner. The maximum height of the head is 9.7 cm (pl. LXIV A).

CHAPTER VIII

TERRACOTTA HUMAN AND ANIMAL FIGURINES

A. HUMAN FIGURINES

Terracotta figurines, being a cheap and simple media of expression and within reach of the poor and common man, can be considered to be of immense value in reconstructing the social, cultural, political and religious life of the contemporary people. Terracotta in large quantity have been reported from many sites in north India e.g. Ahichchhatra, Basarh, Besnagar, Bhita, Ghosi, Kausambi, Mathura, Nagari, Pataliputra, Pawaya, Rajghat, Sankisa, etc. No attempt has so far been made by the scholars to study them in proper perspective and make use of them in the manner they actually deserve. Paintings on wall as also sculpture from certain places have been studied by a limited number of scholars to reconstruct the cultural life of the times, but the day is yet to be seen when the terracottas will also receive the same attention. Any study of such a nature may not be possible in the case of those sites, which have yielded a restricted number of terracottas. At the same time the study of such sites, where a large number of terracottas have been brought to light, should not wait for a future date.

Besides being an addition to the long list, the name of the ancient site of Ganwaria, which happened to be the township of the Kapilavastu complex, occupies an outstanding position on account of the rich variety of terracottas in an appreciable large quantity. It should not be far from truth if the ancient site of Ganwaria is called a mine of terracottas on the basis of their number yielded by the recent excavations. The terracotta human figurines from Kapilvastu have been compared with those found at all the sites mentioned above keeping in view particularly the chronological horizon of various varieties.

Though the entire occupational deposit at Ganwaria has been divided into four cultural Periods, the earliest Period I datable between 800 and 600 B.C. is bereft of any terracotta figurine. The lowest levels of Period II, which have been assigned a date between 600 and 200 B.C., are also deprived of the privilege. But for an isolated example from the mid-level, the terracottas in this Period were encountered only in the upper levels dated to third-second centuries B.C. The number of terracottas multiplied several times in the succeeding two Periods III and IV, dated between the two centuries preceding the Christian era and first to third centuries AD respectively.

In spite of the fact that the ancient site of Ganwaria yielded a very large number of terracotta

human figurines, the use of mould does not appear to have been popular enough. Hand-made figurines always occupied an upper hand. It has been a general belief amongst the scholars that hand-made figurines had always had an earlier beginning when compared with those produced with the help of a mould. The common belief, however, does not find favour at Ganwaria, where it has been established beyond doubt that the practice of both making by hand and by moulds went hand in hand at one and the same time.

While classifying the terracotta human figurines from Ganwaria in various groups, both subject and the nature of manufacturing have been taken into consideration. Once a subject was introduced in any Period, the same generally continued in subsequent Periods with a limited number of exceptions. A general practice amongst the scholars, so far, has been to assign a particular date to a particular type of terracotta on the basis of style only. There was hardly any consideration of the stratified levels to which the terracotta belonged. If the style of the terracotta could not be accommodated to the stratified levels which yielded it, the same was placed within a wide time bracket. In the study of the terracottas from Ganwaria, special care has been taken to spell out the date, which could be assigned to a particular piece, on the basis of the stratified levels. Along with it the date worked out at other sites, while undertaking a comparative study, has revealed that the dates arrived at on the basis of style only in several cases will have to be revised, in certain cases drastically.

Terracotta human figurines with tenon at the base, in one form or another, constituted to be maximum in number. *Dampatis* or terracotta figurines with erotic scenes are conspicuous by their absence. The faces are generally broad with the slit of the mouth quite prominent. Though mother and child figurines do occur in a considerable number, the busts of the female figurines are not very prominent. The female figurines are usually having suspended ears with a hold for the ear-lobe. Bird-like pinched faces are familiar enough both in males and females. In the category of warriors, all males, occurring only in Period III, the cross belt and the necklace have been depicted conspicuously. Conical and fan-type head-dresses are common in both male and female figurines. A large number of terracotta figurines are having either a flat base or have been provided with a pedestal. In a restricted number of cases the breasts and the eyes are found to be applied.

As already pointed out the number of terracotta human figurines was the lowest in Period II. Amongst them the number of Crudely Hand-Made Miniature figurines happened to be the maximum. The next position in turn was occupied by the Musicians and Ornamented Plaques. Richly decked, the Ornamented Plaques also include the specimens of mother holding a child in hand. There are instances in which the child is seen touching the breast of his mother. Necklace, bangles, ear-lobes or rings, girdle and anklets are some of the ornaments used by the ladies. Folds of garment are seen falling between the feet. The plaques are prepared with the help of a mould. Female figurines keeping one of their hands on the hip also find a place in the plaques in the later Period III. Amongst the Moulded Heads a single specimen from Period II representing a toilet scene deserves a special mention (pl. LXVI B). The lady is seen in the terracotta piece holding a mirror in her hand. All the

details of the toilet scene have been carefully brought out with the help of lines in relief. The lady is seen in a reclining position. A distinct variation in the moulded heads was observed in Period III. The female figurines covered their head either with a veil or coiffure-like head-dress. In one case the figure might be of a goddess on account of the halo round the head.

Besides keeping themselves busy in the routine affairs of daily life, the inhabitants during the times of Period II also took part in entertainments like music. The musicians were generally squattish male figures holding cymbals in their hands. The mouth and the eyes were applied around the pinched nose. A hilarious expression is presented by them. The hair was generally dressed up in a conical knot-like fashion above the head. This style was common both amongst males and females. Ears were generally suspended on account of the heavy ornament worn in them. In addition to ear ornament, the ladies were fond of wearing necklace, bangles, heavy girdle and anklets. Multiplication in the variety of musicians was followed by the art of dancing as an entertainment in Period III. Dancing was not confined to ladies only. They enjoyed dancing with males as is evident from the male and female shown alternately with the hand of one into the other (pl. LXXIX B). The figures in the dancing terracottas are dwarfish and their head-dress is fan-shaped. With suspended ears the face is bird-like and the facial features are not distinctly marked, but for the slit mouth. There is an indented necklace round the neck. The fingers of the feet have been indicated by grooves. The figures have been shown on a pedestal.

With the multiplication of number of terracottas in Period III many other new varieties were also introduced. There was an over-all improvement in the finish of the terracottas. All the earlier types reported from Period II were repeated in this Period as well with a little variation in number. Musicians, Moulded Heads and Female Torso with suspended ears occurred in a larger number. With a single specimen in Period II, the number of Crudely Hand-made Heads with a Tenon at the base mounted several times (pl. L XIX). Generally females were represented in terracottas of this variety, though male heads are not altogether absent. The female heads have normally a raised fan-shaped head-dress decorated in oblique slashes. The eyes have been indicated with the help of incision and relief. Sometimes the eyes have been shown with the help of grooves. The mouth finds an expression by a slit. Moulded Plaques introduced for the first time in Period III were equally popular. Amongst the Moulded Plaques, the figures normally are of a female in standing position with a very limited number of male representation (pl. LXV B). Though the finish of the Moulded Heads is not of a high order, they happen to be an important variety of terracotta from Ganwaria. Ornaments like necklace, bangles, anklets do appear on the female figures, but they are not so richly decorated as those in the category of Ornamented Plaques. The folds of garment can be seen falling between the feet.

A study of the terracottas from Period III reveals that the general condition of the people in those days was much more prosperous as compared to the times of Period II. Increase in the wants of man is undoubtedly a sign of prosperous days, but at the same time it is not free from undesirable

developments. As a general rule it is followed by unstable conditions. The same is true of Period III, in which a large number of terracottas depicting warriors have been found. Connected with the warriors are crowned heads. Both of them are conspicuously absent in Period II. It is interesting to note in this context that Period III yielded weapons like arrow-heads, spear-heads, etc., which are clear indications of some political activity.

The face of the warriors in general is ram-like. They have been shown with simple instrument of offence like mace or danda. The dress of the figurines is invariably that of a soldier and as such they have been placed in the category of warriors. The eyes have been depicted normally with the help of grooves and pupil by holes. A loin cloth or girdle of two to three strands can be observed at the waist. Like a soldier a garment of two strands appears falling from the left shoulder. Simple ornaments like necklace and ear-lobe find a place on the figures. The mouth is slit and arms often stretched.

Handmade Flat Female Figurines constitute to be another important variety of terracotta which made its appearance in Period III (pl. LXXVII). The head of almost all the figures is damaged. The physical features or anatomical details have been scarcely presented by the craftsmen. Breasts, open mouth and nose were depicted in a limited number of cases. The facial expression is normally bird-like. Sometimes the hands are shown stretched and the feet drawn apart. Occurrence of flat female figurines without any detail, in a large number, is an indication of some type of ritual practice that was in existence at that time. With the rituals the inhabitants had also in their mind the idea of undesirable ferocious people expressed in the form of Demons (pl. LXXIX B). It is not unlikely that there was some mythology behind them. The Demons present a ferocious countenance with protruded breasts and wide-open mouth. In one Case a small animal has been shown in the mouth as being swallowed. Holes in the ear for carrying ornaments have often been indicated. The hair has in some cases been worked up on the top in a crown-like fashion. The eyes have been shown by grooves and pupil by holes.

There was hardly any variation in the use of *yagyopavita* by a limited number of persons in Period III. Keeping of side-locks by the males was altogether a new practice in Period III. The sidelocks are generally rounded. The nose and eyes of the figures with side-locks have been indicated by holes. A crown decorated in a circular and indented manner can be observed on the head. The long ears carry a circular ornament.

In Period IV there was a complete transformation in the life pattern of the people at Kapilavastu. The importance of Kapilavastu in ancient history of India is owing to its association with Lord Buddha, but the main township did not feel the impact of religious influence in its earlier days. The *stupa* over the corporeal relics of Buddha, which the Sakyas of Kapilavastu received as one-eighth share, after his cremation at Kusinara, was erected a little away from the main town. This was in accordance to well-known tradition not to club the religious structures with the busy centre of the town, particularly because a calm and quiet atmosphere was essential for religious practices.

Following the erection of the *stupa*, monasteries were also constructed closeby to accommodate the monks, who desired to stay there for daily worship. Since Buddha was not in favour of image worship the concentration of religious activity was confined to the premises of the *stupa*. The common inhabitants of the township were not very much affected by the religious practices.

In the first-second centuries A.D. there was a regeneration of the religion of Buddhism under the patronage of Kushan kings, who took a bold step in deifying Buddha. Ever since their rule, image worship came into practice in the religion of Buddhism. With the introduction of image worship by the Kushanas the religious activity in place of being confined to the precincts of the *stupa* spread in other parts of the town complex as well. It gained a hold of great significance on the main township also, leading to the construction of several shrines. The terracotta figurines of Buddha in Period IV have been found mostly from the shrines. In one case at least, one of the residential rooms, just opposite the entrance of the smaller structural complex, was converted into a shrine which yielded a unique and most impressive sitting figure of Buddha with the fingers of the left hand clenched into the right. It is a remarkable piece of art, not only on account of the great skill in workmanship, but also because of the posture (pl. LXXXVIII). With a halo round the head, the Lord is shown sitting in a cross-legged position on a double lotus throne. Folds of the garment that fall from the left shoulder and cover the lower part of the body completely have been prominently depicted. The right shoulder and arm have been left bare. Long pierced ears, thick lips and a broad forehead, being the *lakshanas* (signs) of a *mahapurusha* (great man), have been displayed with dexterity. A beaded crown covers the head. The drooping eyes show that he is completely absorbed in deep meditation. An image of Buddha in such a *mudra* (attitude) is novel to the religion of Buddhism.

While the shrines at Kapilavastu yielded a number of other Buddha figures, two heads deserve special attention. Both exhibit the mood of contemplation, the expression of one being more masculine than the other (pl. LXXXVI C). A layman can easily observe in the more masculine head the feelings of great strength and vigour which can be gained from spiritual power only. Half-closed eyes indicate absolute absorption in meditation. The thick and slightly parted lips clearly express the enjoyment of eternal bliss. The head-dress is of the popular beaded variety displaying a masterly sense of proportion. A little more delicate, the other head, is of cruder workmanship; the beaded head-dress, half-closed eyes, as also the nose and the lips have been executed in a rather careless manner.

Buddhism no doubt had a strong hold on Kapilavastu, the followers were not fanatic and an atmosphere of religious harmony prevailed. This fact is revealed by a terracotta head with three eyes and another with hooded head-dress, representing the sect of *Saivism* (pl. XCB). The head is adorned with heavy *kundalas* (ear-rings) and a necklace of large beads. The wide-open eyes bursting out of their lids in a terrifying manner is an expression typical of the Hindu deity Siva, the Lord of destruction. The small open mouth is an additional contribution to the fearsome expression, while the head-dress has been ornamented in a curious leaf-like design. In addition to the above figure, there were a limited number of terracottas representing Jainism. A nude figure of a Jaina is interesting.

Since Kapilvastu was under the rule of the Kushanas, a foreign tribe, the terracottas could not escape extraneous influence. One of the most characteristic pieces embodying an alien concept is a head with a covering, which extends down on both sides (pl. LXXXVB). With features very clearly of a man, the eyes and mouth of the head are wide open and the nose is long and pointed. The workmanship, when compared with other terracottas from the site in general, is of a poorer standard. The conception of kingship had also developed completely as indicated by the beautiful crowned heads displaying foreign characteristics (pl. LXXXVA)

When prince Siddhartha (as Buddha was known before he achieved Enlightenment) renounced all the pleasures of life, he left the palace quietly in the dead of night on his favourite horse Kanthaka. Symbolising the event of the Great Departure, a terracotta horse was found at the main entrance of the larger structural complex. The horse, standing bridled and saddled, is read to steal the march of the Great Departure (pl. XCVI B).

The age-old tradition of producing simple terracotta human figurines with a tenon at the base continued and a larger quantity of the same was produced. A similar variety of female figures with a stand base was also reported in a considerable number. With the introduction of religious discipline, probably, the importance attached to the musicians was reduced to insignificance. Dancing figures in terracotta were no longer produced. Moulded plaques continued to have their hold, though the number was reduced.

Particular care was taken by the people to dress up the hair. In addition to old styles, a few new ones were also introduced. Arranging the hair on the top of the head in a conical shape continued, but it was not so popular as in the preceding Periods. Fan-shaped head-dress was quite popular. The other type of head-dresses introduced in this Period were arranging the hairs on the two sides of the head, tying the hairs at the back, hairs arranged in a *jata mukuta* fashion, coil-type head-dress and hooded head-dress.

Application of *bindi* (auspicious mark) on the forehead was quite common. The ladies decorated themselves with the same type of ornaments like necklace, *kundalas* in the ear and bangle, the last being less popular. A *tiara*-like ornament on the forehead was introduced in this Period, besides a locket in the necklace. Like the preceding Periods the upper garment falling from sides in an oblique fashion and lower garment falling between the feet continued to be in use. A new type of lower garment looking like a tunic was also used.

HUMAN FIGURINES

PERIOD II

Musicians (pl. LXIV B)

1. (1832). A crudely finished female figure with the two arms extended in the fashion of holding cymbals (?). The squattish feet are also kept apart presenting the appearance of a hilarious

mood enjoying the music. The breasts are pointed. An applied collar-like necklace can be seen round the neck. The eyes are also applied. The mouth has been shown by a finger-like depression, which renders the nose pointed. The suspended ears (one missing) hold an ornament with a long perforation. The hair was probably dressed up into a conical broad knot above the head. Coarse red fabric. Date 3rd-2nd century B.C. Similar type has been reported from Kausambi, Ahichchhatra and Rajghat where the date assigned ranges between 1st century B.C. and 2nd century A.D.

2. (262). A squattish better finished female figure with a dark red slip. The hands and feet of the figure are missing. The breasts are rounded. The ear is perforated for an ornament. A slit in a small circular raised platform indicates the mouth. The eyes have been shown by applying pellet in oblique incision. The two nostrils have been depicted well with the help of a raised band in between. The edge of the eye-brows has been shown by close parallel incisions. The hair has been dressed into a conical knot on the top which is broken. Date and provenance at other sites same as number 1.
3. (97). A crudely finished squattish male figure holding cymbals in his hands. The mouth and the eyes are applied around the pinched nose. The ears are suspended. The hair has been properly arranged in a conical knot above the head. The feet are missing. Coarse red. Date and provenance at other sites same as number 1.

Ornamented Plaques (pl. LXV B)

1. (1425). A richly ornamented headless figure prepared with the help of a mould. A dark red slip has been applied over the plaque. The lady wears a simple necklace round her neck. The two hands are folded in such a fashion as if touching the breasts. She is holding some flat circular object in her right hand. The wrist is bedecked with several bangles. The fold of the upper garment can be seen falling between the breasts from the right side to the left. The lady is wearing a heavy girdle of three strands and decorated with roundels. The folds of the lower garment are seen falling between the feet. The left foot is bent and adorned by an anklet. Date 3rd-2nd century B.C. Ahichchhatra, Vaisali, Kausambi, Mathura, Rajghat and Tilaurakot are the other sites where from such a type has been reported. The date at the above mentioned sites varies between 2nd century B.C. to 1st century A.D., the earliest at Rajghat and Tilaurakot and the latest at Ahichchhatra.
2. (2055). A beautiful specimen of mother and child produced with the help of a mould. The breasts of the lady are pendulous. The lady is holding the child on her left arm, the wrist of which is bedecked with a set of eight bangles. The child is seen touching the left breast of his mother by his left hand. Folds of upper garment can be seen in two strands falling from the left side to the right. The lady wears a heavy necklace decorated with roundels and triangular design. The child appears to have been tied with the mother with the help of a piece of cloth.

The fingers of the lady are long and artistic as observed in the visible right hand. Date 3rd-2nd century B.C. Ahichchhatra, Kumrahar, Kausambi and Rajghat have also yielded similar type, but the date assigned at those sites are too late ranging from 165 to 235 A.D. at Kausambi and 300 to 700 A.D. at Rajghat. The date at Ahichchhatra is between 550 and 650 A.D.

3. (1992). A richly decorated plaque of a female produced out of a mould. The hair of the lady has been dressed up over the head in the form of a cap or crown. A veil can be observed on both sides of the head of the lady. She is wearing heavy ear ornaments. Her hands are resting on the hip. They are having bangles. She also wears a heavy girdle of three strands decorated by roundels. The fold of the upper garment is seen falling from the left shoulder. The lower garment appearing behind the feet is shown in a flowing fashion. Date 3rd-2nd century B.C. The other sites which have yielded such a type are Ahichchhatra, Vaisali, Kausambi, Rajghat and Tilaurakot. There is not much variation in date. At Rajghat it has been placed in Maurya-Sunga times, whereas at Ahichchhatra between 100 B.C. and 100 A.D.

Crudely Handmade Miniature Figures (pl. LXVI A)

1. (275). It is a thin miniature male figure without any proportion. The body between the chest and thigh has been unduly elongated. The whole body is leaning towards the right side. The details of the face have been shown by pinching. The hands are falling on the sides in a peculiar manner. The chest is slightly raised. The feet are squattish. The piece has been covered by a dark red slip. Date third-second century B.C. Similar type has been reported from Buxar, Pataliputra, Taxila from Sunga to Gupta times.
2. (1903). A thin nude male figure. The private organ has been prominently shown in a peculiar fashion. It may be a Jaina figure. Date third-second century B.C.
3. (UR). A male figure slightly thicker with a covering of thick dark red slip. The figure has been shown in a squattish position. One of the hands is broken and the other stretched sideways. The feet are also broken. The face has been shown by pinching and eyes by small perforation. Date third-second century B.C.
4. (803). A head, probably of a female with traces of a veil. The traces of veil is seen in a ribbon round the hair. The hair appears to have been arranged at the back. The nose is prominent and the mouth slit. All the distinguishing features of the eyes have been shown by incisions. The figure is covered by a red slip. Date third-second century B.C.
5. (511). A black-slipped fragment of a figure, probably abdomen and a little portion of feet. There are no distinguishing features. Date third-second century B.C.

Moulded Heads (pl. LXVI B)

1. (2019). After minute observation it can be said that the terracotta represents a toilet scene. A lady is pre-occupied in her make-up holding a mirror in her hand. All details have been

shown with the help of lines in relief. The lady is in a reclining position. Date 4th-3rd century B.C.

Pedestal Figures (pl. LXVII A)

1. (767). A male figure with thick *yagyopavita* running from left shoulder to the right under the arm. The piece is covered by a thick red slip. A necklace decorated with round incisions can be seen round the neck of the figure. The mouth has been shown by a slit and nose by pinching. The eyes have been depicted by incisions. The ears are elongated. The hair, tied in a ribbon, has been shown by vertical incisions in a rectangular manner above the head. The fingers of the left hand have been shown in an unusual manner. Equally unusual are the eyes extending upto the ears. Date 3rd-2nd century B.C. A type almost similar has been reported from Ahichchhatra where the date assigned is between 450 and 650 A.D.

Crudely Handmade Figures with Unimpressive Face (pl. LXVII B)

1. (333). A male figure without head covered by a thick dark red slip. An *yagyopavita* of three strands is seen falling from the left shoulder. A loin cloth of two strands and a *langoti* can also be observed. The hands and feet are missing. Date 3rd-2nd century B.C.

Crudely Handmade Heads with a Tenon below (pl. LXIX A)

1. (1349). A crudely hand-made head with a decorated necklace round the neck. The earornament is also decorated. The mouth has been shown by a slit on a raised platform. The eyes have been indicated with the help of incisions. The hair tied in a ribbon is depicted by oblique incisions on a raised rectangular platform above the head. Date 3rd-2nd century B.C. Similar type has been reported from Rajghat assigning it to Gupta-post-Gupta times. Ghosi to Kushan times and Ahichchhatra between 450 and 750 A.D.

Female Torso with Suspended Ears (pl. LXXII A)

1. (1985). A female torso broken below the arms and covered by a red slip. The lady wears a heavy decorated necklace depicted in a pattern of rectangular incisions in a vertical fashion. The suspended ears have been shown as wearing an ornament by means of circular holes. The face is heavy and not normal in appearance. The mouth shown by a slit is bent towards the left hand side as if teasing. The nose is pinched. The hair has been arranged in a conical knot above the head. Date 3rd-2nd century B.C. Such a type occurs at Pataliputra in Kushan levels and at Rajghat on the surface.

Female Figures on Stump (pl. LXXII B)

1. (1385). A headless female figure with pointed breasts. The lady is wearing a long decorated garland which falls between the breasts. The garland is decorated horizontal incisions. Date 3rd-2nd century B.C. Similar type has been reported from Ghosi assigning to Kushan times and Ahichchhatra between 650 and 750 A.D.

PERIOD III

Musicians (pl. LXVA)

1. (183). A female figure with a pedestal base. The mouth and nose of the figure are pinched. The eye-brows and eyes have been crudely indicated with the help of grooves. A decorated ear-ornament can be observed in the suspended ears. There is a broad applied necklace round the neck. The right hand is broken and the left slightly extended. The breasts are pointed. Date 1st century B.C.
2. (110). A female figure with a broad armlet on her right arm. The face which has been rendered by pinching resembles a goat. The hair has been arranged at the back in a rising rectangular fashion. The eyes and mouth have been indicated by grooves. A round ear-ornament has been shown with the help of a hole. The neck is adorned by a necklace of two strands carrying an intertwining design. The nipples have been shown by a hole. The figure also wears a simple waist-band. The colour of the terracotta is blackish. Date beginning of the Christian era.
3. (1379). A typical female figure with applied eyes, indented necklace, breasts and waist-band. The lady is holding some musical instrument below her hands. The nose and mouth of the figure present the appearance of the trunk of an elephant. The mouth is slit. The ears are fan-shaped with hole at the bottom for ornament. The hair has been arranged at the top in a conical fashion. The pupil of the eyes and the nipples have been indicated by means of hole. Date beginning of the Christian era.
4. (2088). A standing figure, probably female, holding cymbals in the hand. The fingers of the hand have been distinctly shown with the help of grooves. A bird-like appearance has been given to the face of the figure by pinching. The hair has been arranged at the back in an oblique fashion. Pupil of the eyes has been indicated by hole. The nose is prominent. There is too much of space between the nose and slit mouth. The ears carrying ornament are suspended. An indented necklace is worn by the figure. A strap-like object is seen falling from the left shoulder in an oblique manner. Date 1st century B.C.
5. (1413). A female figure with a decorated necklace and a garland. The hair has been dressed up at the back in a rectangular fan-like manner. The face has been pinched to present a bird like appearance. In proportion to the size of the figure, the eyes which have been shown by grooves are too large. The pupil of the eyes has been shown by hole. The mouth is too small and slit. There are holes in the ear to carry ornament. The nipples have been shown by hole. Date beginning of the Christian era.
6. (751). A red-slipped figure with a pinched bird-like face. The hands appear to have been drawn apart. The eyes have been indicated by grooves. The fan-shaped ears carry ornament. The mouth is slit. The hair has been arranged at the back in a rising knot. A broad indented

strap-like object is seen falling from the left shoulder in an oblique fashion. Date beginning of Christian era.

Terracottas similar to the six described above have been reported from Ahichchhatra, Kumrahar and Rajghat ranging in date between 3rd century B.C. to 3rd century A.D.

Ornamented Plaques (pl. LXV B)

4. (1140). A female figure keeping her hand on the hip. Resting on the right side at the abdomen, the right hand is holding something, may be fold of the garment. The head has been richly decorated with a coiffure falling on the two sides obliquely. The coiffure has been decorated with chain-like design. In between the design there is again an ornamentation of loop-like pattern. The hair appears to have been arranged in tiers. A heavy decorated *kundala* is worn by the lady in the ear. There is a broad decorated necklace round the neck. A long decorated garland of three strands extending upto the waist is seen falling between the prominent breasts. The folds of the garment have been tied at the waist in bands, three in number. The terracotta is covered by a deep red slip. Date 2nd century B.C.
5. (4). A beautiful simple slim standing female figure, probably veiled, with prominent eyes, nose, mouth and chin. The hands of the lady are resting at the waist. The hair has been arranged at the top of the head in a big knot. The ear-lobes are elongated. Signs of a necklace round the neck are also visible. The folds of the lower garment have been shown between the feet faintly and around the knee prominently. Unstratified.
6. (1138). A beautiful richly ornamented standing female figure with hands falling on the sides. The hair has been arranged in such a manner as to fall on two sides in the form of a coiffure. The coiffure is decorated by circlets. The face is damaged, but from the remnants it appears that the facial features must have been very sharp. The ear is carrying heavy *kundala*. The neck has been adorned by a closely fitting necklace. A long garland reaching the waist and falling over the breasts is ornamented with small circlets. There are three bangles on the wrist and simple anklet at the ankle. The lower garment has been tied to a horizontal band round the waist. The folds of the garment are seen falling on the sides. The fingers of the feet are well-marked. Unstratified.

Terracottas similar to the three described above have been reported from a large number of sites in northern India viz. Ahichchhatra, Hastinapur, Vaisali, Kausambi, Mathura, Rajghat, Sonpur and Tilaurakot. Unstratified.

Crudely Handmade Miniature Figures (pl. LXVI A)

6. (680). A head with a wide-pierced mouth. The anatomical details of the face are absent. A crown-like head-dress is seen decorated in oblique incisions and circular holes. Date beginning of Christian era. Such a terracotta has been reported from Kausambi and the date assigned is pre-Kushan times.

Moulded Heads (pl. LXVI B)

2. (575). A beautiful torso of a female figure. The figure may be of some goddess as indicated by the broad halo round the head. The left hand of the figure is raised and touching the ear-ornament. The fingers of the hand are distinctly marked. The bangles on the left hand have been shown by grooves. The elongated ear-ornament is well decorated. The hair has been arranged in a crown-like fashion divided in the middle by groove. A chattra-like object can be seen over the head. The lady appears to be smiling. The nose is prominent. Similarly the rounded breasts are prominent. The forehead is broad. Date 1st century B.C.
3. (1989). Head, probably of a female, with indications of a decorated veil and ornament on the forehead. The ornament on the forehead is designed in three angular lines. The indication of a veil appears in the crown which is decorated in creeper design. Sharp facial features have been shown with the help of grooves. The nose is prominent. A pomogranate-type design appears on the ear-ornament. Date 1st century B.C.
4. (2134). Head probably of a female with a coiffure-like head-dress covering both the sides as well as the top. An ornament is worn in the suspended ear. The facial features are not clear. Date 2nd century B.C.
5. (314). A beautiful veiled head of a female figure wearing *kundala* in the suspended form. Though the figure is miniature, all the facial features have been indicated in a most impressive manner. The hair has been beautifully arranged to fall on the two sides of the head. Date 2nd century B.C.
6. (1260). Head, probably of a female, with the hair arranged on the two sides of the head. The ear-ornament is heavy. The facial features are not sharp. Oblique lines over the head may be indications of a *chattra*. The terracotta is polished with a red slip. Date 1st century B.C.
7. (731). Beautiful head of a female figure with a decorated circular ornament over the head, the pattern being circlets divided by grooves. The veil round the head is also well-ornamented. The heavy ear-ornaments carry a pattern of wheel with the central hub and spokes. There is a circle in between the spokes. The figure is holding a *danda*-like object in her left hand. The *danda* is divided into several compartments. The forehead is broad. The anatomical details of the face have been presented in an impressive manner. The head is likely to be of a goddess on account of the *danda* and sharp facial features. Date 2nd century B.C.

Type similar to the six terracottas described above occur at Mathura and have been dated between 2nd century B.C. and 1st century A.D.

Crudely Handmade Figurines with Unimpressive Face (pl. LXVIII A)

1. (1890). A figurine with ram-like face. The head dress is raised in a conical fashion. The ears

have been indicated by deep grooves. The mouth is slit. A simple necklace is seen round the neck. Date 1st century B.C.

2. (2110). A figurine with a ram-like face and extended arms. The head-dress is indented, tapering and pointed on the top. The eyes have been indicated by deep grooves. An indented strap-like object is seen falling from the left shoulder. The ears with ornament are fan-shaped. Date beginning of the Christian era.
3. (1869). A figurine with a ram-like face and prominent eyes. The lips of the figurine are thick. The mouth is slit. It wears an indented necklace. A strap-like object in two strands is seen falling from the left shoulder in an oblique manner. Date 1st century B.C.
4. (1902). Head of a figurine with an unusually wide-open circular mouth. The hair is arranged at the top in a tapering manner. The space between the mouth and a little prominent nose is unproportionate. The eyes have been shown in relief. Date beginning of the Christian era.
5. (1780). Head of a figurine with ram-like face. The eyes and nose are prominently shown. The ears are pierced and suspended. Fan-shaped indented head-dress on the top of the head. Date 1st century B.C.

Type similar to the five described above occur at Hastinapur, Vaisali and Rajghat. At Hastinapur they have been dated between 2nd century B.C. and third century A.D. and at Rajghat between 1st and 3rd century A.D.

Crudely Handmade Figurine with Unimpressive Face (pl. LXVIII B)

1. (1933). A figurine with goat-like face and stretched arms. The head-dress is conical. The eyes have been indicated by circles. The nose is prominent, and the mouth slit. Date beginning of the Christian era.
2. (1671). A squattish figurine with ram-like face and stretched arms. The ears are suspended. The head-dress is conical. An indented necklace has been shown round the neck. Fingers of the feet have been indicated by grooves. The right eye has been well-marked. The mouth is slit. Date 1st century B.C.
3. (UR). A squattish figurine with almost the same type of face as no. 2. The ears are suspended and the nose is prominent. An indented necklace has been shown round the neck. The fingers of the feet have been shown by grooves. Unstratified.
4. (996). A very crude figurine with applied eyes, slit mouth and prominent nose. The head-dress is conical. Date beginning of the Christian era.

Terracottas similar to the four described above have been found at Hastinapur, Vaishali, Rajghat and Mathura and the dates assigned are 200 B.C., 300 A.D. 150 B.C.—100 A.D., —300 A.D. and 400-200 B.C. respectively.

Crudely Handmade Heads with a Tenon below (pl. LXIX A)

2. (1087). Head, probably of a female, with raised fan-shaped head-dress decorated in oblique incisions. The hair appears to have been arranged at the back in a rectangular fashion. There is an auspicious mark (*bindi*) on the forehead. The ears are long, though not clearly demarcated. The nose is prominent. The eyes and mouth have been shown with the help of incisions and relief. The terracotta is covered by a thick red slip. Date 1st century B.C.
3. (1216). Head, probably of a female, manufactured in a careless manner. The ornament in the suspended ear is decorated in circlets. The lips are thick. The nose and forehead have merged. The eyes have been indicated with the help of incision and relief. The mouth is slit. Date beginning of the Christian era. Similar type has been reported from Ghosi, Kausambi, rajghat and Ahichchhatra and the dates assigned are Kushan times, 1st century A.D., Gupta and post-Gupta times, and 450 to 750 A.D. respectively.
4. (1127). Head with an expression of anger indicated by tightening of the lips. The head-dress is fan-shaped and decorated in oblique slashes. The forehead has been clearly demarcated from the eye-brows shown by an arch-like line on both sides. The eyes have been shown with the help of incisions and relief. The ear-ornament in the suspended ear is decorated in the pattern of oblique lines. There is an ornamented necklace round the head. The terracotta has been covered by a dark red slip. Date 1st century B.C.
5. (2103). A better-finished head with fan-shaped ornamented head-dress. The forehead has been carelessly demarcated from the eye-brows which have been shown in deep grooves. The eyes have also been shown by deep grooves. The nose is prominent and mouth slit. The ear-ornament in the suspended ear is decorated in a leaf pattern. There is a decorated necklace round the neck. An ochre-coloured slip has been applied over the terracotta. Date beginning of the Christian era.
6. (1708). A defaced head of a female figure with a fan-shaped head-dress interspersed by oblique lines. The facial features are completely worn-out. There is an ornament in the suspended ear and also a decorated necklace round the neck. Date beginning of the Christian era.
7. (756). Head with a conical arch-like head-dress projected above the head. The eyes and eye-brows have been shown with the help of deep grooves. The nose is projected and the mouth indicated by a slit. The ears have not been clearly demarcated. Date beginning of the Christian era.

Crudely Handmade Heads with a Tenon below (pl. LXIX B)

1. (270). Head with suspended ears and crown-like head-dress. The head-dress is decorated in oblique slashes. The hair has been arranged at the top in a conical form. The facial features

are unproportionate and ugly looking. The eyes and eye-brows have been shown by grooves and relief and the pupil by circlets. The lips are thick and the mouth slit. The nose has been damaged. Date beginning of the Christian era.

2. (1581). A damaged head, probably of a female, with well-depicted ear-lobes. Fan-like indented head-dress on the top of the head. The hair also appears to have been worked in a rectangular form at the back of the head. The hair also appears to have been worked in a rectangular form at the back of the head. The forehead is projecting forward. The ears are suspended. Date 2nd century B.C.
3. (1282). A defaced head with hair beautifully arranged. The eyes have been shown with the help of grooves and relief. The nose and the mouth have been damaged. Date beginning of the Christian era.
4. (1774). A defaced head, probably of a female, with an auspicious mark (*bindi*) on the forehead. The hair has been arranged in a conical form on the top of the head. The ears are fan-shaped. Date 1st century B.C.
5. (1435). A defaced head with a fan-shaped head-dress on the top. The nose and the chin are prominently shown. The lips are thick. The eyes have been indicated by grooves and pupil by hole. Date beginning of the Christian era.

Crudely Handmade Heads with a Tenon below (pl. LXX A)

1. (18). A dark red-slipped head with an indented fan-shaped head-dress. An ornament like a stud can be seen in the ears. There is an auspicious mark (*bindi*) on the forehead. The nose is prominent. The eyes have been indicated by grooves and circlets. The mouth is slit. The lips are thick. The facial features are unproportionate and ugly. Date beginning of the Christian era.
2. (1784). A defaced head with an indented fan-shaped head-dress. The nose is prominent. The eyes have been indicated by grooves and circlets. The hair has been arranged in a rectangular knot at the back. Date 1st century B.C.
3. (1400). A better-preserved head with an indented fan-shaped had-dress. There is a *nara*-like ornament on the forehead. The nose is prominent. The eyes have ben indicated by grooves and pupil by prominent hole. Date 1st century B.C.
4. (1643). A defaced head with a fan-shaped indented head-dress. The ornament in the suspended ears carries a decoration in oblique grooves. There is an auspicious mark (*bindi*) on the forehead. Date beginning of the Christian era.

Terracottas of similar type as included in the plate have been found at Kausambi, Ahichchhatra, Bhitia, Ghosi and Rajghat and the dates assigned are c. 165-235 A.D., 450-750 A.D., 1st century A.D., and c.300 A.D. respectively.

Crudely Handmade Heads with a Tenon below (pl. LXX B)

1. (835). A head covered by a dark red slip. The head is having an indented fan-shaped head-dress. The eyes are protruded. The nose is prominent. The mouth is wide open. The ornament in the suspended ears is decorated in vertical grooves. The chin is broad. Date beginning of the Christian era.
2. (1871). A male head with moustaches drawn at the ends above the lip. The nose is prominent and the nostrils have been shown with holes. The lips are thick and the mouth is slit. The ear ornament is not distinct. A cap-like object appears to cover both the head and forehead. Facial features are not proportionate. Date beginning of the Christian era.
3. (1026). A defaced head with a *tiara*-like ornament on the forehead. The ears are fan-shaped carrying stud. Date beginning of the Christian era.

Female Torso with Suspended Ears (pl. LXXII A)

2. (1019). A torso with typical anatomical features. The hair has been arranged on the top in a circular fashion. The object with which the hair has been tied is having an indented design. The ears are fan-shaped. The nose which appears cylindrical is ugly. The eyes have been shown by incisions and the pupil by holes. The mouth is not symmetrical and appears as if teasing. There is a hole in the ear for carrying ornament. There is a heavy applied indented necklace round the neck. The breasts are also applied and the nipples have been shown by hole. The torso is covered by dark red slip. Date beginning of the Christian era.
3. (2119). A defaced head which has been manufactured in a careless manner. There is a fan-shaped head-dress on the top of the head. The ornament in the ear is in the shape of a *damaru* decorated in circular incisions. One of the ears and the nose are damaged. The eyes have been crudely shown with the help of grooves, relief and hole. The mouth is slit. Date beginning of the Christian era.
4. (573). A torso of a female, probably holding a child in her left arm. The child is sucking the breast. The position of the breasts is unusual. The lady is having a fan-shaped decorated head-dress. The eyes, nose and mouth have been crudely shown with the help of incisions and relief. The face is not symmetrical. The ornament in the suspended ears is decorated in oblique grooves. There is an indented necklace round the neck and a broad bangle on the left hand. Date beginning of the Christian era.

Types similar to the above-mentioned three terracottas have been reported from Pataliputra and Rajghat in Kushan levels.

Female Figure on Stump (pl. LXXII B)

2. (1872). A standing figure without head. The anatomical details are wanting in the figure.

The right arm is extended. There is a necklace decorated in oblique slashes round the neck. The breasts are round, though shown in a careless manner.

Better-finished Handmade Heads (pl. LXXIII A)

1. (109). A well-finished head, probably of a female, wearing heavy ear-ornament of areca-nut shape. The mouth is wide open. The lips are thick. The nose is pointed and beautiful. Eyes and eye-brows have been shown by grooves and the pupil by circlets. An auspicious mark (*bindi*) is seen on the forehead. The hair has been arranged from the forehead to the top of the head in a cylindrical and tiered manner. Date 2nd century B.C. Similar type has been reported from Ahichchhātra, Kausambi, Rajghat, Ghosi, and Bhita and the dates assigned are 450-750 A.D., 1st century A.D., Gupta and post-Gupta times and Kushan times respectively.

Crude Figures with a Stand Base (pl. LXXIII B)

1. (1912). A unique female figure with a pinched bird-like face and protruding breasts. The eyes have been depicted by an applique roundel in a depression. The navel has also been applied. The left hand is missing, whereas the right is bent in such a fashion as if begging. The feet are also missing. The hair has been tied at the back in a protruding knot. The stand is circular with a hole at the bottom. Date beginning of the Christian era.
2. (1945). A crude figure with a decorated fan-shaped head-dress. The ears are concave. The eyes have been shown simply by a hole. The nose is prominent and the mouth wide. The arms have been extended. Date beginning of the Christian era.
3. (2126). A better-finished torso with a decorated fan-shaped head-dress on the top. The eye-brows and eyes have been shown with the help of grooves in relief and circlets. The mouth is indicated by a slit. A circular ear-ornament can be seen in the ears. There is an applied indented necklace round the neck. The breasts are also applied and the nipples have been shown by hole. A garment falling from the left shoulder has been shown like *yagyopavita* passing under the right arm. Date 1st century B.C. A similar terracotta from Ghosi has been dated to Kushan times.

Crude Figure with a Stand Base (pl. LXXIII C)

1. (2129). A crude sitting male figure with the hands resting on the knees. The head is missing. A broad bangle can be seen on both wrists. The left hand holds a bowl. The fingers of the right hand have been distinguished by grooves. An *yagyopavita* of two strands is seen falling from the left shoulder. Date beginning of the Christian era. Similar terracotta from Ghosi has been dated to Kushan times.
2. (527). A standing female (?) figure with extended arms. The head is missing. There is an ornament in the suspended ear. The figure is having a heavy necklace round the ear. A

garment of three strands is seen falling from the left shoulder in the shape of an *yagyopavita*. There are traces of a child sucking the left breast. Date 1st century B.C.

Moulded Plaques (pl. LXXIV B)

1. (690). A standing female figure almost defaced. The head is missing. The folds of the lower garment are seen falling on the feet. The feet below the ankle are missing. The hands are resting on the sides. Date 1st century B.C.
2. (70). A headless standing figure with left hand resting on the side. The folds of the lower garment are falling on the feet. The feet below the ankle are missing. Date beginning of the Christian era.
3. (972). A standing female figure probably erotic (?). A long garland is seen falling upto the thighs. The folds of the upper garment are prominent. Anklet is also worn by the figure. An ornamented waist-band of three strands can also be seen. The left hand of the figure rests at the waist. Date 1st century B.C.
4. (1327). A defaced standing female figure with lower garment falling in a flowing fashion on the right side. The folds of the garment are very prominent. The hair appears to be falling on the two sides of the head. Bangles on the right hand are faintly visible. The breasts are small and rounded. Date beginning of the Christian era.
5. (937). A torso of a beautiful female figure with the hair arranged in a turban-like fashion over the head. The facial features are proportionate and charming. A pierced ear-ornament is worn by the figure in the suspended ears. A beautiful necklace with pendants in a row is seen round the neck. The breasts are round and prominent. The hands are drawn apart. Date beginning of the Christian era.
6. (479). An unproportionate standing female figure with damaged hands drawn apart. The head is missing. The breasts are oval and prominent. The folds of the lower garment are seen falling on the feet. (Unstratified).

Similar terracottas as the six described above have been reported from Kausambi as well and date assigned is 300-125 B.C.

Moulded Plaques (pl. LXXIV C)

1. (UR). A defaced standing figure probably of a female, with folds of lower garment beautifully shown by oblique lines. The head and feet are missing. The waist-band is seen falling on the two feet. At the thighs the lower garment is ornamented in circular pattern. (Unstratified).
2. (930). Lower part of a *dampati* (?) figure standing on a dais-like object. The male appears to be wearing a tunic-like garment. The fingers of the hand of the male figure are shown by oblique lines. The female is wearing anklets. The terracotta is blackish and not well-fired. Date 2nd century B.C.

TERRACOTTA HUMAN AND ANIMAL FIGURINES

3. (1323). A red-slipped torso of female with a trefoil had-dress. The hair is seen falling on the sides. The ornament in the ear is heavy. The necklace is indented. The facial expressions are charming. Date 2nd century B.C.
4. (877). A red-slipped standing figure (probably of a female) with the left foot carrying a heavy anklet. The left foot is artistically bent under the straight right foot which is also carrying an anklet. The garment is seen falling at the back. Date 1st century B.C.
5. (477). Mutilated figure, probably of a female, ornamented with garland and a broad waist-band of three strands. Date beginning of the Christian era.
6. (1214). A beautiful female figure, though mutilated. The face has been damaged almost completely, but the remnants present a charming expression. The ear-ornaments are heavy. A garland of three strands is seen falling between the breasts, which are rounded and prominent. The hands have been drawn apart. The terracotta is covered by a red slip. Date 2nd century B.C.
7. (1269). A standing figure almost similar to number 4 described above, but not so well-finished. Date 2nd century B.C.

Moulded Plaques (pl. LXXV A)

1. (1928). A standing figure with the left hand resting on the waist. The physical features appear to be of a male. The folds of the lower garment are seen on the left hand and the back. The figure is devoid of ornamentation. The portion above the chest is missing. Date beginning of the Christian era.
2. (1939). A standing male figure devoid of any ornamentation. The right hand is holding some object. Part of the waist-band is falling between the feet. The left hand is resting on the side. The head and feet are missing. Date beginning of the Christian era.
3. (74). A simple figure, probably of a male, with the left hand resting on the waist. The figure is holding some object in his right hand resting on the side. Date beginning of the Christian era.
4. (235). An almost completely damaged figure with only one radiating eye and eye-lids intact. The figure is covered by a red slip.

Pedestal Votive Figures (pl. LXXV B)

1. (121). Lowest part of two mutilated standing figures on platform-like base. The fingers of the feet have distinctly shown. The figure on the right side wears a loin cloth.

Crude Handmade Female Figures with Child on Stump (pl. LXXVI A)

1. (524). A sitting figure without head. The breasts are undeveloped. A broad garment is seen falling from the right shoulder in an oblique manner. Both the hands are holding a cup and

resting on the knees. The nipples have been prominently shown by circlets. A child is being caressed on the left shoulder. Date beginning of the Christian era.

2. (1834). A sitting female figure without head. A child is sucking the left breast. The hands holding a cup rest on the knees. There are two heavy bangles on each wrist. An indented necklace is seen round the neck. The breasts are pointed. The feet are resting on a steel-like object. The fingers of the feet have been indicated by grooves. The figure is also wearing anklets. Date 1st century B.C. Similar terracotta has been found at Kumrahar, Ahichchhatra, Rajghat, Tilaurakot and Kodan and the dates assigned are 300-450 A.D., 550-650 A.D., 300-700 A.D., and 2nd century B.C. respectively.

Crudely Handmade Figurines (pl. LXXVI B)

1. (1073). Head of a figurine with heavy ear-ornament and probably a tenon below. A decorated head-dress can be seen on the top. The mouth and eyes are wide open. Date 1st century B.C.
2. (285). A defaced female figurine with a decorated head-dress on the top. The ear-ornament is well decorated. The holes for ornament in the ear are prominently shown. There is an indented broad necklace round the neck. The breasts are pointed. The hands are drawn apart. Date beginning of the Christian era.
3. (731). Head and neck portion of a figure exhibiting some unusual features. The unproportionate prominent nose is merging with the forehead. The eyes are small and drooping. There is a fan-shaped indented head-dress on the top. The ornament in the suspended ear is having a groove. Date 2nd century B.C.
4. (1676). A mutilated figurine, probably of a female. The ornament in the suspended ear is decorated in vertical grooves. The head-dress on the top is indented. The eyes and mouth are wide open. There is a simple broad necklace round the ear. The nipples have been indicated by circlets. Date 2nd century B.C.
5. (1466). Head of a figurine covered by a dark red slip. There is an indented fan-shaped head-dress on the top. The hair has been arranged at the back in a rectangular fashion. A prominent auspicious mark (bindi) can be seen on the forehead. The wide-open mouth is unduly raised. Date beginning of the Christian era.

Handmade Flat Figurines (pl. LXXVII A)

1. (1783). A headless female figurine without any physical features, but for the round prominent breasts. The hands are extended. The feet are missing. Date 1st century B.C.
2. (1790). A tall headless female figurine devoid of any physical features, but for the round prominent breasts and the long left foot. The right foot is missing. Date 1st century B.C.

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3. (854). A headless female figurine without any physical features, but for the round breasts. The hands are extended. Date 1st century B.C.
4. (1137). A defaced headless female figurine with the left hand stretched straight on the side and the right slightly extended. The hair appears to be falling on the right arm. There is a necklace round the neck. The breasts are rounded, though not prominent. Date beginning of the Christian era.
5. (365). A headless female figurine with arms extended. It is devoid of any physical feature, but for the round prominent breasts. Date beginning of the Christian era.
6. (788). A headless defaced figurine with round breasts. The feet are missing. Date 1st century B.C.
7. (534). A headless female figurine with extended arms and feet slightly drawn apart. But for the breasts the terracotta is devoid of any physical feature. Date 1st century B.C.
8. (654). A female figurine with bird-like face and extended arms. But for the breasts, open mouth and nose the terracotta is devoid of physical details. Date beginning of the Christian era.

Handmade Flat Female Figurines (pl. LXXVII B)

1. (1920). A female figurine with extended arms and pinched bird-like face. There is an ornament in the suspended ear. The breasts are round and pointed. The mouth is open. There is a rising conical head-dress on the top. The feet are slightly drawn apart. Date beginning of the Christian era.
2. (1042). A female figurine with stretched arms and pinched bird-like face. The breasts are small and pointed. The head-dress is fan-shaped. The feet covered by a *ghaghra*-type dress are drawn apart. Date 1st century B.C.
3. (1449). A female figurine with extended arms and pinched bird-like face. There is an ornament in the suspended ear. The breasts are pointed. The mouth is open. Date beginning of the Christian era.
4. (1888). A female figurine with extended arms and an ornament in the suspended ear. The head-dress is fan-shaped. The breasts are small and rounded. The mouth is wide-open. Date 2nd century B.C.
5. (1565). A female figurine with extended arms and a decorated ornament in the suspended ear. The decoration is in vertical grooves. The mouth is open. The breasts are rounded. There is a hole in the fan-shaped head-dress meant probably for hanging on the wall. Date 2nd century B.C.

6. (305). A female figurine with extended arms, which are damaged. There is a decorated fan-shaped head-dress on the top. The ears are pierced to hold an ornament. The mouth is open. The breasts are not prominent. Date beginning of the Christian era.
7. (246). A defaced female figurine with pointed breasts, extended arms, and wide-open mouth. The neck is unduly long. There is a fan-shaped head-dress at the back of the head. Date 2nd century B.C.
8. (2116). A female figurine with stretched arms and pointed breasts. There is an ornament in the suspended ear. The head-dress is fan-shaped. Date beginning of the Christian era.
9. (1279). A defaced female figurine with extended arms. Date 1st century B.C.

Handmade Flat Figurines (pl. LXXVIII A)

1. (46). A figurine with extended arms and pierced suspended ears. The mouth is open and face is pinched to present the appearance of a bird. Date beginning of the Christian era.
2. (2131). A figurine similar to number 1 with a fan-shaped head-dress. Date beginning of the Christian era.
3. (669). A figurine with extended arms and wide-open small mouth. The face is pinched to present and appearance of a bird. Date beginning of the Christian era.
4. (1802). A headless figurine with extended arms. The palms have been indicated by pressing. Date beginning of the Christian era.
5. (940). Waist part of a figurine in grey colour decorated in small depressions carefully arranged in rows. The decoration might be an indication of a designed dress. Date beginning of the Christian era.
6. (1839). A headless figurine with extended arms. Date beginning of the Christian era.

Terracottas similar to those included in the above three plates occur at Pataliputra, Kausambi, Ahichchhatra, Kumrahar, Vaishali, Bhita and Rajghat and the dates assigned are Kushan times, 50 B.C. to 325 A.D., 450-650 A.D., 100-450 A.D., 300-600 A.D., 1st century A.D. and 0-700 A.D. respectively.

Warriors (pl. LXXVIII B)

1. (1913). A figurine with a ram-like face holding some object in his resting on the abdomen. The ears are pierced for holding ornament. The eyes have been indicated by grooves and holes. The hair has been worked up in a flat manner over the head. An indented necklace has been shown round the neck. The mouth is wide-open. The feet are missing. Date 1st century B.C.

2. (634). A figurine holding a *danda* or mace-like object in his right hand, of which the fingers have been shown distinctly. The dress is soldier-like and a garment of three strands falls from the left shoulder. A necklace of three strands which also looks like a garment has been shown round the neck. The face is goat-like. There is an ornament in the suspended ear. The eyes have been depicted by grooves and pupil by holes. The mouth is open. The hair has been worked up in a conical manner on the top of the head. The fingers of the left hand have been indicated by grooves in an irregular manner. A loin cloth appears on the waist. Date beginning of the Christian era.
3. (2007). A figurine with a ram-like face and suspended ears. The hair has been worked up at the back in a rectangular manner. An indented necklace has been shown round the neck. An *yagyopavita*. (?) of two strands can be seen falling from the left shoulder. An indented girdle has also been shown at the waist. The feet have been drawn apart slightly. Date beginning of the Christian era.
4. (169). A figurine with ram-like face. The suspended ears are holding ornament. The hair has been arranged on the top in a conical manner. The eyes have been indicated by grooves and pupil by holes. The mouth is small and slit. There is an indented necklace round the neck. A soldier-like garment of three strands is seen falling from the left shoulder. A loin cloth of three strands also appears at the waist. There is a hole in the right dwarfish hand. (Unstratified).
5. (1346). A defaced figurine wearing a necklace decorated in circles. A soldier-like garment of two strands is seen falling from the left shoulder. The loin cloth is also of two strands. The terracotta is covered by a deep red slip. Date beginning of the Christian era.
6. (2114). A figurine with a flat face and a little projected nose. The eyes and ears have been indicated by holes. A simple garment is seen falling from the left shoulder. The hands are dwarfish and extended a little on the sides. The fingers of the left hand have been crudely shown. An indented necklace is seen round the neck. Date beginning of the Christian era.
7. (1529). A figurine with goat-like face and slit mouth. The nose is prominent. There is an applied indented necklace round the neck. The hands are extended. A simple *yagyopavita* and a thick loin cloth also appear on the body. Date beginning of the Christian era.
8. (1764). A figurine with ram-like face and stretched arms. The suspended ears are pierced. The nose is prominent. The eyes have been shown by circles and holes. An indented applied necklace is seen round the neck and an indented applied girdle round the waist. The mouth has been shown in a raised manner with a slit. An *yagyopavita* of two strands is seen falling from the left shoulder. Date 2nd century B.C.
9. (1059). A figurine with flat face and small slit mouth. The ears are holding a circular ornament. The right hand is holding some object which cannot be determined. An applied

indented *yagyopavita* (?) is seen falling from the left shoulder. The arms are stretched. A girdle of two strands is seen at the waist. Date beginning of the Christian era.

Warriors (pl. LXXIX A)

1. (1719). A figurine with goat-like face and slit mouth. A necklace decorated in circles is seen in bold relief round the neck. The nipples have been indicated by circle. The right dwarfish hand is extended. The fingers of the right hand have been crudely shown by grooves. An *yagyopavita* of two strands is seen falling from the left shoulder. A decorated girdle appears on the waist. Date beginning of the Christian era.
2. (438). A figurine with ram-like face. The ear-ornament is pendant-like and decorated. The hair has been arranged at the back in a conical fashion. An indented necklace is seen round the neck. The central knot of the girdle rises towards the abdomen in a leaf-like pattern. Date 1st century B.C.
3. (269). A crude figurine with a ram-like face wearing a pendant-like ear ornament. A decorated necklace of two strands is seen round the neck. An *yagyopavita* of two strands is falling from the left shoulder. The arms are extended. There is a broad girdle at the waist. Date beginning of the Christian era.
4. (146). A figurine with goat-like face holding some object in the two hands. The hair has been arranged at the top in a conical fashion. The mouth is very small but wide-open. A thick indented necklace is seen round the neck. An *yagyopavita* of two strands has been shown falling from the left shoulder. The ears are fan-shaped. Date 1st century B.C.
5. (616). A figurine with projected face. The hair has been arranged at the top in a conical manner. The eyes and mouth have been indicated by grooves. A soldier-like garment of three strands is seen falling from the left shoulder. There is a similar garment round the neck. Date beginning of the Christian era.
6. (735). A headless figurine holding mace-like object in the two hands. The mace in the left hand is smaller. The *yagyopavita* and necklace are broad and applied. A girdle of three strands is seen at the waist. Date beginning of the Christian era.

Terracottas similar to those described in above two plates have been found at Ahichchhatra and dated between 450 and 650 A.D.

Demons (pl. LXXIX B)

1. (900). A female demon with a ferocious face and protruded breasts. She holds a bowl in the left hand. The ear-ornament is decorated in the pattern of circles in circular rows. The ears are broad and fan-shaped. The nose is too much projected. The eyes are raised in frown. The head-dress is indented and fan-like. There is a broad decorated necklace round the neck. The

figure has been manufactured on a stump. There are no physical details below the chest. Date beginning of the Christian era.

2. (2028). A defaced figure with raised eyes and suspended ears. The hair has been worked on the top in a crown-like fashion. There is an ornament in the suspended ears. The eyes have been indicated by grooves and pupil by holes. The figure has been manufactured on a solid stump without any details below the face. Date 2nd century B.C.

Demons (pl. LXXIX C)

1. (1146). A defaced female demon with protruded breasts and wide-open mouth. A decorated circular ornament round a hole is seen in the ear. The hair has been arranged at the back. The figure has been manufactured on a hollow stump. Date 1st century B.C.
2. (1374). A dwarf headless demon with a very wide-open mouth. A small animal has been shown in the mouth as being swallowed. The ears, nose and eyes have all been shown mixed up in one flat level. The ears have a hole for holding ornament. The figure has been made on a solid stump. Date 1st century B.C.

Crowned Heads (pl. LXXX A)

1. (1470). An elongated head with broad eyes. The pupil of the eyes has been shown by a prominent hole. There is an auspicious mark (bindi) on the forehead. The crown rising on the top carries decoration in vertical lines and holes. The mouth is slightly open. The ears are long. Date 1st century B.C.
2. (1463). Head with the mouth slightly turned and open. The ears are fan-shaped. The ears are carrying an ornament. There is a circular decoration round the crown, which has a pointed end on the top. The pupil of the eyes has been shown by circular grooves. Date 1st century B.C.
3. (1371). A defaced head with a profusely ornamented crown rising above the head. The ornamentation consists of circles both in depth and relief. The eyes are broad and raised. The lips are thick. The ears are fan-shaped with a hole at the centre. Date of the Christian era.
4. (1784). An elongated head with a heavy decorated crown rising in a trefoil manner. The ears are fan-shaped. The eyes are drooping and the lips thick. The chin has been prominently shown. Date 1st century B.C.

Terracottas representing crowned heads as described above have been found at Rajghat, Kausambi and Bhita and the dates assigned are 700-1200 A.D., 50-325 A.D. and 1st century A.D. respectively.

Dancing Figures (pl. LXXX B)

(1115). Four dwarfish dancing figures, one of them being without head. Amongst the dancing figures male and female have been shown alternately. They are all dancing with hand

in hand. The head-dress is fan-shaped and decorated. The ears are suspended. The face is bird-like and but for the slit mouth the facial features are not marked. There is an indented necklace round the neck. The fingers of the feet have been indicated by grooves. The dancing figures have been shown on a pedestal. Date beginning of the Christian era.

Dancing Figures (pl. LXXX C)

(378). Bottom portion of a terracotta representing dancing figures. Date beginning of the Christian era.

Dancing Figures (pl. LXXX D)

1. (2029 A). Feet of a group of figures, most probably representing dancing figures on a pedestal base. A girdle can be observed on the figures towards the extreme left. The fingers of the feet of all the figures are clearly shown by grooves.
2. (2029 B). Another terracotta similar to No. 1. Date of both 2nd century B.C.

Crudely Handmade Heads on Handle (pl. LXXXI A)

1. (UR). A crude head with a wide-open mouth carrying a hole. The lips are thick. The nose is prominent. The raised eyes have been shown by grooves and pupil by hole. The decorated object in centre of the forehead might be an ornament. (Unstratified).
2. (1811). A crowned head with open mouth. The eyes are applique. Date beginning of the Christian era.

Terracottas similar to two numbers described above have been found at Bhita and Rajghat and the dates assigned are 1st century B.C. and 300 B.C. to the beginning of the Christian era respectively.

Moulded Head in Round (pl. LXXXI B)

1. (657). A beautiful head, most probably of a female, with charming features. The hair has been arranged at the back and covered by some cloth. The forehead is broad. The eyes are very attractive. Similar is the case with the nose, lips and mouth. The chin is prominent. Date beginning of the Christian era.
2. (187). A deep red head slightly defaced with charming expressions. A hole at the top of the head might be for hanging on the wall. The eyes, nose and mouth have been beautifully shown. It is likely that the terracotta is a part of a lamp. Date beginning of the Christian era.
3. (1948). A head with charming facial features. The nose and eyes have been prominently shown. The mouth is a little wide-open. Date beginning of the Christian era.

Terracottas similar to those described above have been found at Ahichchhatra and the above date assigned is 6th century A.D. Similar heads from Sonpur and Buxar have been reported from a much earlier context.

Mould (pl. LXXXII A)

1. (382). Mould of a charming female figurine with a prominent ornament in the centre of the forehead. The ornament is decorated in raised circlets. The hair has been arranged nicely to fall on the two sides. There is an ornament in the ear decorated in the pattern of a central hub and spokes. Date 2nd century B.C.
2. (731). This is a cast from a smaller mould similar to No. 1

Similar terracottas have been found at many sites in northern India like Ahichchhatra, Hastinapur, Kausambi, Rajghat, Mathura, Sonpur and Tilaurakot and the dates assigned are 100 B.C. to 100 A.D., 2nd century B.C. to end of 3rd century A.D., 255 B.C. to 100 A.D., Maurya-Sunga times, 2nd century B.C. to end of 1st century B.C., 3rd-2nd century B.C. and 200 B.C. respectively.

Heads with Side-lock (pl. LXXXII B)

1. (1293). Head with rounded side-locks. The nose and eyes have been prominently shown. The pupil has been indicated by hole. There is a crown on the top decorated in a circular and indented manner. The long ears carry a circular ornament. The mouth is slightly bent and open. Date beginning of the Christian era.
2. (1163). An elongated head with rounded side-locks and prominent nose. The mouth is broad. The nostrils have been indicated by hole. The eyes show by groove are not in a line. The hair has been worked up at the back. The head is covered. Date 1st century B.C.
3. (736). Head with a rising head-dress. The nose is unusually prominent. Similar is the case with eyes and eye-brows. The lips are thick above which a drawn moustache has been shown. The chin is broad. Date 1st century B.C.

Similar terracottas have been reported from Mathura, Bhita and Kausambi and the dates assigned are 1st century A.D. to 3rd century A.D., Gupta times and 305 A.D. to 375 A.D.

Crudely-finished Ferocious Heads (pl. LXXXIII A)

1. (1463). A head crudely manufactured with a unusually broad mouth and thick lips. The prominent nose has been damaged. The eyes are broad. Date 1st century B.C.

Heavy Handmade Female Figurines (pl. LXXXIII B-C)

(1175). The front side of a heavy handmade female figurine on a thick stump. The breasts are pointed. Folds of garment are falling from the left shoulder. Similar garment has been shown round the neck. The hair has been arranged at the back falling in lines. The hands are extended. Head missing. Date beginning of the Christian era.

Miscellaneous figurines (pl. LXXXIV A)

1. (1865). A head with bent mouth and fan-shaped ears. The eyes are broad but not in a line.

They have been shown by grooves and pupil by hole. The hair appears to have been worked up on the forehead. Date beginning of the Christian era.

2. (UR). A head with a fan-shaped high head dress which has been profusely decorated. There is an auspicious mark (*bindi*) on the forehead. The eyes, mouth and chin have been prominently shown. Unstratified.
3. (1947). A head with a broad and wide-open mouth. There is an auspicious mark (*bindi*) on the forehead. The eyes are broad. There is a fan-shaped indented head-dress on the top. Date beginning of the Christian era.

Terracottas similar to those described above have been found at Achichchhatra, Kausambi, Rajghat and Bhita and the dates assigned are 450-750 A.D., Kushan times, 1st to 3rd century A.D., and Kushan times respectively.

PERIOD IV

Musicians (pl. LXV A)

7. (594). An almost completely defaced female with pinched bird-like face. There is a decorated necklace round the neck. The breasts are rounded. Date 1st-2nd century A.D.
8. (1270). Another defaced female figure with pinched bird-like face. The feet have been drawn apart. The figure is deprived of any proportion. Date 1st-2nd century A.D.

Crudely Handmade Miniature Figures (pl. LXVI A)

7. (639). A crowned torso almost completely defaced. The head is inclined towards the right side. (Unstratified).

Moulded Heads (pl. LXVI B)

8. (42). A beautiful head with charming facial features. The hair has been elaborately dressed on the two sides of the head. On the right side the head-dress is in the pattern of radiating lines; whereas on the left side the hair is falling in a coiffure-like fashion (in oblique lines) separated by grooves. A circular *kundala*-like ornament is seen in the ears. Date 1st century A.D.
9. (1009). Another beautiful head with charming facial features. The dressing of the hair is also similar to no. 8, but for a little difference on the right side. In this case it is falling obliquely. The ear is having heavy solid *kundala* decorated in pomogranate pattern. Date 1st century A.D.

Terracottas similar to the above two are found at Mathura, Achichchhatra, Rajghat and Tilaurakot and the dates assigned are 200 B.C. to A.D., 300 to 200 B.C., Maurya-Sunga times, and 2nd century B.C. respectively.

Pedestal Figures (pl. LXVII A)

2. (636). A set of at least two figures on a pedestal, of which the left one is damaged. The figure is crudely manufactured with applied eyes and mouth. The hair has been arranged and tied at the back. The ear-ornament has been shown by a depression. There is an indented necklace round the neck. A *yagyopavita* of two strands is seen falling obliquely from the left shoulder. The girdle at the waist is also indented. The arms are extended. The fingers of the feet have been differentiated by grooves. Date 1st century A.D.
3. (117). Though a pedestal figure, it can also be considered in the group of musicians. The figure is standing with cymbals in the hand. The head is missing. There is an indented necklace round the neck. An *yagyopavita* of two strands is seen falling from the left shoulder. There is a girdle at the waist. The fingers of the foot have been distinguished by grooves. Date 1st century A.D.

Figures like the two described above have been called Naigamesh at Ahichchhatra and dated between 450 and 650 A.D.

Crudely Handmade Figurines with Unimpressive Face (pl. LXVII B)

2. (1416). A completely defaced figure. Date 1st century A.D.
3. (676). A figure with a pinched bird-like face. There is an indented necklace round the neck. A decorated *yagyopavita* is seen falling from the left shoulder. The girdle has been indicated by grooves. Date 1st century A.D.
4. (240). A defaced figure. The facial features have been shown in a most careless manner without any proportion or symmetry. The feet have been drawn apart. Date 1st-2nd century A.D.
5. (1241). Another defaced figure in which the facial features can be made out. The hair has been arranged in a conical manner over the head. The eyes have been shown by groove and relief. The figure is deprived of any proportion or symmetry. The nose, however, has been shown properly. The hands are stretched sideways. Date 1st century A.D.
6. (1716). A defaced figure with hair arranged at the back. The eyes have been shown by circlets. An *yagyopavita* (damaged) is seen falling from the left shoulder. The nipples have been showy circle. Date 1st century A.D.

Figures similar to those described above have been reported from many places like Ahichchhatra, Hastinapur, Kausambi, Vaishali, Kumrahar, Pataliputra, Bhita, Sonpur and Rajghat and the dates assigned are 450-650 A.D., 1st century B.C. to 200 A.D., 300 to 700 A.D. respectively.

Crudely Handmade Figurines with Unimpressive Face (pl. LXVIII A)

6. (1630). A torso with ram-like face holding some object tightly in his left hand. There is a conical head-dress at the back. The eyes are circular and the ears suspended. The mouth is slit. An *yagyopavita* of two strands is seen falling from the left shoulder. There are traces of a necklace round the neck. Date 1st-2nd century A.D.
7. (1425). A head with a ram-like face. The ear-ornament is decorated with vertical grooves. The eyes are prominent. The head-dress is fan-shaped and indented. The mouth is unproportionately large and wide-open. Date 1st century A.D.
8. (662). A defaced torso with an indented necklace. Date 1st-2nd century A.D.
9. (399). Bust of a figurine deprived of any details, but for the necklace decorated in circles. Date 1st century A.D.

Terracottas of a similar type were found at Hastinapur and a general date between 200 B.C. to 300 A.D. has been assigned.

Crudely Handmade Figurines with Unimpressive Face (pl. LXVIII B)

5. (524). A figurine with circular eyes and extended arms. The ears are fan-shaped and the hair has been arranged at the back. Date 1st century A.D.
- Similar terracotta has been reported from Hastinapur, Vaishali and Rajghat and the dates assigned are 200 B.C. to 300 A.D., 150 B.C. to 100 A.D. and 1st century to 3rd century A.D., respectively.

Crudely Handmade Heads with a Tenon below (pl. LXIX A)

8. (2106). A red-slipped head with damaged fan-shaped head-dress on the top. The eye-brows and eyes have been indicated by grooves without any care for proportion or symmetry. The mouth is slit. Date 1st century A.D.
9. (60). An almost completely defaced figure. Date 1st-2nd century A.D.

Similar terracottas have been reported from Rajghat in Gupta and post-Gupta levels.

Crudely Handmade Heads with a Tenon below (pl. LXIX B)

6. (416). A head with an unproportionately prominent ugly nose. There is an indented fan-shaped head-dress on the top. An auspicious mark (*bindi*) is seen on the forehead. The ears are fan-shaped. The eyes and eye-brows have been indicated by grooves and pellets. The lower lip is very thick. Date 1st-2nd century A.D.

Though figures not very much different from the above terracotta have been found at Rajghat, the date assigned is too late i.e. 300 to 1200 A.D.

Crudely Handmade Heads with a Tenon below (pl. LXX A)

5. (986). A head with an ornament in the centre of the forehead. The forehead has also been adorned with an auspicious mark (*bindi*). The nose is prominent. The eye-brows and eyes have been indicated by grooves and pupil by circlets. The mouth is slit. The figure is not well proportioned and the mouth is slightly bent. Date 1st century A.D.
6. (440). A head with a fan-shaped indented head-dress on the top. The ear-ornament is typical and decorated in horizontal grooves. The nose is prominent. Date 1st century A.D.
7. (553). An almost completely defaced head with a fan-shaped indented head-dress on the top. Date 1st century A.D.
8. (210). Head, probably of a female. The ornament in the suspended ear is decorated in vertical lines. The mouth is wide-open. There is a indented broad necklace round the neck. The nose is prominent. The eyes have been indicated by grooves and pupil by circlets. Date 1st-2nd century A.D.
9. (652). A better-finished head, though defaced. It is covered by a dark red slip. There is a fan-shaped indented head-dress on the top. The eyes have been prominently shown. The mouth is slit and unproportionately long. Date 1st century A.D.

Terracottas similar to those described above have been found at Kausambi and the date assigned is 165-235 A.D.

Crudely Handmade Head with a Tenon below (pl. LXX B)

4. (1825). A defaced head, probably of a female, with a pierced circular ear-ornament. There is an indented fan-shaped head-dress on the top. The eyes have been prominently shown. The slit mouth is unproportionately long. Date 1st century A.D.
5. (1465). A damaged head with a prominent nose and well-proportioned slit mouth. The eyes are broad and prominently shown. There is an auspicious mark (*bindi*) on the forehead. Date 1st century A.D.
6. (1160). A defaced head with an auspicious mark (*bindi*) on the forehead. Date 1st century A.D.
7. (78). A defaced head with prominent eyes and conical head-dress on the top. The ears are fan-shaped. Date 1st-2nd century A.D.
8. (234). A damaged head. A dark red slip has been applied over the terracotta. There is indented fan-shaped head-dress on the top. The top of the ear is having stud-like ornament. The eyes are prominent. The mouth is applied and slit. It is a little wide-open. Date 2nd-3rd century A.D.

9. (1264). A defaced head with prominent eyes and high fan-shaped head-dress on the top. The mouth has been shown in a very crude manner. Date 1st-2nd century A.D.

Terracotta similar to those described above have been found at Ahichchhatra, Ghosi, Bhita and Rajghat and the dates assigned are 450-750 A.D., 1st century A.D., 1st century A.D., and 300-1200 A.D. respectively.

Crudely Handmade Heads with a Tenon below (pl. LXXI A)

1. (1662). A defaced head with fan-type head-dress decorated in oblique slashes on the top. The ears are also fan-shaped. The eyes are drooping. The mouth is wide-open. Date 1st century A.D.
2. (794). A defaced head. There is a hooded head-dress on the top. The ears are fan-shaped with hole for carrying an ornament. The nose, eyes and mouth have been shown by pinching. They are unusually small in proportions. The nose between the eyes has been shown in an unusual manner. Date 1st century A.D.
3. (UR). A defaced head with features almost similar to no. 1. (Unstratified).
4. (807). A head with unsymmetrical facial features. There is a fan-shaped decorated head-dress on the top. The forehead carries an auspicious mark (*bindi*). The mouth is small but wide-open and twisted. The eyes and eye-brows have been shown by deep grooves. The ears are fan-shaped and the chin is broad. Date 1st century A.D.
5. (888). Head with a fan-shaped head-dress and ears. There is an auspicious mark (*bindi*) on the forehead. The eyes are protruded. They have been shown with the help of grooves and circles. The nose is very prominent. Date 1st century A.D.
6. (1406). Head with an unusually projected nose. The decorated head-dress is fan-shaped. The ears are also fan-shaped with holes for carrying ornament. The eyes are protruding. The mouth is wide-open. Date 1st century A.D.

Terracottas similar to those described above have been found at Ahichchhatra, Kausambi, and Bhita and the dates assigned are 450-750 A.D., 165-265 A.D. and 1st-2nd century A.D.

Crudely Handmade Heads with a Tenon below (pl. LXXI B)

1. (556). Head, probably of a female, with heavy *kundala* in the ear. There is an auspicious mark (*bindi*) on the forehead. The nose is prominent and mouth long. The eyes are broad. The top of the head carries a projected circular object. Date 1st-2nd century A.D.
2. (748). A defaced head with hairs arranged at the centre of the forehead. The facial features are unproportionate and unsymmetrical. The small mouth is wide-open. Date 1st-2nd century A.D.

3. (667). Head with a conical head-dress on the top. The eyes are broad and protruding. The mouth is open and the lips are thick. The facial features are not symmetrical. Date 1st-2nd century A.D.
4. (311). Head with an auspicious mark (*bindi*) on the forehead. There is an indented fan-shaped head-dress on the top. The eyes are broad. The mouth is wide-open. Date 2nd-3rd century A.D.
5. (424). A damaged head with fan-shaped indented head-dress on the top. The eyes are broad. The facial features are unsymmetrical. Date 1st-2nd century A.D.
6. (UR). An unproportionate head with curved side-locks. The fan-shaped ears are carrying an ornament. There is a indented fan-shaped head-dress on the top in two tiers. The forehead has been adorned with an auspicious mark (*bindi*). The eyes are broad and the chin is heavy. (Unstratified)

Female Torso with Suspended Ears (pl. LXXII A)

5. (841). A well-finished female torso with long suspended ears. There are holes in the ear for carrying an ornament. The head-dress is decorated in small oblique grooves. The nose is prominent. The eyes have been shown by grooves and relief and the pupil by circlets. The breasts are pointed. The nipples have been indicated by small circular hole. The hands have been drawn apart. There is a decorated necklace round the neck. The terracotta is covered by a red slip. Date 1st century A.D. Similar terracotta has been found at Pataliputra and the date also is the same.

Female Figures on Stump (pl. LXXII B)

3. (2104). A female figure without head. The breasts are pointed. There is a decorated necklace with a locket in the neck. Date 1st century A.D.

Similar terracotta has been found at Ahichchhatra, Hastinapur, Sravasti and Ghosi and the dates assigned are 650-750 A.D., 12th-13th century A.D., 4th-5th century A.D. and Kushan times respectively.

Better-finished Handmade Heads (pl. LXXIII A)

2. (1290). A female head with fan-shaped ears. There is a necklace with oblique suspended pendants round the neck. The ornament in the suspended ear is decorated in oblique lines. The hair has been tied in a knot above the head. The defaced facial features have been carelessly shown. The hands are stretched. Date 1st century A.D.
3. (1120). A figure, probably of a female, with a decorated fan-shaped head-dress on the top. The ornament in the suspended ear is decorated in a pattern of vertical grooves, the eyebrows and eyes have been indicated by grooves and circles. Date 1st-2nd century A.D.

4. (1680). A female figure with round prominent breasts. There is a necklace of three strands round the neck. The ornament in the ear and the facial features are similar to no. 3. Date 1st Century A.D.
5. (1424). An oval head, probably of a female, with a crown-like head-dress ending in a conical shape on the top. The fan-shaped ears are carrying an ornament. There is a necklace round the neck. The facial features have been rendered in a better manner. Date 1st-2nd century A.D.

Terracottas similar to those described above have been found at Ghosi and the date assigned is 1st century A.D.

Crudely Handmade Figurines with a Stand Base (See pl. LXXIII A)

4. (1155). A female figure with fan-shaped ears and conical decorated head-dress on the top. The eye-brows, eyes and mouth have been shown with the help of grooves in a careless manner. The nose is prominent. The necklace round the neck is applied and decorated. The breasts are pointed. Date 1st century A.D.
5. (1114). A female figure with the right hand resting on the waist. The head-dress is conical. The eyes and mouth have been carelessly shown by grooves. The ornament in the ear is decorated in oblique and vertical grooves. The necklace is applied and indented. The breasts are pointed. The left hand is missing. The fingers of the right hand have been distinguished by grooves. Date 1st century A.D.
6. (488). A crudely manufactured female figure with a frightening expression. The fan-shaped ears are carrying an ornament decorated in vertical grooves. The necklace is also decorated. It is applied. The breasts are pointed. The facial features are merging in each other. Date 1st century A.D.

Crudely Handmade Figurines with a Stand Base (pl. LXXIII C)

3. (968). A standing figure, probably of a female, with extended arms. The hair has been arranged on the top of the head in a conical form. The eyes, eye-brows and the mouth have been shown by grooves and the pupil by hole. The ornament in the suspended ear is decorated in vertical grooves. The necklace is also decorated. Date 1st century A.D.
4. (1118). A standing figure, probably of a male, with thick folds of garment falling from the left shoulder and also passing round the neck. The hair has been arranged on the top in a conical fashion. Though the facial features have been damaged, it can be made out that the eyes and eye-brows were indicated by grooves and pupil by hole. The suspended ears hold an ornament. Date 1st century A.D.

Crudely Handmade Figurines with a Stand Base (pl. LXXIV A)

1. (1397) A female figure on a stump with defaced head. The suspended ear carries an ornament. The necklace is decorated. The breasts are pointed and nipples made prominent by circle. The left hand carries three broad bangles. The figure appears to hold a bowl in the left hand resting on the waist. Date 1st century A.D.
2. (491). A standing female figure with a child sucking the breast. The figure has been made on a hollow stump. The hands have been rounded up on the chest. The fingers of the feet have been distinguished by grooves. Date 1st century A.D.
3. (1305). A standing female figure without head. The breasts are pointed. The right hand carrying three bangles rests on the thigh. The fingers of the right hand have been distinguished by grooves. The figure has been made on a solid stump. Date 1st century A.D.
4. (997). A female figure without head. The breasts are pointed. There is an indented necklace round the neck. The left hand carrying bangles rests on the abdomen and the right on the thigh. The fingers of the hand and foot have been distinctly marked by grooves. The foot carries anklet. The feet are resting on a stool-like object. A bowl has been shown below the left hand on the thigh. A stump has been provided at the back of the figure for support. Date 1st century A.D.

Terracottas similar to those described above in three plates have been found at Ghosi and Kumrahar and the dates assigned are 1st century A.D. and 3rd-4th century A.D. respectively.

Moulded Plaques (pl. LXXIV B)

5. (776). A damaged seated figure. Traces of necklace and a girdle can be observed. Date 1st century A.D.
6. (703). A standing figure, probably of a female, with the folds of lower garment falling on the feet. Date 1st century A.D.
7. (970) An unproportionate and almost completely defaced figure with the left hand resting on the waist. The breasts are rounded. The head is damaged. Date 1st century A.D.
8. (146). Lower part of a mutilated standing figure, probably of a male. The garment appears to be falling on the sides, Date 1st century A.D.
9. (68). Lower part of a standing figure with the garment covering almost the entire feet upto the ankles. The fingers of the feet have been distinguished by grooves. Date 1st century A.D.

Terracottas similar to those described above have been reported from Ahichchhatra, Kausambi, Rajghat and Kamrahar and the dates assigned are 100 B.C. to 100 A.D., 185 B.C. to 25 A.D., Maurya times and 300 to 600 A.D. respectively. Similar terracottas have been reported from the rampart filling at Tilaurakot as well.

Pedestal Votive Figures (pl. LXXV A)

2. (47). Lowest part of a mutilated squattish figure with unusual proportions. The girdle is applied. The fingers of the feet have been shown distinctly. Date 1st century A.D.
3. (1665). Lowest portion of mutilated figure with the fingers of the feet distinctly shown. Date 1st century A.D.
4. (1111). Lowest portion of two mutilated figures, one of them completely damaged. The girdle has been shown in an irregular manner, though distinctly. Date 1st century A.D.
5. (542). Lowest part of a figure with a trough-like vessel kept in front. Date 1st century A.D.

Terracottas as described above were found at Ahichchhatra, Kausambi and Rajghat and the dates assigned are 100-200 A.D., 1st century A.D. and 1st to 3rd century A.D. respectively.

Crudely Handmade Heads on Handle (pl. LXXXI A)

3. (UR). Head with a ornament in the suspended ear. The nose is prominent and the lips are heavy and eyes broad. The mouth is open. (Unstratified).
4. (929). Head with fan-shaped ears. The nose is projected. The eyes are broad and lips thick. The head-dress rises above in a pyramidal fashion. Date 1st century A.D.

Terracottas similar to the above two have been reported from Bhita and Rajghat and the dates assigned are 1st century A.D. and 300 B.C. to the beginning of the Christian era respectively.

Moulded Head in Round (pl. LXXXI B)

4. (2). Bust of a female figure with pointed prominent breasts. There is a broad indented necklace round the neck falling over the breasts. (Unstratified).

Crudely-finished Ferocious Heads (pl. LXXXIII A)

2. (963). A damaged oval head with a prominent nose and wide-open mouth. The left eye has been shown by a groove. The forehead has been made prominent by a raised band. Date beginning of the Christian era.
3. (657). A damaged oval head with a prominent nose, well-proportioned cheek and mouth, raised eyes and broad chin. The hair appears to have been tied with the help of a band above the forehead. Date beginning of the Christian era.
4. (1958). A head with a tilted mouth and raised eye-brows and bulging eyes with the pupil marked in one eye by a hole. There is a circular decorated head-gear on the top. The mouth is broad and wide-open. Date beginning of the Christian era.
5. (1126). An elongated head with unusual prominent nose and bent slit mouth. The eyebrows are raised and the eyes have been indicated by means of groove. The holes of the nostril are

prominent. The chin is broad. An indented necklace has been applied round the neck. Date beginning of the Christian era.

Miscellaneous Figurines (pl. LXXXIV A)

4. (397). A head with fan-shaped ears and suspended decorated ear-ornament. The head-dress is indented and in two tiers. The eyes are broad and protruding with the pupils shown by means of hole and eyes-brows by arched-groove. The nose is prominent and lips are thick. There is an auspicious mark (*bindi*) on the forehead. Date first-second century A.D. Similar heads have been reported from many sites like Ahichchhatra, Rajghat, Kumrahar and Kausambi. But for Ahichchhatra, where it has been dated between 450 and 750 A.D., such heads have been found from Kushan levels.
5. (724). A mutilated figurine with a loin cloth and *langoti* of two strands. The navel has been prominently shown by means of a hole. Date first century A.D.
6. (726). A mutilated figurine with a loin cloth and *langoti* of two strands. The navel has been prominently shown by means of a hole. Date first century A.D.

Defaced Heads with Halo (pl. LXXXIV B)

1. (1555). An almost completely defaced head, of which only the open mouth and a little of the nose., eyes ad ears can be made out. (Unstratified).
2. (1785). But for the decorated halo in three tiers nothing can be made out. Date beginning of the Christian era.
3. (URA). A defaced head with a prominent nose and broad chin. (Unstratified).
4. (URB). Completely defaced head with a tenon below. (Unstratified).
5. (614). A defaced head with a *bindi* (auspicious mark) on the forehead, broad eyes and prominent nose. The mouth is wide-open and the ears have suspended ornament. Date beginning of the Christian era.
6. (URC). A defaced head with prominent nose and long ears. (Unstratified).
7. (URD). A defaced head with long ears and prominent nose. (Unstratified).
8. (URE). A completely defaced head with long ears (Unstratified).
9. (URF). A completely defaced head. (Unstratified).

Moulded Heads with a Crown and Tenon below (pl. LXXXV A)

1. (79). A round head with indented necklace. The ears have been indicated by depression. The facial features are charming. Date 1st century A.D.

2. (2180). A beautiful oval head with charming features and high decorated crown of a lady. The ears have been shown by depression. The cheeks are blooming. Date 1st century A.D.
3. (478). A small head with an oblique tenon below. The hair has been arranged on two sides. Both the eyes and nose are prominent. The facial features are very proportionate and charming. Date second-third century A.D.
4. (765). A majestic head with most attractive features. The ears have been shown by depression. The high decorated crown and the facial features in two tiers indicate that the figure is of a male. Date second-third century A.D.
5. (494). A damaged round head of a lady. Date beginning of the Christian era.

Moulded Heads with Foreign Features (pl. LXXXV B)

1. (683). A badly damaged head with fan-type ears. Date beginning of the Christian era.
2. (99). A red-slipped head with protruding eyes, damaged projected nose, coil-type head-dress, fan-shaped ears with hole for ornament. The mouth is slightly tilted and slit. Date beginning of the Christian era.
3. (1120). A red-slipped head with projected nose and hooded-type head-dress covering the ears as well. The eyes are small and protruded. The slit mouth is not symmetrical. Date beginning of the Christian era.

Handmade Female Torso with Decorated Necklace (pl. LXXXV C)

1. (940). A heavy female torso with a head-dress carrying circular ornamentation. There is a *bindi* (auspicious mark) on the forehead. The eyes are broad and raised. The nose is prominent and mouth slit. In the ear a suspended custard apple-like ornament has been shown. The chin is broad. The neck has an indented necklace of several strands. An ornamented garland has been shown falling over the prominent round breasts. The torso is hollow. Date second-third century A.D. Similar figure is available from Mathura datable to Mauryan times. Another specimen with a little similarity has come from Rajghat, though the same has been dated to 1200 A.D.

Headless Female Torso with Decorated Necklace (pl. LXXXVI A)

- (959). A female figure almost similar to that illustrated in plate LXXXV C. Date is also the same.

Crudely-Finished Buddha-heads (pl. LXXXVI B)

1. (653). An almost completely defaced head with slit mouth, half-closed eyes and broad head. Date 1st century A.D.

2. (1647). A defaced head with hair tied into a knot on the top. The hairs are also indicated falling on the broad forehead. The eyes are half-closed and lips thick. Date second-third century A.D.
3. (1648). An almost completely defaced head with half-closed eyes. Date second-third century A.D.

Buddha-head (pl. LXXXVI C)

(749). A beautiful head of Buddha with curly hairs and broad forehead. The eyes are half-closed in meditation. The nose is prominent. The lips are thick and heavy. The mouth is slit and chin prominent. The ears are proportionately smaller. Date second-third century A.D.

Buddha-Head (pl. LXXXVI D)

1. A proportionate head of Buddha with curly hairs. The forehead is broad and nose prominent. The eyes are completely closed in meditation. The lips are thick and heavy. The mouth is slit. The ears have been shown with the help of depression. Date second-third century A.D.

Standing Buddha with Halo (pl. LXXXVII)

(1782). A standing Buddha-figure with a prominent decorated halo and a crown. The forehead is broad and the eyes are half-closed. The nose is prominent and chin projected. The lips are thick. The hands are shown falling on the sides. A simple ornament is seen under the right arm falling from the left shoulder. The figure wears a girdle of three strands. Date second-third century A.D.

Unique sitting-Buddha (pl. LXXXVIII)

(1044). A beautiful unique figure of Buddha sitting on a double lotus throne in deep meditation. He is holding the fingers of his left hand into the right. The halo round the head is decorated with radiating sun-rays. The head-dress is beaded. The *urna* mark is seen on the forehead. The *usnisa* appears as a slight projection on the top of the head. The ears are long and pierced. The prominent nose is damaged. The eyes are fully-closed in meditation. The lips are thick and heavy. The mouth is slit. Folds of the drapery are very prominent and cover almost the entire half of the body. The right foot is also covered by the drapery, which falls partly on the right shoulder as well. The right hand, a part of the left hand and the feet are bare. The ears are elongated. The navel has been shown prominently. The skill displayed in the overall finish of the terracotta is masterly. The figure is in a unique *mudra*. Date second-third century A.D.

Leg-portion of Buddha in Dhyanamudra (pl. LXXXIX A)

1. (675). Damaged bottom portion of a lion throne of Buddha sitting in *dhyanamudra*. One of the lions below the left leg is intact. The other lion and the right leg are damaged. Date second-third century A.D.

2. (2093). Damaged bottom-portion of Buddha in *dhyanamudra*. The right sole is completely turned upwards which is rather unusual. The fingers of the right foot are also too thick and prominently shown. Date second-third century A.D.

Sitting figure, Religious? (pl. LXXXIX B)

1. (1652). A headless sitting- figure with a thick staff-like object in his right hand. There is an armlet on the left arm. A prominent star-like jewel (*Srivatsa*) on the chest. Date second-third century A.D.
2. (1650). An almost completely defaced figure similar to no. 1. Date second-third century A.D.

Jain-figure ? (pl. LXXXIX C)

(677). A standing nude headless male figure. The hands and feet are damaged. Date second-third century A.D.

Male-figure with Snake-hood (Siva ?) (pl. XC A)

(1422). A male-figure, most probably Siva, with snake-hood on the top. The snake-hood is decorated with circlets. The hair is shown falling on the forehead like a cap. The ears are fan-shaped. The eyes and nose are prominent. There is a slit mouth between the thick lips. The hands are falling on the sides. The nipples are prominently shown. A broad *yagyopavita* decorated with oblique incisions is falling from the left shoulder. It is covering the left nipple partly. Date second-third century A.D.

Three-eyed Head (pl. XC B)

(2036). A three-eyed head with heavy *kundalas* in the ear. The head may be of Siya in his *rudrarupa* with an expression of anger on the face. The head-dress is fan-shaped decorated with oblique indented lines in relief. The eyes are broad. The prominent nose is damaged. The ears are fan-shaped with a hole on the top. There are two necklaces, one fitting the neck closely and the other falling upto the breasts. They are ornamented in the pattern of circles in high relief. Date 1st century A.D.

B. ANIMAL FIGURINES

Stamped Figurines (pl. XCI)

1. (1507). A headless figurine covered with a deep red slip. The feet are also missing. The figurine is decorated in angular lines divided into different compartments with the help of vertical lines. Decoration in circular notches can also be observed near the tail which is broken. The same design also appears below the neck. A band of triangular design is also depicted round the neck. Period II. Date 5th-4th century B.C.
2. (568). A headless figurine carrying an irregular decoration of horizontal lines crossed by

- vertical lines. The feet are also missing. The figurine is covered with a red slip. Period II. Date 4th-3rd century B.C.
3. (311). A headless figurine decorated in irregular series of notches between horizontal lines. The feet are also missing. Decoration in notched pattern can also be observed near the neck. Period II. Date 4th-3rd century B.C.
 4. (1875). A damaged figurine without feet. It is probably a dog with a strap round the neck. The figurine is stamped with circles, which are divided into four compartments, each compartment having a dot in relief. Period III. Date 1st cent. B.C.
 5. (248). A headless figurine decorated near the hind legs in two vertical lines with oblong notches in between. The feet are also missing. Period III. Dated 2nd century B.C.
 6. (464). A headless figurine carrying a decoration of parallel lines in relief on the back and the neck. The feet are also missing. Period III. Date 2nd century B.C.
 7. (1403). A headless figurine carrying a decoration of diagonal lines. The feet are also missing. Period III. Date 1st century B.C.
 8. (646). A headless figurine carrying two types of decoration on its back. One of them represents cross and the other criss-cross lines within square compartments. The feet are also missing. Period IV. Date 1st century A.D.
 9. (290). a headless figurine decorated in parallel grooves on the sides. The feet are also missing. There is a cross mark at the back. Period III. Date 2nd century B.C. A few stamped terracotta animal figurines have also been reported from Kausambi. They have been dated to 600 B.C.

Painted Figurines (pl. XCII A)

1. (2020). A ram-like figurine of which the feet and mouth are damaged. The eyes have been indicated by incision. Circular pellets are shown in relief. A strip fixed at the back runs across the body. The figurine is painted all over in blackish colour. Period II. Date 5th-4th century B.
2. (1684). A figurine of which the feet and mouth are damaged. There are two bold lines in relief, one above the neck running horizontally and the other over the front legs running vertically and crossing the horizontal line at right angles. The tail, though damaged, has been shown prominently and in the manner of having turned back. Period III. Date 1st century B.C.
3. (1816). A figurine with damaged feet, probably a monkey. The tail is turned over the back reaching almost upto the head. Period III. Date 1st century B.C.
4. (1965). A defaced animal with damaged feet, mouth and tail. There are traces of decoration on the forehead. Period III. 1st century B.C.

5. (1956). A black-slipped figurine, probably a dog, with fan-shaped ears. The tail has turned over the back. The face, eyes and ears are painted in buff colour in the pattern of dots. A painted thick band appears round the waist. Period III. Date 2nd century B.C.
6. (975). Head, probably of a lion, on a handle. The eyes are protruding and round. A crown-like object over the head is in two tiers carrying indented decoration. Period III. Date beginning of the Christian era.
7. (2112). A ram-like figurine with damaged feet. The face is small and projected. The ears falling on the sides are decorated in oblique grooves. The neck is high. The horn is carrying indented decoration. Period III. Date beginning of the Christian era.
8. (1910). A headless figurine with a high neck. The feet are also missing. The body of the figurine is stamped all over in herring-bone pattern. A band appears round the neck. Period IV. Date 1st century A.D.
9. (867). A ram-like animal with protruded mouth and damaged feet. Period III. Date 2nd century B.C.

Painted terracotta animal figurines have been reported from Kausambi (c. 250-325 A.D.), Sonpur (200 B.C.-200 A.D.), and Vaishali (150 B.C.-100 A.D.).

Animal Figurines with raised Heads (pl. XCII B)

1. (531). A figurine in grey colour, probably a bull. The hump is seen behind the head. The face is painted. Period II. Date 6th-5th century B.C.
2. (1196). A figurine with damaged face and feet. The neck is raised. The figurine may be of a horse. Period II. Date 4th-3rd century B.C.
3. (1571). A figurine in grey colour, probably of a bull. The face is pointed. The hump is seen projected behind the head. Period II. Date 4th-3rd century B.C.
4. (1890). A figurine, in red colour, with damaged feet. It is most probably a bull with the hump shown behind the head. The face is projected. The ears are pressed and stretched sideways. Period III. Date beginning of the Christian era.
5. (563). A figurine with head raised, very much similar to no. 2. The face and the feet are damaged. It may be a horse. Period III. Date beginning of the Christian era.
6. (1916). A figurine in red colour, probably of a bull, with the hump shown behind the head. The face is projected. Period III. Date 1st century B.C.
7. (521). A figurine in red colour with tall feet and projected bird-like face. Period III. Date beginning of the Christian era.

TERRACOTTA HUMAN AND ANIMAL FIGURINES

8. (502). A figurine in red colour, probably of a bull. The face and feet are damaged. The hump is seen behind the head. Period IV. Date 1st century A.D.
9. (1951). A horse in red colour with the mouth touching the neck. Period III. Date 1st century B.C.

Similar terracotta animal figurines as incorporated in this plate have been reported from Kumrahar (100-300 A.D.) and (300-450 A.D.) and Pataliputra (Mauryan levels).

Stamped Bulls (pl. XCIII A)

1. (1927). A bull with a straight projected mouth and raised horns. The hump is seen behind the neck. The figurine is decorated in stamped pattern of circles divided into four compartments, each carrying a dot, all in relief. The eyes and ears have been depicted in a most natural manner. There is a hole in the nostrils for passing the rope. Period II. Date 5th-4th century B.C.
2. (2023). A bull with a decorated garland round the neck. The garland is decorated in circlets with a dot inside in relief. The mouth is projected. There is a hole in the nostrils like no. 1. The eyes are well-finished. The hump is damaged. Period II. Date 6th-5th century B.C.
3. (1110). A better-finished bull with a long curved face and projected hump. The ears are also projected. The stamped decoration on the body is in two patterns, one herring-bone and the other star within a circle. The mouth is open and the eyes are naturalistic. A hole has been provided in the nose for passing the rope. Period III. Date 1st century B.C.
4. (1919). A figurine without any significant feature. Period IV. Date 1st century A.D.
5. (317). A bull with a long curved face. A cord is seen passing in between the mouth. The hump is damaged. The feet are missing. The figurine is decorated all over the body in horizontal strokes flanked by star-like pattern. Period III. Date 2nd century B.C.
6. (582). A headless bull without feet. It is decorated all over the body including hump in the pattern of wheel with the central hub and spokes. Period-II. Date 4th-3rd century B.C.

Similar terracotta animal figurines have been reported from Vaishali (150 B.C.-100 A.D.) and Kausambi (400 B.C.)

Elephants (pl. XCIII B)

1. (1031). An elephant with a rider, whose head is damaged. He is holding the head of the elephant with the two hands as if drawing the reins. The trunk of the elephant is raised up. The feet are damaged. Period III. Date 2nd century B.C.
2. (1517). An elephant with the feet completely damaged. The trunk is also partly damaged. It is ornamented all over the body in stamped circles. Period III. Date beginning of the Christian era.

3. (2113). An elephant in grey colour with the trunk being drawn into the mouth. Period III. Date beginning of the Christian era.
4. (1782). A crudely-finished elephant without any significant feature. Period III. Date 2nd century B.C.
5. (958). A mutilated figurine of a decorated animal, probably of an elephant. Period III. Date 2nd century B.C.
6. (17). Head, tusk and trunk of an elephant. The figurine is hollow. Period IV. Date 1st century A.D.
7. (1887). Decorated head and trunk parts of an elephant. Period III. Date beginning of the Christian era.

Terracotta animal figurines similar to those included in this plate have been found at Hastinapur (600 B.C.-300 B.C.), Kumrahar (300-450 A.D.) and Tilaurakot (300 B.C.).

Cow, Bull and Buffalo (pl. XCIV A)

1. (1520). A cow in grey colour. One of the front legs and both hind legs are damaged completely. Period III. Date beginning of the Christian era.
2. (1154). A bull in grey colour with a prominent hump, which is unproportionate to the body. Period III. Date beginning of the Christian era.
3. (1045). An yoked head of a buffalo or bull carrying a star-like decoration. Period III. 1st century B.C.
4. (65). Decorated head of an animal in grey colour. Period IV. Date 2nd century A.D.
5. (UR). Head of a bull with prominent horn. Period III. (Unstratified).
6. (495). A bull with a prominent hump behind the head. The face and feet are damaged. Period IV. Date 3rd century A.D.
7. (1817). A humped bull covered with a bright red slip. The head is completely damaged and the hump partially. Period III. Date 1st century B.C.
8. (1615). Head of a cow or buffalo. Period III. Date beginning of the Christian era.
9. (507). A decorated humped bull with a hole in the neck. The pattern of decoration is oblique lines drawn on either side of the tail and the hump. The neck and face are also decorated in grooved lines. Period III. Date 1st century B.C.
10. (859). A bull with damaged feet and mouth. Period III. Date 1st century B.C.

Similar terracotta animal figurines have been reported from Vaishali (150 B.C.-100 A.D.), Kumrahar and Tilaurakot.

Birds (pl. XCIV B)

1. (848). Mutilated piece of a bird with decorated feathers. Period III. Date beginning of the Christian era.
2. (1683). A completely defaced bird. Period III. Date 1st century B.C.
3. (1052). A bird with damaged feathers and legs. Period III. Date 2nd century B.C.
4. (133). A doubtful piece, may be of a bird of which no physical features can be made out. Period III. Date 1st century B.C.
5. (1306). A bird with decorated feathers and long body. The feet and one side of the feathers are damaged. Period III. Date 1st century B.C.
6. (772). A mutilated flying bird with stretched wings. Period III. Date 1st century B.C.
7. (84). A doubtful piece, may be of a bird, of which physical features cannot be made out. Period II. Date beginning of the Christian era.
8. (82). A flying bird with stretched wings and open mouth. Period III. Date beginning of the Christian era.

Terracotta animal figurines similar to those included in this plate have been found at Rajghat (300 B.C.-1200 A.D.), Kausambi (50-200 A.D.), Sonpur (650 B.C.-A.D. 200) and Pataliputra (Mauryan-Kushan).

Birds (pl. XCV A)

1. (1880). Head and neck of a bird covered with a fine slip of black colour. The eyes have been shown in relief. There is a perforation at the neck either for drawing or suspension. Period II. Date 6th-5th century B.C.
2. (77). A bird without head on a stand. The tail is decorated. Period IV. Date 3rd century A.D.
3. (366). A duck-like bird sitting on an oblong object of the shape of a dish. Period III. Date 1st century B.C.
4. (689). A bird with stretched feathers. The eyes have been shown in relief. The face and feet are damaged. Period IV. Date 1st century A.D.
5. (114). A bird with stretched feathers and tail, both of which are decorated. The eyes have been indicated by holes. Period IV. Date 2nd century A.D.

Similar terracotta animal figurines have been found at Pataliputra (Mauryan-Kushan) and Kausambi (100-200 A.D.).

Bridled Heads (pl. XCV B)

1. (2018). A bridled head, most probably of a horse. The bridle is seen round the mouth above the nose upto the head and on the two sides of the mouth extending upto the head. One strap of the handle is passing over the nose vertically. Period II. Date fifth-fourth century B.C.
2. (1369). A bridled head, most probably of a horse. The bridle is seen passing through the mouth. A decorated bridle strap is passing over the nose and extending upto the head. The mein behind the head is decorated with incised lines. Ornamentation of herring-bone pattern can be observed over the head and ears. Period IV. Date beginning of the Christian era.
3. (1056). Head of a bridled animal, which may either be a horse or a buffalo. The bridle is decorated and passes through the mouth above the nose upto and over the head. Period III. Date second century B.C.
4. (1852). Head of a bridled animal, probably a horse. The decorated bridle passes through the mouth above the nose upto the head and over the nose vertically. Period III. Date second century B.C.
5. (829). Head of a bridled animal, probably a horse. The decorated bridle passes through the mouth and also over it. The bridle also passes over the head. Period III. Date first century B.C.
6. (1292). Decorated head of a horse. The traces of bridle can be observed. There is a decorated design of wheel with spokes over the head. Period III. Date first century B.C.

Terracotta animal figurines similar to those included in this plate have been reported from Hastinapur (200 B.C.-300 A.D.), Vaishali (c. 350-150 B.C.) and Kumrahar.

Bridled Horse (pl. XCVI A)

1. (693). Head of a bridled horse beautifully decorated. The decorated bridle is passing over the head. The pinched ears have been shown in naturalistic manner. The popular feather-like decoration round a stick has been affixed immediately behind the head. The eyes have been shown by means of incisions and punching. Period III. Date first century B.C.

Bridled Horse (pl. XCVI B)

1. (308). A beautiful bridled horse with a jewel in front of the head. The decorated bridle passes through the mouth and extends upto the head. The bridle also passes over the mouth and the head. There is a decorated strap round the neck. The body is decorated with groups of vertical and horizontal strokes. Period IV. Date third century A.D.

Miscellaneous Figures (pl. XCVI C)

1. (1815). An elephant with damaged feet and trunk. Period III. Date first century B.C.
2. (1973). A headless animal in grey colour, probably a dog. The feet are also damaged. Period II. Date fourth-third century B.C.

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3. (1985). An animal, probably a dog. The face and feet are damaged. Period II. Date fifth-fourth century B.C.
4. (1948). An unidentifiable animal with damaged feet and face. The figure has a fan-shaped decoration over the head. Period III. Date second century B.C.
5. (1417). An animal, probably a dog. Feet damaged. Period III. Date second century B.C.
6. (1079). An animal, probably a dog. Hind feet are completely damaged. Period IV. Date beginning of the Christian era.
7. (589). Another specimen of a dog with face and feet damaged. Period IV. Date beginning of the Christian era.
8. (1959). An animal with damaged head. Period III. Date second century B.C.
9. (2). An animal, most probably a bull. The face and feet are damaged. Period IV. Date beginning of the Christian era.
10. (1283). An animal, probably a horse with hind portion completely damaged. Period IV. Date second century A.D.
11. (592). An animal, probably a dog with hind portion completely damaged. Period IV. Date beginning of the Christian era.
12. (500). A bull with the hind portion and front feet completely damaged. Period IV. Date third century A.D.

Miscellaneous Figures (pl. XCVII A)

1. (1237). A horse covered with bright red slip. The main has been prominently shown. Period III. Date second century B.C.
2. (335). A horse with damaged feet. Period IV. Date first century A.D.
3. (18). A bull rider. The heads of both the rider and the bull are damaged. Period IV. Date beginning of the Christian era.
4. (84). A decorated animal, probably a horse with damaged feet and face. The animal was probably bridled. There is a decorated strap round the neck. The decoration all over the body is mainly of vertical and horizontal strokes in groups. Period IV. Date third century A.D.
5. (369). Head of an animal, probably a monkey with the hind portion completely damaged. The front feet are also partially damaged. Period IV. Date first century A.D.

Specimens similar to some of them described above have been reported from Kumrahar (100-300 A.D.), Charsada (3rd century B.C.), Kausambi (4th century B.C.) and Vaishali (150 B.C.-100 A.D.).

Miscellaneous Figures (pl. XCVII B)

1. (539). An animal in grey colour, probably a bear, of which the face and feet are damaged. Period II. Date sixth-fifth century B.C.
2. (1905). An animal in grey colour, probably a bull with a prominent hump which is damaged. Period III. Date beginning of the Christian era.
3. (1456). An animal, probably a bull with the hind portion completely damaged. A hole has been provided in the mouth for drawing. Period III. Date second century B.C.
4. (430). An unidentifiable mutilated animal figure. Period III. Date first century B.C.
5. (589). A representation of a lion with mane and open mouth. Period IV. Date beginning of the Christian era.
6. (251). A damaged head of a horse with prominent mane and raised ears. Period III. Date second century B.C.
7. (2029). An unidentifiable damaged head. Period II. Date fifth-fourth century B.C.

Specimens similar to some of those described above have been found at Prahladpur (c. 160-20 B.C.), Mathura (c. 400-200 B.C.), Kausambi (100 B.C.-50 A.D.) and Pataliputra (Mauryan).

Miscellaneous Figures (pl. XCVII C)

1. (1289). Head of an unidentifiable animal with an open mouth. The ears, nostrils and eyes have been shown prominently. Period IV. Date third century A.D.
2. (193). An animal in grey colour probably a wild boar. The head and feet are damaged. Period IV. Date third century A.D.
3. (13). A tortoise. Period IV. Date first century A.D.
4. (177). An unidentifiable animal with a damaged head. Period IV. Date first century A.D.
5. (185). Damaged head of an unidentifiable animal. Period IV. Date third century A.D.
6. (83). An animal in grey colour with hind portion completely damaged. Face and one of the front legs are also damaged. Period IV. Date third century A.D.

Specimens similar to some of them described above have been reported from Kausambi (200 AD.) and Pataliputra (Mauryan-Kushan).

CHAPTER IX

MISCELLANEOUS TERRACOTTA OBJECTS

Terracotta (clay) being the cheapest raw material easily available anywhere, it could be used freely by the people to manufacture a variety of objects. Of course, any type of clay might not be suitable to produce all type of objects, the same could be made available easily in the vicinity. It is much more so in the Indo-Gangetic basin, where the soil is alluvial. Of all the objects made out of clay, pottery of different shapes and shades is the most popular house-hold good found at each and every site right from the most ancient times. Potters, therefore, existed in the society everywhere as a special class. Human beings, having been ignorant about the knowledge of metal in the beginning, they had to depend for all types of other goods on clay. Dependence on clay continued even after the knowledge of metal, on account of the low cost and easy availability. The other goods included both art and ordinary objects. Amongst art objects the most important happened to be human and animal figurines for which there were special class of artisans. The manufacturing of ordinary objects also needed some training, though not of that specialized order. In view of the large number of terracotta figurines yielded by the ancient site of Ganwaria, it can be easily stated that the number of special class of artisans must have been considerable. Terracotta figurines have been dealt with in a separate chapter. Now in this chapter the other miscellaneous objects which will receive attention are bangles, ear-ornaments, dabbers, pestles, skin rubber, brick cakes and tiles, sling balls, balls, gamesmen, discs, cart-wheel and to cart, stamps and a very attractive conch-shell-like object. Terracotta beads have been incorporated in the chapter of beads in general.

Bangles (pl. XCVIII A and B)

Of all the ornaments in terracotta, bangles happened to be most popular for the women not only in ancient times, but even in modern days. The number of bangles was next only to beads, which, in all likelihood, was used by men as well. Their number in total could be accounted for by the negligible cost of the raw material. Terracotta bangles collected from Ganwaria were of different diameter to suit the size of various age groups, sometimes even the children as young as one year old. During the course of excavations, as many as two hundred and sixty-seven terracotta bangles were recovered. Of them only three specimens were complete. The restricted number of the complete specimens was owing to the raw material, which was too fragile. The terracotta bangles occur at the site right from the lowest deposits, though their number was extremely limited in Period I on account

of the limited excavated area. The distribution of the bangles according to various Period was as follows:

Period	I	-	Six
Period	II	-	One hundred and eleven
Period	III	-	One hundred and thirty-four
Period	IV	-	Sixteen

The terracotta bangles could be divided invariably in two types viz. i) hand-made and ii) mould made. The bangles in the first category were generally plain in design, whereas the latter was dominated by decorated ones exhibiting a number of patterns.

The hand-made bangles were generally circular in section, irregular in thickness, plain in design and often of uneven surface. A single specimen of terracotta bangle in strap-belt form, rectangular in section with rounded corners could be considered as an exception in the variety. Some of the fragments carried designs of vertical strokes or lines over the sides across the length of the bangles executed mostly by sharp knife-edge. The surface was invariably treated with a wash or slip. One of the specimens was having a bright crimson slip. The clay used for manufacturing the bangles either contained mica or was generally mixed with it, which led to a glittering surface. Much more quantity of mica was contained in the clay used for the moulded specimens. Usually the bangles were made out of well-levigated clay and well-fired, but for a few which exhibit coarser fabric and grey core, on account of their indifferent firing.

The clay used in the moulded variety of the bangles was finer and the same was well-baked as well. Some of them, which are plain in design, exhibited grey surface which could be produced by controlled firing. They were mostly triangular in section with rounded corners. For a better appeal, they were ornamented by a series of oblique or vertical incisions on both the sides. The incised part was so broad that the narrower portion between the incisions stood out in relief. They did not appear to have been made individually. Some sort of stamp in the shape of a ring or segment could have been used to produce the design. The close similarity in the pattern made it much more likely. The bangles with hemispherical section also carried similar design.

The second variety of the bangles was circular in section with a symmetrical surface. They were invariably treated with a slip or wash and did not carry any design.

A strap-belt variety of rectangular section with rounded sides having finger-tip decoration was the third kind of moulded bangles. Some of the bangles exhibited notches or 'U'-shaped design over the sides across the length of the bangles. Special mention should be made of a specimen which carried painted design of oblique lines on a band in indigo colour.

The other moulded fragments were pentagonal in section and plain in design. A single rare

specimen of an anklet was also included in bangles. The anklet had three rows of stud-decoration on one side only. The other side was kept plain, because the same would not have been visible at the time of wearing. Further, a smooth surface of the part, which touched the skin, was also absolutely essential. A small wristlet of perfect triangular section was meant for a child.

Ear ornaments (pl. XCIX A)

Besides bangles, ear ornaments in terracotta were also manufactured to enable the women to decorate themselves. In all, the excavation yielded thirty-two terracotta ear-ornaments in addition to the two found in silver and copper. Ear-stud is principal ornament for the ear produced in terracotta. Various patterns of decoration appeared on the facing side of the ear-ornaments. *Sarpa-kundala* (snake ear-ornament) happened to be the other popular variety alluding to the influence of Saivism. Ear-ornaments made their appearance in Period III and the riches varieties with all the manifold designs were also produced in the same Period. Of the thirty-two ornaments, twenty-six specimens were from Period III, nine, eleven and six respectively from the lower, middle and upper levels. The other six specimens were collected from Period IV, of which a solitary piece came from the upper levels and the remaining five from the lower levels. The ornaments were both hand-made and moulded. They were all produced out of well-levigated clay and were occasionally treated with red slip. They were also well-baked and ranged in colour from light red to dark brown.

Dabber (pl. XCIX B)

A total number of thirty-four terracotta dabbers were collected from different Periods of the site. Period I did not yield a single specimen, the earliest dabber was from the upper levels of Period II. A maximum number of twenty-four dabbers came from Period III and their distribution was eight, four and twelve respectively from the lower, middle and upper levels. There are only eight specimens in Period IV with a distribution of three, one and four from lower, middle and upper levels respectively. Manufactured in well-levigated clay the dabbers were produced out of moulds. Occasionally a slip was applied on the clay. In a solitary specimen, biggest in size, husk was observed to have been mixed. The dabbers could be divided into the following three varieties.

- Type I. Dabber with a solid handle and flat base.
- Type II. Dabber with an elongated body, short handle and flat circular base.
- Type III. Conical dabber with a solid handle and slightly convex-side and circular base.

Pestles (pl. C A)

Pestles in terracotta occurred only in Periods III and IV of the site with a total number of thirty-three. But for two, all the pestles were collected from Period III with a distribution of eleven, sixteen and four respectively from lower, middle and upper levels. The other two specimens came from Period IV, both from the upper levels. All the pestles were invariably made of well-levigated clay,

with a thin to thick coating of deep red slip. In all likelihood the pestles were used for ritualistic purposes only as supported by their fresh look. A restricted number of them only carried the traces of grinding mark. All the pestles were uniform both in shape and design. They were long barrel circular in shape and carried a design of star pattern over the body. The incised decoration were very close to each other in a restricted number of pieces.

Skin rubber (pl. C B)

The total number of skin or flesh rubber yielded by the site of Ganwaria was thirty, of which not a single specimen occurred in Period I. There was only one piece from Period II as well and that also from the upper levels. The maximum number of twenty-five flesh-rubbers was collected from Period III. Of them, eleven occurred in the lower levels and seven each in the middle and upper levels. Of the six number of flesh-rubbers yielded by Period IV, two were collected from the lower levels and four from the upper. The flesh-rubbers were all hand-made. They were invariably decorated with various impressed or incised designs. Some of them were coated with deep red slip. The flesh-rubbers could be divided into the following three types :

1. Discular-shaped
2. Rectangular or square-shaped.
3. Triangular or trapezoid-shaped.

Brick cakes and tiles (pl. CI)

There was no evidence of a brick-cake or tile from Period I. All the brick cakes could be grouped into the following three categories:

- Type I. Square or rectangle-shaped, well baked, devoid of any decoration, meant for flooring.
- Type II. Plain triangular or trapezoid-shaped and well-baked. There were grooves on the sides to serve the purpose of net sinker or pendant.
- Type III. Ornamented, carved or moulded, rectangle-shaped, well-baked meant for pillars, pilasters or pedestals in a niche.

Sling balls (pl. CII A)

The excavations yielded forty-three terracotta sling balls in total. Of them, thirty-four were collected from Period III with a tally of seven, nine and eighteen respectively from the lower, middle and upper levels. Of the nine specimens recovered from Period IV, four each were from the lower and upper levels and one from the middle. All the specimens were hand-made and well-baked. They were occasionally treated with a deep red slip over a thin body. They were either used as sling ball or net sinker.

Balls (pl. CII B)

In all nine balls were collected during the course of excavation. Period I did not yield any specimen, whereas one piece only was reported from the upper levels of Period II. Of the six pieces in Period III, two, one and three respectively were from the lower, middle and upper levels. Four specimens were collected from Period IV, three from the lower and one from the middle levels.

Games men (pls. CIII)

All the gamesmen were hand-made, well-baked and light red to dark brown in colour. They were generally devoid of any slip. The gamesmen were mainly of the following three types :

- Type I. Votive stupa-type with flat circular base, par-shaped, short truncated, knobbed or pedestalled top.
- Type II. Flat circular base, pointed or bird-shaped top.
- Type III. Disc-rectangle or triangle-shaped. One of the triangle-shaped gamesman from the upper levels of Period II happened to be in slate stone.

Discs (pl. CIV A)

The occurrence of the discs during the course of excavation was evenly distributed in three periods. There was not a single specimen from Period I. The absence in period I could be attributed to the limited area of excavation. In all, the number of the discs was one hundred thirty-one. Of them, the largest number of seventy-two was collected from Period III, with a distribution of fifteen, seventeen and forty respectively from the lower, middle and upper levels. Period II yielded twenty-two pieces with three, twelve and seven from the lower, middle and upper levels respectively. Of the remaining thirty-seven specimens, fourteen, eleven and twelve occurred respectively in the lower, middle and upper levels of Period IV.

All the specimens could be divided into two groups viz. (a) Terracotta pottery-discs made out of pottery fragments and (b) terracotta discs moulded out of clay. The former variety was larger in number. The latter variety was moulded out in a perfect disc shape. The specimens were well-baked exhibiting various shades, ranging from light red to dark brown. Some of the pieces were treated with a red slip. The discs could be sub-divided into two groups viz (i) with decoration and (ii) without decoration.

Toy cart and cart wheel (pls. CIV B and CV)

The excavation yielded forty-seven terracotta wheels and toy carts. Period I did not yield a single specimen which might be on account of limited area of excavation. Of the total number, the largest thirty-two were collected from Period III, with a distribution of six in the lower and thirteen each in the middle and upper levels. Period II of the site yielded only five specimens, one from the lower and two each from the middle and upper levels. Of the remaining ten specimens recovered from

Period IV, four came from the middle and three each from the lower and upper levels. But for a single specimen from the lower levels of Period IV, all the cart wheels were hand-made and well-baked. Some of them were crudely-finished, whereas others were well-finished and treated with a red slip. A fairly good number of cart wheels were made out of pottery fragments. Some of the cart wheels carried the traces of wear and tear in the axle hole. All the specimens of cart wheel could be grouped into the following four types :

- Type 1. Cart wheel made out of pottery fragments.
- Type 2. Cart wheel moulded with the hub projecting on one side.
- Type 3. Cart wheel moulded with scalp incised design on both the sides.
- Type 4. Cart wheel, wheel-turned.

The excavation yielded only six toy-carts of various variety from different Periods and levels. Of the six specimens, one was found in the upper levels of Period II. The other four occurred in Period III, with one each from the lower and middle levels and two (bird toy-chariot) from the upper levels. Another specimen (bird-toy-chariot) came from the lower levels of Period IV. All the toy-carts were well-baked to red.

Terracotta stamps (pl. CVI)

Forty-two specimens of potter's stamp in all were recovered from the excavations. Of them, twenty-nine occurred in Period III and thirteen in Period IV. They were conspicuously absent from Period I and II. The distribution of the twenty-nine number in Period III was five, six and eighteen respectively from the lower, middle and upper levels. Of the thirteen specimens in Period IV, two occurred in the lower levels, five in the middle and six in the upper. All the specimens were of uniform variety with circular flat base impressed with bands of different motif running in concentric circles. They were having a short-cylindrical circular pedestal shaped handle.

Conch shell like object (pl. CVII A)

A solitary beautiful specimen looking like a conch-shell was very interesting. It might have been used for some ritualistic purpose.

Miscellaneous objects (pls. CVII B-C and CVIII B)

There were a number of miscellaneous terracotta objects, of which those of importance were rattles, whistles, tops, some cylindrical objects, typical animal figurines, snake-hood and decorated pieces.

CHAPTER X

STONE OBJECTS

Numerous variety of objects in stone have been reported from a large number of sites excavated in India. The objects include both simple ones, which were brought in daily use as well as art objects which called for specially trained hands to produce them. Amongst objects of daily use querns, pestles and muller are most common. Balls and bangles can also be included in the same category. Art objects, involving proficiency in cutting, engraving, polishing etc., were meant for occasions of extraordinary importance. The artisans, therefore, concentrated their maximum attention to exhibit their skill on such objects, which earned them a place of renown in the society, sometimes leading to a reward as well. Besides such valuable objects, there were some other objects which did not need a masterly skill, but at the same time were not of such an ordinary craftsmanship that any worker in the line could manufacture them.

In all, there were eighty-nine objects of stone yielded by the excavations at Ganwaria. Besides the articles mentioned above, the other objects which could be covered in those of day-to-day use were slate pencils, styli, sharpening tablets, bead-polishing stone and leather lace-maker. Decorated stone disc and tablets are objects of special importance in art objects. In the third category vessels like cups and lid of caskets and stone weights were included. Period I of the site was totally devoid of any stone object, whereas Period II yielded only ten objects. The maximum number of seventy stone objects were recovered from Period III. Period IV of the site again brought to light only nine objects.

DECORATED STONE DISC (pl. CIX)

A decorated circular sand-stone disc from Ganwaria is a valuable piece of art object. It speaks of the perfect sense of proportion possessed by the artisans of the place in presenting the characteristic details of various types of animal within a limited space. Imitating to a considerable extent the design on the abacus of Asokan pillars the stone disc is carved around a blank central space. The carved areas have been executed in two principal concentric circles separated from each other and bordered by narrow bands in relief. An indented pattern decorates the perimeter of the central circular space. The adjoining circle carries a similar indented pattern, but executed in a scroll-like fashion. The outer circle is wider and carved more intricately with four animals, of which only three are now intact. The animals

are an elephant, a lion and a bull. The fourth, now damaged, might have been a horse, though the hind part of the animal, particularly the raised tail, appears some what similar to that of the lion. The anatomical details of the animals have been delineated with such a masterly skill that they appear life like. The panel incorporating the animals is bordered and interspersed by a number of floral and scroll-like design. Between the damaged animal and the bull, the wheel of law, the most important symbol of Buddhism, has been depicted. Like the innermost circular space, the outer circle of the stone-disc is bordered at the edge with an indented pattern. Intimate knowledge of the details and the balance of proportion which the artist maintained in them must be treated as talents far ahead of the times. Religious zeal and devotion only must have been at the back of the inspiration and confidence needed to produce such a work of art, as early as second century B.C.

DECORATED STONE TABLETS (pl. CX A)

The tablets were of different size and shape. They were engraved, incised or carved with designs of different patterns. In all, they were eleven in number, of which six happened to occur in the lower, one in the middle and three in the upper levels of Period III. One of them was collected from the middle levels of Period IV. Similar decorated pieces have been reported from Kumrahar dated between 150 B.C. and A.D. 600.

QUERNS, PESTLES AND MULLERS (pls. CX B and CXI)

The querns from Ganwaria were made of rectangular dressed stone block resting on four legs, one at each corner. The working surface was either flat or had turned slightly concave on account of constant use. Out of a total number of six querns, two occurred in the lower and one in the upper levels of Period II. In Period III one was found from the lower and two from the upper levels.

The materials used to manufacture the querns were basaltic trap, granite or sand-stone. The querns have been classified into two groups : (a) With legs not distinctly differentiated from one another and (b) With legs distinctly chiselled out at each corner.

The first variety was cruder and occurred in contexts earlier in date than the latter. Querns have been reported from Prakash (600 B.C. to A.D. 200), Maheshwar (300 B.C. to Muslim-Maratha Period), Nevasa, Tripuri, Nasik, Tilaurakot (3rd-2nd century B.C), Taxila (Maurya-Sunga), Hastinapur (600 B.C. to A.D. 300) and Kaundiyapur (Satavahana Period).

The pestles were rectangular or circular in section. They were of two types. The grinding, process in one of them required application of force, whereas in the other the pestle was simply rolled up and down on the quern surface. The excavation yielded only two specimens, one of each variety, the former one occurring in lower levels of Period II and the latter in the lower levels of Period III. One specimen of cylindrical pestle with a perfect round section was picked up alongwith its counterpart, the quern. Stone-pestles of rectangular section are reported from Hastinapur (600 to 500 B.C.).

The site yielded two specimens of muller in stone, one each from the lower and the upper levels of Period III. They were of two types : (a) Cylindrical with oval cross-section and (b) Expanded thickened ends shaped like dumb-bell with oval cross-section.

In the latter variety both the ends were use for pounding. Both dumb-bell shaped and cylindrical mullers have been reported from Sonpur, the former datable between 650 and 200 B.C. and the latter 200 B.C. and A.D. 200.

BALLS AND BANGLES (pl. CXII A)

In all, five specimens of ball and three pieces of bangle in granite, marble and sandstone were found from the excavation at Ganwaria. The distribution of the objects were as follows : (a) ball-two from the upper levels of Period III and two from the middle levels of Period IV; (b) bangles-two from the lower and one from the middle levels of Period III. Balls have been reported from Rairh (3rd century B.C.), Sonpur (1000 B.C. to A.D. 200), Tilaurakot (2nd century B.C.), Maeshwar-Navdatoli (1000 to 400 B.C.), Prakash (1400 B.C. to A.D. 600), Ahar (1750 to 1270 B.C.), Kaundinyapur (Maurya period), and Taxila (Maurya-Sunga period).

SLATE PENCILS OR STYLI (pl. CXII A)

The excavations at Ganwaria yielded ten slate- pencils. Four of the slate-pencils occurred in the lower and three in the upper levels of Period III, whereas the rest three in Period IV, one each in the lower, middle and upper levels. The material used to manufacture them was obviously soft soapstone, which visualises that the art of writing was very well known to the people. The slate pencils were of three types viz; (a) long barrel-shaped with circular section; (b) long tapering four-sided with rectangular section; and (c) crudely-finished rectangle-shaped with square section.

SHARPENER (pl. CXII B)

Miniature tablets of rectangular or square section, mainly used for sharpening the razors, were found during the course of excavations. Both the upper and lower surface of the tablets have invariably turned concave on account of regular use. Basaltic trap or sandstone were the raw materials use for making the tablets. Of the six specimens, one occurred in the upper levels of Period II and the rest five in Period III with a distribution of three, one, and one, respectively in the lower, middle and upper levels.

BEAD-POLISHING STONE (pl. CXII B)

A solitary specimen of bead- Polishing stone found in excavation was an undressed sandstone piece of triangular section with a number of channels on either side, probably to serve as grooves for polishing the beads. The object was collected from the upper levels of Period III. Bead-polishing stones have been reported from Ujjain.

STONE WEIGHTS (pl. CXIII A)

Stone-weights of various shape and size and in various materials were recovered during the course of excavation at Piprahwa and Ganwaria. The shapes were generally cylindrical, though of course two angular and irregular sizes nearing rhomboid were not absent. The materials were carnelian, agate and chert. Stone-weights have generally been popular during the period of Northern Black Polished ware and the same happened to be the case at Piprahwa and Ganwaria. The object was in general use in the earlier phase of the Northern Black Polished Ware. The stone-weights were never miniature in size. On the other hand they were much more in bigger size. As stated above the objects can be placed between 5th and 3rd century B.C.

MOULD (pl. CXII B)

A single specimen of a mould in sand-stone was picked up from the lower levels of Period II. It was a fragment of a rectangular tablet with tapering sides and two round perforations of equal diameter interconnected by means of a channel in between. The object might have been a mould for use by a goldsmith or a leather lace making cobblers tool. Similar object in terracotta has been displayed in Antiquity Section, Purana Qila, New Delhi, having been reported from Harappa.

VESSEL, BOWL AND LIDS OF CASKET (pl. CXIII B)

Vessel, bowl and lid of casket have been found mainly from Period III of the site. They include a carinated small pot, two lids of casket, one intact hemispherical bowl and two box-type caskets, one of them completely intact. A stupa-type crystal lid of a casket needs special mention owing to its perfect workmanship. But for the crystal lid, the material used for other objects was invariably soapstone of varying shades. Vessels in stone have been reported from Pataliputra (150 B.C. to A.D. 500) and Kausambi (A.D. 100 to 250). Crystal lids, similar to that found at Ganwaria, have been reported from Pitalkhora and Amaravati dating back to the beginning of the Christian era.

SOAPSTONE CASKETS (pl. CXIV)

Imitating the usual shape and material generally enshrined in stupas, the present casket is of soapstone and hemispherical in shape. A beautiful shape of the casket has been produced by turning it on a lathe. Turning on the lathe has made the casket very smooth. The marks of the lathe-turning appear to be prominent in the upper parts of the vessel, where a broad flange has been provided. On the flange the lid part fits in very well. With the lid over the stool-like body of the vessel a beautiful stupa shape as a whole is presented. The body of the stool-like vessel is simple, whereas the lid has a number of parts to make it very beautiful. The exterior of the whole casket has been beautifully polished. The top of the lid is pinnacle-like growing in width below in triangular form over a flayed-out rim of a vase, of which the neck is constricted. The base of this vase fits over an extraordinarily expanded base below which again there is a constricted neck of the lid. The stool-like base of the casket has prominent groove. The maximum diameter of the casket is 7 cm, whereas the height is 12

cm. The casket contained miniature charred bones. This casket was yielded by the northern brick chamber of the stupa (see page).

The southern brick chamber of the stupa yielded a bigger soapstone casket, similar in shape and material as that in northern chamber. The process of manufacturing this casket was one and the same. This soapstone casket, however, could not stand the weight of the layer of two clay dishes over it for which there was additional construction in the brick chamber. The weight of additional construction over it developed three cracks in the lid of the casket. Fine clay, which was used in the brick chamber, crept through the three cracks filling the inside of the casket completely. The clay also overflowed through the cracks and rendered the casket shabby. The polish of the casket almost disappeared. The clay got so tightly packed inside the casket that it was very difficult to remove the same and extricate the charred bones. The bones had turned muddy in colour. The maximum diameter of this casket is 9 cm and the height 16 cm.

Illustrated Specimens (pl. CX B)

- 1619 A broken stool-type saddle quern made out of rectangular dressed block with four short tapering legs cut out at each corner. The legs are not distinctly differentiated from each other. Made in sand-stone. The smooth flat surface has turned slightly concave owing to its regular use. From the lower levels of Period II.
- 576 A muller with heavier ends shaped like dumb-bell, roundish in section and concave-sided body to provide a grip in the centre. The material used is sand-stone. Probably used as a pounding tool. From the lower levels of Period III.
- 1328 A miniature stool-type saddle-quern of rectangular dressed block with tapering legs dressed at each corner. A part of the upper surface and sides are incised with chequered and geometrical designs. An irregular circular shallow depression in the centre of the surface indicates the use of the object by rotating the medicinal cubicals or *geru*-like objects. One *geru* piece with traces of rub-marks on different sides was found at the site. Material sand-stone. From the lower levels of Period III.

(pl. CXI A)

- 1177 A saddle-quern of rectangular dressed stone block with tapering legs of hemispherical section cut out independently at each corner. The body of the quern is projected on the side beyond the legs. The smooth polished upper surface has turned slightly concave owing to its constant use. The material used is fine basaltic trap. From the lower levels of Period III.
- 1176 A counterpart (muller) of specimen no. 1177. It is a cylindrical polished paste of perfect round section. The heavier ends are meant to project out of the body of the quern where the hands rested on either end for working. The specimen exhibits a great skill in workmanship. From the lower levels of Period III.

(pl. CXI B)

- 2069 A sand-stone pestle of rectangular section with tapering ends. The sides are made a little convex. One of the surface has become almost flat due to its regular use. From the lower levels of Period II.
1043. A cylindrical muller of oval section with tapering body and a thickened end to provide a better grip as evident from the rubbed smooth sides. The material used is sand-stone. It might have been use as a pounding tool from both the ends. From the upper levels of Period III.

(pl. CXII A)

- (1166) A miniature (broken) circular spheroid chert. From the upper levels of Period II.
- (1413) An object of rectangular section with slightly concave sides owing to their regular use. The depression in the centre indicates its use for sharpening a razor. Both sides of the object were in use. The material is granite. From the upper levels of Period II.
- (1893) A disc of sand-stone with rub marks. Probably a hop-sotch. From the upper levels of Period II.
- (1742) A medium-sized perfect round chert ball well preserved. From the lower levels of Period III.
- (620) A similar object in red sand-stone with cut marks on the sides. From the upper levels of Period III.
- (1111) A circular spheroid granite ball of bigger size. From the lower levels of Period III.
- (277) Fragment of a rectangular object with a square section. Both the upper and lower surface have turned concave owing to their regular use for sharpening a razor. The material used is basaltic trap. From the lower levels of Period III.
- (345) As above made out of slate. From the upper levels of Period III.
- (253) A long barrel-shaped pencil of sand-stone with circular section and tapering body. The sides are grooved ad end pointed. From the lower levels of Period III.
- (275) Fragment of a cake-like object of rectangular section in buff sand-stone with worn-out designs in simple vertical and oblique lines over the smooth surface. From the lower levels of Period III.
- (120) As above with an elliptical section made out of sand-stone. From the upper levels of Period IV.
- (1503) Fragment of a long barrel-shaped pencil of slate with roundish section and tapering to a pointed end. From the lower levels of Period III.

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(52) A soapstone pencil of squarish section tapering to a pointed end, grooved at the thicker end (broken) to help tie the object. From the upper levels of Period IV.

(683) A fragment of long barrel-shaped pencil of sandstone.

(pl. CX A)

466 Fragment of a stone plaque carved in low relief depicting lotus petals in niche. The material is slate stone. Damaged. From the lower levels of Period III.

107 A squarish plate of rectangular section and rounded corners engraved with four concentric circles in the centre. The four corners are decorated with creeper designs (three corners are missing). Material sand-stone. From the upper levels of Period III.

252 Fragment of a tablet of rectangular section carrying bold designs of criss-cross pattern on one of the surface. The other side is damaged. From the lower levels of Period III.

1089 Fragment, probably of a square plate of rectangular section with round corners carrying an outline of a human figure, when seen from two different angles, the front and the side. The former angle depicts a man with flying hairs, raised eye-brow, bulging eyes, open mouth, moustache and bearded face and the latter depicts the man with a long angular nose in addition. From the middle levels of Period III.

596 A square plate of rectangular section in buff sand-stone. It is engraved with circle enclosed in rectangle. The space between the circles and corners of the rectangle is further engraved with flower-petals and chequered designs. From the upper levels of Period III.

336 Fragment, probably of a square plate of rectangular section in buff sand-stone. One corner of the surface is engraved with peepal leaf motif enclosed by lines, and the central (damaged) part with a circle. From the middle levels of Period III.

(pl. CIX)

1984 Imitating to some extent the design on the capital of Asokan pillars, the stone-disc is carved around a blank central space. The carved areas have been executed in two main concentric circles separated from each other and bordered by narrow bands in relief. An indented pattern marks the perimeter of the central circular space. The adjoining circle carries a similar indented pattern but executed in scroll-like fashion. The outer circle is wider and more intricately carved with four animal, of which only three are now intact. The animals are an elephant, a lion and a bull. The fourth, now damaged, might have been a horse, though the hind part of the animal and particularly the raised tail appears similar to that of the lion. The anatomical details of each animal have been delineated with great care so as to make them appear life-like. The panels with the animals are interspersed by a number of floral and scroll-like designs. In between the damaged animal and the bull, *chakra*, the wheel of law, a symbol

of Buddhism, has been depicted. Like the innermost circular space, the outer circle of the stone-disc is bordered at the edge by an indented pattern.

(pl. CXIII B)

- 887 A lathe-turned lid having 17 cm diameter in soapstone with a prominent flanged bottom to fit over the body of the casket. The top of the lid (damaged) appears to have been slightly convex. The border is decorated with grooves. From the upper levels of Period III.
- 1710 A lathe-turned hemispherical bowl in soapstone with externally grooved featureless rim. From the lower levels of Period III.
- 1733 A lathe-turned small pot in soapstone with a beaded rim, expanded shoulder, carinated body and round bottom. From the upper levels of Period III.
- 887 A lathe-turned circular box-type casket of 8 cm diameter in soapstone with vertical sides and a footed base. It is flanged internally to receive the lid over it. The vertical body is externally grooved both at the top and the bottom. Lid missing. From the upper levels of Period III.
- 1085 Fragment of a similar object in soapstone with tapering body flanged internally to receive the lid over it. It has a flat bottom. From the lower levels of Period IV.
- 787 A stupa-shaped lid of a casket in crystal with a tenon to fit into the body of the casket. From the upper levels of Period II.

CHAPTER XI

METAL OBJECTS

Metal has always played a vital role in transforming the economic condition of the people ever since the time human mind acquired its knowledge. Prior to the knowledge of metal human beings had to depend entirely on various kind of stones and they found it extremely difficult to manufacture tools and implements in them according to their needs. Further, the production of tools and implements in stone involved a great deal of time and labour. Hence, with the aid of stone only it was not possible to bring a revolution in the economic standard of the people. Human ingenuity was, therefore, always on the look out for a material in which any type of tool and implement could be easily manufactured. In the first instance he could discover the metal of copper only, which in itself brought a revolution in the society as a whole. With the help of copper as the predominant ingredient other useful metal like bronze was also produced. Bronze was a far better metal for any type of tool and implement. In bronze human figurines were also manufactured by a special process. After a lapse of some centuries the knowledge of iron was also acquired, which led to a complete transformation in the economic condition of the people, because the metal was much more tractable. There is hardly any controversy amongst the archaeologists so far as the date of the earliest use of copper in India is concerned. But in the case of iron, wide difference of opinion continues to overwhelm the scholars, particularly so in Northern India. Anyway, the site of Ganwaria-Piprahwa is above the whirlpool of all the conflicting views, because iron was known at the site right from the earliest days of occupation. The date of the earliest deposits has not so far been questioned, because the same stands on firm grounds.

Since the initial occupation of the site metal played a vital role in the life of the people of Ganwaria as established by various types of house-hold utensils, tools for religious, agricultural, hunting and fighting purposes along with most sophisticated and highly ornate objects like antimony rods, styli, engravers and ornaments of different categories. They exhibit the achievements of skill by the people in metallurgy. The objects in metal from Piprahwa were limited to copper bowls and *thali*, nails and door hinges in iron. Though the metals of copper and iron occupy a predominant position, other materials like bronze, copper, alloy, brass, silver and gold were also used by the people. An ear-stud and spiral snake are the two objects in silver found respectively from the lower and upper levels of Period III. A single piece of a wire in gold occurred in the upper levels of Period III. Two pairs of anklet collected from the middle levels of Period III and a ring from the lower levels

of Period IV were the three out of four bronze objects prepared out of a mould.

It is interesting to note that the ornaments like bangle and ring, bead and pendant along with various other house-hold objects like antimony rods, tooth-pick in copper were found right from the earliest occupation at the site inspite of the restricted area of excavation. A plough share in iron, though an isolated example from the upper levels of Period I, was the most outstanding find. Lumps of iron encountered right from the lowest occupational deposit reflect that the people were well conversant with iron technology.

But for a single specimen of arrow-head, all other objects in metal were meant for agricultural and house-hold purposes e.g. plough share, sickles, edges (*khurpa*), knives, nails, rivetted plates and horse bits, which dominated the finds of Period II. The plough share found in the upper levels of Period I continued in Period II alongwith other agricultural implements like edges, sickles, knives etc. They indicated that agriculture was the foremost occupation of the people, right from the very beginning. In subsequent periods the standard and general economy of the people improved as established by the use of a good number of antimony rods, some of them exhibiting masterly skill, bangles, beads, pendants and fragments of bowls.

The time span of Period II at the site, witnessed days of great prosperity with a multiplication in the sphere of activities of the people. The agricultural activity continued to dominate the scene as corroborated by the greater number of agricultural implements of different varieties. The religious and house-hold objects also multiplied in variety. It was for the first time that objects like styli and engravers, both in copper and iron were introduced in the life of the people. Weapons of war like sword, indicated by a hilt, spear and arrow-heads along with the rich collection of ornaments in other metals like bronze, silver and gold, clearly manifested a much better economic condition leading to some political activity during the period between *circa* 200 B.C. and beginning of the Christian era. Attempts were made by the people of Period IV to maintain the economic tempo, though in a low key.

Of the total assemblage of five hundred forty-three objects in metal, found during excavations, the major share went to copper and iron accounting for 200 and 334 respectively. The iron objects included two hundred shapeless and indeterminate lumps. But for two pieces of iron lump and a plough share there was no other iron object in Period I. Period II yielded a rich variety of objects e.g. plough shares, edges, sickles, knives, a rivetted plate, a horse bit along with a single specimen of arrow-head, which accounted for twenty-one pieces including three indeterminate lumps. The variety of objects in iron continued in Period III with a total number of seventy-four, besides one hundred thirty-two shapeless pieces. In Period IV a total number of one hundred sixty-seven iron pieces were found, sixty-three of them representing some shape and the rest one hundred four shapeless.

The objects in copper and its alloy (including bronze), brass, silver and gold were two hundred and nine in number. Of them, the shape of sixty-two cannot be determined. Amongst the rest one

METAL OBJECTS

hundred forty seven, eight occurred in Period I, thirty-nine in Period II, eight in Period III and the rest twenty in Period IV.

A. COPPER OBJECTS

ORNAMENTS

The ornaments consist of bangle, ring, ear-stud, bead, pendant, armband and anklet. Iron was used to produce bangle and ring only. The use of copper was made for the maximum variety of ornaments. An ear-stud in silver, anklets, one each in bronze and copper alloy, finger rings, one each in alloy and brass and a gold wire were the other ornaments found in other materials.

Bangles : Bangles in copper occurred right from the lower levels of Period I to lower levels of Period IV. In iron, however, they were restricted to upper levels of Period III only. The bangles were generally round in section, though semi-circular, squarish or flattish section were not altogether unknown. They were either knobbed, ornamented or plain in their treatment. The bangles in iron were rectangular or circular in section, one of them having open joint with flattened serpent hood-ends. Bangles in copper have been reported from Sonpur and Kumrahar (both in Bihar). A date between 200 B.C. and 200 A.D. has been assigned to the bangle at Sonpur. Iron bangles were excavated at Hastinapur (U.P., and Prakash (Maharashtra) in levels dated between 600 and 200 B.C. and middle of the 2nd century B.C. and end of A.D. 600 respectively.

Rings : Rings, both plain and decorated, used as an ornament in the ear, nose and finger had a round or flat section. But for a single specimen in iron, all of them were in copper and confined from the lower levels of Period III to the upper levels of Period IV. Rings in copper have been reported from Tilaurakot (Nepal) dated between 3rd and 2nd century B.C. and Sonpur between 200 B.C. to A.D. 200. An iron ring has occurred at Hastinapur (U.P.) between A.D. 1100 and 1500 and Kumrahar (Bihar).

Ear-Studs: Represented both in copper and silver, ear-studs were of spool variety with concave section to fit into the ear-lobe. The specimen in silver has been reported from the lower level of Period III. Of the two specimens in copper one was picked up from the upper level of Period III and the other from the lower level of Period IV. Similar example has occurred at Hastinapur (U.P.), where a date between 600 and 200 B.C. has been assigned.

Beads : A variety of shapes like barrel, cylindrical and square with round perforation were recorded in beads of copper right from the lower levels of Period I to lower levels of Period IV. The beads were of different sizes as well. Similar variety of beads have been reported from Kumrahar (A.D. 100-300), Sonpur (200 B.C. to A.D. 200), Sravasti in U.P. (125 to 100 B.C.) One specimen from Sonpur (1100-650 B.C.) is similar to the example found at Ganwaria with registration number 1544.

Pendants : Of different shapes and sizes, pendants in copper occurred from the upper levels

of Period II to lower levels of Period IV. Some of them are perforated and bear designs near the perforation.

Armlets and Anklets : Round in section having clubbed or thickened end with open joint, the armlets and anklets were confined to Period III. The material used was copper alloy. Similar specimens have been reported from Sonpur (200 B.C. to A.D. 200) and Kumrahar.

HOUSEHOLD OBJECTS

The house-hold objects include antimony rod and vessel in copper, tooth-pick both in copper and brass, knife and ring-end for pounding rice, both in iron.

Antimony Rods : Occurring only in copper, they are the most popular and widely distributed object and as such have been classified in five sub-heads. Invariably round in section, a large number of them were with tapering body. In certain cases, only one end is thickened, whereas in others both. Some of the antimony rods are simple plain wire-type with pointed end or flattened tip. They were encountered right from the middle levels of Period I to middle levels of Period IV with a concentration in Periods II and III. Antimony rods have been reported from many sites like Sravasti (600 to 200 B.C.), Hastinapur (unstratified deposit), Prakash (600 to 200 B.C.), Tilaurakot (3rd-2nd century B.C.) and Kumrahar.

Tooth-picks : Tooth-picks have been found both in copper and brass. The picks were round in section with a sharp flattened tip as working edge. The specimen in copper was collected from the upper levels of Period I, whereas the one in brass from the upper levels of Period III. Sravasti (275 to 200 B.C.) and Hastinapur (unstratified deposit) have also yielded similar tooth-picks.

Vessels : Bowl of thin section, featureless rim and flat base with a tapering or convex side have been found in Period III of the site. A single specimen of a bowl in copper has been reported from the last period of Hastinapur (A.D. 1100 to 1500).

Knives : Knives occur only in iron. Straight, tapering or crescent-shaped knives of different sizes with round, rectangular or flat projection to fit into a wooden handle, were collected from the lower levels of Period II to middle levels of Period IV. Similar knives have been reported from Sonpur (650-200 B.C.), Sravasti (275 B.C. to A.D. 500), Hastinapur (A.D. 1100-1500.) and Kumrahar.

Pounding Rice-ends : Rings of rectangular section and round working edge mainly used for pounding the rice was recorded from the middle levels of Period III. Similar rings were found at Sravasti (125 to 50 B.C.) and Kausambi (45 B.C. to A.D. 580).

OBJECTS OTHER MISCELLANEOUS

An octagonal star (a decorative piece), a bell and a fragment of a gamesman in copper, nails of different variety disc with knobbed nail and ring handle, clamps and a trowel in iron were the other objects of general use.

METAL OBJECTS

The octagonal star, bell and fragment of a gamesman occurred in the middle levels of Period II, upper levels of Period III and lower levels of Period IV respectively. Bells in copper have been reported from Sonpur (1100 to 650 B.C.) and Hastinapur (100 B.C. to A.D. 100).

Barring a single specimen of plain variety in copper from middle levels of period III, different variety of nails viz. plain, knobbed and 'T' shaped on either ends pointed in iron with round, rectangular or squarish section were found from the lower levels of Period II to upper levels of Period IV of the site. Nails, particularly knobbed variety, have been reported from Sravasti (275 to 200 B.C.), Vaisali (150 B.C. to A.D. 100), Tilaurakot (3rd-2nd century B.C.), Hastinapur (A.D. 1100 to 1500) and Kumrahar.

Iron discs with knobbed nail and ring handle having a nail to fix in the door panel were collected from the middle levels of Period III. Ring handle has been reported from the last period of Hastinapur (A.D. 1100 to 1500).

Iron clamps of round and rectangular section or twisted rope variety with either ends bent at right angles to hold things together occurred in upper levels of Periods III and IV. Similar specimens (particularly Registration No. 33) have been reported from Prakash (600 to 109 B.C.).

A single specimen of trowel found in the upper levels of Period IV of the site was a tool of the mason for applying mortar.

TOOLS AND INSTRUMENTS

Engraver : An engraver in copper with a flattish section and flattened sharp tip was found in the middle levels of Period II.

Styli : But for a single specimen in copper picked up from the middle levels of Period III, styli occurred mainly in iron in levels ranging from the lower levels of Period III to the lower levels of Period IV. The styli were manufactured out of a long rod. of round section with added thickness in the centre to provide an easy grip and pointed working end Styli in iron have been reported from Prakash (600 to 100 B.C.), Hastinapur (A.D. 1100-1500) and Kumrahar.

Nail-cutter : A short instrument of squarish section and flattened blade cutting edge was picked up from the upper levels of Period IV.

AGRICULTURAL IMPLEMENTS

Plough Shares : Both plain and socketed variety of plough shares were reported right from the upper level of Period I to upper levels of Period IV with a concentration in Periods II and III. The plain variety of plough shares were of rectangular section with tapering to chisel-cutting edge. The other end is tapering to blunted or pointed to fit into the groove of wooden plough. The socketed variety of the plough shares were of rectangular section with tapering blade-cutting edge. The wooden plough used to fit into the socket. Plough share has not been reported from any other site so far.

Edge : They were manufactured only in iron and picked up from the middle levels of Period II to middle levels of Period IV. The edges were either flattened or expanded with blade-cutting edge. The other end was tapering to pointed or blunted to fit into the wooden handle. The specimens with flattened edge are reported from Tilaurakot (3rd century B.C.), Hastinapur (3rd-2nd century B.C.) and Kumrahar.

Sickles : Sickles of rectangular section with flattish blade and handle occurred in levels ranging from the upper levels of Period II to upper levels of Period IV. They have been widely reported from sites like Prakash (600 to 100 B.C.), Hastinapur (600 B.C. to 300 A.D.), Kausambi (45 B.C. to 580 A.D.) and Kumrahar.

WEAPONS

Arrow-heads : Arrow-heads of various variety viz. *karavira* leaf-shaped of rhomboid section, leaf-shaped of flattish sections with a little more thickness in the centre, and the arrow-heads of rectangular/square section with tapering to a pointed end were found during the excavations. But from a single specimen of cast, wrought technique was used in all of them. With a single example picked up from the lower levels of Period I, the concentration of arrow-head was observed in Period III of the site. Arrow-heads have been reported from Sravasti (275 B.C. to A.D. 500), Sonpur (650 B.C. to A.D. 200), Prakash (600 to 100 B.C.), Tilaurakot (200 B.C.), Kausambi (45 B.C. to A.D. 580) and Hastinapur (A.D. 1100-1500).

Spear-heads : Simple leaf-shaped spear-heads with an insignificant rib in the centre close to the tang and flattish in section were the common variety found in Period I and IV of the site. A single specimen of barbed spear-head was picked up from the upper levels of Period IV. Similar barbed spear-heads have been reported from Kausambi (45 B.C. to A.D. 580), Hastinapur (6th-5th century B.C.) and one in copper from Sonpur (650 to 200 B.C.). Leaf-shaped spear-heads have been reported from Kausambi (605 to 45 B.C.), Sravasti (275 B.C. to A.D. 500), Prakash (600 to 100 B.C.) and Sonpur (600 B.C. to A.D. 200).

Hilt and Trident: The other weapons collected from the lower levels of Period III and upper levels of Period IV were respectively hilt and trident.

RELIGIOUS OBJECTS

Snakes in copper and silver were the only two objects meant for religious purposes. The specimen in copper was of round section with tapering body. The head was fashioned in *naga-hood* shape. The specimen in silver was spiral in shape with flat snake-hood on the top. Both the objects were reported respectively from the lower and the upper levels of Period III.

MISCELLANEOUS OBJECTS

Various objects like wire, tablet, solid elliptical-shaped object and belt in copper and horsebit, plate with rivet marks, ring-plate with rived marks and 'T' -shaped object in iron were amongst the

various miscellaneous objects from the site. They were found in different Periods of the site. Similar copper wires have been reported from Saravasti (125 to 50 B.C.).

Illustrated Specimens

I. ORNAMENTS.

1. Bangles (pl. CXVA)

(i) *Knobbed Bangles*

1859. Fragment of a bangle, medium-sized, round in section with flattened knobbed ends at the joint. One end damaged. From the lower levels of Period I.

(ii) *Ornamented Bangles*

1734. Fragment of a bangle of copper wire bigger in size, uniformly round in section, decorated with circular applied beads, both the ends damaged. From the middle levels of Period II.

1317. Fragment of a bangle of flattish section carrying a design of linked chain of elliptical shape. From the middle levels of Period II.

2084. Fragment of a bangle of circular section, internally plain and externally decorated with beaded design. Both the ends are damaged. From the upper levels of Period II.

892. Fragment of a worn-out bangle of copper wire with pointed projection at regular intervals, roundish in section. From the lower levels of Period III.

1822. Fragment of a copper-plate bangle with flattish section. Upper surface is decorated with cross lines at regular intervals. From the middle levels of Period III.

1748. Fragment of a bangle, round in section. Both the ends had probably an ornamented motif similar to a hand with fingers. From the upper levels of Period III.

125. Fragment of a bangle of semi-circular section, internally flat and externally carrying a design of linked chain. From the upper levels of Period IV.

(iii) *Plain Bangles*

1461. Fragment of a bangle with a uniform round section. Both the ends are grooved. From the upper levels of Period II.

1135. Fragment of a bangle, plain, round in section and slightly thickened at the joint. From the upper levels of Period II.

1130. Fragment of a bangle, plain and squarish in section. From the upper levels of Period II.

872. Fragment of a bangle, plain and round in section. From the lower levels of Period III.

660. Fragment of a bangle with an elliptical section and plain body. Both the ends are damaged. From the middle levels of Period III.

1991. A variant of no. 660, bigger in size and thicker in section. From the upper levels of Period III.

453. Another variant, smaller in size. From the lower levels of Period IV.

1191. Another variant of no. 660

2. A. (*Finger*) Rings (pl. CXV B)

(i) *Round variety*

1132. Fragment of a ring, round in section. The ends are damaged. From the upper levels of Period II.

826. A spiral ring of brass-wire, round in section. From the lower levels of Period III.

(ii) *Round Decorated Variety*

188. Fragment of a ring, round in section and flat snake-hooded end having decoration of applied 'U'-shaped beaded design with the backs arranged in a triangular fashion. One end damaged. From the upper levels of Period III.

(iii) *Flat Variety*

192. A ring of a plain copper-plate, flattish in section. From the upper levels of Period III.

1629. Fragment of a ring of copper alloy plate, flat in section and 1.5 cm in width. From the middle levels of Period IV.

(iv) *Flat Decorated Variety*

1210. A semi-circular ring, internally flat with projected and grooved ends. Body of the ring externally decorated with projected knobbed designs. There are four perforations, one at each end for fastening the ring with the finger by means of a string or copper wire. From the lower levels of Period III.

868. A ring of copper along with an elliptical shaped flat top. From the upper levels of Period I.

(v) *Nose*

271. Fragment of a nose-ring, flat in section. It is diamond-shaped in the centre with miniature diamonds at either ends. The ends are bent. From the upper levels of Period III.

3. *Ear-stud* (pl. CXV C)

(i) *Spool Variety*

1076. Fragment of a coiled copper stripe with a depression in the centre to help in fastening to the ear-lobe. From the upper levels of Period III.

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709. A beautiful piece of copper stripe with a depression in the centre for adjustment in the ear-lobe. From the lower levels of Period IV.

4. Beads (pl. CXV D)

834. Barrel-shaped bead with two sides flattened. It is elliptical in section and medium-sized. From the lower levels of Period I.
1676. Miniature bead, squarish in section. From the lower levels of Period II.
1600. A variant of the above with a perfect square section. From the middle levels of Period II.
707. Another variant. From the upper levels of Period IV.
544. A short cylindrical bead. From the lower levels of Period IV.

5. Pendant (pl. CXV E)

1067. A miniature elongated pendant of rectangular section with tapering to pointed ends. From the upper levels of Period II.
1123. Fragment of a pendant with a flattish section. The perforation is in the centre of a design of concentric circles. From the upper levels of Period II.
1312. Fragment of a pendant with a flattish section. The end is circular in shape with a rectangular stone-like projection, partly damaged. From the lower levels of Period IV.
616. Fragment of a trident-shaped pendant with a flattish section. A perforation was provided in a knob at the back. From the upper levels of Period III.

6. Armlet (pl. CXVI A)

437. Fragment of an armlet with round section. There is a grooved spiral design on the body. The end is thickened in the centre of which there are two damaged projected knobs. The neck carries beaded designs in bangles covering spiral body completely. From the upper levels of Period III.
2117. A medium sized well preserved copper alloy armlet with a round section and thickened ends. The joint is flexible. From the middle levels of Period III.

7. Anklets (pl. CXVII A)

907. A pair of full size, well preserved bronze anklet of round section with clubbed ends rectangular in shape. The ends are elongated vertically. From the middle of Period III.

II. HOUSE-HOLD OBJECTS

(i) Antimony Rod (pl. CXVI B)

1259. An antimony rod with a smooth pointed end and body tapering to a flattened tip, round in section. From the middle levels of Period I.

394. As above, smooth round end with body tapering more a flattened tip, round in section. From the middle levels of Period II.
13. Another variant in brass damaged into three pieces. From the middle levels of Period II.
114. Another variant. From the upper levels of period II.
1256. Another variant. From the lower levels of Period III.
52. An antimony rod with pointed thickened end and body tapering to a flattened tip, round in section. It is smaller in size. From the middle levels of period IV.
1806. An antimony rod with a smooth thickened end, body tapering to a pointed tip and roundish section. From the upper levels of Period I.
1844. Fragment of an antimony rod with a smooth thickened end. It might be a pin with a round section tapering to a damaged point. From the middle levels of Period II.
796. Highly sophisticated miniature antimony rod with a round section, thickened end and body tapering to a pointed tip. From the upper levels of Period II.
2026. A variant of no. 1806 with a round section. From the lower levels of Period III.
692. Another variant bigger in size. From the lower levels of Period III.
529. Another variant. From the middle levels of Period III.
1705. A variant of no. 1844 with a little pointed thickened end. From the lower levels of Period IV.
447. An antimony rod of plain wire with a pointed end, a thicker round section in the centre and blunted top. From the lower levels of Period II.
142. An antimony rod of plain wire with round section and slightly thickened ends. From the lower levels of Period III.
747. A variant of no. 142 with a little variation in thickness and damaged end. From the lower levels of Period III.
66. An antimony rod of plain copper wire, round in section and a little thickened pointed end. From the lower levels of Period IV.
2046. An antimony rod with a round section and pointed thickened ends. From the upper levels of Period II.
1060. A variant of no. 2046. From the upper levels of Period II.
1034. Another variant. From the upper levels of Period II.
1866. Another variant. From the lower levels of Period II.

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1239. Another variant. From the middle levels of Period III.
865. Another variant of no. 2046. From the middle levels of Period III.
158. Another variant of no. 2046. From the upper levels of Period III.
513. Another variant of no. 2046. From the upper levels of Period III.
1081. Another variant of no. 2046. From the upper levels of Period III.
1350. Another variant of no. 2046. From the lower levels of Period IV.
1519. Another variant of no. 2046, larger in size and flattish in section. From the lower levels of Period IV.
1709. An antimony rod, not well finished, with a thick round section, thickened ends and smooth blunted tips. From the lower levels of Period III.

(ii) *Tooth-pick* (pl. CXVII C)

1807. A small copper tooth-pick of round section, body tapering to a flattened top. From the upper levels of Period I.
178. A small brass tooth-pick, roughly square in section with a body tapering to a flat end and sharp tip. From the upper levels of Period III.

(iii) *Bronze anklets or handle* (pl. CXVIIA)

The anklets or handle in bronze are circular in section with thickened ends. They are solid and very heavy.

(iv) *Vessel* (pl. CXVII B)

560. Convex-sided bowl with a straight featureless rim of a thinner section and flat base. From the lower levels of Period III.

III. OBJECTS IN GENERAL

(i) *Decorative Object* (pl. CXVIII A)

1573. A flower-like object with eight projections and a flattish section. There is a circular perforation in the centre to help in fastening the object by means of a knobbed nail as decorative piece of a door panel. From the middle levels of Period II.

(ii) *Other Objects*

730. A copper nail with a tapering to pointed end. Top of the nail damaged. From the middle levels of Period III.
852. Lotus bud-shaped bicone circular ball with half open tips and a loop on the top. From the upper levels of Period III.

1502. Fragmentary games-man with a flat circular base having coil stripped design and pointed top, very fragile. From the lower levels of Period IV.

IV. WEAPONS (pl. CXVIII B)

599. A short engraver with flattened blade end and flattish section. There is a circular perforation on top (damaged) to help in suspending the object with a copper wire or string. A grip in the centre has been provided to handle the weapon effectively. From the middle levels of Period. II.
1224. Fragment of a slender copper rod with a round section. It was probably a stylus with the flat pointed tip as working edge for writing. The other end is damaged. From the middle levels of Period III.

V. RELIGIOUS

1147. A copper object with a tapering body. One end of the object has been fashioned like a *naga-hood* while the other is pointed to make out the tale. It is round in section. From the lower levels of Period III.
883. A silver snake spiral with a round section and flat hood on one end. The other end is bluntly pointed to make out the tale. From the upper levels of Period III.

VI. MISCELLANEOUS (pl. CXVIII C)

1795. 'S' shaped copper wire with a round section and folded pointed end. From the lower levels of Period III.
1498. A worn-out copper wire with a round section. One end is thickened and the other tapering to a point. From the middle levels of Period III.
1193. A rectangular piece with one axis shorter than the other. It is almost rectangular in section. May be an unfinished pendant. From the upper levels of Period II.
780. A miniature solid object with an elliptical section and grooved neck. From the middle levels of Period III.
1412. A copper belt with curved end, uniformly flat in section. There are two grooves on the external surface, one each provided on either sides. The object might have been the final material for minting coins. From the lower levels of Period III.
1812. Fragment of a copper bowl with flaring sides & featureless rim. From the lower levels of Period III.

B. IRON OBJECTS

I. ORNAMENTS (pl. CXVIII D)

857. Bangle with a rectangular section, flattened serpent-hooded ends and flexible joint. From the upper levels of Period III.
961. Fragment of a bangle with a circular section. The ends are damaged. From the upper levels of Period III.
587. Iron ring, centrally elliptical-shaped with a rectangular section and tapering pointed end. The joint is flexible. From the upper levels of Period III.

II. HOUSEHOLD OBJECTS (pl. CXIX A)

1963. Straight tapering blade with flattened projection to fit into a wooden handle of a knife. From the middle levels of Period II.
2016. A knife with a straight tapering blade and knobbed round handle. From the lower levels of Period III.
1457. Fragment of a knife with a straight and tapering blade having a handle of rectangular section. From the upper levels of Period III.
1254. A crescent-shaped knife with a tapering blade having a convex top. A short flat projection is provided to fit into a wooden handle. From the upper levels of Period III.
1957. Straight tapering blade of a knife with a long bar of rectangular section. From the lower levels of Period IV.
881. A variant of 1957, smaller in size with a short bar of rectangular section. From the middle levels of Period IV.
799. Ring with a rectangular section and working edge rounded due to constant use. The diameter of the other end meant for fixing in the cylindrical wooden shaft is smaller. It was used for pounding rice. Such objects are still used in the area. From the middle levels of Period III.

III. OBJECTS IN GENERAL (pl. CXIX B)

1791. A knobbed nail with rectangular section, tapering to a pointed end (damaged). From the lower levels of Period II.
1053. A nail with a round section, tapering to a pointed end and round-topped cubical head. From the upper levels of Period II.
1096. A hemispherical knobbed-headed nail with a round section tapering to a pointed end (damaged). From the middle levels of Period III.
- 993 (A) A variant of 1053 with a squarish section. From the lower levels of Period IV.

- 993 (B) Another variant. From the lower levels of Period IV.
- 1741(C) A nail of a rectangular section, tapering to pointed ends. From the middle levels of Period II.
- 1741 (B) A slender variety of the above. From the middle levels of Period II.
1504. A 'T' -shaped nail of medium size with a square section tapering to a pointed end. From the lower levels of Period III.
1512. A variant of 1504, bigger in size. From the middle levels of Period III.
1488. Another variant of no. 1512. From the middle levels of Period III.
1314. Another variant of no. 1512. From the upper levels of Period III.
158. Another variant of no. 1504, smaller in size. From the middle levels of Period IV.
2024. A nail with a square section, plain flat tap, tapering to a pointed end. From the upper levels of Period IV.

(pl. CXX A)

1286. Decorated circular disc with a central perforation for a knobbed nail to be fixed in the door panel for decoration. From the middle levels of Period III.
1788. A ring-handle with a nail to fix in the door panel. Flattish section. From the middle levels of Period III.
2031. Coiled lamp of a round section, tapering to pointed ends with right-angled bend to hold things together. From the upper levels of Period IV.
2033. A variant of no. 2031 with four circular rings. From the upper levels of Period IV.
- UR. Trowel with a flat oval end and a long bar of squarish section, tapering to pointed end to fit into a wooden handle. Unstratified.

IV. TOOLS AND INSTRUMENTS (pl. CXX B)

1843. A long rod with tapering to pointed either ends and round section. The centre is thickened. From the lower levels of Period III.
458. A long rod with tapering to pointed either ends, round in section. From the lower levels of Period III.
961. Plough-share with a rectangular section, tapering body and chisel-working edge. The other end is tapering to a point so as to fit into the groove of the wooden plough. From the lower levels of Period III.
993. A variant of no. 961. From the upper levels of Period III.

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- 928 (b) Another variant with a tapering to flattened other ends to fit into the groove of the wooden plough. From the upper levels of Period III.
2015. Another variant of no. 1917 with a tapering to pointed working edge. The other end is damaged. From the lower levels of Period III (?)
320. A crude variety of a socketed plough-share, working edge damaged. The socket is meant to fit into the wooden plough. From the middle levels of Period II.
928. A variant of no. 1472. From the upper levels of Period III.
1919. An edge of rectangular section with an expanded tapering convex sided blade cutting edge. The other end is tapering to a point so as to fix into a wooden handle. The object is mainly used for removing the grass. Locally known as '*Khurpa*'. From the middle levels of Period II.
871. A medium-sized rod with a round section and tapering to pointed either ends. From the upper levels of Period III.
1337. A long rod with a round section, tapering to pointed either ends. From the lower levels of Period IV.
- The above four objects were meant probably for engraving or writing.
951. A small instrument of squarish section with a flattened blade cutting edge and tapering to pointed other end. It was probably used for nail cutting. From the upper levels of Period IV.

V. AGRICULTURAL IMPLEMENTS (pls. CXXI-CXXII)

2078. Plough-share of a squarish section with a tapering body to chisel working edge. The other end is tapering to a point so as to fit into the groove provided in wooden frame. From the upper levels of Period I.
1917. Plough-share of a squarish section with tapering body and chisel working edge. The other end is tapering to a point so as to fit into the groove of the wooden plough. From the middle levels of Period II.
1931. A variant of no. 1917. From the lower levels of Period III.
127. A variant of no. 1919. From the lower levels of Period III.
1930. Another variant of no. 1919. From the lower levels of Period III.
1937. Another variant of no. 1919, smaller in size. From the lower levels of Period III.
1311. Another variant of no. 1919. From the middle levels of Period III.
1642. Another variant of no. 1919. From the middle levels of Period IV.

827. A miniature edge of a rectangular section with flat tapering straight-sided blade cutting edge. The other end is tapering to a point to fix into a wooden handle. The object is generally used for taking out the weeds and roots. Locally called 'Khurpi' a smaller variety of 'Khurpa'. From the upper levels of Period II.
1854. A variant of no. 827, slightly bigger in size. From the lower levels of Period III.
1942. Another variant of no. 827, still bigger in size. From the lower levels of Period III.
1117. A pair of heavy edges of rectangular section with flat tapering straight sided blade cutting edge. The other end is tapering to a blunt point to fix into a long wooden handle to be used as an axe. The object was used mainly for cutting wood or sugarcane. Locally known as 'Kulhari' a distorted name of Sanskrit word 'Kuthar'. From the middle levels of Period III.
320. A crude variety of a socketed plough-share, rectangular in section and tapering to a flattened working edge (damaged). The socket is meant to fit into the wooden plough. From the middle levels of Period II.
1472. A socketed plough-share almost similar to 320. From the middle levels of Period II.
928. A variant of no. 1472 with a tapering to flattened other end to fit into the groove of the wooden plough. From the upper levels of Period III.
794. A sickle (broken) with a flattish blade and rectangular handle tapering to a pointed end to fix into a wooden handle. From the upper levels of Period II.
725. A variant of no. 794, bigger in size. From the upper levels of Period III.
30. Another variant of no. 725. From the upper levels of Period III.
1804. Another variant of no. 725 with better-preserved and intact handle. From the middle levels of Period III.
1805. Another variant of no. 725 with a better-preserved blade and broken handle. From the upper levels of Period IV.

VI. WEAPONS (pl. CXXIII A)

1626. An arrow-head of rhomboid section with a prominent rib in the centre, both on the upper and lower surface. It resembles a *karavira* leaf. A short tang of circular section has been provided to fit into a long reed handle. From the lower levels of Period II.
2032. A variant of no. 1626, better preserved. From the upper levels of Period IV.
2006. Another variant of no. 1626 with a tapering point, smaller in size. From the upper levels of Period III.
413. An arrow-head of square section with a tapering point. From the lower levels of Period II.

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1204. A variant of no. 413, better-finished and smaller in size. From the upper levels of Period III.
799. Another variant of no. 423, having a square body with a point. From the upper levels of Period III.
1655. An arrow-head of rectangular section with tapering point. Tang damaged. From the lower levels of Period IV.
712. Leaf-shaped arrow-head of flattish section with tapering end damaged, slightly thicker in the centre. From the upper levels of Period III.
1213. A variant of no. 712. Better-preserved and smaller in size. From the upper levels of Period III.
638. Leaf-shaped spear-head of medium size with a shallow pointed rib in the centre on both the upper and lower surface. Rhomboid section, damaged blade. A rectangular tang has been provided to fit into a bamboo staff, From the middle levels of Period III.
1786. A variant of no. 638. A pointed leaf-shaped variety with the ridge close to tang. Flattish section. Better-preserved, bigger in size. From the lower levels of Period IV.

(pl. CXXIII C)

2026. A trident with the out side out-turned and pointed. Rectangular in section. Tapering to pointed short tang to fix into the shaft. From the upper levels of Period IV.
1547. A hilt with tapering point, shallow pointed rib in the centre on both the upper and lower surface. Rhomboid section. From the upper levels of Period IV. (pl. CXXIII D)

VII. MISCELLANEOUS OBJECTS (pl. CXXIII B)

168. Semi-circular object, perhaps a horse-bit of rectangular section with the ends turned for tying to the rein. From the middle levels of Period II.
1235. A circular object of rectangular section with rivet marks, perhaps a ring for holding logs. From the upper levels of Period II.
1054. An iron object of rectangular section with rivet marks. From the lower levels of Period III.
1943. A ring of rectangular section with an external projection of the joining end. Probably a ring for holding logs. From the lower levels of Period III.
993. An iron object of rectangular section with a tapering point at one end and flattened tip on the other. The pointed end was meant probably to fix the wooden handle. May be an iron pick. From the upper levels of Period III.
1644. 'T'-shaped nail with tapering ends. Rectangular in section. From the upper levels of Period IV.

CHAPTER XII

BONE OBJECTS

Various type of bone objects have been collected from the excavations at different sites in India. Of all the varieties, bone-points happened to be most popular in the hoary past. They have been reported from varying cultural contexts like the Mesolithic phase of Sarai Nahar Rai; Neolithic phase of Burzahom and Chirand; Harappan phase of Mohenjodaro, Chanhudaro, Lothal etc; post-Harappan phase of Navdatoli; Painted Grey Ware and Northern Black Polished Ware phases of a large numbers of sites. The early historical period represented by the lost two phases, however, yielded the maximum number of bone points.

In the beginning there was no consensus amongst the scholars, so far as its name is concerned. They were generally known as arrow-head, though there was hardly any ground in support of it. Isolated examples are no doubt there to establish that they were used as arrow-head, but the use of a general terminology for all of them cannot be justified. The purpose for which they were used cannot be precisely determined in a large number of cases. In addition to the aim of producing them to work as arrow-head, the other purposes for which they might have been manufactured were weaving writing and antimony rod. Hence, they were also termed as knitting needles, styluses, kohl-sticks, awls, gouges etc. Some of the additional purposes for which the bone points could be used were decorating the terracotta discs and making grooves and incisions over leather hard clay vessels etc.

Bone points were very popular at Atranjikhera in the Painted Grey Ware levels. A large number of pointed tools have been reported from Allahapur and the excavator has called them by various names like points, awls and stylus. The awls are long tapering with point, while styluses are having a simple point. Ninety percent of the bone points at Allahapur were manufactured out of antlers. Described as styli and knitting needles, bone points have been yielded in plenty by the ancient site of Hastinapur. Pins, points and arrow-heads have also been reported from Daulatpur, Bhagwanpura, Nagar and Sanghol. Styli, awls, knitting needles, kohl-sticks, a polished stylus and points were found at Singh Bhagwanpura. Alamgirpur yielded styli, pins and arrow-heads. Similarly stylus, points, antimony rods and a pin were collected from Hulas; arrow-heads and points from Jakhera; arrow-head from Pariar; points and a barbed arrow-head from Sringaverpur, and an arrow-head and two broken styli from Mathura.

BONE OBJECTS

Bone points continued to be popular in Northern Black Polished Ware times at many sites in Northern India like Atranjikhera, Sravasti, Prahladpur, Rajghat, Manjhi etc.

In order to determine the process of manufacturing the bone tools from Allahapur were examined by B.N. Tandon. On the basis of his report it has been observed that the bones were dipped in hot water in the first instance to render them soft. In certain cases coconut oil was used as a medium to soften them. The hygroscopic nature of the tissue of the bones made it possible to absorb the liquid in which the bones were immersed for softening. Some of the bone pieces were first burnt as is evident from the carbonization of outer surface and only thereafter dipped in suitable softening medium. The bone pieces were ultimately cut to the desired size and shape by fixed crude lathe, which was in all probability made of iron. Regular concentric lines all over the body were observed on one of the specimens. The bone pieces were turned into tools, as it is likely, by some crude type of lathe. Since the lines were all regular and concentric, the bone pieces appear to have revolved on a definite axle. Smooth stones were used to polish the bone tools after fabrication and finally they were rubbed with soft skin. The bone tools could also have been polished with the help of wax or oil.

The excavations at Ganwaria yielded one hundred thirty-seven bone objects in all. But for three objects, the rest were all bone points in one form or the other. Of them, the largest number of seventy-eight were collected from Period II of the site. Period III yielded forty-one objects, whereas Period IV only eight.

The collection of bone objects from Ganwaria has been classified into six categories on the basis of the variation in shape, standard of finish and pointed ends. The distinguishing features of the six groups are furnished below:

Group I. - Specimens in this group have the pointed end on both sides. The pointed ends are also equal in size. The thickest part of the specimens is approximately at the centre. The distribution of the objects in this group is one in upper levels of Period I, one in the upper levels of Period II, two and one respectively from the lower and middle levels of Period III. Period IV did not yield a single piece of the specimen (pl. CXXIV A, 1-3). Objects of this type have been reported from Sonpur (c. 100 B.C.-A.D. 200), Prahladpur (c.700-400 B.C.) Amreli (c.300-900 A.D.); and Vaisali (c.200-100 B.C.).

Group II.-Bone points in this group also have both the ends pointed with the only difference that one of the ends is shorter than the other. Two specimens each of this group occurred in the middle and upper levels of Period I, twenty-five and thirteen respectively in the middle and upper levels of Period II, nine and two respectively in lower and middle levels of Period III followed by a single specimen in the middle levels of Period IV. Various stages of manufacturing can be observed on the bone points of this group (pl. CXXIV A, 8-14). Similar points have been found at Sonpur (c. 650-200 B.C.); Prahaladpur (c. 700-600 B.C.); Vaisali (c.600-200 B.C.); Tilaurakot (unstratified) and Hastinapur (c. 200-100 B.C.).

Group III.-This group has been distinguished by a well-defined tang, sharp points and polished surface. There were only two specimens in this group. They were confined to Period II, one each occurring in the lower and middle levels (pl. CXXIV A, 6-7). Similar bone points have been reported from Sonpur (c. 650 B.C.-A.D. 200); Sravasti (c. 600-500 B.C.); and Vaisali (c. 600 B.C.-A.D. 200).

Group IV.-The tang in this group is not well-defined. The shape of the bone point is also not proportionate. One specimen of this group occurred in the upper levels of Period I, six each in middle and upper levels of Period II, four and one respectively in lower and upper levels of Period III (pl. CXXIV B, 5-7). There was not a single specimen of this group in Period IV. Almost similar objects have been unearthed from Sravasti (c. 600-500 B.C.).

Group V.-Socketed bone points have been covered in this group. They have invariably a shining surface. The standard of finish is also very high. The pointed ends are short. In certain specimens of this group there is a hole on the longer end meant probably to haft it in wood or any other suitable material before using. Period I and IV did not yield any specimen of this type. Besides one unstratified piece, two specimens each were found in the middle and upper levels of Period II and one each in the lower, middle and upper levels of Period III. A limited number of bone points in this group has been prepared out of horn. They were found in middle and upper levels of Periods II and III (pl. CXXIV B, 8-13). Similar objects have been reported from Sravasti (c. 500-400 B.C.); Prahaladpur (c. 700-500 B.C.); Vaisali (c. 600-400 B.C.); Tilaurakot (c. 200-100 B.C.); and Hastinapur (c. 800 B.C.).

Group VI.-The total number of objects placed under this group, termed as Miscellaneous, was forty-nine. Amongst them, bone points with long tapering sides and only one working end; bone points having short tapering sides and only one end; a hexagonal unfinished pendant; a weaving needle; antimony rods and some unfinished points were the numerous variety (pl. CXXIV B, 1-4).

A large number and variety of bone points from Ganwaria make it quite evident that they were manufactured locally.

CHAPTER XIII

POTTERY

Pottery has always been treated as the fundamental cultural trait on which the whole life and picture of an ancient site are reconstructed and Ganwaria (Kapilavastu) is in no way an exception. The ancient site came under occupation long before it became famous in the Buddhist world as Kapilavastu. In the beginning the place was no more than a hamlet. The ceramic evidence from Ganwaria is very interesting. It was generally believed by the archaeologists that in the eastern parts of Uttar Pradesh the earliest ceramic in the early historical period was the Northern Black Polished Ware. In the western parts of the same state, Painted Grey Ware was said to have preceded the Northern Black Polished Ware. Though certain sites in eastern Uttar Pradesh did yield evidence of an earlier ceramic in the form of black-polished or black slipped wares, it did not receive the attention of the archaeologists in a manner it actually deserved. The ceramic was more or less ignored by them, particularly because of the extremely limited number of sites where it occurred along with the very restricted area subjected to excavation in the lowest deposits of these sites. It was further so, on account of the fact that there was not much difference in the shine on the surface of both the wares. Now, with the information forthcoming from a number of sites excavated in eastern Uttar Pradesh in recent times, it has become evidently clear that the ceramic anterior Northern Black Polished Ware in this part of the country was the black-slipped or black-polished ware. Though the pottery in use during those times was not restricted only to black-slipped or black-polished ware, the same has been treated as the main cultural trait in the same fashion as the Northern Black Polished Ware. The fundamental difference between the black-polished and Northern Black Polished Wares is that the former is far more thinner in section. The latter is appreciably thicker on account of the application of a double slip, one above the other, the lower one generally brownish in colour. Further, the treatment and finish of the Northern Black Polished Ware are far superior and in fact perfect. It is not so in the case of black-polished ware. There is a marked difference in the metallic sound also produced by the two. The slip from the black-polished ware gets easily scratched out. The clay used is not so well-levigated and the fusion of the clay also during the course of firing is not so complete.

As already mentioned, the occupational deposit at Ganwaria was divided into four periods. Period I was distinguished by various types of ceramic like grey ware, fine red ware, red-slipped ware, chocolate-slipped ware and coarse-red ware in addition to black-polished ware. In grey ware bowls and dishes held a dominating position. Vases were restricted in number. The most characteristic

shape in grey ware happened to be a wide dish with a red rim and grey bottom and interior. In a few cases the bottom was black. Dishes of this type have been reported from the earliest levels of Painted Grey Ware Period at Ahichchhatra in Bareilly district of Uttar Pradesh. The grey ware found at Ganwaria was thin in section. The clay used was very well-levigated. It was very well-fired resulting in complete fusion. A metallic sound was produced by the grey ware fragments when struck. Some of the grey ware bowls and dishes carried a blackish slip. The sides of the bowls and dishes were incurved and the base was flat.

But for the difference in colour, the ceramic fine red ware was similar to that of grey ware. Some of the fragments in fine red ware were painted in horizontal band or circular line. A restricted number of the fine red ware pieces were either having a black or grey interior. In certain cases the black portion was so well-merged with the red that it was difficult to draw a line of demarcation. As observed in Period II of the site, the black portion in this Period also might have been painted, though of course not a single painted sherd could be found.

The red-slipped ware is limited in quantity. The surface colour is deep red, but the slip applied is of a poor standard. Dishes and bowls were the representative types in this ceramic as well. Vase had its representation only in two types, one with a beaded and the other with a splayed-out rim. One channel-spout was also found in red-slipped ware.

The slip on the chocolate-slipped ware was of a better standard than the red-slipped ware. The main types in this ware also were bowls and dishes.

The black-slipped or black-polished ware was supposed to be the precursor of the Northern Black Polished Ware. It differed fundamentally from the Northern Black Polished Ware in not having a polish, shine and finish of that perfect quality. The colour also was not deep black, but tended to be greyish. Dishes and bowls were again the main types in this ware. The size of some of the vessels happened to be much bigger than that of those in the Northern Black Polished Ware.

The coarse red ware of Period I was devoid of any slip. It was simply washed. Unlike other ceramics of the Period, vase was the predominant type in coarse red ware. Vase was represented generally by two shapes, one with a high neck and the other distinguished by a splayed-out rim. Similar vases have been reported from the Painted Grey Ware levels in the western parts of the Indo-Gangetic basin.

Period II at Ganwaria was distinguished by the appearance of the Northern Black Polished Ware. With the introduction of the Northern Black Polished Ware, an over all improvement in the associated ceramic industries was observed. The black-slipped or black-polished ware continued with a minor modification in shapes. The deep bowl of the preceding Period was completely absent in this Period. Fine red ware, thin painted ware, grey ware, red-slipped ware, coarse red ware and some painted and decorated fragments happened to be the other associated ceramic industries. The

de-luxe ceramic Northern Black Polished Ware was found in abundant quantity and in various shapes. The principal shape in the Ware happened to be a bowl.

Imitating the treatment and finish of the Northern Black Polished Ware, the fine red ware presented a glittering surface. The colour also is darker appearing more like chocolate. Like the preceding Period some of the vessels were partly black, which merged with red in such a perfect manner that in a number of cases the same presented the appearance of painting. The merging in Period I was not of such a high standard. Bowls and dishes were the main types. A deep bowl with a flat base was a characteristic of the Period. The flat base is often black.

A few fragments of thin painted ware were like the Northern Black Polished Ware with the difference only of colour. In this case the colour happened to be red. The red surface was painted in black, the design being mainly thick vertical and horizontal bands, occasionally meeting one another. Though not a single complete piece was available, the shape which could be identified from the fragments appeared to be of bowls only.

The grey ware of Period II was of a thicker variety than that of Period I. The texture also was slightly different. One of the fragments was painted in a black line on the interior.

The slip on the red-slipped ware was of an indifferent nature. The vases in the red-slipped ware were having either a beaded, everted or flattened rim. They were much more in quantity than bowls and dishes. A channel-spout was also observed.

The coarse red was represented mainly by vases, some of which were having a heavy rim. A few miniature vessels in coarse red ware were interesting. A basin with a lug handle was characteristic of the Period particularly because of its fundamental difference from the popular variety in Period III.

Fragments of red ware painted in oblique black lines along with those decorated in cord pattern and also incised vertical and oblique lines were some other associated ceramics.

Though the ceramics grey ware and black-slipped ware continued to occur in a very restricted quantity in Period III, there was a complete change in the colour, shape and the finish of the pottery types. The sophistication in ceramic types observed in the earlier two Periods disappeared completely. Pottery as a whole presented a coarser appearance. Red ware was the predominant pottery. The colour varied from light to deep red. Vases were found in large quantity. They had grooved, beaded, splayed-out or obliquely-cut rim. Bowls with obliquely-cut rim were also found in a fairly good quantity. Besides larger ones, the excavation also yielded bowls of smaller size, which were better-finished. Similarly the finish of a few dishes was of a better standard. Lids of various variety had generally a circular bottom and a knob of the interior. The basins were having lug handle.

The dishes and bowls of the grey ware, which occurred in a limited quantity, were very small

in size. The fabric and finish of the ware were also of a very poor standard. Similarly the fabric of the black-slipped miniature vase was very poor in quality.

Painting happened to be much more popular in Period III. The main design was chocolate lines both vertical and horizontal, over a light red surface. A typical painted fragment carried thick circular points in cream over a chocolate surface. The design on the decorated sherds happened to be applied finger tip, triangular notches and oblique incision.

Generally in a coarse red fabric, the shapes in pottery multiplied several times in Period IV. They are all similar to the types yielded by other early historical sites in Indo-Gangetic basin during the early centuries of the Christian era. A limited number of vessels, particularly vases were treated with a slip. Though basins and small bowls do occur, vases in a very large quantity predominate. Troughs were also common. Vases with a heavy rim and also with lug handles were very popular. The lid in red ware had a variety of shapes.

Sprinkler in Red Polished Ware, a characteristic pottery of the early centuries of the Christian era made its appearance for the first time. The sprinklers were generally funnel-shaped. The spouts were also found in different shapes. Like sprinklers, heavy hand-made jars in red ware also occurred for the first time in Period IV.

Both small and bigger bowls were found in the red ware. The smaller bowls had incurved rim, whereas the larger ones were having incurved obliquely-cut small rim with a corrugated exterior. A limited number of basins with a sagger base and miniature vessels also occurred in the Period.

A very restricted quantity of chocolate-slipped ware was found to be associated with above-mentioned ceramics. The slip on the ware was of a good quality which led to a little shining surface. A bowl and a sprinkler were the main shapes.

Bowls and dishes in grey ware of a very coarse fabric were found in a limited quantity. Similarly bowls and dishes in black-slipped were of a coarse fabric were also restricted in quantity. In black-slipped ware tow sprinklers were notable.

Decoration of the pottery became very popular in Period IV. The handles of the vases were decorated with grooved and vertical incisions, occasionally in two rows. Circlets, oblique slashes, chevron-like slashes, flower patterns, groups of concentric circle interspersed by horizontal parallel lines (both three in number), and herring-bone pattern were other important designs. In certain cases like the flower motif and the herring-bone pattern were other important designs. In certain cases like the flower motif and the herring-bone, the design was embossed.

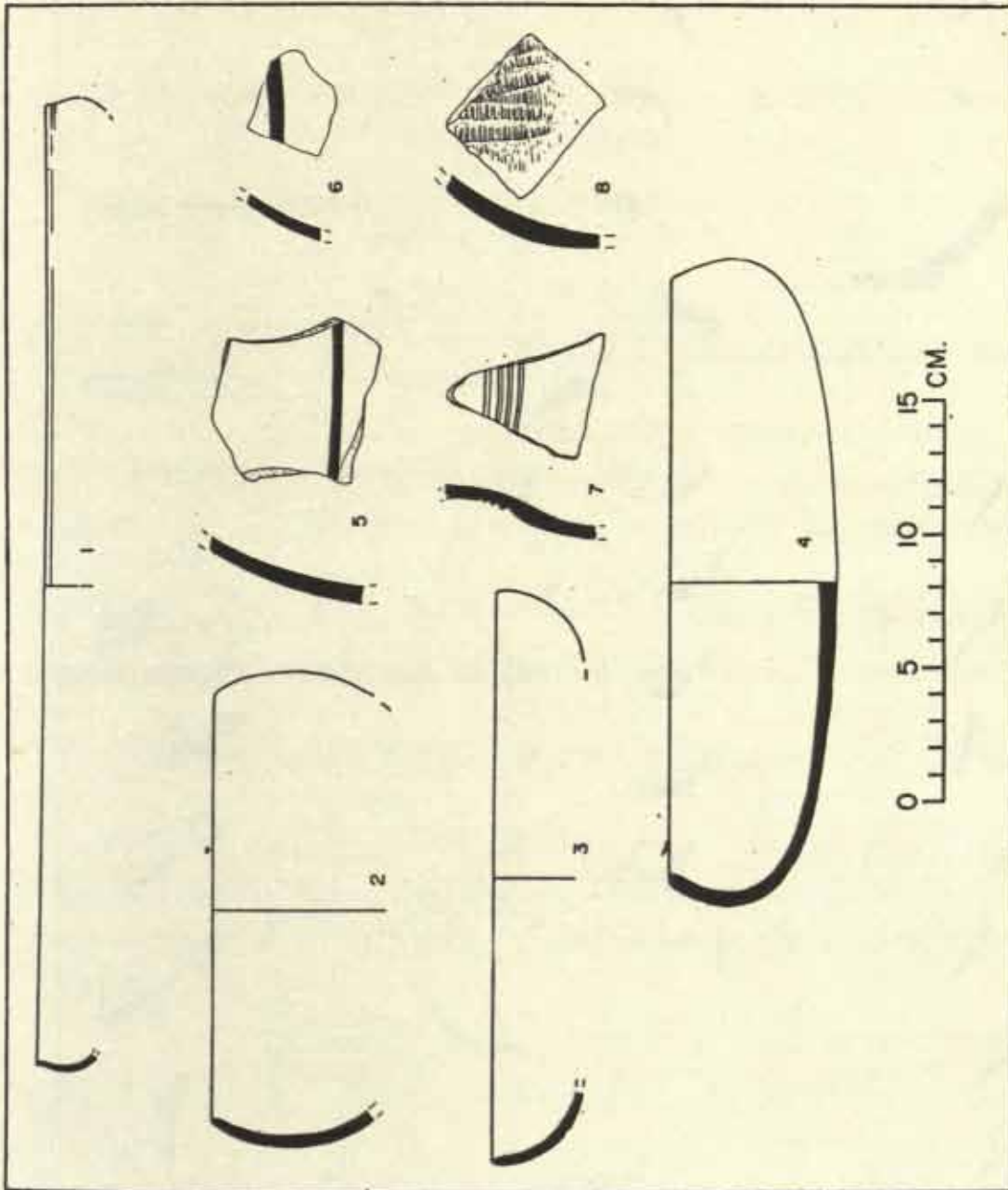


FIG. 28. Piprahwa : Pottery types, Period I

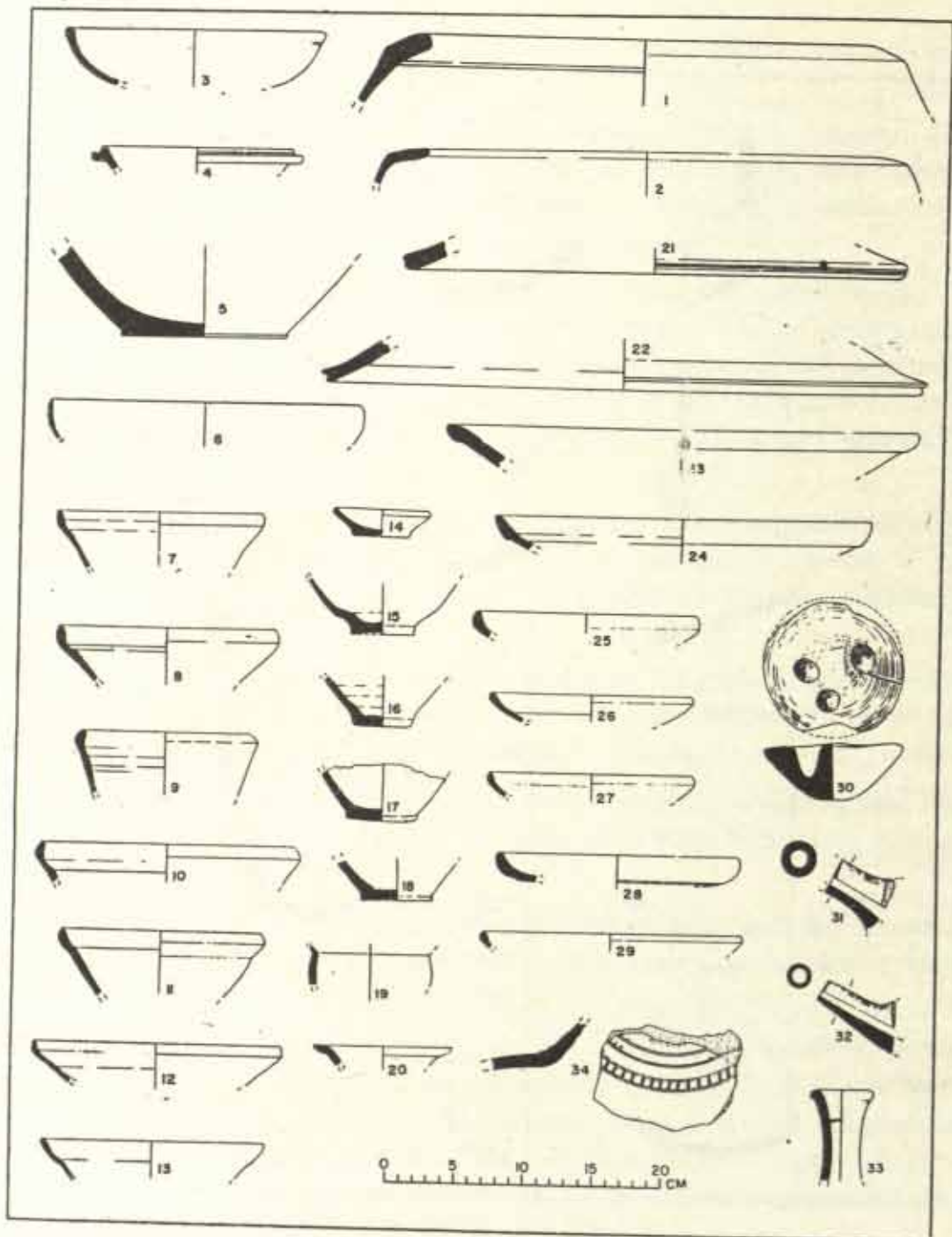


FIG. 29. Piprahwa : Pottery types, Period I

PIPRAHWA

PERIOD I

Fig. 28

N.B.P. = Northern Black Polished

E = Early levels of Period I

M = Middle levels of Period I

L = Late levels of Period I

- Type 1. Fragment of a dish of N.B.P. Ware with a slightly out-curved featureless rim and incurved sides. E
- Type 2. Fragment of a bowl of black ware with featureless vertical rim and rounded sides. Of fine fabric, treated with slip and well-fired. E
- Type 3. Fragment of dish of N.B.P. Ware with a vertical featureless rim and slightly tapering sides. E
- Type 4. Dish of red ware with an almost vertical featureless rim, incurved sides and flat base. M
- Type 5. Fragmentary sherd of red ware painted in black thick horizontal line on the exterior. Of medium fabric, treated with a slip and well-fired. M
- Type 6. Fragmentary sherd of red ware painted in black thick horizontal line. Of medium fabric, treated with a slip and well-fired. M
- Type 7. Fragmentary sherd of red ware decorated with parallel grooves in a group near the shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 8. Fragmentary sherd of red ware decorated with stamped plam leaf motif. Of medium fabric, treated with slip and well-fired. L

Fig. 29

- Type 1. Fragment of a vase (*koha*) of red ware with a closing, thickened externally and collared rim. M
- Type 2. Fragment of vase (*koha*) of red ware with a closing flattened top rim. Of medium fabric devoid of any surface treatment and well-fired. L
- Type 3. Fragment of a bowl of red ware with a vertical, slightly externally thickened rim and incurved side. E

- Type 4. Fragment of a lid-cum-bowl with vertical featureless rim and externally fanged waist. E
- Type 5. Fragment of a flat base of a vase of red ware with tapering sides. Of coarse fabric, ill-fired showing unoxidized smoky mid section. L
- Type 6. Fragment of a bowl with featureless vertical sharpened rim and almost incurved sides. E
- Type 7. Fragment of a bowl of red ware with a vertical featureless, internally thickened and depressed rim and tapering sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 8. A variant of type (7) having prominent internally depressed rim. L
- Type 9. Another variant of Type (7) having internally grooved almost vertical sides. L
- Type 10. Another variant of type (7). L
- Type 11. Fragment of a bowl of red ware with a sharpened externally bevelled and internally depressed rim and tapering sides. M
- Type 12. Fragment of a bowl of red ware with a sharpened, externally thickened rim and tapering sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 13. Fragment of a bowl of red ware with an externally thickened rim and tapering sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 14. Fragment of a *deep* with a vertical sharpened, externally oblique-cut rim, tapering sides and flat base. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 15. Fragment of a bowl of red ware with ring-footed base, tapering sides above a bold depression. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 16. Fragment of a bowl of red ware with a flat base and tapering sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 17. A variant of type 16. L
- Type 18. Another variant of 16. M
- Type 19. Fragment of a bowl of red ware with a flared rim and globular body. M
- Type 20. Fragment of a bowl with a horizontally splayed-out rim and tapering sides. L
- Type 21. Fragment of a thick lid with featureless and externally grooved rim. M
- Type 22. A variant of type 21. M

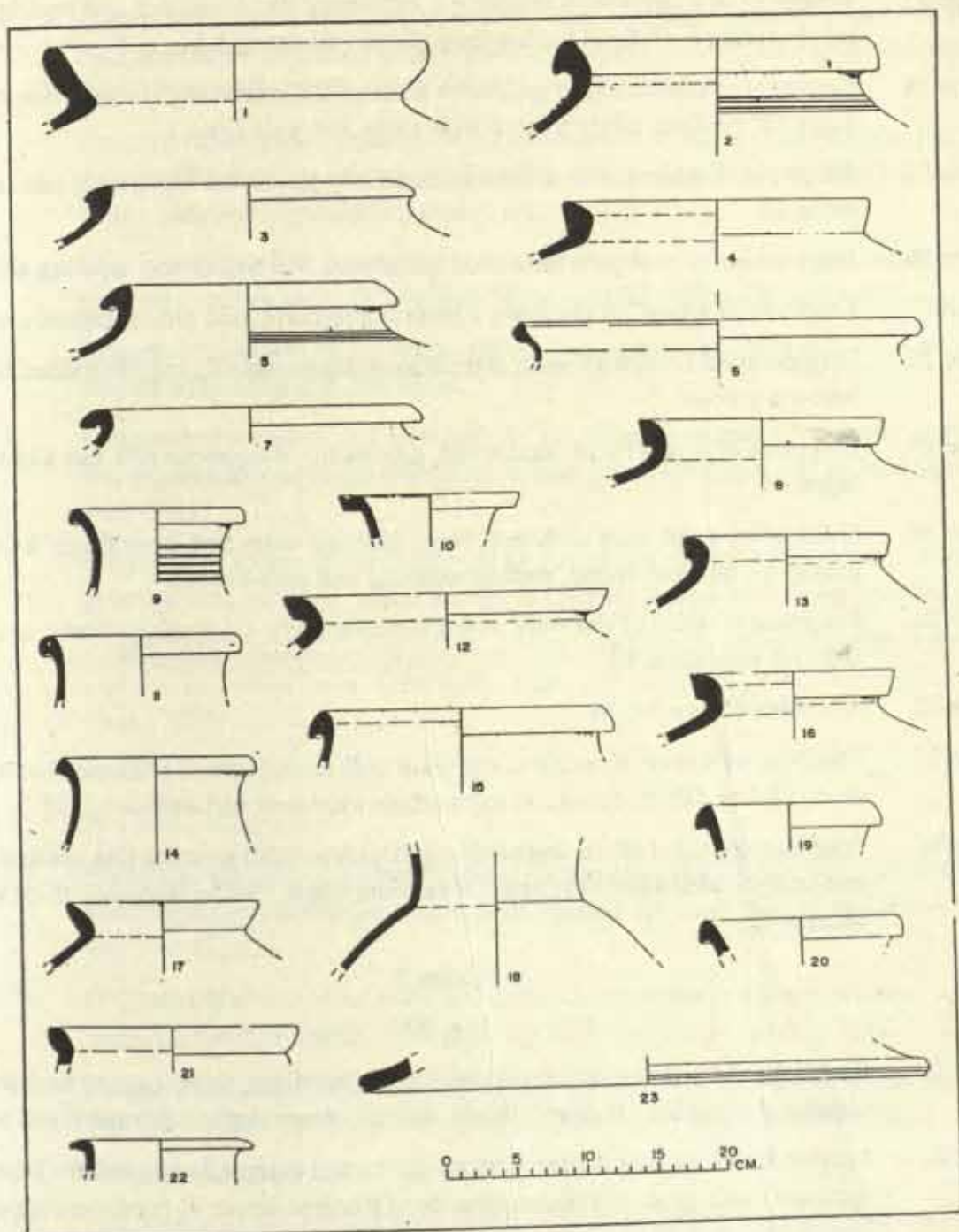


FIG. 30. Piprahwa : Pottery types, Period II

- Type 23. Fragment of a basin with sharpened, externally thickened rim and tapering sides. Of medium fabric, ill-fired having unoxidized mid section. L
- Type 24. Fragment of a basin of red ware with a sharpened, externally collared rim and tapering sides. Of medium fabric treated with a slip and well-fired. L
- Type 25. Fragment of a bowl with a vertical externally thickened featureless rim and tapering sides. M
- Type 26. Fragment of a bowl with thickened featureless rim and almost tapering sides. M
- Type 27. Fragment of a bowl of red ware with featureless rim and almost tapering sides. M
- Type 28. Fragment of a bowl with vertical thickened sharpened rim, incurved sides and flat base below a groove. E
- Type 29. Fragment of a bowl with sharpened, externally oblique-cut rim and almost tapering sides. M
- Type 30. Solid lid of a red ware with oval base, tapering sides and three finger holes for easy lifting. Of medium fabric, treated with slip and well-fired. L
- Type 31. Fragment of spout of red ware with a tapering body. Of medium fabric, treated with a slip and well-fired. M
- Type 32. A variant of type 31. M
- Type 33. Fragment of a neck of *surahi* of red ware with an out-turned thickened rim and tubular neck. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 34. Fragmentary sherd of red ware decorated with parallel grooved line designs, the lower one being fended with cut square. Of medium fabric, ill-fired showing un-oxidized mid-section. L

PERIOD II

Fig. 30

- Type 1. Fragment of a jar of red ware with thickened flared rim, short concave neck and oblique expanded shoulder. Of coarse fabric, devoid of any surface treatment and well-fired.
- Type 2. Fragment of a jar of red ware with an out-turned externally and collared rim, concave neck and multi-grooved oblique shoulder. Of coarse fabric, ill-fired showing unoxidized smoky mid-section.
- Type 3. Fragment of a wide-mouthed vase of red ware with an everted thickened rim, short concave neck and expanded oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired.

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- Type 4. Fragment of jar of red ware with a vertical thickened externally collared rim, neck distinguished with a deep groove and expanded oblique shoulder. Of coarse fabric, ill-fired showing unoxidized mid-section.
- Type 5. Fragment of a wide-mouthed vase of red ware with an out-curved drooping rim, concave neck and multi-grooved oblique shoulder. Of medium fabric, treated with a wash and ill-fired showing unoxidized smoky mid-section.
- Type 6. Fragment of a wide-mouthed vase of red ware with an in-curved externally thickened rim and concave neck. Of medium fabric, treated with a slip and well-fired.
- Type 7. Fragment of a vase of red ware with an out-curved drooping rim. Of medium fabric treated with a slip and well-fired.
- Type 8. Fragment of a vase of red ware with an out-turned externally, vertically under-cut rim and expanded oblique shoulder. Of medium fabric devoid of any surface treatment and well-fired.
- Type 9. Fragment of a vase of red ware with an out-turned thickened drooping rim, and multi-grooved long concave neck. Of medium fabric, treated with a slip and well-fired.
- Type 10. Fragment of a vase of red ware with splayed-out grooved top, externally vertical cut rim and almost vertical neck. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 11. A variant of type 9.
- Type 12. A variant of type 8.
- Type 13. Fragment of a vase of red ware and out-turned externally, vertically under cut rim, short concave neck and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 14. Fragment of a vase of red ware with a flared externally thickened rim and long concave neck. Of medium fabric, devoid of any surface treatment and ill-fired.
- Type 15. Fragment of a vase of red ware with an almost vertical, externally collared and drooping rim. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 16. A variant of type 12.
- Type 17. Fragment of a vase of red ware with a sharpened flared rim, neck distinguished with a cut and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 18. Fragment of a vase of red ware with a long almost concave neck and globular body. Of medium fabric, devoid of any surface treatment and well-fired.

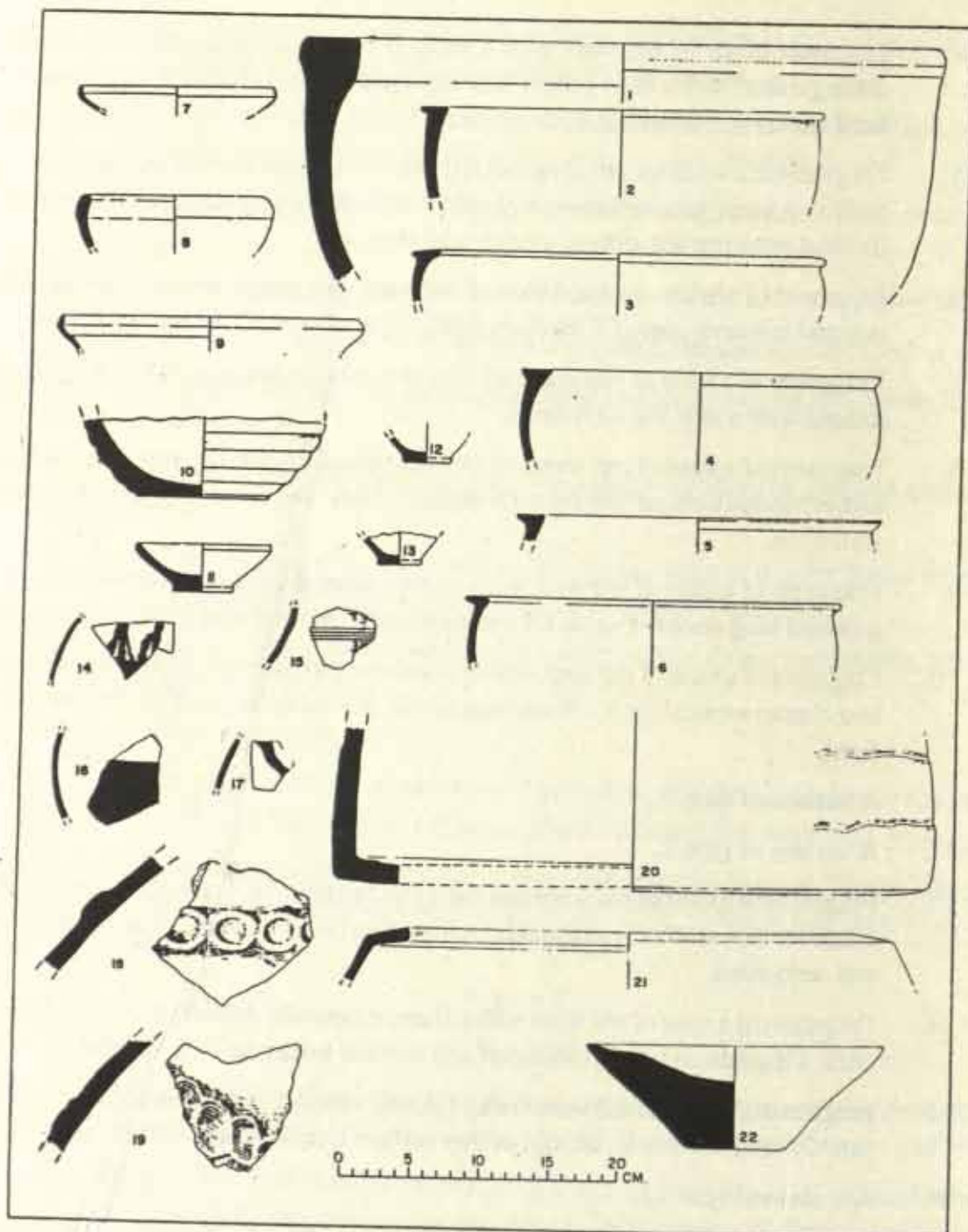


FIG. 31. Piprahwa : Pottery types, Period II

POTTERY

- Type 19. Fragment of a vase of red ware with an out-turned, externally thickened rim and almost vertical long neck. Of medium fabric, treated with a slip and well-fired.
- Type 20. Fragment of a vase of red ware with an out-turned, externally obliquely under-cut rim. Of coarse fabric, devoid of any surface treatment and ill-fired.
- Type 21. Fragment of a vase of red ware with a flared thickened short rim and neck distinguished with a deep groove. Of coarse fabric, devoid of any surface treatment and ill-fired.
- Type 22. Fragment of lid of vase of red ware with a splayed-out rim and almost vertical neck. Of medium fabric, treated with a slip and well-fired.
- Type 23. Fragment of lid of red ware with a featureless, thickened externally grooved rim and almost tapering sides. Of medium fabric, ill-fired showing un-oxidized smoky mid section.

PERIOD II

Fig. 31

- Type 1. Fragment of a trough or basin of red ware with featureless, vertical thickened. Flattened top rim and almost incurved sides. Of coarse fabric, treated with a slip and ill-fired showing unoxidized smoky mid-section.
- Type 2. A variant of type 1.
- Type 3. Fragment of a basin of red ware with a nail-headed rim and incurved sides. Of medium fabric, treated with a slip and ill-fired.
- Type 4. Fragment of a bowl with featureless flattened top rim and cut mark above the incurved sides.
- Type 5. A variant of type 4, differs in having almost oblique sides. Of medium fabric, treated with a slip and well-fired.
- Type 6. Fragment of a *handi* of red ware with a horizontally splayed-out rim and globular body. Of medium fabric, treated with a slip and well-fired.
- Type 7. Fragment of bowl of red ware with a vertical sharpened rim, a weak carination above the tapering sides. Of fine fabric devoid of any surface treatment and well-fired.
- Type 8. Fragment of a bowl of red ware with a slightly incurved, thickened externally grooved and almost in-curved sides. Of fine fabric, devoid of any surface treatment and well-fired.
- Type 9. Fragment of a bowl of red ware with a vertical sharpened rim and internally grooved tapering sides. Of medium fabric, devoid of any surface treatment and well-fired.

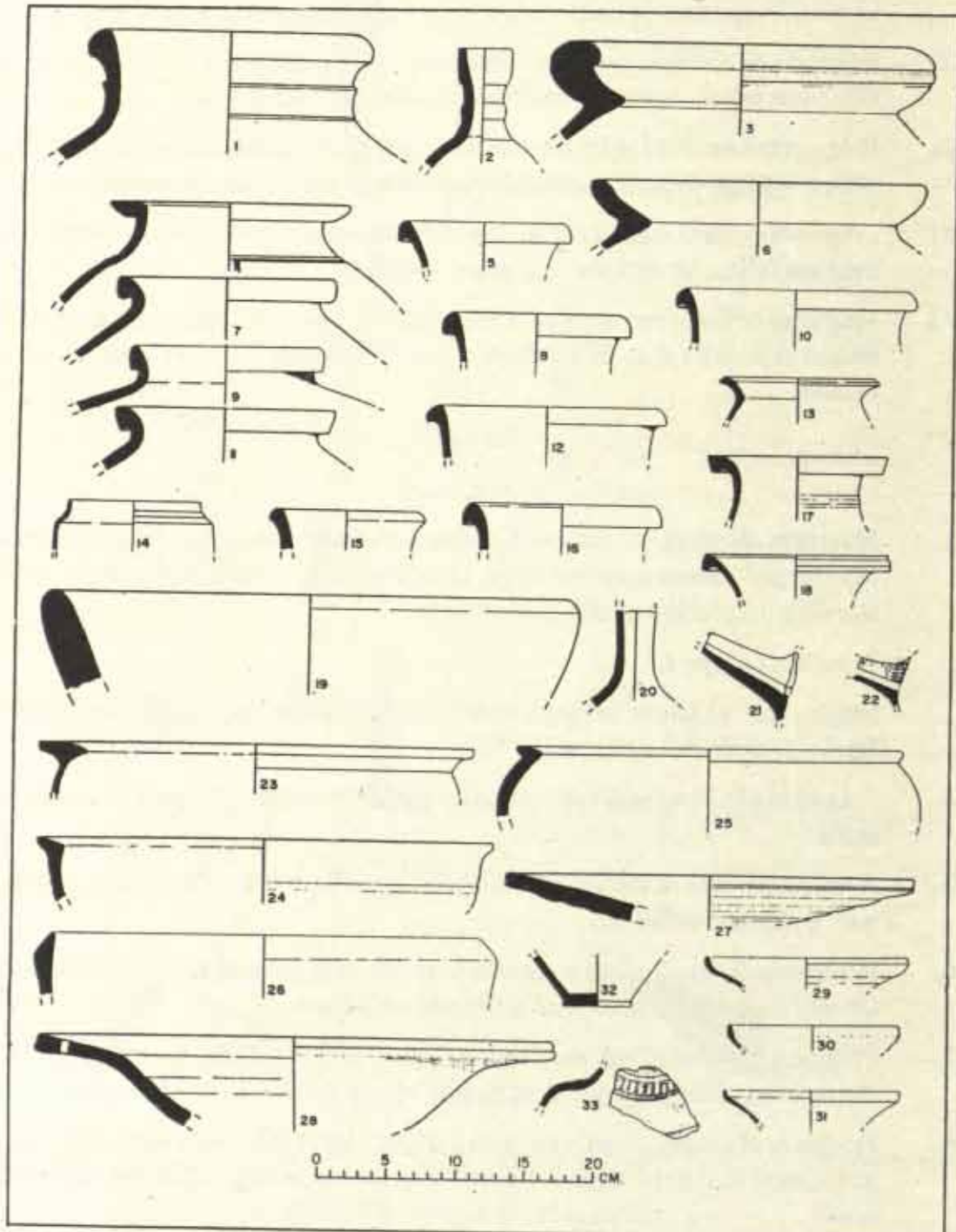


FIG. 32 Piprahwa : Pottery types, Period III.

POTTERY

- Type 10. Fragment of a vase of red ware with a flat base and grooved tapering sides. Of coarse fabric, treated with a wash and well-fired.
- Type 11. Fragment of a bowl of red ware with a sharpened vertical featureless rim, tapering sides and ring-footed base. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 12. Fragment of a bowl of red ware with tapering sides and flat base. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 13. A variant of type 12.
- Type 14. Fragmentary sherd of red ware painted in red tree branch motif. Of fine fabric, devoid of any surface treatment and well-fired.
- Type 15. Fragmentary sherd of black ware decorated with grooves. Of medium fabric, treated with a slip and well-fired.
- Type 16. Fragmentary sherd of red ware painted in red. Of fine fabric, devoid of any surface treatment and well-fired.
- Type 17. Fragmentary sherd of red ware painted in red with thick wavy line. Of fine fabric, devoid of any surface treatment and well-fired.
- Type 18. Fragmentary sherd of grey ware decorated with punched circle pattern on an applique band. Of coarse fabric and well-fired.
- Type 19. Fragmentary sherd of red ware decorated with rope design on an applique band. Of coarse fabric, treated with a slip and well-fired.
- Type 20. Fragment of a basin of red ware with a flat base and almost vertical sides. Of coarse fabric, devoid of any surface treatment and well-fired.
- Type 21. Fragment of a basin of red ware with an in-curved thickened, almost flattened rim and oblique shoulder below a ridge. Of medium fabric, devoid of any surface treatment and ill-fired.
- Type 22. Fragment of a base of a storage jar of red ware with a thickened short flat base and thickened tapering sides. Of red coarse fabric, devoid of any surface treatment and ill-fired showing unoxidized smoky mid-section.

PERIOD III

Fig. 32

- Type 1. Fragment of a jar of red ware with an out-curved thickened rim, almost vertical ridged and grooved oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired.

- Type 2. Fragment of a vessel or *surahi* of red ware with a vertical flattened top featureless rim, ridged short bottle neck and probably a globular body: Of fine fabric, devoid of any surface treatment and well-fired.
- Type 3. Fragment of a jar of red ware with an in-curved thickened, internally depressed, externally round collared grooved rim, neck distinguished with a mild depression and expanded oblique shoulder. Of coarse fabric, devoid of any surface treatment and ill-fired.
- Type 4. Fragment of a vase of red ware with a splayed-out rim, concave neck and grooves above the bulging profile. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 5. Fragment of a vase of red ware with a flared externally, thickened drooping rim and probably long concave neck. Of medium fabric, devoid of any surface treatment any well-fired.
- Type 6. Fragment of a jar of red ware with a flared rim, a wide depression above ridge below it and probably oblique shoulder. Of coarse fabric, devoid of any surface treatment and well-fired.
- Type 7. Fragment of a vase with an out-curved, externally squattish rim, short concave neck and oblique shoulder. Of medium fabric, treated with wash externally and well-fired.
- Type 8. Fragment of a vase of red ware with an out-turned, externally thickened drooping rim and almost long vertical neck. Of medium fabric, treated with a slip and well-fired.
- Type 9. A variant of type (8).
- Type 10. Another variant of type (8) having a short concave neck and expanded shoulder. Of coarse fabric, devoid of any surface treatment and ill-fired.
- Type 11. A variant of type (7)
- Type 12. Fragment of a vase of red ware with an out-turned, externally collared rim and probably vertical long neck. Of medium fabric, treated with a slip and well-fired.
- Type 13. Fragment of a vase of red ware with a flared externally oblique-cut and grooved top rim, short concave neck and oblique shoulder.
- Type 14. Fragment of a miniature pot with vertical featureless rim, grooved concave neck almost vertical sides above a weak carination. Of fine fabric, treated with a wash and well-fired.
- Type 15. Fragment of a vase of red ware with a featureless thickened rim. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 16. A variant of type (8).
- Type 17. Fragment of a vase of red ware with a splayed-out, externally vertical-cut rim and long

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- concave grooved neck. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 18. A variant of type 17, having externally grooved rim.
- Type 19. Fragment of a heavy basin of red ware with a featureless thickened rim and tapering sides. Of coarse fabric, devoid of any surface treatment and ill-fired showing unoxidized smoky mid-section.
- Type 20. Fragment of a vessel or surahi of red ware with bottle neck and probably globular body. Of fine fabric, treated with a slip and well-fired.
- Type 21. Fragment of a long spout of red ware with a wider lower portion and thin round upper portion having perforated opening. Of fine fabric, treated with a bright red slip and well-fired.
- Type 22. Fragment of a short spout of red ware decorated with incised vertical strokes in lower portion. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 23. Fragment of wide-mouthed vase or *handi* with a horizontally splayed-out, internally bevelled rim and probably globular body. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 24. Fragment of a wide-mouthed vase with a sharply incurved, externally thickened rim and globular body.
- Type 25. Fragment of a basin of red ware with an out-turned, internally bevelled rim and incurved grooved sides. Of medium fabric, treated with a slip and well-fired.
- Type 26. Fragment of a basin of red ware with a vertical sharpened, externally collared rim and almost tapering sides. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 27. Fragment of bowl with a splayed-out, externally grooved rim and internally corrugated tapering sides.
- Type 28. Fragment of a lid of red ware with a featureless thickened externally grooved rim and externally corrugated tapering sides. Of medium fabric, treated with a wash and well-fired.
- Type 29. Fragment of a bowl of red ware with a vertical thickened featureless rim, internally depressed above the tapering sides.
- Type 30. Fragment of a bowl of grey ware with a vertical sharpened featureless rim, weak carination above the tapering sides. Of fine fabric, devoid of any surface treatment and well-fired.

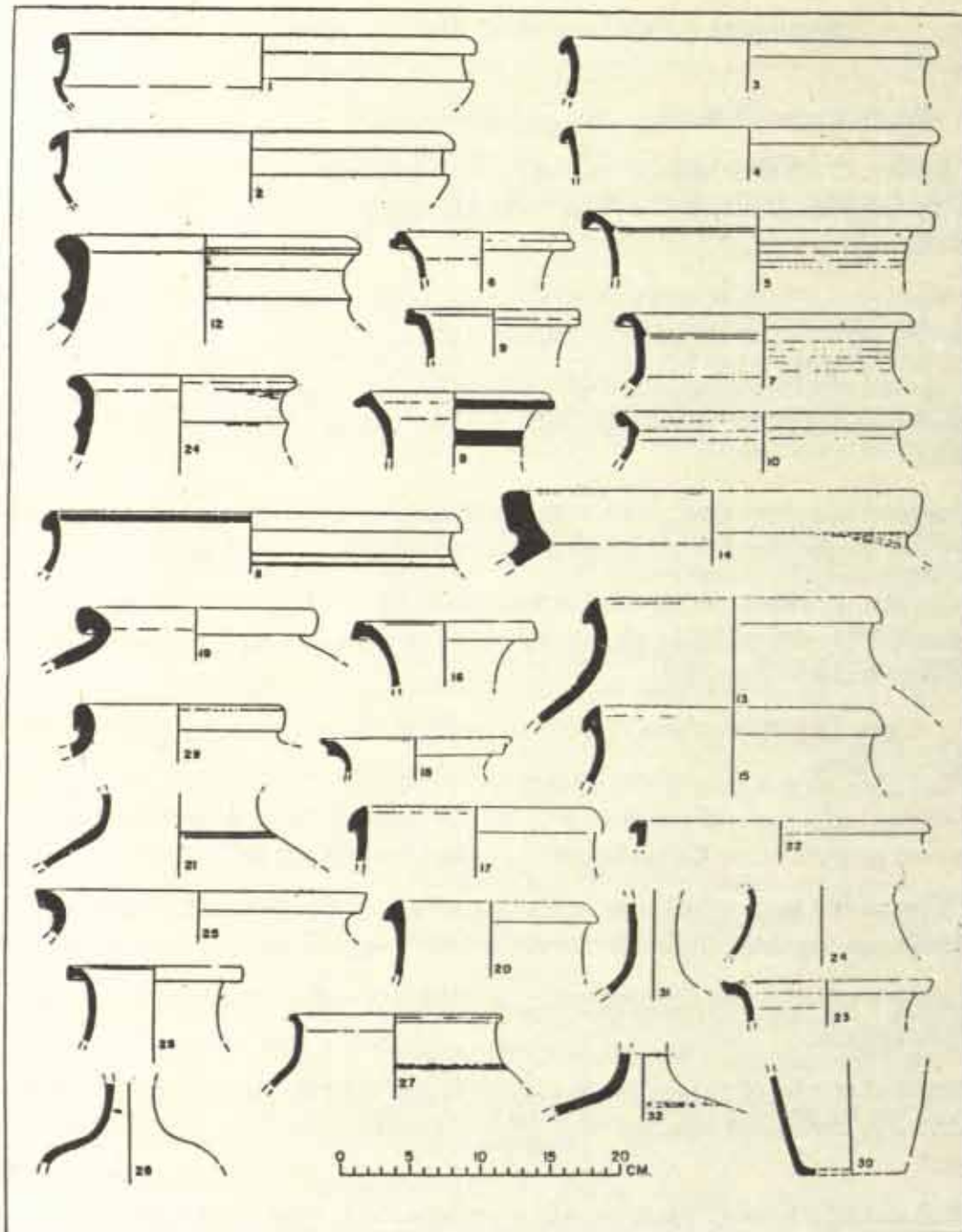


FIG. 33. Piprahwa : Pottery types, Period IV

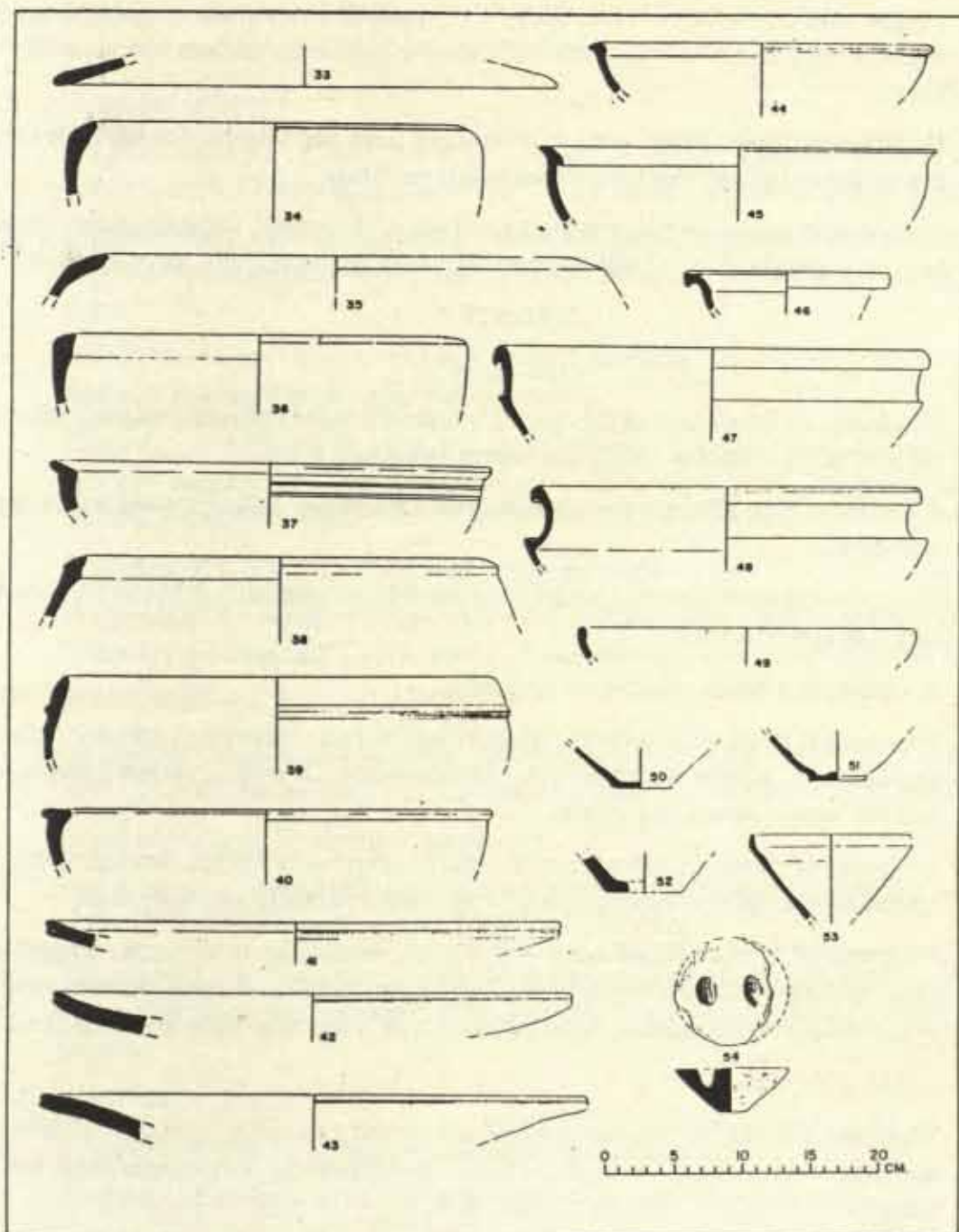


FIG. 34. *Piprahwa : Pottery types, Period IV*

- Type 31. Fragment of a bowl of red ware with a short vertical sharpened rim and tapering sides below a weak carination. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 32. Fragment of a bowl of red ware with tapering sides and ring-cut flat base. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 33. Fragmentary sherd of black ware decorated with incised squarish compartment in between horizontal bands. Of medium fabric treated with a slip and well-fired.

PERIOD IV

Figs. 33-34

- Type 1. Fragment of a *handi* with an out-turned, externally round collared drooping rim, almost vertical neck, ledged shoulder and almost in-curved sides.
- Type 2. A variant of type 1 having oval collared rim. Of medium fabric, treated with a slip and well-fired.
- Type 3. Fragment of a wide-mouthed vase with an out-turned externally thickened drooping rim and long concave neck.
- Type 4. A variant of 3 having almost vertical neck.
- Type 5. Fragment of jar of red ware with a slightly out-turned, externally thickened featureless rim and long concave neck with ridge in the middle. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 6. Fragment of a vase of red ware with a flared, externally ledged rim and almost long concave neck. Of fine fabric, treated with a slip externally and well-fired.
- Type 7. Fragment of a vase of red ware with flared, externally vertical-cut, drooping rim, internally ridged at the junction of the neck and body and externally grooved mouth and in-curved sides. Of medium fabric, treated with a slip externally and well-fired.
- Type 8. A variant of type 5.
- Type 9. Fragment of a vase of red ware with an out-turned externally, vertically under-cut rim and long vertical neck. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 10. Fragment of a vase with a flared, externally ledged rim and long concave neck.
- Type 11. Fragment of a vase of red ware with a sharply out-turned drooping rim, internal ridge above the externally corrugated long concave neck and probably oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired.

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- Type 12. Fragment of a vase of red ware with a flared, externally oval collared rim and long concave neck. Of medium fabric, treated with a slip and well-fired.
- Type 13. A variant of type 3.
- Type 14. Fragment of a jar of red ware with a flared, thickened, flattened top rim and short concave neck. Of coarse fabric, devoid of any surface treatment and ill-fired.
- Type 15. Fragment of a vase of red ware with an out-turned, externally drooping rim and expanded oblique shoulder. Of coarse fabric, devoid of any surface treatment and ill-fired.
- Type 16. Fragment of a vase of red ware with a flared drooping rim, and long concave neck. Of fine fabric, treated with a slip and well-fired.
- Type 17. Fragment of a jar of red ware with a sharpened, externally oval collared rim, long concave neck and grooved oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 18. Fragment of a vase with thickened in-curved drooping rim.
- Type 19. Fragment of a vase of red ware with short, vertical, sharpened, externally ridged and internally grooved rim. Of fine fabric, devoid of any surface treatment and well-fired.
- Type 20. A variant of type 17.
- Type 21. Fragment of a vase of red ware with concave neck, multi-grooved shoulder and probably globular body. Of medium fabric, treated externally with a slip and ill-fired.
- Type 22. A variant of type 17 having vertical neck.
- Type 23. Fragment of a vase of red ware with an out-turned thickened rim and almost vertical neck. Of fine fabric, treated with a slip and well-fired.
- Type 24. Fragment of a wide-mouthed vase of red ware with an out-turned, externally oblique-cut rim and short concave neck. Of coarse fabric, devoid of any surface treatment and ill-fired.
- Type 24.(A) A variant of type 24
- Type 25. A variant of type 22 having an out-turned thickened rim.
- Type 26. Fragment of a vessel or *surahi* with bottle-neck and oblique shoulder.
- Type 27. Fragment of a vase of red ware having a ridged and oblique shoulder. Of medium fabric, treated externally with slip and well-fired.
- Type 28. A variant of type 16.
- Type 29. Fragment of a vase of red ware with a slightly out-curved featureless, internally collared

- rim, long concave neck and oblique shoulder. Of fine fabric, treated with slip externally and well-fired.
- Type 30. Fragment of a bowl of red ware with slightly tapering sides and flat base. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 31. A variant of type 26 having a grooved shoulder and globular body.
- Type 32. A variant of type 31 having a bottle neck and globular body.
- Type 33. Fragment of a lid of red ware with a featureless thickened rim and tapering sides. Of coarse fabric, devoid of any surface treatment and well-fired.
- Type 34. Fragment of a basin of red ware with an in-curved thickened rim and almost vertical sides. Of coarse fabric, devoid of any surface treatment and well-fired.
- Type 35. Fragment of a wide-mouthed basin of red ware with incurved, externally oblique-cut rim and expanded oblique shoulder. Of coarse fabric, ill-fired and blackish mid-section.
- Type 36. Fragment of a basin of red ware with an almost vertical, externally thickened rim and almost vertical sides. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 37. Fragment of a bowl of red ware with a splayed-out rim and grooved in-curved sides.
- Type 38. Fragment of a wide-mouthed jar of red ware with an in-curved, internally depressed, externally bevelled rim and oblique shoulder. Of medium fabric, treated externally with a slip and well-fired.
- Type 39. Fragment of a basin of red ware with an almost vertical rim and in-curved sides below a caradan. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 40. Fragment of a basin of red ware with nail-headed rim and in-curved sides. Of medium fabric, treated externally with a slip and well-fire.
- Type 41. Fragment of a lid of red ware with a featureless, thickened, externally grooved rim and almost tapering sides. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 42. A variant of type 41 having slightly inn-curved sides.
- Type 43. A variant of type 42.
- Type 44. Fragment of a bowl of red ware with a out-curved, internally oval collared rim and in-curved sides. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 45. Fragment of a bowl of red ware with a sharply out-turned, internally bevelled rim and in-curved sides. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 46. A variant of type 44.
- Type 47. Fragment of a bowl of red ware with a short vertical, externally drooping rim and in-curved sides. Of fine fabric, devoid of any surface treatment and well-fired.

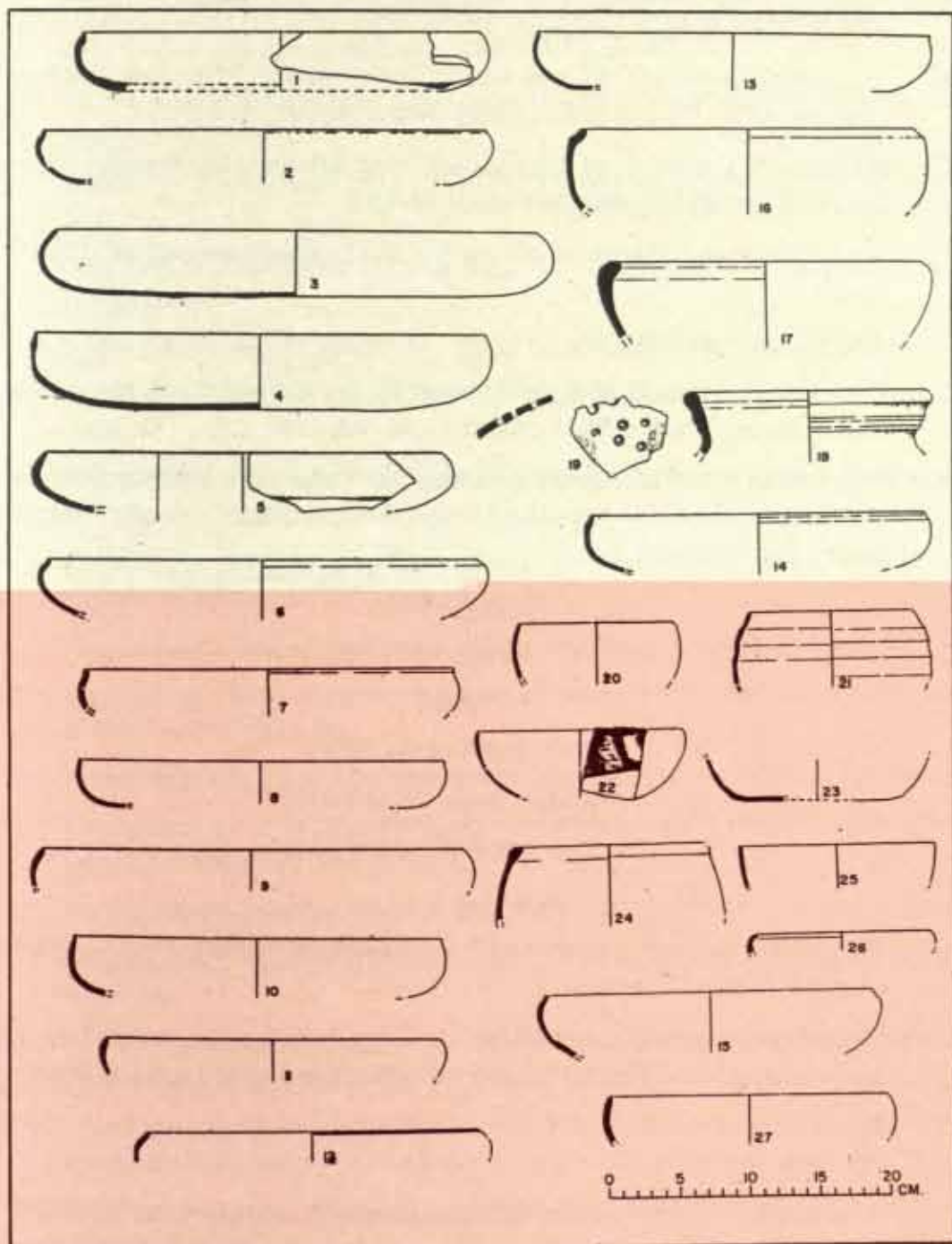


FIG. 35. *Ganwaria : Pottery types, Period I*

- Type 48. A variant of type 1 having pronounced ledged shoulder of medium fabric, devoid of any surface treatment and well-fired.
- Type 49. Fragment of a bowl of red ware with an almost vertical featureless, thickened rim and in-curved sides. Of fine fabric, treated with a slip and well-fired.
- Type 50. Fragment of a bowl of red ware with tapering sides and flat base. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 51. A variant of type 50 having an internally mild corrugated tapering sides and ring-footed base.
- Type 52. Another variant of type 50.
- Type 53. Fragment of a bowl of red ware with a vertical sharpened rim and tapering sides. Of fine fabric, devoid of any surface treatment and well-fired.
- Type 54. Fragment of a solid lid of red ware with a flattened top rim, tapering sides and flat base. Two holes have been provided for lifting. Of coarse fabric, ill-fired showing unoxidized smoky mid-section.

GANWARIA

PERIOD I

Fig. 35

- E = Early levels of the Period
 M = Middle levels of the Period
 L = Late levels of the Period
 US = Unstratified

- Type 1. Fragment of a dish of grey ware with almost vertical sharpened internally bevelled rim, incurved sides and flat base. E
- Type 2. Dish of grey ware with internally bevelled rim, incurved side and flat base, made out of well-levigated clay. Fine fabric with controlled firing so as to give a metallic sound. L
- Type 3. Fragment of a wide dish of grey ware with incurved sharpened rim, round profile and flat base. Of fine fabric.
- Type 4. A wide dish of grey ware almost complete with a slightly straight-sided internally sharpened rim, incurved sides and flat base. Made out of well-levigated clay, well-fired resulting in complete fusion to create metallic sound. L
- Type 5. Fragment of a dish of grey ware with a slightly incurved sharpened rim, incurved side and flat base. The base is internally painted in black horizontal uneven line. L

POTTERY

- Type 6. Similar to type 2 with a slight depression externally at the rim. L
- Type 7. Fragment of a dish of globular profile having a sharp depression externally below the vertical featureless rim, probably with a flat base. M
- Type 8. Fragment of a dish of grey ware with a vertical featureless rim, incurved side and probably flat base. L
- Type 9. Dish of grey ware with an incurved thickened rim, incurved sides and probably flat base. L
- Type 10. Fragment of a wide dish of grey ware with an outcurved sharpened rim and almost straight side. M
- Type 11. Fragment of a dish of grey ware with an incurved sharpened rim and incurved sides. L
- Type 12. Fragment of a dish of a grey ware of fine fabric with vertical featureless rim and incurved sides. M
- Type 13. Fragment of a dish of grey ware with an internally bevelled rim, round profile and almost flat base. L
- Type 14. Fragment of a dish of grey ware with an internally bevelled rim, incurved sides and probably flat base. E
- Type 15. Fragment of a dish of grey ware with an outcurved rim and round profile. L
- Type 16. Fragment of a bowl of grey ware with thickened rim and externally ledged shoulder and almost vertical sides. M
- Type 17. Fragment of a basin of grey ware with thickened sides. Of coarse fabric and ill fired. M
- Type 18. Fragment of a vase of thickened grey ware with splayed-out rim and corrugated profile. Of coarse fabric and well fired. M
- Type 19. Fragmentary perforated sherd of grey ware. M
- Type 20. Fragment of a bowl of grey ware with featureless vertical rim and slightly incurved sides. M.
- Type 21. Deep bowl of black polished ware with incurved sides and corrugated externally ridged profile. M
- Type 22. Fragment of a bowl of grey ware with a vertical sharpened rim and round profile. Internally black painted horizontal bands connected by a slanting line. M
- Type 23. Fragment of a bowl of grey ware with flat base and tapering sides. L
- Type 24. Fragment of a bowl of grey ware with an incurved, thickened, externally collared rim and incurved sides. Of fine fabric and well fired. L

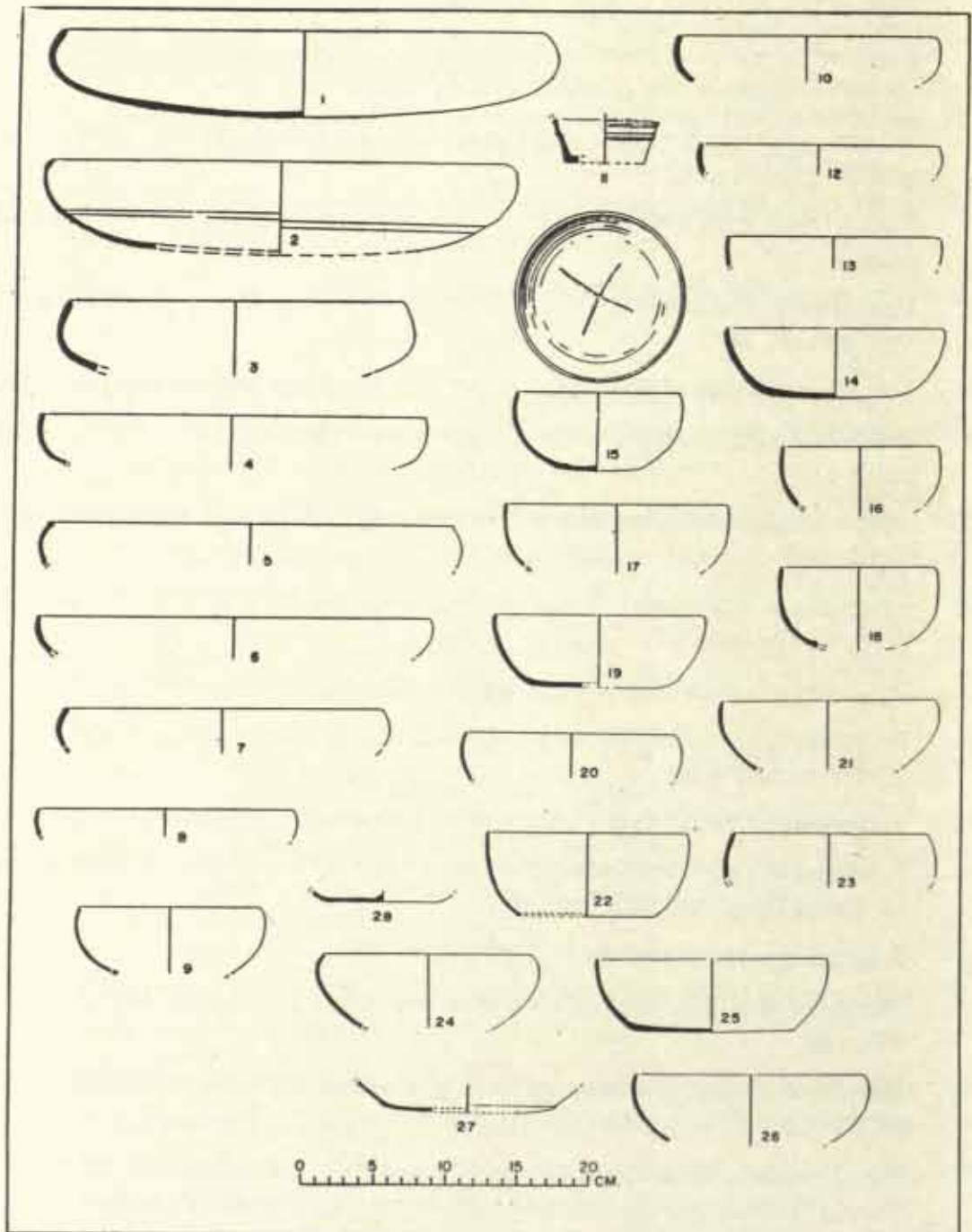


FIG. 36. Ganwaria : Pottery types, Period I

POTTERY

- Type 25. Fragment of a bowl of grey ware with vertical featureless rim and slightly tapering sides. L
- Type 26. Fragment of a shallow bowl of grey ware with an incurved featureless rim and incurved sides and probably flat base. L
- Type 27. Fragment of bowl of grey ware with vertical sharpened rim and incurved sides. L

Fig. 36

- Type 1. Fragment of a dish of black polished ware with a featureless rim, rounded sides and flat base. Of fine fabric and well-fired. E
- Type 2. Fragment of a dish of black polished ware with an incurved featureless rim, rounded profile and internally grooved flat base. Of fine fabric of well-levigated clay. M
- Type 3. Fragment of dish of black polished ware with a featureless rounded rim, incurved sides and almost flat base. Made of well-levigated clay and well-fired. M
- Type 4. Fragment of a dish of black polished ware with a vertical featureless rim, incurved side and probably a flat base. L
- Type 5. Fragment of a dish of black polished ware with a slightly thickened, externally grooved rim and incurved sides. Of fine fabric. E
- Type 6. Fragment of a dish of black polished ware with a featureless rim and slightly incurved sides. Of fine fabric. M
- Type 7. Fragment of dish of black polished ware with incurved sides, thickened rim and thin section. Of fine fabric. The polish on the interior has faded out to turn a geryish core. M
- Type 8. Fragment of a bowl of black polished ware with an internally bevelled sharpened rim and incurved sides. M
- Type 9. Fragment of a deep bowl of black polished ware with internally bevelled sharpened rim and round profile. E
- Type 10. Fragment of a bowl of black polished ware with a thick flattened top rim and incurved sides. It is of well-levigated fine clay and well-fired. The polish is fading out to show the greyish core. M
- Type 11. Fragment of miniature bowl with a flat base and tapering side sharing a ridge on exterior and grooves on interior. Of medium fabric and well fired. Polish is fading out exposing the reddish core. M
- Type 12. Fragment of a bowl of black polished ware with vertical thickened rim and slightly incurved sides. Of fine fabric and well-fired. M

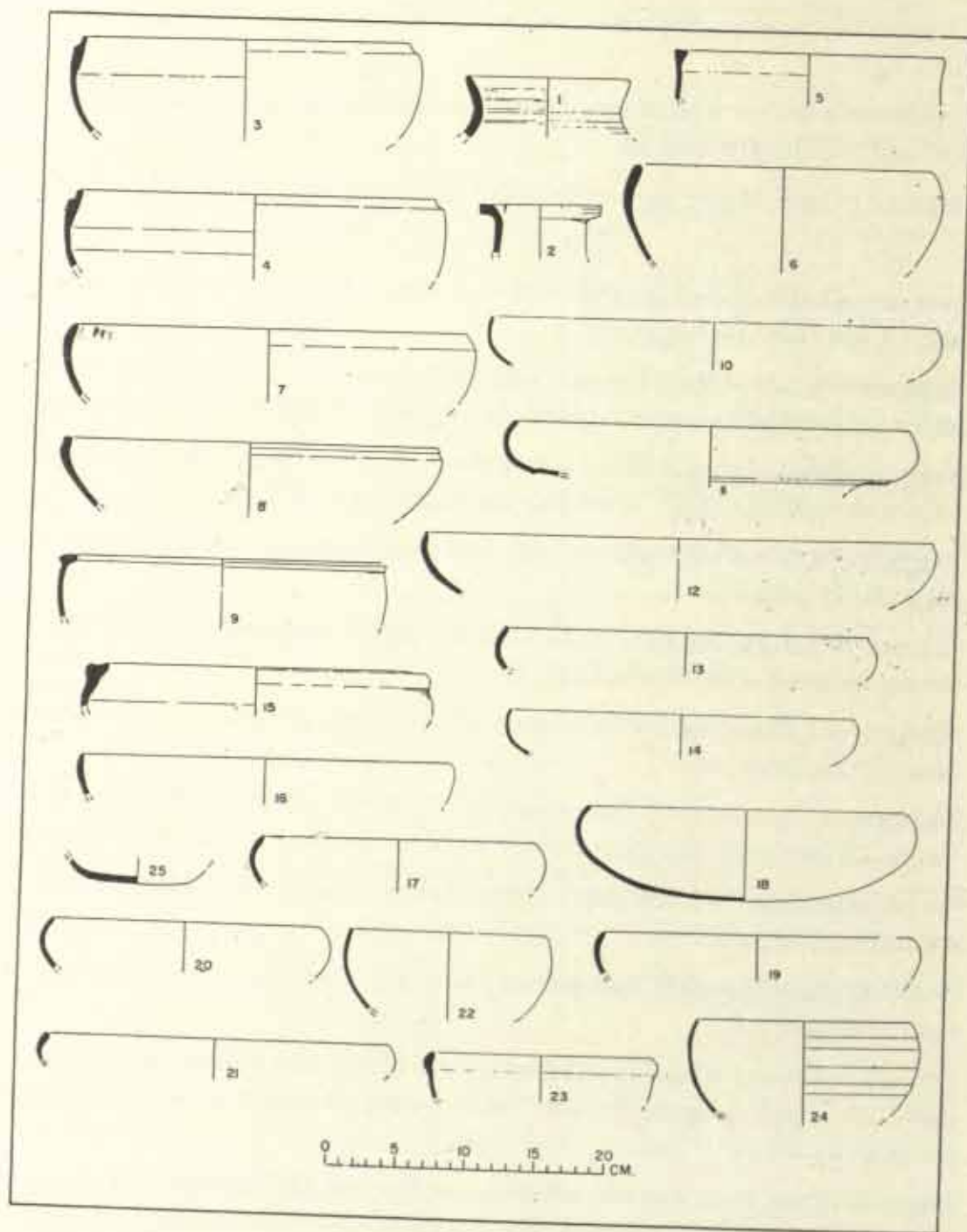


Fig. 37. Ganwaria : Pottery types, Period I

POTTERY

- Type 13. Fragment of a bowl of black polished ware with a straight side featureless rim. Of fine fabric and well-fired. M
- Type 14. Fragment of bowl of black polished ware with a externally bevelled sharpened rim, tapering sides and flat base. E
- Type 15. Fragment of a deep bowl of black polished ware with vertical sharpened rim and round profile and flat base. M
- Type 16. Fragment of a deep bowl of black polished ware with a slightly sharpened rim and incurved sides below the shoulder. Of fine fabric and well-fired. M
- Type 17. Fragment of a bowl of black polished ware with a straight-sided thickened rim and incurved profile below shoulder. Of fine fabric and well fired. M
- Type 18. Fragment of a deep bowl of black polished ware with a straight-sided sharpened rim and externally incurved sides below the shoulder. Well-fired, made out of well-levigated clay. E
- Type 19. Fragment of a bowl of black polished ware with an incurved sharpened rim, almost tapering sides and flat base. E
- Type 20. Fragment of a bowl of black polished ware with an incurved sharpened rim and slightly incurved side. M
- Type 21. A variant of type 20. M
- Type 22. Fragment of a deep bowl of black polished ware with vertical sharpened rim, incurved sides and ring-footed base.
- Type 23. Fragment of a deep bowl of black polished ware with straight-sided sharpened rim and slightly incurved profile. Of fine fabric and well-fired. M
- Type 24. Fragment of a bowl of black polished ware with internally bevelled sharpened rim, incurved sides and probably a flat base. M
- Type 25. Bowl of black polished ware with a vertical featureless rim, slightly incurved sides and flat base. L
- Type 26. Fragment of a deep bowl of black polished ware with a featureless rim and rounded profile. Of fine fabric an well-fired. Polish is flaking out from the exterior surface. E
- Type 27. Fragment of a flat base of a bowl of black polished ware with a prominent external ridge near the base and tapering sides. Of fine fabric and well-fired. M
- Type 28. Fragment of a flat base of a bowl of black polished ware sharing a central knob on its exterior. Of fine fabric and well-fired. L

Fig. 37

- Type 1. Fragment of a vase of red ware with flared-out featureless rim, short concave neck and oblique shoulder. Of fine fabric, well-fired, slip restricted to external surface only. L
- Type 2. Fragment of a vase of red ware with a vertically high-necked and a horizontally splayed-out featureless rim. M
- Type 3. Fragment of a red ware basin with internally collared and externally grooved rim and rounded profile. Of medium fabric, well-fired with complete fusion and treated with slip on both sides. M
- Type 4. As above with a slight variation in incurved profile. Of the same fabric and feature. M
- Type 5. Fragment of a basin of red ware with internally thickened rim flatly bevelled and slightly tapering sides. Of medium fabric and well-fired. The slip on the exterior is worn out. M
- Type 6. Fragment of a bowl of red ware with a vertical thickened rim and slightly rounded profile. Of fine fabric, well-fired rim and slightly rounded profile. Of fine fabric, well-fired and treated with bright red slip. M
- Type 7. Fragment of a basin of red ware with rounded sharpened rim having slight groove marks and incurved profile. Of medium fabric, well-fired and treated with slip on both sides. M
- Type 8. Fragment of a basin of red ware with an internally bevelled and externally grooved rim and almost tapering sides. Of medium fabric, well-fired with complete fusion, treated with slip. The slip on exterior is worn-out. M
- Type 9. Fragment of basin of red ware with an incurved externally bevelled rim and slightly incurved sides. Of medium fabric, well-fired and treated with a tan-red slip. L
- Type 10. Fragment of a dish of red ware with a vertical sharpened rim and incurved sides. Of fine fabric, well-fired and treated with slip. Slip on exterior is worn-out. E
- Type 11. Dish of a red ware with an incurved featureless rim, rounded profile, flat base, and internally bold groove and externally ridge mark. Of fine fabric, well-fired and treated with fine red slip. L
- Type 12. Fragment of a wide dish of red slipped ware with vertical featureless rim, incurved side and probably flat base. M
- Type 13. Fragment of a dish of red ware with a sharpened slightly out-curved rim and rounded profile. Of fine fabric, well-fired and treated with slip on exterior which is worn-out. L
- Type 14. Fragment of a dish red ware with a featureless sharpened rim and incurved profile. Of fine fabric, well-fired and treated with slip. E

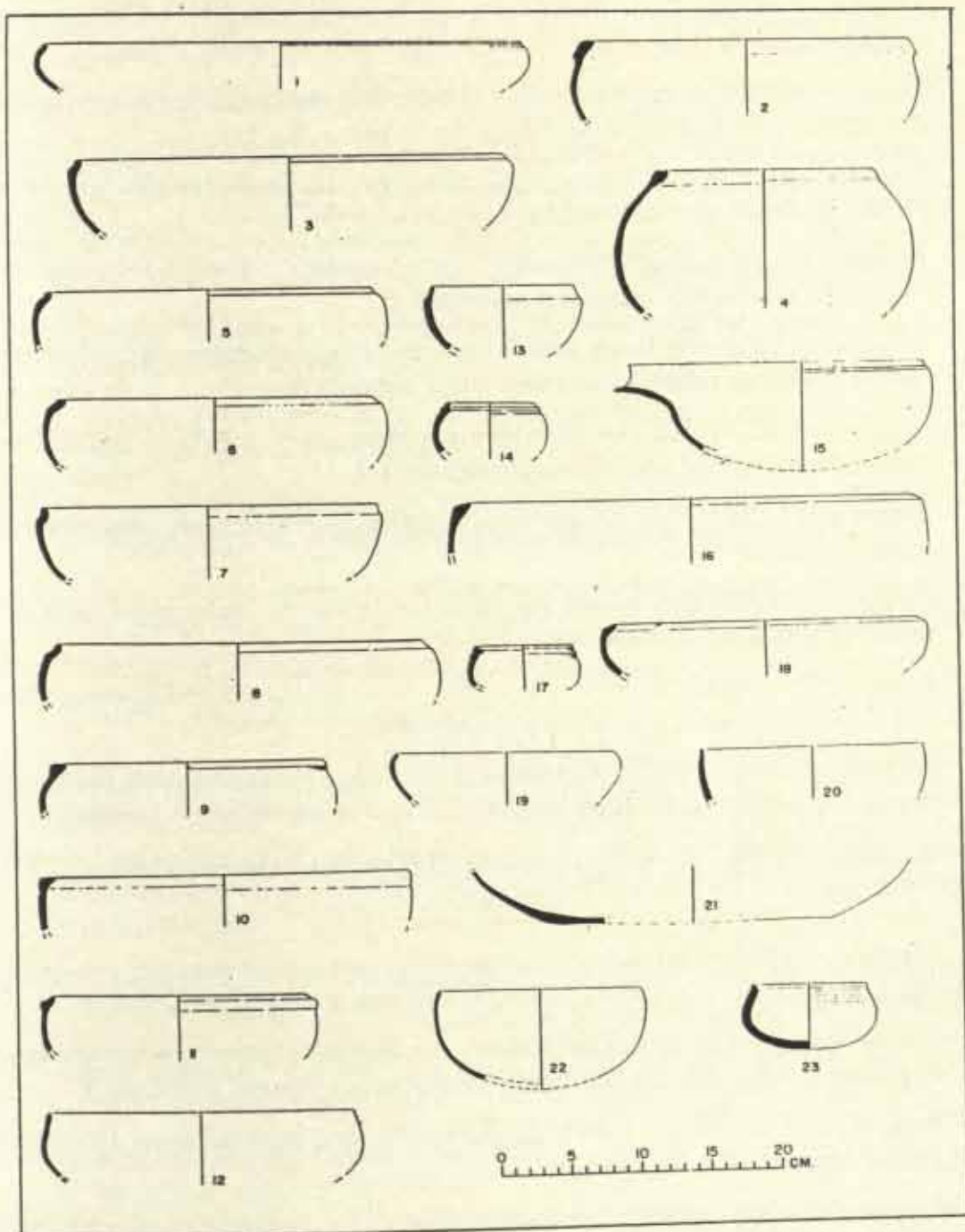


FIG. 38. *Ganwaria* : Pottery types, Period I

- Type 15. Fragment of a basin of red ware with a short incurved, externally grooved, thickened rim and incurved profile. Of medium fabric, well-fired and treated with slip restricted to rim and internal surface. M
- Type 16. Fragment of a dish of red ware with a vertical sharpened rim and incurved profile. Of fine fabric, well-fired and treated with slip on both sides. L
- Type 17. Fragment of a dish of red ware with a sharpened internally bevelled rim and round profile. Of fine fabric, well-fired and treated with slip. E
- Type 18. Fragment of a dish of red ware with a featureless sharpened rim and round profile. Of fine fabric, treated with a slip and well-fired. L
- Type 19. Fragment of a dish of red ware with an incurved featureless thickened rim and incurved sides. Of medium fabric, treated with a slip and well-fired. E
- Type 20. Fragment of a dish of red ware with sharpened internally bevelled rim and round profile. Of fine fabric, treated with a slip and well-fired. E
- Type 21. Fragment of a dish of black-and-red ware with an incurved thickened featureless rim and round profile. M
- Type 22. Fragment of a deep bowl of red ware with featureless rim and round profile. Of fine fabric, treated with a slip and well-fired. M
- Type 23. Fragment of bowl of red ware with a externally collared rim and tapering sides. Of medium fabric, treated with a slip and well-fired. L
- Type 24. Fragment of a deep bowl of red slipped ware with a slightly incurved sharpened featureless rim having round profile externally under-cut groove and internally corrugated sides. L
- Type 25. Fragment of a flat base of a dish with tapering sides. Of fine fabric and well-fired. M

Fig. 38

- Type 1. Fragment of a dish of red ware with a featureless, externally grooved rim, round profile and probably flat base. Of fine fabric, treated with a slip and well-fired. E
- Type 2. Fragment of a bowl of red ware with incurved, externally collared rim having prominent ridge and round profile. Of fine fabric, treated with a slip and well-fired. L
- Type 3. Bowl of a red ware with a externally grooved rim and incurved sides. Of fine fabric, treated with a slip and well-fired. E
- Type 4. Fragment of a bowl with top flat, thickened internally, collared rim and round profile. Of fine fabric, treated with a slip and well-fired. L
- Type 5. Fragment of bowl of red ware with round and externally grooved rim and round profile. Of medium fabric, treated with a slip and well-fired. L

POTTERY

- Type 6. Same as type 5. L
- Type 7. Same as type 6. L
- Type 8. Another variation. L
- Type 9. Fragment of a bowl of red ware with externally collared rim and round profile. Of medium fabric, treated with a slip and well-fire. L
- Type 10. Fragment of a bowl of red ware with incurved flat, externally collared rim having abrupt cut mark below the collar. Of medium fabric and well-fired. L
- Type 11. Fragment of a bowl of red ware with a featureless sharpened rim and round profile. Of medium fabric and well-fired. M
- Type 12. Fragment of a bowl of red ware with a featureless sharpened rim and round profile. Of medium fabric and well-fired. M
- Type 13. Fragment of a deep bowl of red ware with a featureless, externally grooved rim and rounded sides. Of coarse fabric, treated with a slip and ill-fired. M
- Type 14. Fragment of a miniature bowl of red ware with featureless rim having exterior and interior groove marks. Of medium fabric, treated with a slip and well-fired. M
- Type 15. Fragment of a lipped bowl with a externally grooved rim and round profile. Of medium fabric, treated with a slip and well-fired. L
- Type 16. Fragment of a bowl of chocolate-slipped ware with incurved, externally bevelled rim and slightly incurved sides. Of medium fabric and well-fired. M
- Type 17. Fragment of a miniature bowl of red ware with an incurved rim having a groove on top and corrugated round profile. Of medium fabric, treated with a chocolate-red slip and well fired. M
- Type 18. Fragment of a bowl of red ware with sharpened incurved and externally oblique-cut rim having a round profile. Of medium fabric, treated with a chocolate slip and well-fired. M
- Type 19. Fragment of a bowl having a chocolate-red slip with a featureless rim and incurved sides. Of fine fabric and well-fired. L
- Type 20. Fragment of a bowl of red ware with a sharpened externally grooved rim. Of medium fabric and well-fired. M
- Type 21. Fragment of a flat base of a dish with almost tapering sides. Of medium fabric, treated with a slip and well-fired. L
- Type 22. Fragment of a deep bowl of red ware with a featureless rim, round profile and almost round base. Of fine fabric, treated with a slip and well-fired. M

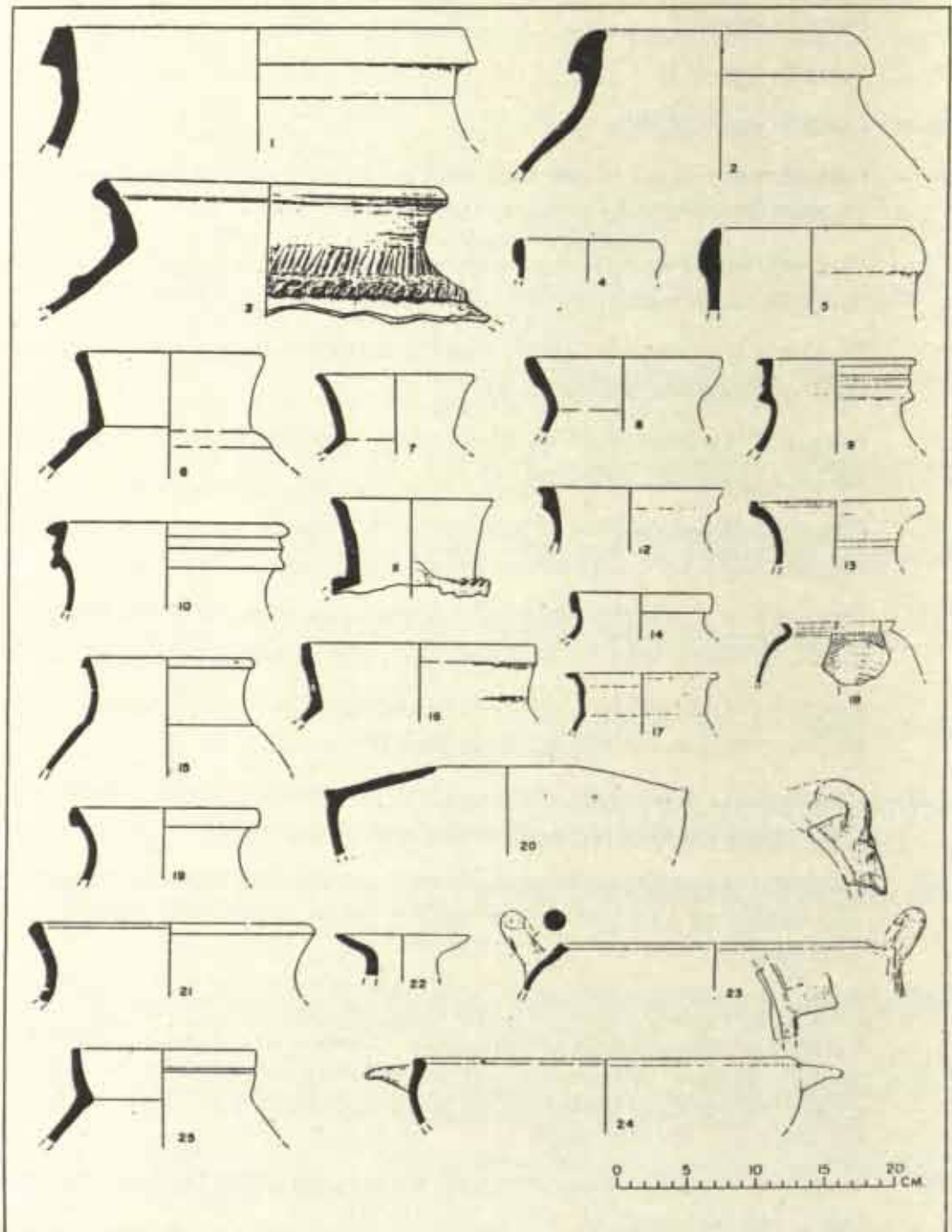


FIG. 39. Ganwaria : Pottery types, Period II

- Type 23. Fragment of a miniature bowl of a chocolate ware with internally grooved and corrugated round profile and almost flat base. Of medium fabric and well-fired. M

PERIOD II

Fig. 39

- Type 1. Fragment of a vase of red ware having a vertical flattened top, externally obliquely undercut rim, long concave neck with a mild ridge. Of coarse fabric, treated with a slip on both the sides and well-fired showing grit in mid-section. M
- Type 2. Fragment of a storage jar of red ware with an out-turned externally oval collared rim, short concave neck and oblique shoulder. Of coarse fabric, treated with wash on both the sides and medium firing showing blackish patches. M
- Type 3. Fragment of a storage jar of red ware with a splayed-out rim and oblique shoulder. The shoulder is further decorated with a horizontal applique band in a rope pattern. Vertical incised design above near the neck. Of coarse fabric, treated with a wash and well-fired. M
- Type 4. Fragment of a vase of red ware with a featureless, vertical, externally collared rim. Of medium fabric, treated with a wash and well-fired. E
- Type 5. Fragment of a vase of red ware with a vertical featureless, externally oval collared rim and probably vertical neck. Of medium fabric, treated with a wash and well-fired. M
- Type 6. Fragment of a vase of red ware with a splayed-out rim and oblique shoulder. The shoulder is further decorated with a horizontal band marked with incised design. Of medium fabric, treated with a wash and well-fired. E
- Type 7. Fragment of a vase of red ware with a splayed-out rim and oblique shoulder. Of medium fabric, treated with a wash and well-fired. M
- Type 8. Fragment of a vase of red ware with a splayed-out externally thickened rim and expanded oblique shoulder. Of medium fabric, treated with a wash and well-fired. E
- Type 9. Fragment of a vase of red ware with a vertical flattened top, externally grooved rim alternated by bands, short concave neck, treated with a wash and well-fired. M
- Type 10. Fragment of a vase of red ware with a slightly incurved, externally clubbed and ridged rim, concave neck and probably oblique shoulder. Of medium fabric, treated with a wash and well-fired. M
- Type 11. Fragment of a vase of red ware with a slightly splayed-out, internally bevelled rim having horizontal band on the neck. Of medium fabric, treated with a wash and well-fired. E

- Type 12. Fragment of a vase of red ware with an almost vertical flattened top, externally thickened depressed and ridged rim. Of medium fabric, treated with a wash and well-fired. M
- Type 13. Fragment of a vase of red ware with an out-turned, externally oblique-cut and internally grooved rim and multi-grooved concave shoulder. Of medium fabric, treated with a wash and well-fired. US
- Type 14. Fragment of a narrow-mouthed vase of red ware with an out-turned, externally thickened rim, short concave neck and oblique shoulder. Of medium fabric, treated with a wash and well-fired. M
- Type 15. Fragment of a vase of red ware with an out-turned externally obliquely under-cut rim, concave neck, oblique shoulder and globular profile. A ledge is marked at the junction of neck and shoulder. Of medium fabric, treated with a wash and well-fired. E
- Type 16. Fragment of a vase of red ware with a splayed-out externally mild corrugated rim and expanded oblique shoulder. Of medium fabric, treated with a slip and well-fired. M
- Type 17. Fragment of a narrow-mouthed vase of red ware with an out-turned, externally clubbed rim almost vertical, corrugated neck and globular profile. Of fine fabric, treated with a wash and well-fired. E
- Type 18. Fragment of a miniature vase of red ware with an out-turned rim and globular profile. Vertical incised decoration is shown near the shoulder. Of medium fabric, treated with a wash and well-fired. M
- Type 19. Fragment of a vase of red ware with an out-turned externally oval collared rim, long concave neck and oblique shoulder. Of medium fabric, treated with a wash and well-fired. M
- Type 20. Fragment of base portion of a carinated *handi*. Of medium fabric, treated with a wash and well-fired. M
- Type 21. Fragment of a vase of red ware with an out-turned featureless rim, short concave neck and extended oblique shoulder. Of medium fabric, treated with a wash and well-fired. E
- Type 22. Fragment of a vase of red ware with horizontally splayed-out rim and short concave neck. Of medium fabric, treated with a wash and well-fired. E
- Type 23. Fragment of a basin of red ware with an internally bevelled rim, globular body having a loop handle. Of medium fabric, treated with a wash and well-fired. M
- Type 24. Fragment of a basin of red ware with a featureless thickened rim and incurved sides having long handle. Of medium fabric, treated with a wash and well-fired. M

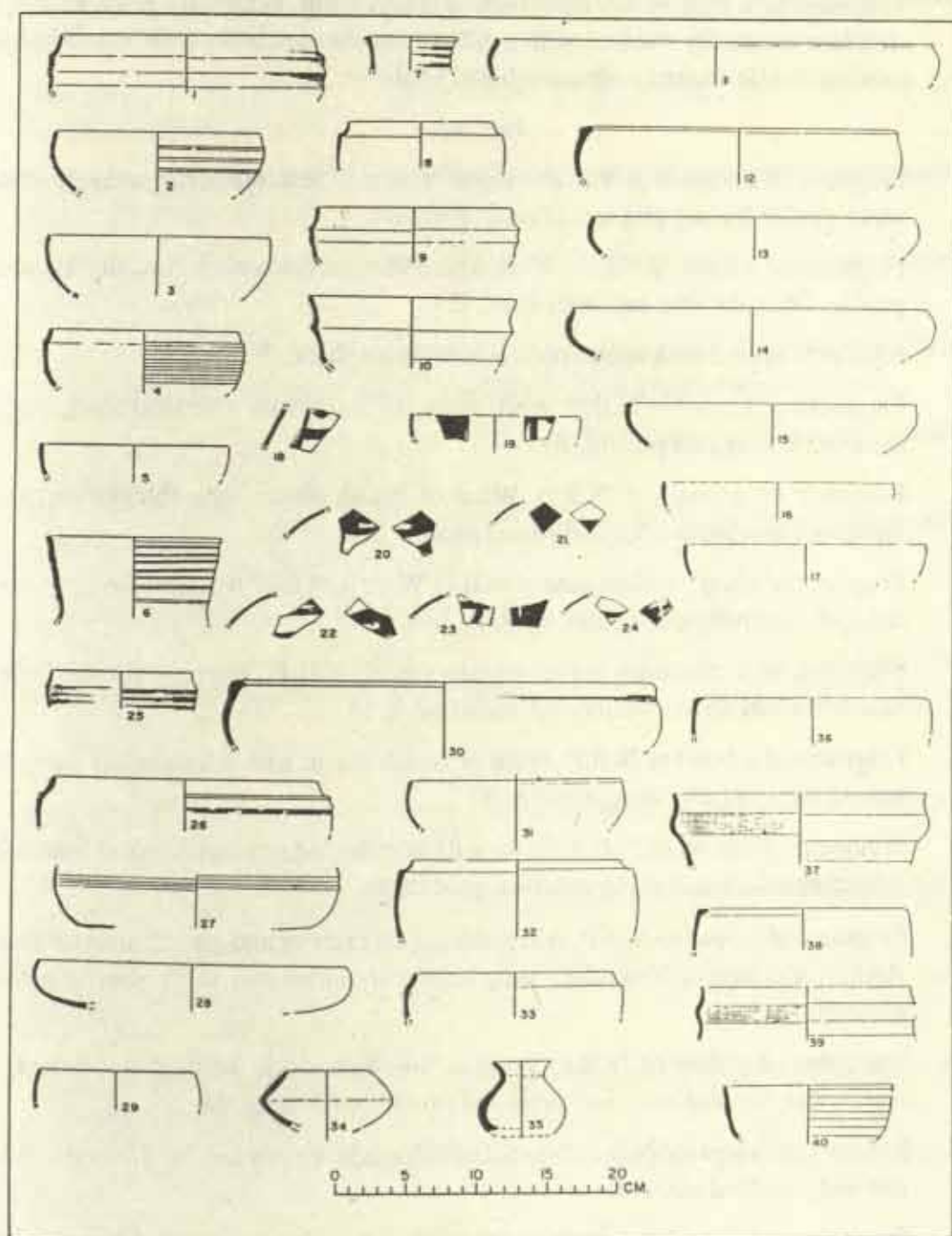


FIG. 40. Ganwaria : Pottery types, Period II

- Type 25. Fragment of a vase of red ware with a splayed-out, externally grooved rim, oblique shoulder internally marked with a ridge near the junction of neck and shoulder. Of medium fabric treated with a wash and well-fired. E

Fig. 40

- Type 1. Fragment of a bowl of N.B.P. Ware with a vertical featureless rim and ledged shoulder, wave profile having grooves in mid-portion. E
- Type 2. Fragment of a bowl of N.B.P. Ware with a vertical featureless rim, slightly corrugated profile. Of fine fabric and well-fired. E
- Type 3. Similar to type 2 with round profile and bluish shade. E
- Type 4. Fragment of a bowl of N.B.P. Ware of bluish shade with a vertical sharpened rim and incurved corrugated profile. E
- Type 5. Fragment of a bowl of N.B.P. Ware of bluish shade with thicker variety having thickened featureless rim and round profile. E
- Type 6. Fragment of a high-necked vase of N.B.P. Ware with bluish shade having an out-curved rim and externally corrugated neck. E
- Type 7. Fragment of a miniature high-necked vase of N.B.P. Ware of bluish shade having outcurved rim an externally corrugated neck. M
- Type 8. Fragment of a bowl of N.B.P. Ware of bluish shade with a featureless sharpened rim, ledged shoulder and straight sides. M
- Type 9. Fragment of a bowl of N.B.P. Ware with bluish shade having vertical featureless rim, ledged shoulder and wavy incurved profile. M
- Type 10. Fragment of a bowl of N.B.P. Ware of blackish exterior and greyish interior shades with slightly out-turned featureless rim, ledged shoulder and wavy profile having mild grooves. M
- Type 11. Fragment of a dish of N.B.P. Ware of blackish shade with an out-turned, curved, featureless rim and incurved sides and probably flat base. M
- Type 12. Fragment of a bowl of N.B.P. Ware of bluish shade with an incurved, externally bevelled rim and incurved sides. E
- Type 13. Fragment of a dish of N.B.P. Ware of blackish shade having vertical featureless rim and incurved sides. M
- Type 14. Fragment of a dish of N.B.P. Ware with blackish shade having vertical sharpened rim and incurved sides. M

POTTERY

- Type 15. Fragment of a dish of N.B.P. Ware of dark orange shade having an incurved thickened, flattened top rim and incurved sides. E
- Type 16. Fragment of a bowl of N.B.P. Ware with bluish shade having vertical featureless rim and slightly incurved sides. M
- Type 17. Fragment of a bowl of N.B.P. Ware with bluish shade having vertical featureless rim and slightly incurved sides. M
- Type 18. Painted sherd of N.B.P. Ware with bluish exterior and orange interior painted with black vertical and horizontal line. E
- Type 19. Fragment of a bowl of N.B.P. Ware with featureless rim and incurved sides. Painted in black both externally and internally in thick vertical and horizontal line. M
- Type 20. Painted sherd of N.B.P. Ware with red-orange shade painted in black horizontal lines, both on the exterior and interior. M
- Type 21. Fragmentary sherd of N.B.P. Ware of externally dark red, orange shade painted in black. Internally bluish in shade. M
- Type 22. Fragment of a sherd of N.B.P. Ware, a variant of type 21. M
- Type 23. Fragmentary sherd of N.B.P. Ware with externally bluish shade and internally red-orange shade having painted design of thick vertical and horizontal line in black. M
- Type 24. A variant of 21 M
- Type 25. Fragment of a bowl of N.B.P. Ware with bluish shade having featureless sharpened rim, ledged shoulder and wavy profile. M
- Type 26. Fragment of a bowl of black-slipped ware, with vertical sharpened rim, ledged shoulder and corrugated incurved profile. M
- Type 27. Fragment of a bowl of black-slipped ware, with straight corrugated sides, probably featureless rim and flat base. M
- Type 28. Fragment of a dish of black-slipped ware, with vertical featureless rim, incurved sides and probably flat base. M
- Type 29. Fragment of a bowl of black-slipped ware, with straight featureless rim and incurved sides. M
- Type 30. Fragment of a bowl of black-slipped ware, with an incurved, sharpened, flattened top rim and incurved sides. M
- Type 31. A variant of type 30. M

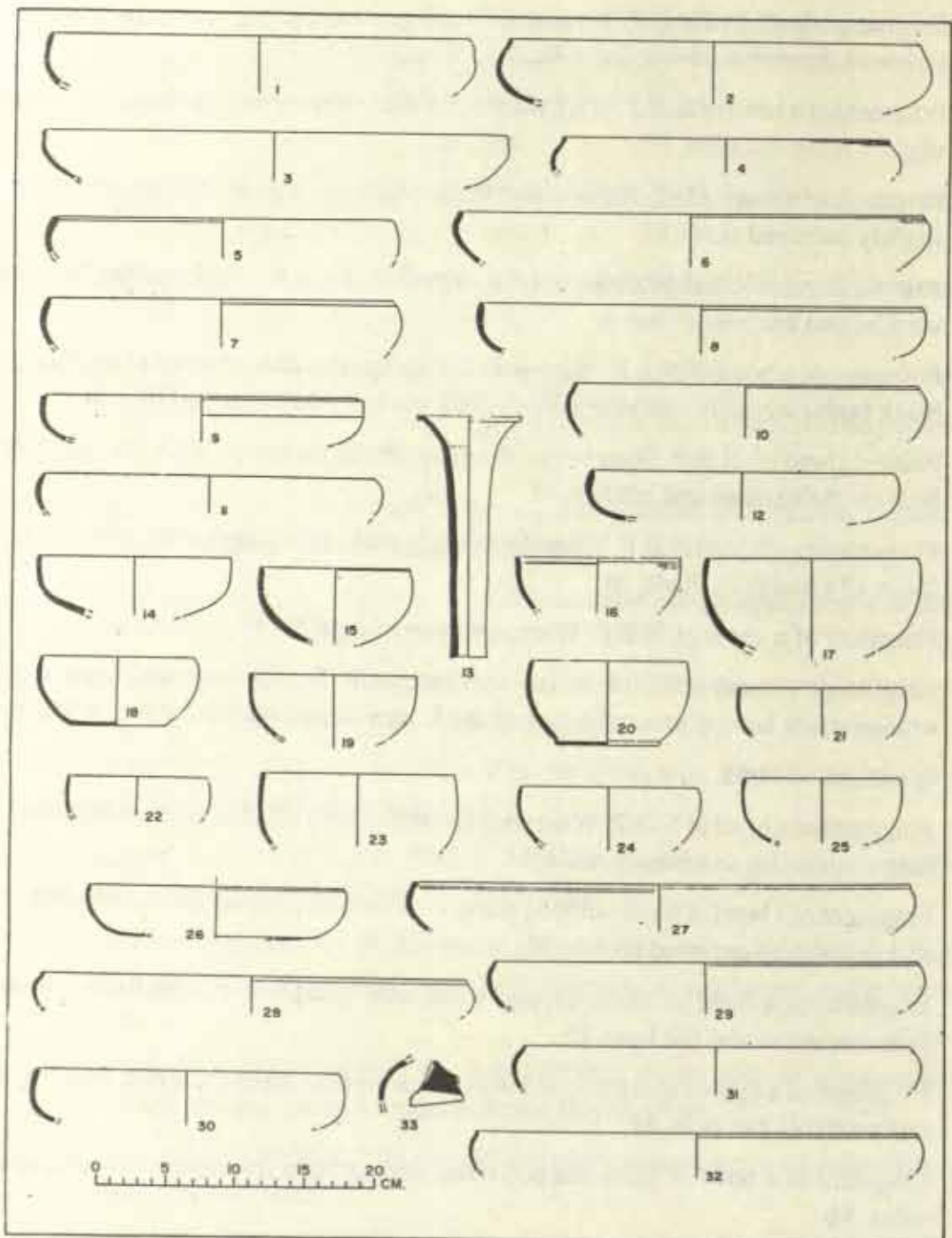


FIG. 41. Ganwaria: Pottery types, Period II

POTTERY

- Type 32. Fragment of a bowl of black-slipped ware, with a vertical, sharpened, featureless rim, ledged shoulder and slightly incurved sides. M
- Type 33. Fragment of a bowl of black-slipped ware with an out-turned featureless rim, ledged shoulder and incurved, slightly corrugated profile. M
- Type 34. Fragment of a miniature *handi* of black-slipped ware with a closing featureless rim, oblique shoulder and prominent carination at waist and probably round base. M
- Type 35. Fragment of a miniature pot with a flared-out sharpened featureless rim, short concave neck, oblique shoulder and bulging profile and probably flat base. M
- Type 36. Fragment of a bowl of black-slipped ware with incurved, sharpened, flattened top rim and straight sides. E
- Type 37. Fragment of a bowl of black-slipped ware with an out-curved featureless rim and bulged profile. M
- Type 38. A variant of type 37. M
- Type 39. A variant of type 38. M
- Type 40. Fragment of a bowl of black-slipped ware with a slightly out-turned, sharpened, featureless rim, Straight and slightly corrugated sides. E

Fig. 41

- Type 1. Fragment of a dish of black-slipped ware with a slightly incurved, featureless, sharpened rim and incurved sides. Of fine fabric. E
- Type 2. Fragment of a dish of black-slipped ware with vertical featureless rim, round profile and flat base. Of fine fabric and well-fired. E
- Type 3. Fragment of a dish of black-slipped ware with an externally bevelled rim, incurved sides and probably flat base. Of fine fabric and well-fired. M
- Type 4. Fragment of a dish of black-slipped ware with a slightly out-curved rim and rounded profile. Of fine fabric and well-fired. E
- Type 5. Fragment of a dish of black-slipped ware with a slightly incurved thickened rim and incurved sides. Of fine fabric and well-fired. E
- Type 6. Fragment of a dish of black-slipped ware with an out-curved sharpened rim and incurved sides. Of fine fabric and well-fired. E
- Type 7. Fragment of a dish of black-slipped ware with an vertical, sharpened, featureless rim and slightly incurved sides. E

- Type 8. A variant of type 7. E
- Type 9. Fragment of a dish of black-slipped ware with a vertical, thickened, externally bevelled rim, straight sides and probably flat base. E
- Type 10. Fragment of a dish of black-slipped ware with a slightly out-curved featureless rim and incurved sides. Of fine fabric and well-fired. E
- Type 11. Fragment of a dish of black-slipped ware with an out-curved sharpened rim and rounded profile. Of fine fabric and well-fired. E
- Type 12. Fragment of a dish of black-slipped ware with an incurved featureless rim and slightly incurved sides. Of fine fabric and well-fired. E
- Type 13. Fragment of a blowing instrument of black-slipped ware with wide mouth and long tubular body having an out-curved externally grooved rim. Of medium fabric and ill-fired. M
- Type 14. Fragment of a bowl of black-slipped ware with a vertical featureless rim and straight sides. Of fine fabric and well-fired. E
- Type 15. Fragment of a bowl of black-slipped ware with a slightly out-curved sharpened rim and round profile. Of fine fabric and well-fired. E
- Type 16. Fragment of a bowl of black-slipped ware with an out-curved sharpened rim and incurved sides. Of fine fabric and well-fired. E
- Type 17. Fragment of a bowl of black-slipped ware with a vertical featureless rim and round profile. Of medium fabric and well-fired. Externally the slip is worn-out to expose the greyish core. E
- Type 18. Fragment of a bowl of black-slipped ware with vertical sharpened rim, round profile and flat base. Of fine fabric and well-fired. E
- Type 19. Fragment of a bowl of black-slipped with a vertical featureless rim and slightly incurved sides. Of fine fabric and well-fired. E
- Type 20. Fragment of a bowl of black-slipped ware with a vertical featureless rim and slightly incurved sides having ring-cut-footed base. Of fine fabric and well-fire. E
- Type 21. Fragment of a bowl of black-slipped ware with a vertical featureless rim and incurved sides. E
- Type 22. Fragment of a bowl of black-slipped with a vertical sharpened featureless rim and slightly incurved sides. Of fine fabric and well-fired. E
- Type 23. Fragment of a bowl of black-slipped with a vertical featureless rim and slightly incurved sides. M

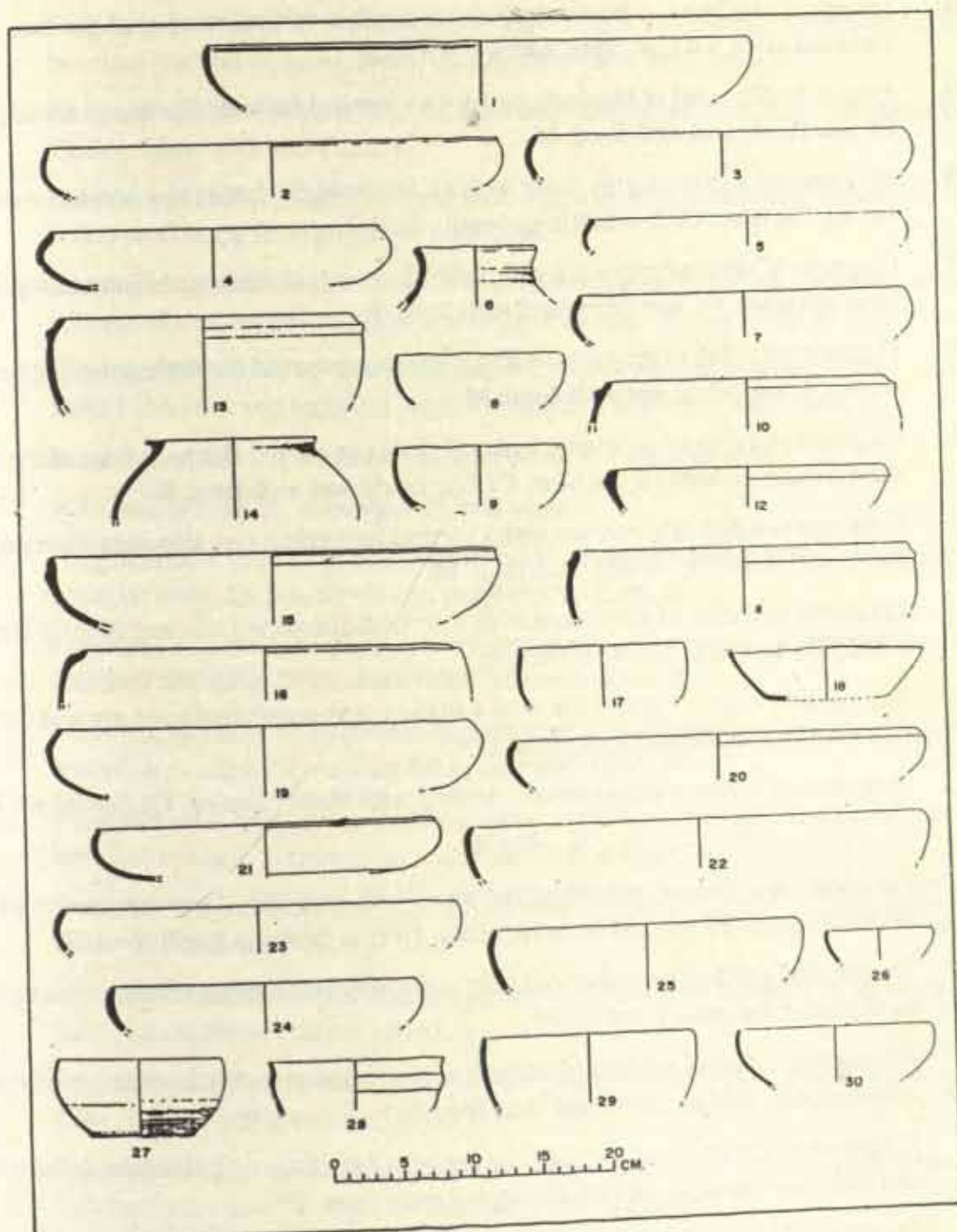


FIG. 42. Ganwaria : Pottery types, Period II

- Type 24. Fragment of a bowl of black-slipped ware with a vertical sharpened rim and slightly incurved sides. Of fine fabric and well-fired. E
- Type 25. Fragment of a bowl of black-slipped with a vertical featureless rim and round profile. Of fine fabric and well-fired. M
- Type 26. Fragment of a dish of grey ware with an incurved thickened rim and incurved sides having flat base. Of fine fabric and well-fired. E
- Type 27. Fragment of a dish of grey ware with a slightly incurved-thickened-flattened top rim and incurved sides. Of fine fabric and well-fired. E
- Type 28. Fragment of a dish of grey ware with a slightly out-curved featureless rim and incurved sides. Of fine-fabric and well-fired. M
- Type 29. Fragment of a dish of grey ware with a slightly out-curved sharpened rim and incurved sides having probably a flat base. Of fine fabric and well-fired. E
- Type 30. Fragment of a dish of grey ware with a vertical featureless rim, almost straight sides and flat base. Of fine fabric and well-fired. M
- Type 31. Fragment of a dish of grey ware with a vertical sharpened rim and slightly incurved sides. Of fine fabric and well-fired. E
- Type 32. Fragment of a dish of grey ware with a slightly outcurved sharpened rim and incurved sides. Of fine fabric and well-fired. E
- Type 33. Fragment of a grey ware, externally treated with black painting. Of fine fabric. E

Fig. 42

- Type 1. Fragment of a dish of burnished red ware with a slightly incurved, sharpened and internally grooved rim and incurved sides. Of fine fabric and well-fired. E
- Type 2. Fragment of a dish of burnished red ware with vertical featureless rim having externally mild groove and round profile. M
- Type 3. Fragment of a dish of red burnished ware with a featureless sharpened incurved rim and round profile. Of fine fabric and well-fired. E
- Type 4. Fragment of a dish of red burnished ware with an out-curved, sharpened, featureless rim and round profile. Of fine fabric and well-fired. E
- Type 5. Fragment of a dish of burnished red ware with vertical featureless, thickened rim and incurved sides. Of fine fabric and well-fired. M
- Type 6. Fragment of a vase of burnished red ware with flared out cut rim, externally corrugated, concave neck and oblique shoulder. Of fine fabric and well-fired. E

POTTERY

- Type 7. Fragment of a bowl of burnished red ware with a featureless, sharpened, internally bevelled rim and incurved sides. Of fine fabric and well-fired. E
- Type 8. Fragment of a bowl of burnished red ware with vertical featureless rim and round profile. Of fine fabric and well-fired. E
- Type 9. Fragment of a bowl of burnished red ware with a vertical, sharpened, featureless rim and round profile. Of fine fabric and well-fired. M
- Type 10. Fragment of a bowl of burnished red ware with a slightly incurved, thickened, externally prominent rim, ledged shoulder and incurved sides. Of fine fabric and well-fired. M
- Type 11. Fragment of a bowl of burnished red ware with vertical featureless rim, externally ledged shoulder and incurved sides. Of medium fabric and well-fired. M
- Type 12. Fragment of bowl of chocolate-slipped ware. A variant of type 11.E
- Type 13. A variant of type 10, chocolate-slipped ware.
- Type 14. Fragment of a vase of chocolate-slipped ware with rebated, flatly-grooved rim and globular body. Of fine fabric and indifferently-fired. E
- Type 15. Fragment of a basin of chocolate-slipped ware with vertical, sharpened rim, ledged incurved shoulder. Of medium fabric and well-fired. E
- Type 16. Fragment of a bowl of chocolate-slipped ware with incurved, externally depressed rim and vertical sides. Of medium fabric and well-fired. M
- Type 17. Fragment of a bowl of chocolate-slipped ware with vertical, sharpened, internally bevelled rim and slightly incurved sides. Of fine fabric and well-fired. E
- Type 18. Fragment of a bowl of chocolate-slipped ware with flat base and tapering sides. Of fine fabric and well-fired. E
- Type 19. Fragment of a dish of black-and-red ware with an incurved featureless rim and incurved sides. Of fine fabric and well-fired. E
- Type 20. Fragment of a dish of black-and-red ware with vertical, sharpened rim and incurved sides. Of fine fabric and well-fired. E
- Type 21. Fragment of a dish of black-and-red ware with a slightly out-curved, sharpened rim and incurved sides and flat base. Of fine fabric and well-fired. E
- Type 22. Fragment of a dish of black-and red ware with incurved, sharpened, featureless rim and incurved sides. Of fine fabric and well-fired. E
- Type 23. Fragment of a dish of black-and-red ware with a vertical, sharpened, internally bevelled rim and incurved sides. Of fine fabric and well-fired. E

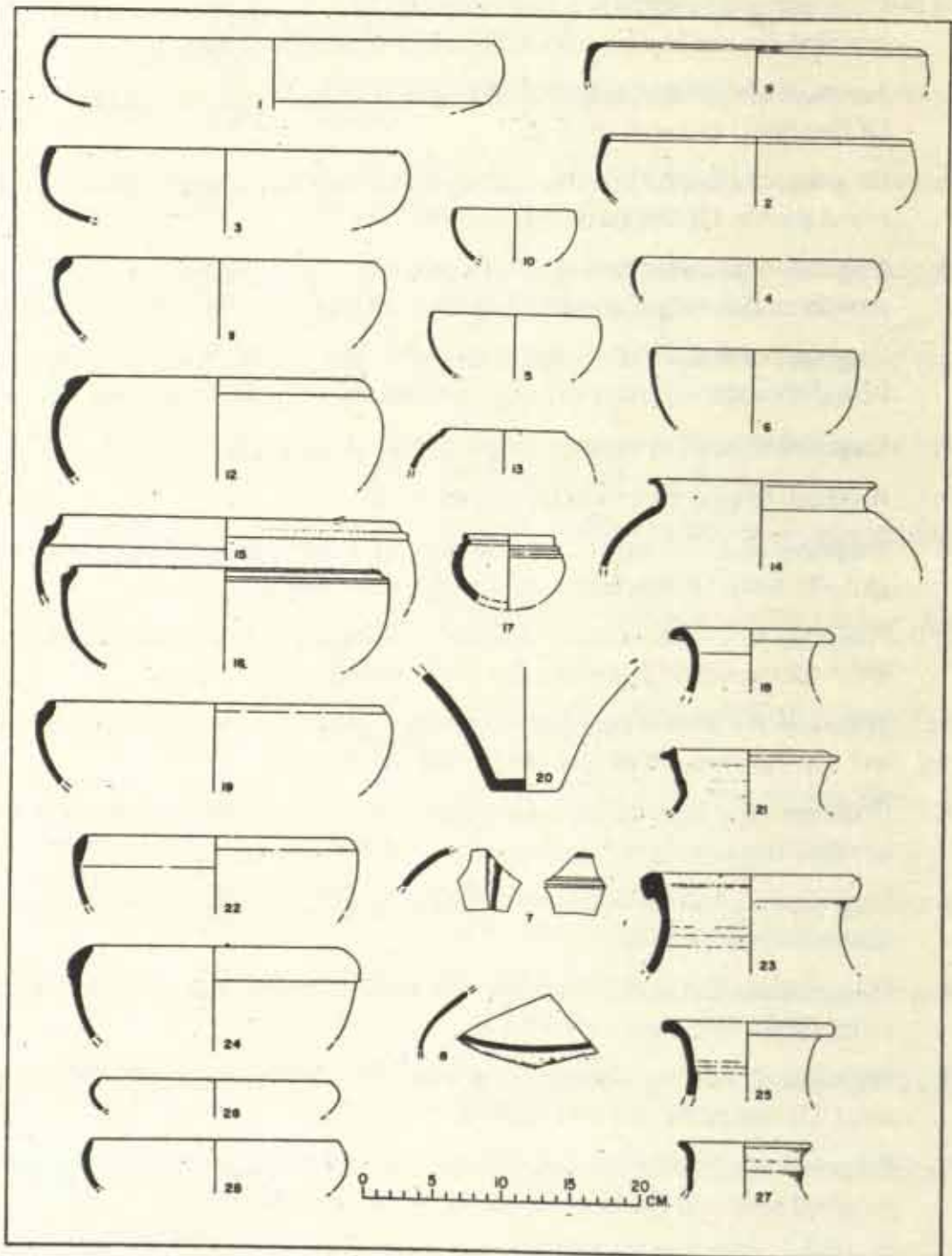


FIG. 43. Ganwaria : Pottery types, Period II

POTTERY

- Type 24. Fragment of a dish of black-and-red ware with a slightly incurved rim and incurved sides. Of fine fabric and well-fired. E
- Type 25. Fragment of a bowl of black-and-red ware with an incurved rim and incurved sides. M
- Type 26. Fragment of a miniature bowl of black-and-red ware with slightly incurved featureless rim. M
- Type 27. Fragment of bowl of black-and-red ware with a vertical, featureless rim, incurved sides and flat base. Of fine fabric and well-fired. E
- Type 28. Fragment of a bowl of black-and-red ware with out-turned, sharpened, featureless rim and corrugated profile. Of fine fabric and well-fired. E
- Type 29. Fragment of a bowl of black-and-red ware with a featureless sharpened rim, vertical sides and incurved lower portion. Of fine fabric and well-fired. E
- Type 30. Fragment of a bowl of black-and-red ware with a featureless rim and incurved sides of fine fabric and well-fired. M

Fig. 43

- Type 1. Fragment of a dish of grey ware with vertical, externally grooved rim and incurved sides and almost flat base. Of fine fabric and well-fired. E
- Type 2. Fragment of a dish of grey ware with vertical, thickened, externally grooved rim and incurved sides. Of fine fabric and well-fired. E
- Type 3. Fragment of a dish of grey ware with a vertical, thickened, incurved sides. Of fine fabric and well-fired. E
- Type 4. Fragment of dish of grey ware with vertical, featureless, sharpened, externally grooved rim and incurved sides. Of fine fabric and well-fired. E
- Type 5. Fragment of a bowl of grey ware with vertical, featureless rim and round profile. Of fine fabric and well-fired. E
- Type 6. Fragment of bowl of grey ware with vertical, featureless rim and round profile. E
- Type 7. Fragmentary sherd of grey ware, externally painted in black with a thick horizontal line. Of fine fabric and well-fired. M
- Type 8. Fragmentary sherd of grey ware, externally painted in black with a thick horizontal band. Of fine fabric and well-fired. E
- Type 9. Fragment of a dish of red-slipped ware with an incurved, externally collared rim and incurved sides. Of fine fabric and well-fired. E

- Type 10. Fragment of a bowl of red-slipped ware with a vertical, featureless, sharpened rim and incurved sides. Of fine fabric and well-fired.
- Type 11. Fragment of a bowl of red-slipped ware with incurved-internally thickened, externally mild-grooved rim and incurved sides. Of medium fabric and well-fired. E
- Type 12. Fragment of a vase of red-slipped ware with an incurved, externally collared rim and round profile. Of fine fabric and well-fired. M
- Type 13. Fragment of a vase of red-slipped ware with vertical, sharpened, closing rim and globular body. Of fine fabric and well-fired. E
- Type 14. Fragment of a vase of red-slipped ware with an out-turned rim, short concave neck, oblique shoulder and globular body. Of fine fabric and well-fired. M
- Type 15. Fragment of a bowl of red-slipped ware with vertical, externally collared, featureless rim, prominent ledged shoulder and globular body. Of medium fabric and well-fired. E
- Type 16. Fragment of a bowl of red-slipped ware with an incurved, featureless rim and prominent ledged shoulder and round profile. Of medium fabric and well-fired. E
- Type 17. Miniature vase of red-slipped ware with a short flared, featureless, internally grooved rim, externally corrugated shoulder and round profile. Of fine fabric and well-fired. E
- Type 18. Fragment of a vase of red-slipped ware with splayed-out, externally drooping rim and long concave neck. Of medium fabric and well-fired. E
- Type 19. Fragment of a bowl of red-slipped ware with incurved, thickened, externally mild-grooved rim and almost globular body. Of medium fabric and well-fired. E
- Type 20. Fragment of a bowl of red-slipped ware with thickened flat base and tapering flared sides. Of coarse fabric and well-fired. M
- Type 21. Fragment of a vase of red-slipped ware with a horizontally splayed-out, flattened top, grooved rim, short tapering neck and oblique shoulder. Of medium fabric well-fired. M
- Type 22. Fragment of a bowl of red-slipped ware with vertically thickened, externally bevelled rim and almost rounded sides. Of medium fabric and well-fired. E
- Type 23. Fragment of a vase of red ware with an externally clubbed rim, long concave, internally corrugated neck and probably oblique shoulder. Of medium fabric and well-fired. M
- Type 24. Fragment of a bowl of red-slipped ware with an incurved, externally collared and cardaned rim and globular body. Of medium fabric and well-fired. M
- Type 25. Fragment of a vase of red-slipped ware with an out-turned rim and long vertical neck, externally painted with vertical lines in black. Of medium fabric and well-fired. M

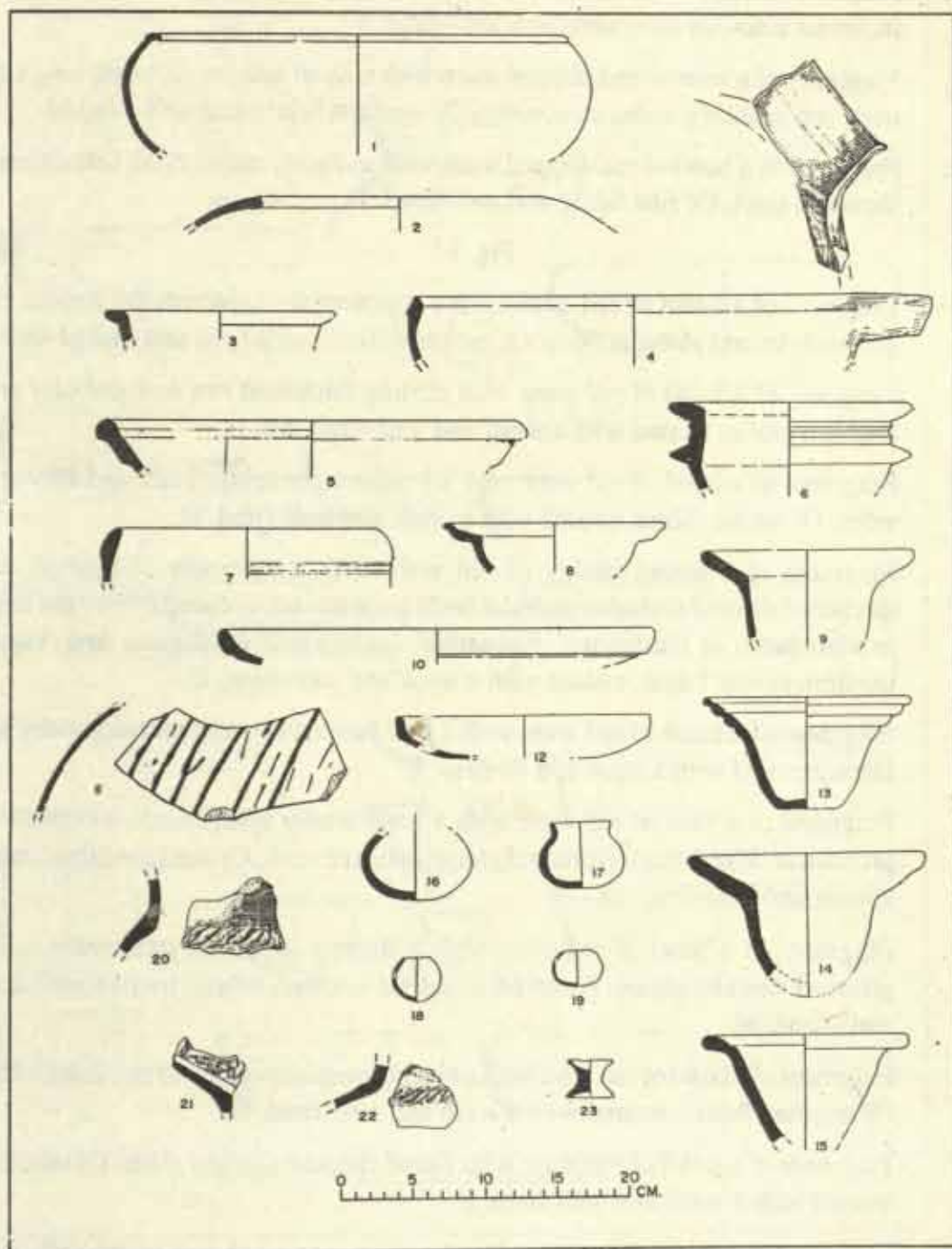


FIG. 44. Ganwaria : Pottery types, Period II

- Type 26. Fragment of a bowl of red-slipped ware with an incurved, sharpened, featureless rim and incurved sides. Of fine fabric and well-fired. E
- Type 27. Fragment of a vase of red-slipped ware with a short splayed-out rim, long corrugated neck and probably oblique shoulder. Of medium fabric and well-fired. M
- Type 28. Fragment of a bowl of red-slipped ware with a slightly out-curved, featureless rim and incurved sides. Of fine fabric and well-fired. E

Fig. 44

- Type 1. Fragment of a basin of red ware with a prominently incurved, thickened, externally grooved rim and globular body. Of medium fabric, well-fired and treated with wash. M
- Type 2. Fragment of a bowl of red ware with closing thickened rim and globular profile. Of medium fabric, treated with a wash and well-fired. M
- Type 3. Fragment of a bowl of red ware with a horizontally splayed rim and almost tapering sides. Of coarse fabric, treated with a wash and well-fired. M
- Type 4. Fragment of a lipped basing of red ware with a vertically sharpened, externally thickened rim and probably globular body (type has been reported from the same period in abundance at Hastinapur, Kausambi, Lachhagri, Pataliputra and Vaishali). Of medium to fine fabric, treated with a wash and well-fired. E
- Type 5. Fragment of a basin of red ware with a nail-headed rim and tapering sides. Of coarse fabric, treated with a wash and ill-fired. E
- Type 6. Fragment of a vase of red ware with a horizontally splayed-out, externally-grooved prominent ridged rim and probably short concave neck. Of medium fabric, treated with a wash and well-fired. M
- Type 7. Fragment of a bowl of red ware with a slightly incurved, externally collared and grooved rim and almost incurved sides. Of medium fabric, treated with a wash and well-fired. M
- Type 8. Fragment of a bowl of red ware with a flared, internally-grooved rim and globular body. Of medium fabric, treated with a wash and well-fired. E
- Type 9. Fragment of a bowl of red ware with flared rim and straight sides. Of medium fabric, treated with a wash and well-fired. E
- Type 10. Fragment of a shallow dish of red ware with a sharpened, externally collared grooved rim. Of medium fabric, treated with a wash and well-fired. M
- Type 11. Fragmentary sherd of red ware painted in black with slanting lines at regular intervals. Of medium fabric, externally treated with a wash and well-fired. M

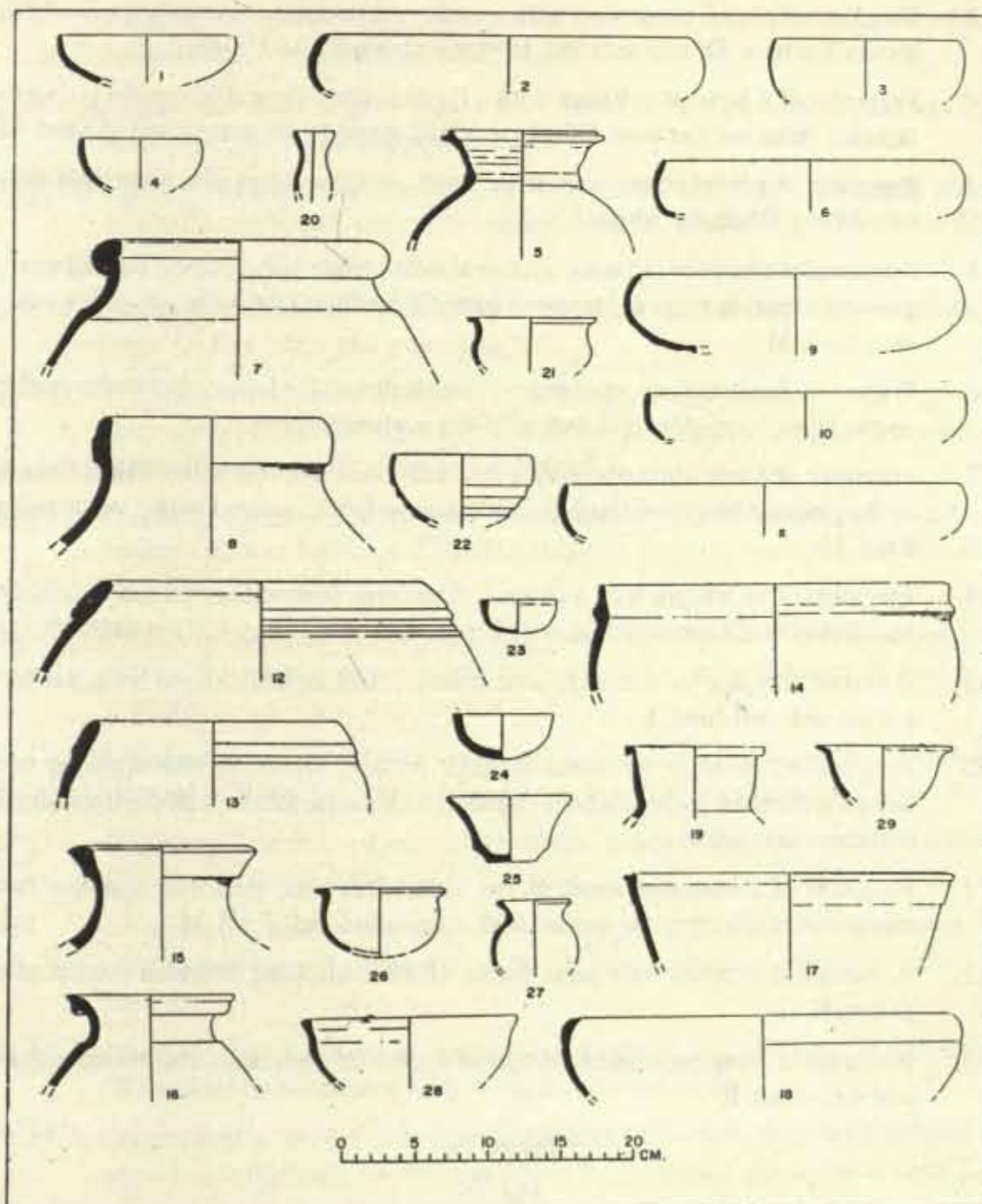


FIG. 45. *Ganwaria : Pottery types, Period III*

- Type 12. Fragment of a bowl of red ware with a vertical, featureless, externally grooved rim and almost flat base. Of coarse fabric, treated with a wash and ill-fired. E
- Type 13. Fragment of a bowl of red ware with a flared, externally and internally grooved rim, tapering sides and flat base. Of coarse fabric, treated with a wash and ill-fired. M
- Type 14. Fragment of a bowl of red ware with flared, sharpened rim, almost straight side and round base. Of coarse fabric. M
- Type 15. Fragment of a bowl of red ware with an almost horizontally splayed-out and internally grooved, tapering sides and rounded base. Of medium fabric, treated with a wash and well-fired. M
- Type 16. Fragment of a miniature pot of red ware with almost flat base and globular profile. Of coarse fabric, well-fired and devoid of any surface treatment. L
- Type 17. Fragment of a miniature pot having internally bevelled rim with vertical lines, short neck, globular body and flat base. Of medium fabric, treated with a wash and well-fired. M
- Type 18. Fragment of an ink-pot with a closing, sharpened, featureless rim, globular body and rounded base. Of coarse fabric well-fired and devoid of any surface treatment. L
- Type 19. A variant of type 18 with a perforated shoulder. Of fine fabric of red ware, treated with a wash and well-fired. L
- Type 20. Fragmentary sherd of red ware, shoulder portion, decorated with applique notched design at shoulder and probably a flared rim. Of coarse fabric, well-fired and devoid of surface treatment. M
- Type 21. Fragment of a truncated spout of red ware, sides decorated with applique notched design. Of medium fabric, treated with a wash and well-fired. M
- Type 22. A variant of type 20. Of coarse fabric, ill-fired showing blackish section of same fabric. E
- Type 23. Fragment of a ring-pedestal of red ware of a bowl. Of medium fabric, treated with a wash and well-fired. E

PERIOD III

Fig. 45

- Type 1. Fragment of a bowl of grey ware with a slightly incurved, featureless rim and incurved sides. Of fine fabric and well-fired. E
- Type 2. Fragment of a dish of grey ware with a vertical, flattened top, featureless rim and incurved sides. Of fine fabric and well-fired. E

POTTERY

- Type 3. Fragment of a bowl of grey ware with a slightly incurved, featureless rim and incurved sides. Of thin fine fabric and well-fired. E
- Type 4. Fragment of a bowl of grey ware with a vertical, sharpened, featureless rim and rounded profile. Of fine fabric, and well-fired. E
- Type 5. Fragment of a vase of burnished red ware with a short vertical, externally ledged rim, internally corrugated, externally concave neck and globular profile. Of fine fabric and well-fired. E
- Type 6. Fragment of a dish of burnished red ware with a vertical, featureless rim and incurved sides. Of fine fabric and well-fired. E
- Type 7. Fragment of a vase of red ware with out-turned, oval, collared, internally grooved rim, short concave neck having mild ledge above the oblique shoulder. Of medium fabric, externally treated with a slip and well-fired. E
- Type 8. Fragment of a vase of red ware with a slightly incurved, externally collared rim, concave neck and oblique shoulder. Of coarse medium fabric, treated with a slip and well-fired. E
- Type 9. Fragment of a dish of red ware with incurved, featureless rim, incurved sides and externally corrugated lower part of the body just above the flat base. Of medium fabric, treated with a slip and well-fired. E
- Type 10. Fragment of a dish of red ware with a vertical, sharpened, featureless rim, slightly incurved side and probably flat base. Of fine fabric, treated with a slip and well-fired. E
- Type 11. Fragment of a dish of red ware with a vertical, sharpened, rim and incurved sides. Of fine fabric, treated with a slip and well-fired. E
- Type 12. Fragment of a vase of red ware with a closing, internally grooved, externally collared and grooved rim and grooved shoulder. Of medium fabric, treated with a slip and well-fired. E
- Type 13. Fragment of a vase of red ware with closing, externally collared rim and globular body. Of medium fabric, treated with a slip and ill-fired. L
- Type 14. Fragment of a bowl of red ware with vertical, externally depressed collared rim and almost globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 15. Fragment of a vase of red ware with a vertical, thickened, internally bevelled and externally collared rim, long concave neck and probably globular body. Of medium fabric, treated with a slip and well-fired. E

- Type 16. Fragment of a vase of red ware with a thickened drooping rim, short concave neck and ledge above oblique shoulder. Of medium fabric, treated externally with a slip and well-fired. L
- Type 17. Fragment of a bowl of red ware with vertical, thickened, flatly bevelled, externally collared rim and tapering sides. Of medium fabric, treated with a slip and ill-fired. L
- Type 18. Fragment of a basin of red ware with an incurved, sharpened, externally bevelled rim, grooved shoulder and slightly rounded sides. Of medium fabric treated with a slip and well-fired. E
- Type 19. Fragment of a vase of red ware with an out-turned rim, slightly long concave neck and probably oblique shoulder. Of medium fabric, treated with a slip and well-fired. L
- Type 20. Miniature vase of red ware with a flared sharpened rim, short concave body and elongated body. L
- Type 21. Fragment of a miniature bowl with an out-turned, flattened top rim, short concave neck and globular body. Of fine fabric, treated with a slip and well-fired. L
- Type 22. Fragment of a bowl of red ware with a vertical, featureless, sharpened rim and externally corrugated sides. Of fine fabric, treated with a slip and well-fired. E
- Type 23. Fragment of a miniature bowl of red ware, vertical, thickened, flattened top, externally grooved rim, vertical sides and flat base. Of fine fabric, treated with a slip and well-fired. L
- Type 24. Fragment of a miniature bowl with vertical, featureless, thickened, flattened top and almost round base. Of medium fabric, treated with a slip and well-fired. L
- Type 25. Fragment of a bowl of red ware with a flared, sharpened, externally bevelled and slightly concave sides, ring-cut flat base and ledged waist. Of medium fabric, treated with a slip and well-fired. L
- Type 26. Fragment of a bowl of red ware with an out-turned, sharpened, flattened top rim, short concave neck, incurved body and rounded base. Of fine fabric, treated with a slip and well-fired. L
- Type 27. Fragment of a miniature vase with a flared-out, thickened, featureless rim, short concave neck and incurved sides and almost round base. Of fine fabric, treated with a slip and well-fired. L
- Type 28. Fragment of a bowl of red ware with a vertical, thickened, flattened rim and tapering sides. Of fine fabric, treated with a slip and well-fired. L

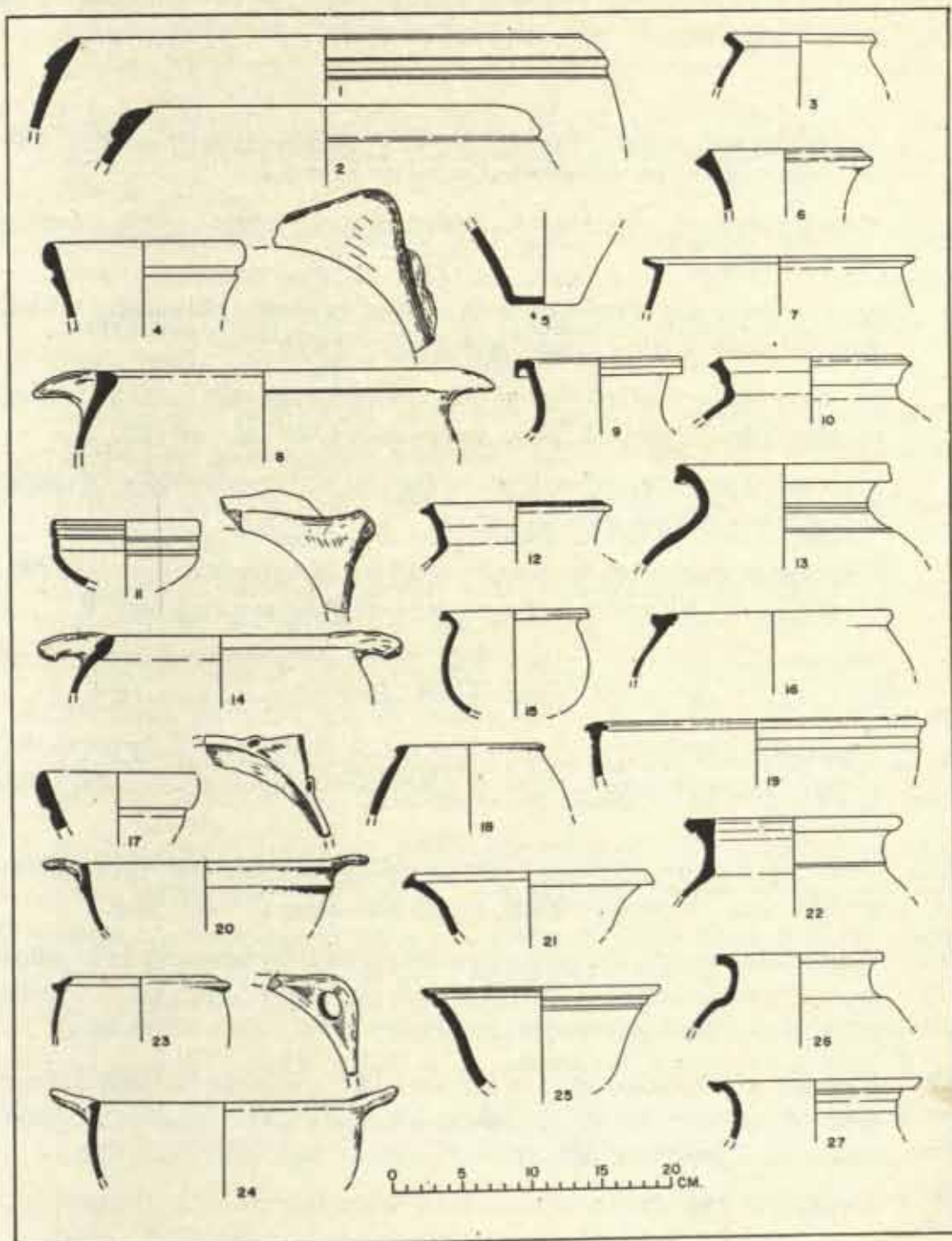


FIG. 46. Ganwaria : Pottery, Period III

- Type 29. Fragment of a bowl of red ware with a horizontally splayed-out rim and incurved sides. Of fine fabric, treated with a slip and well-fired. L

Fig. 46

- Type 1. Fragment of a basin of red ware with an incurved, externally oval, collared grooved rim. Of medium fabric, treated with a slip and well-fired. L
- Type 2. A variant of type 1, differs in thickness of collar. Of medium fabric, treated with a slip and well-fired. E
- Type 3. Fragment of a vase of red ware with a flared, externally oblique-cut rim and oblique sides. Of medium fabric, treated with a slip and well-fired. L
- Type 4. Fragment of a bowl of red ware with a thickened, externally collared, grooved rim and tapering sides. Of medium fabric, treated with a slip and well-fired. L
- Type 5. Fragment of a bowl of red ware with a flat base and tapering sides. Of medium fabric, treated with a slip and well-fired. E
- Type 6. Fragment of vase of red ware with short vertical, externally thickened rim and long concave neck. Of medium fabric, treated with a slip and well-fired. E
- Type 7. Fragment of a vase of red ware with a horizontally splayed-out, depressed top rim and oblique sides. Of medium fabric, treated with a slip and well-fired. E
- Type 8. Fragment of a bowl of red ware with closing, thickened, externally bevelled rim having a long handle and rounded profile. Of coarse fabric, devoid of any surface treatment and ill-fired. E
- Type 9. Fragment of a vase of red ware with an out-turned, prominent drooping rim and long concave neck. Of medium fabric, treated with a slip and well-fired. E
- Type 10. Fragment of a vase of red ware with a splayed-out, thickened, flatly bevelled top, both externally and internally grooved rim, short concave neck and oblique shoulder. Of fine fabric, treated with a slip and well-fired. L
- Type 11. Fragment of a miniature bowl of red ware with a vertical, featureless rim, externally grooved and internally ridged straight sides and rounded base. Of fine fabric, treated with a red slip and well-fired. L
- Type 12. A variant of type 10. L
- Type 13. Fragment of a vase of red ware with an out-turned, thickened, externally grooved, drooping rim, short concave grooved neck, grooved oblique shoulder and globular profile. Of medium fabric treated with a slip and ill-fired. L

POTTERY

- Type 14. Fragment of a vase of red ware with an out-turned, thickened, externally grooved, drooping rim, short concave grooved neck, grooved oblique shoulder and globular profile. Of medium fabric, treated with a slip and ill-fired.
- Type 15. Fragment of a bowl with closing, thickened, externally collared, grooved rim, globular body having a long handle. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 16. Fragment of a vase of red ware with out-turned, thickened, grooved rim, short concave neck and globular body. Of fine fabric, treated with a slip and well-fired. M
- Type 17. Fragment of a bowl of red ware with a nail-headed rim and globular profile. Of medium fabric, treated with a slip and well-fired. L
- Type 18. Fragment of a bowl of red ware with a sharpened, externally collared and grooved shoulder and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 19. Fragment of a bowl of red ware with an out-turned, thickened, flattened top rim and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 20. Fragment of a bowl of red ware with a nail-headed both externally and internally grooved rim. Of medium fabric, treated with a slip and well-fired. L
- Type 21. Fragment of a bowl with out-turned, thickened, externally grooved rim having long handle and globular body. Of medium fabric, treated with a slip and well-fired. E
- Type 22. Fragment of a bowl of red ware with short vertical, externally clubbed, internally grooved rim and tapering sides. Of medium fabric, treated with a slip and well-fired. L
- Type 23. Fragment of a vase of red ware with a horizontally splayed-out, externally oblique cut rim, short concave neck. Of coarse fabric, devoid of any surface treatment and ill-fired. L
- Type 24. Fragment of a bowl of red ware with a thickened, flattened top, closing rim and incurved sides. Of fine fabric, treated with a slip and well-fired. L
- Type 25. Fragment of a bowl of red ware with a thickened, closing rim, perforated long handle and globular body. Of medium fabric, treated with a slip and well-fired. E
- Type 26. Fragment of a bowl with sharpened, flared externally and internally grooved rim, tapering sides and rounded base. Of medium fabric, treated with a slip and well fired. E
- Type 27. Fragment of a vase with an out-turned, thickened rim, short concave neck and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 28. Fragment of a vase of red ware with a thickened, horizontally splayed-out, drooping rim and grooved concave neck and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L

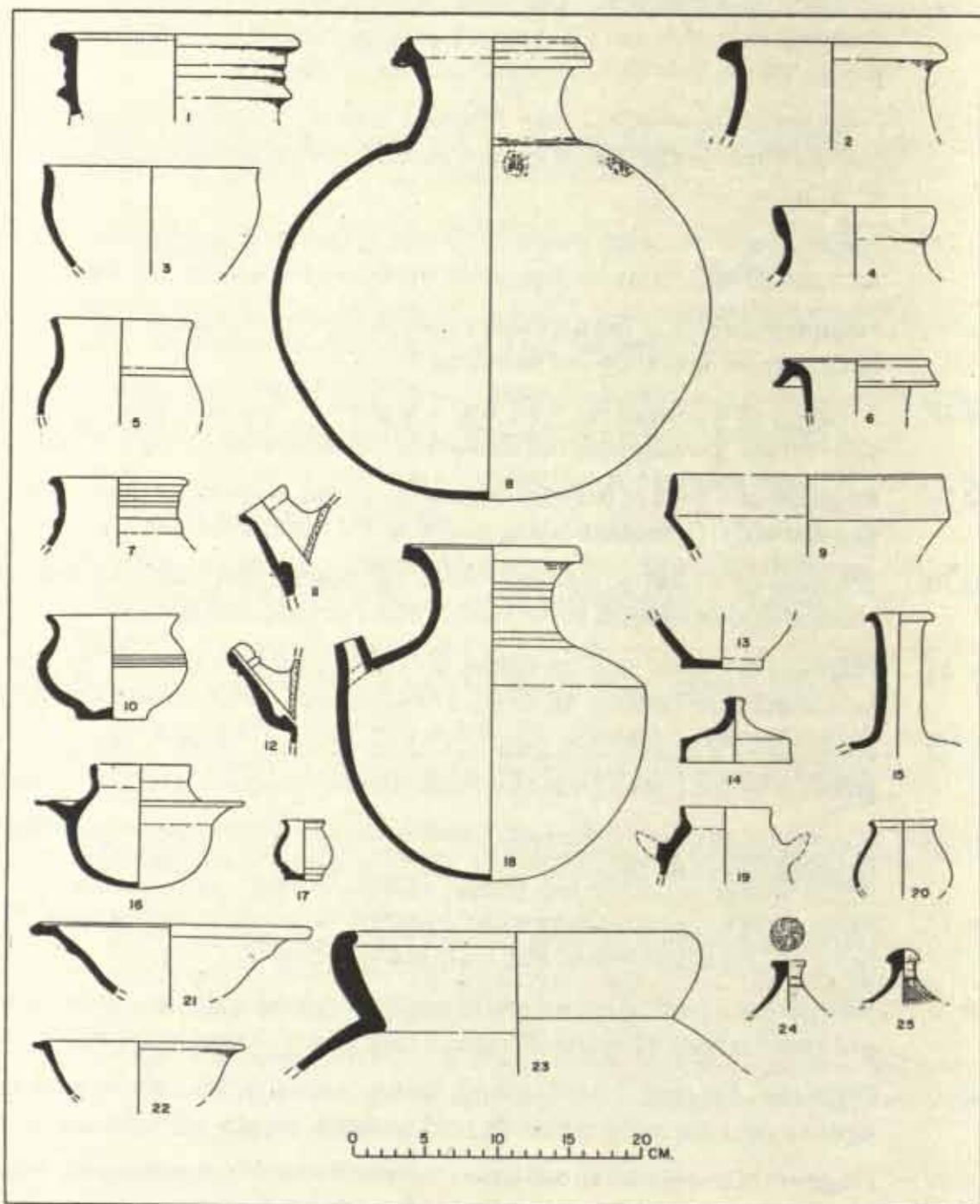


FIG. 47. Ganwaria : Pottery types, Period III

Fig. 47

- Type 1. Fragment of a vase of red ware with a vertical, thickened externally, prominent ridged rim. Of coarse fabric, treated with a slip and well-fired. E
- Type 2. Fragment of a vase of red ware with a nail-headed rim; long concave neck. Of medium fabric, treated with a slip externally and well-fired. L
- Type 3. Fragment of a bowl of red ware with vertical, sharpened, internally bevelled rim and incurved sides. Of medium fabric, treated with a slip and well-fired. E
- Type 4. Fragment of a vase of red ware with a thickened, externally collared rim, short concave neck. Of medium fabric, treated with a slip and well-fired. E
- Type 5. Fragment of a vase of red ware with a flared-out featureless rim, concave neck and a ridge above the globular body. Of fine fabric, treated with a slip well-fired. E
- Type 6. Fragment of a vase of red ware with a short vertical, thickened, externally drooping rim and vertical neck. Of medium fabric, treated with a slip and well-fired. E
- Type 7. Fragment of a vase of red ware with an out-turned, thickened, externally corrugated rim, short concave neck, a ridge above the shoulder. Of medium fabric, treated with a slip and well-fired. E
- Type 8. A vase with an incurved, thickened, externally grooved, drooping rim, short concave grooved neck, short oblique multi grooved shoulder, bulging profile, body decorated with auspicious stamped symbols and round base. Of medium fabric, treated with light red slip and well-fired. M
- Type 9. Fragment of a bowl of red ware with a vertical, sharpened, externally grooved rim and carination above the tapering sides. Of medium fabric, treated with a slip and well-fired. E
- Type 10. Fragment of a miniature vase with a flared, short sharpened rim, concave neck, grooved bulging profile and ring-cut flat base. Of medium fabric, treated externally with slip and well-fired. E
- Type 11. Fragment of a spout of red ware with out-turned thickened rim. Of medium fabric, treated with a slip and well-fired. L
- Type 12. Fragment of a spout of red ware with nipple, sharp opening mouth with grooved and bulging lower portion. Of medium fabric, treated with a slip externally and well-fired. L
- Type 13. Fragment of a bowl of red ware with a ring-cut flat base and tapering sides. Of medium fabric, devoid of any surface treatment and well-fired. L

- Type 14. Fragment of a flattened top, knobbed lid of red ware with a vertical flattened rim. Of fine fabric, treated with slip and well-fired. E
- Type 15. Fragment of a tubular neck portion of a vessel with out-turned, sharpened, featureless rim. Of medium fabric, treated with slip and well-fired. E
- Type 16. Fragment of a lid-cum-bowl of red ware with vertical sharpened, featureless, internally grooved rim, horizontally flanged above the rounded body to serve the purpose of a lid, and rounded base. Of medium fabric, treated with a slip and well-fired. E
- Type 17. Miniature pot of red ware with a short flared-out, sharpened rim, short concave neck, oblique shoulder, globular body and flat base. Of fine fabric, treated with a slip and well-fired. E
- Type 18. Spouted vase of red ware with a flared externally, vertically cut rim, short concave grooved neck, oblique shoulder, sloping carination above the globular body and rounded base. A short vertical spout is luted near the junction of shoulder with body. Of medium fabric, rim treated with a slip and well-fired. L
- Type 19. Fragment of a vessel of red ware with a vertical, sharpened, featureless rim having a long handle. Of fine fabric, treated with a slip and well-fired. E
- Type 20. Fragment of a miniature vase of red ware with an out-turned rim, short concave neck, oblique shoulder and bluntly carinated body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 21. Fragment of a bowl of red ware with thickened, splayed-out internally depressed rim, externally corrugated tapering sides and rounded base. Of medium fabric, treated with a slip and well-fired. L
- Type 22. Fragment of a bowl of red ware with a horizontally splayed-out rim and incurved sides. Of medium fabric, treated with a slip and well-fired. L
- Type 23. Fragment of a storage jar of red ware with an incurved, sharpened, flattened top, externally thickened rim, under-cut neck and globular profile. Of coarse fabric, ill-fired, showing unoxidized mid-section. E
- Type 24. Fragment of a knobbed lid of red ware with spiral design on top and tapering sides. Of medium fabric, treated with a dark slip and well-fired. M
- Type 25. Fragment of a knobbed lid of red ware with button-shaped knob and tapering sides. Sides decorated with incised design. Of medium fabric, treated with a slip and well-fired. L

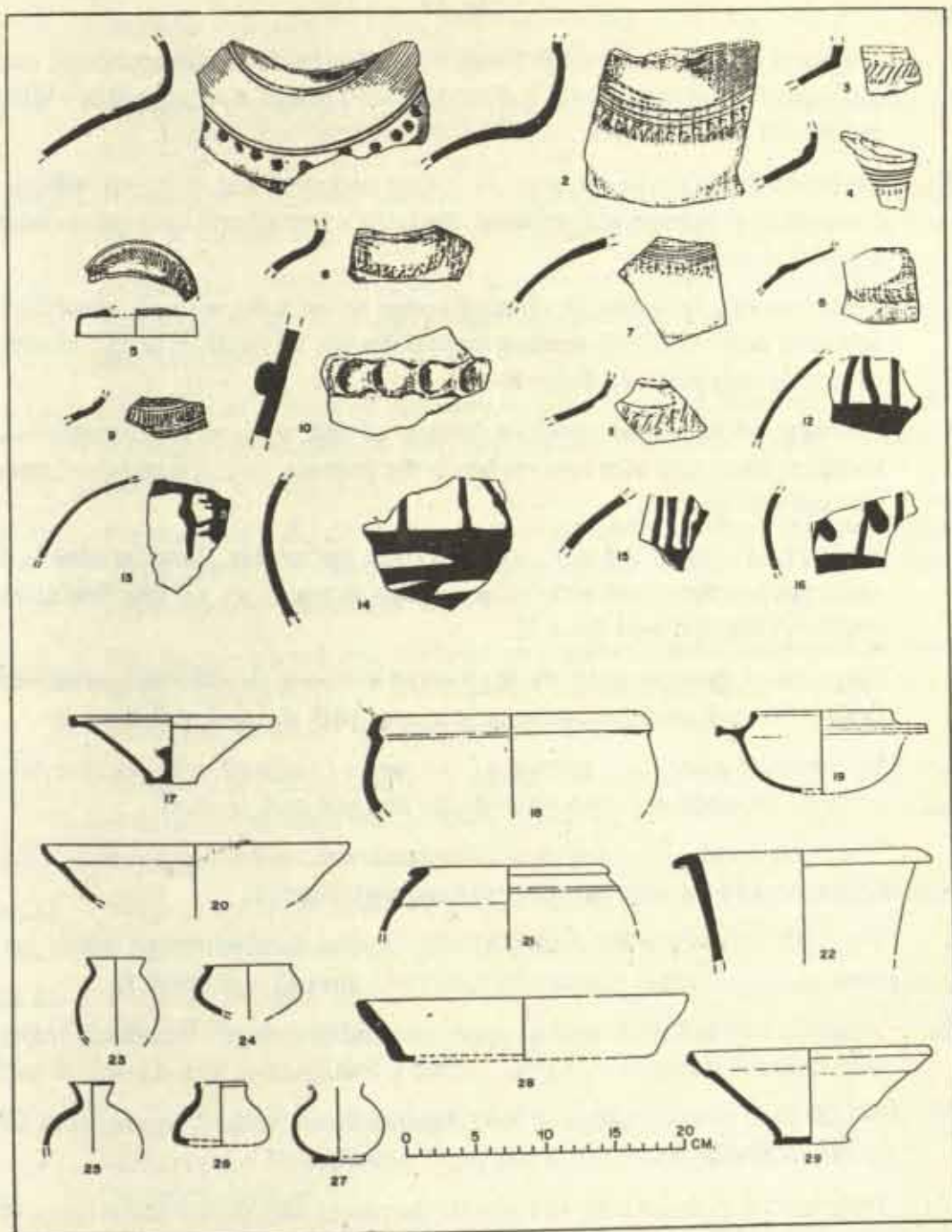


FIG. 48. Ganwaria : Pottery types, Period III

Fig. 48

- Type 1. Fragment of a vase of red ware with a concave neck, oblique, grooved shoulder and grooved rounded body. Body is decorated with row of dots painted in white below the groove. Of medium fabric, treated with a slip and well-fired. L
- Type 2. Fragment of a vase of red ware with long concave neck, grooved oblique shoulder. Shoulder is decorated with notched design in a row. Of medium fabric, treated with a slip and ill-fired. L
- Type 3. Fragment of a neck and shoulder of a vase of red ware with a vertical neck, oblique shoulder, decorated with slanting incised design. Of medium fabric, treated with slip externally only and well-fired. E
- Type 4. Fragment of neck and shoulder portion of red ware with multi-grooved oblique shoulder, decorated with notches below the grooves. Of medium fabric, treated with a slip and well-fired. L
- Type 5. Fragment of a lid of red ware with a vertical featureless, flattened base and flattened upper portion decorated with incised design in two rows. Of fine fabric, treated with bright red slip and well-fired. E
- Type 6. Fragment of shoulder and neck of a vase of red ware, shoulder decorated with notched design. Of medium fabric, externally treated with slip and well-fired. E
- Type 7. Fragment of a shoulder portion of red ware, decorated with notches below multi-grooves. Of medium fabric, treated with slip and well-fired. E
- Type 8. Fragment of a shoulder of red ware, decorated with notches on applique horizontal band. Of medium fabric, treated with a slip and well-fired. E
- Type 9. Fragment of a red ware decorated with vertical incised design within grooves. Of medium fabric, treated externally with a red slip and well-fired. E
- Type 10. Fragment of a red ware with an applique band decorated with thumb impression. Of coarse fabric, treated with a slip, ill-fired showing un-oxidized blackish section. L
- Type 11. Fragment of a shoulder of red ware decorated with incised slanting line. Of medium fabric, externally treated with a slip and well-fired. E
- Type 12. Fragment of a globular body of red ware decorated with thick vertical lines. Of medium fabric, treated externally with a slip and well-fired. M
- Type 13. Fragment of a red ware decorated with black painted thick horizontal line and two vertical lines. Of medium fabric, treated with a slip and well-fired. M

POTTERY

- Type 14. Fragment of a red ware decorated with painting in red with vertical and horizontal lines. Of medium fabric, treated with a slip and well-fired. L
- Type 15. Fragment of a red ware painted in red with thick vertical lines. Of medium fabric and well-fired. L
- Type 16. Fragment of a red ware decorated in red with dots alternated by vertical lines above the thick horizontal line. Of medium fabric, devoid of any surface treatment and ill-fired. E
- Type 17. Fragment of a knobbed lid of red ware with vertical, thickened, internally grooved rim, tapering sides and ring-cut flat base. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 18. Fragment of a bowl of red ware with a sharpened, internally depressed, externally collared rim and globular body. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 19. Fragment of a lid-cum-bowl of red ware with incurved featureless rim, prominent flanged shoulder above the globular body and rounded base. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 20. Fragment of a bowl of red ware with a slightly incurved, sharpened, internally depressed and externally bevelled rim, tapering sides and probably a rounded base. Of medium fabric devoid of any surface treatment and well-fired. L
- Type 21. Fragment of a vase of red ware with an out-curved, thickened, externally under-cut rim, internally depressed and externally mild ridge and globular profile. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 22. Fragment of a bowl of red ware with an out-turned drooping rim and almost straight sides. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 23. Fragment of a miniature pot with short flared, sharpened, featureless rim, short concave neck, oblique shoulder and incurved sides. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 24. Fragment of a miniature *handi* with a slightly out-curved, short truncated rim, oblique shoulder and bluntly carinated waist. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 25. Fragment of a miniature pot of red ware with a flared-out, featureless rim and globular body. Of fine fabric, devoid of an surface treatment and well-fired. E
- Type 26. Fragment of a miniature pot of red ware with a short flared-out, featureless rim, concave neck, oblique shoulder and flat base. Of medium fabric, devoid of any surface treatment and well-fired. E

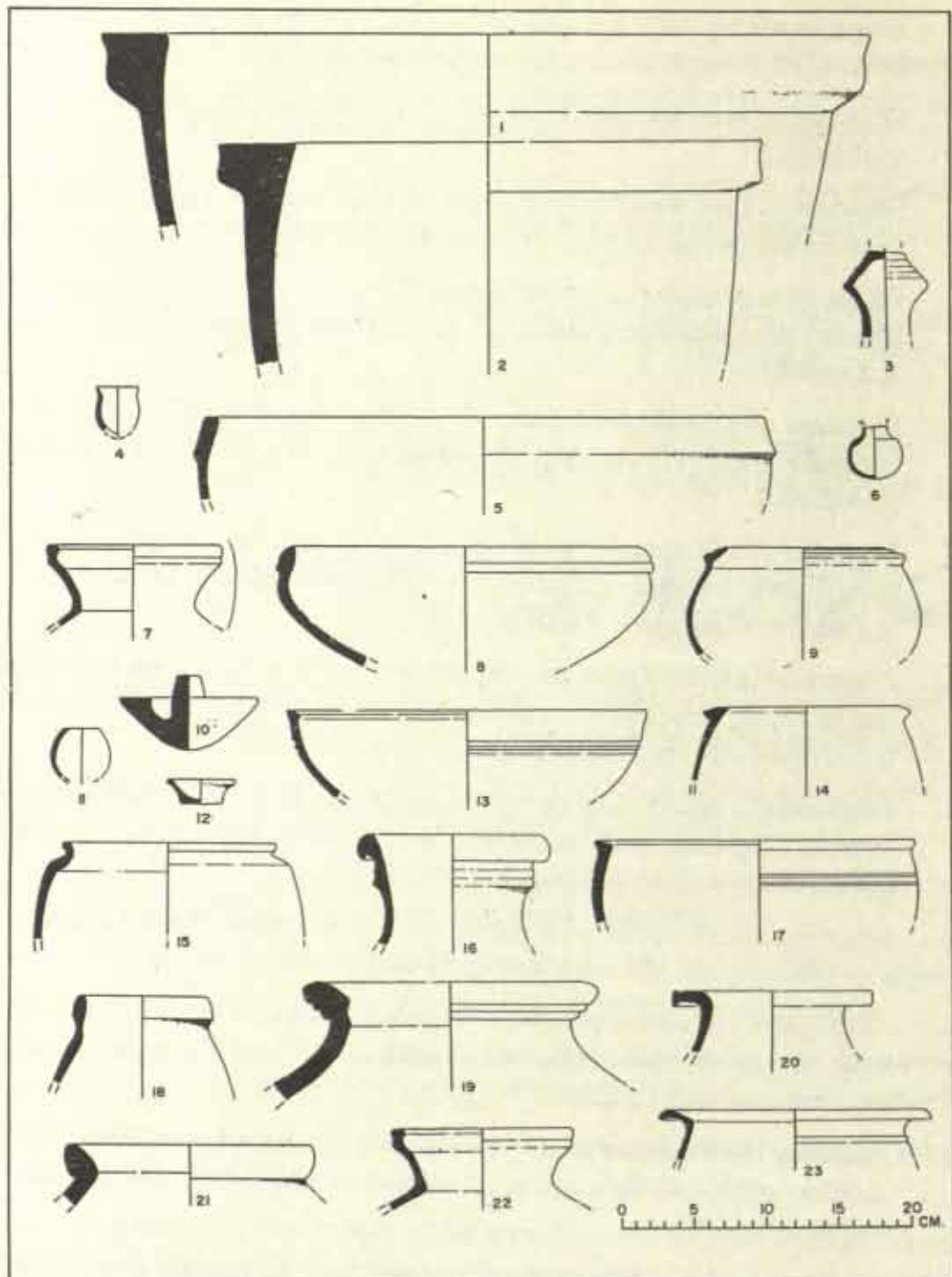


FIG. 49. Ganwaria : Pottery types, Period III

POTTERY

- Type 27. Fragment of a miniature pot of red ware with a short concave neck, globular body and ring-cut flat base. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 28. Fragment of a bowl of red ware with a featureless thickened rim, tapering sides, and flat base. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 29. Bowl of red ware with a sharpened, externally bevelled, internally depressed rim, tapering sides and ring-cut flat base. Of medium fabric, devoid of any surface treatment and well-fired. E

Fig. 49

- Type 1. Fragment of a nada of red ware with vertical flattened top, externally thickened heavy rim and almost tapering sides. Of coarse fabric, ill-fired showing un-oxidized blackish core. E
- Type 2. A variant of type 1 of thicker variety. E
- Type 3. Fragment of a finial (?) of red ware with carinated sides, corrugated shoulder and probably flattened top. Of medium fabric, treated with a slip and well-fired. L
- Type 4. Fragment of a pot of red ware with a short flared, sharpened rim and slightly incurved sides and probably rounded base. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 5. Fragment of a basin of red ware with a vertical, thickened, flattened top, externally carinated rim and incurved sides. Of medium fabric, treated with a slip and well-fired. L
- Type 6. Fragment of an ink-pot of red ware with a concave neck, globular body and rounded base. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 7. Fragment of a vase of red ware with incurved, thickened, flattened top, externally grooved rim, long concave neck and oblique shoulder. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 8. Fragment of a basin of red ware with an incurved, externally collared, grooved rim, incurved sides and rounded base. Of medium fabric, devoid of any surface treatment and ill-fired. E
- Type 9. Fragment of a bowl of red ware with a sharpened, externally collared, grooved, internally depressed rim and globular body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 10. Flattened top of knobbed lid of red ware with rounded base. Of coarse fabric, well-fired, thicker variety devoid of any surface treatment. E

- Type 11. Fragment of a miniature pot of *tabla* shape of red ware with an incurved featureless, closing rim. Of fine fabric, devoid of any surface treatment and well-fired. E
- Type 12. A complete *deep* (lamp) of red ware with a flared-out rim and ring-cut base. Of fine fabric, devoid of any surface treatment and well-fired. E
- Type 13. Fragment of a bowl of red ware with externally thickened, flattened top rim, grooved shoulder and probably rounded base. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 14. Fragment of a bowl of red ware with a thickened, nail-headed rim and globular body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 15. Fragment of a bowl of red ware with an out-turned, featureless rim, short concave neck and globular profile. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 16. Fragment of a vase of red ware with out-turned, thickened, drooping rim and externally ridged long concave neck. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 17. Fragment of a bowl of red ware with an externally, thickened, flattened top rim and externally grooved globular body. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 18. Fragment of a bowl of red ware with a sharpened, externally collared rim and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 19. Fragment of a storage jar of red ware with an out-turned, externally thickened, corrugated internally depressed rim and oblique shoulder. Of coarse fabric, devoid of any surface treatment and ill-fired showing blackish mid-section. L
- Type 20. Fragment of a vase of red ware with horizontally splayed-out, grooved and externally drooping rim and concave neck. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 21. Fragment of a vase of red ware with externally thickened, collared rim and oblique shoulder. Of coarse fabric, devoid of any surface treatment and ill-fired showing blackish core. E
- Type 22. Fragment of a vase of red ware with a thickened, flattened top, internally depressed, externally grooved rim, concave neck and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 23. A variant of type 18. L

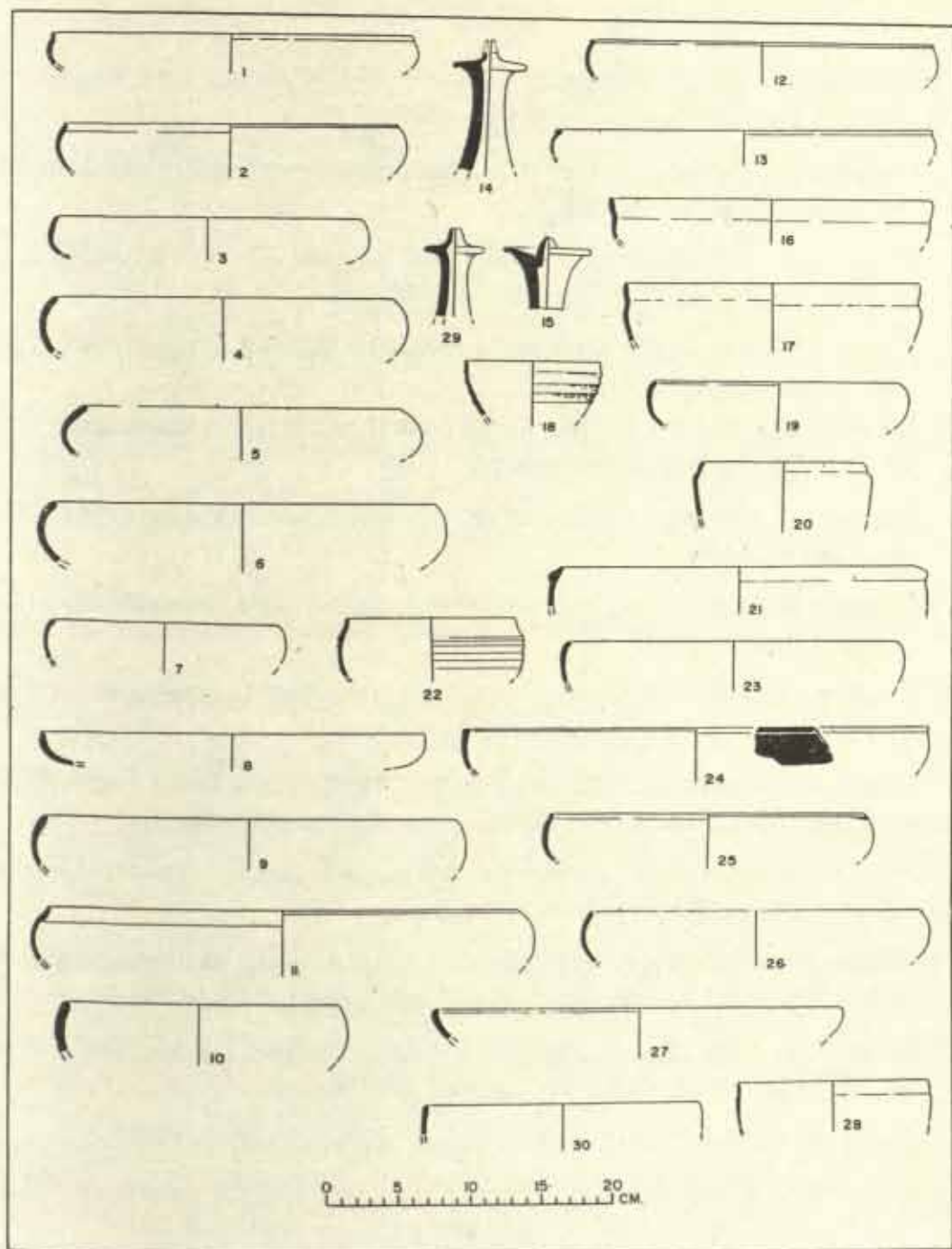


FIG. 50. *Ganwaria : Pottery types, Period IV*

PERIOD IV

Fig. 50

- Type 1. Fragment of a dish of coarse grey ware with slightly out-curved, featureless rim and incurved sides. Of medium fabric and well-fired. L
- Type 2. Fragment of a dish of grey ware with a sharpened out-curved rim and incurved sides. Of medium fabric and well-fired. L
- Type 3. Fragment of a dish of grey ware with slightly incurved, sharpened, featureless rim and incurved sides. Of medium fabric and well-fired. L
- Type 4. Fragment of a dish of grey ware with a vertical, featureless rim and incurved sides. Of medium fabric and well-fired. M
- Type 5. Fragment of a dish of grey ware with a vertical, thickened, featureless rim and round sides. Of fine fabric and well-fired. M
- Type 6. Fragment of a dish of grey ware with vertical, featureless rim and incurved sides. Of fine fabric and well-fired. M
- Type 7. Fragment of a bowl of grey ware with a vertical, featureless rim and incurved sides. Of fine fabric and well-fired. M
- Type 8. Fragment of a dish of grey ware with vertical, sharpened, featureless rim and incurved sides. Of medium fabric and well-fired. L
- Type 9. Fragment of a dish of back-slipped ware with a vertical, thickened, featureless rim and incurved sides. Of fine fabric, treated with a slip and well-fired. L
- Type 10. Fragment of a dish of grey ware with a vertical, thickened, featureless rim and incurved sides. Of medium fabric and well-fired. M
- Type 11. Fragment of a dish of grey ware with a slightly out-curved, sharpened, featureless rim and rounded sides. Of fine fabric, treated with a slip and well-fired. M
- Type 12. Fragment of a dish of black ware with a vertical, flattened top rim and incurved sides. Of fine fabric, treated with a slip and well-fired. M
- Type 13. Fragment of a dish of black ware. A variant of type 12 with externally grooved rim. L
- Type 14. Fragment of a bottle-necked sprinkler of black ware with a flanged rim, top and a conical knob opening. Of fine fabric, treated with a slip and well-fired. L
- Type 15. A variant of type 14 with a depressed flanged rim. E
- Type 16. Fragment of a bowl of black ware with a flared-out, featureless rim, externally grooved shoulder and incurved sides. Of fine fabric, treated with a slip and well-fired. L

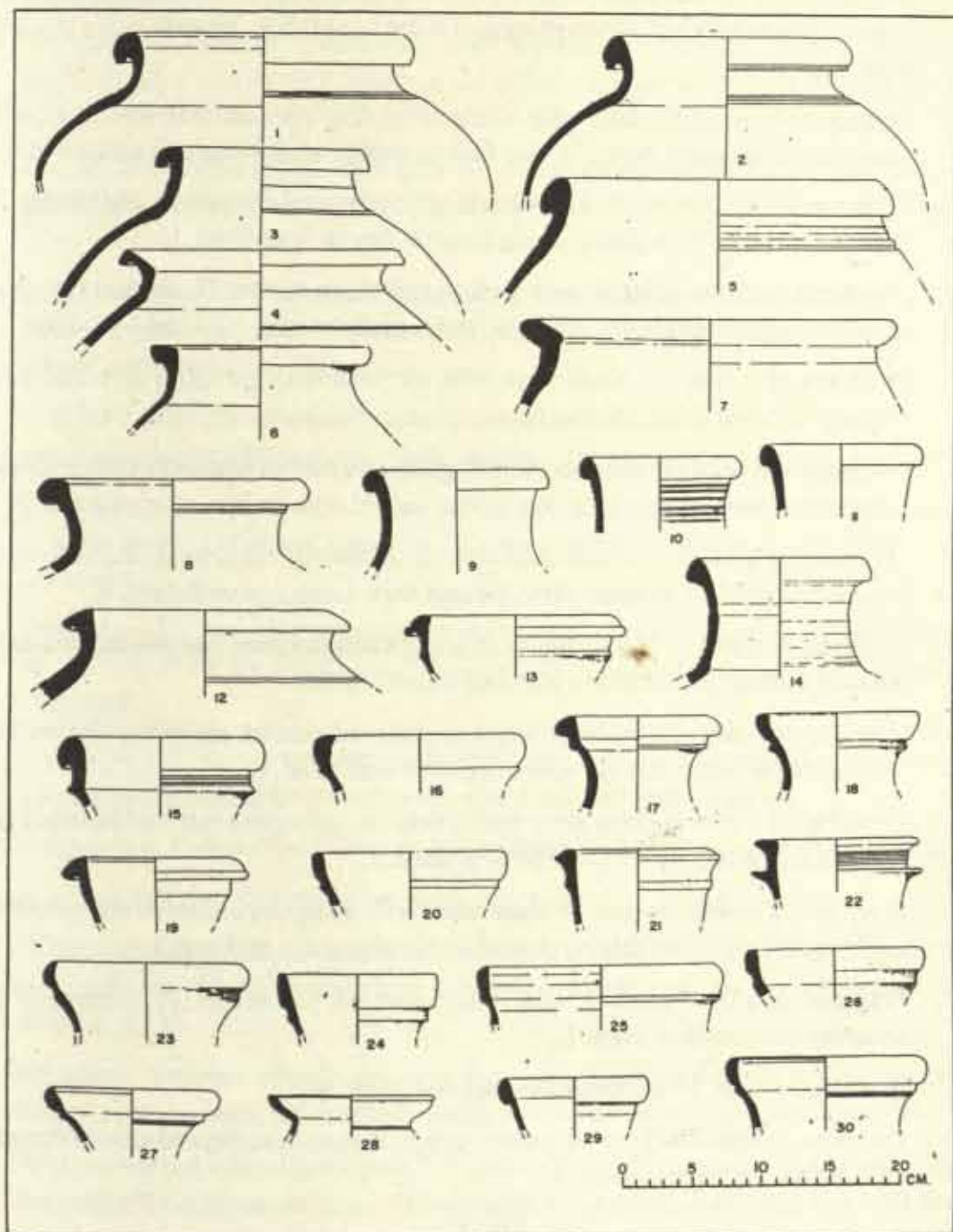


FIG. 51. Ganwaria : Pottery types, Period IV

- Type 17. Fragment of a bowl of black ware with a vertical, sharpened, featureless rim, externally depressed shoulder and incurved sides. Of medium fabric, treated with a slip and well-fired. L
- Type 18. Fragment of a bowl of black ware with a vertical, sharpened, featureless rim, incurved, externally corrugated sides. Of fine fabric, treated with a slip and well-fired. L
- Type 19. Fragment of a bowl of black ware with an incurved, sharpened, featureless rim and rounded sides. Of fine fabric, treated with a slip and well-fired. L
- Type 20. Fragment of a bowl of black ware with a vertical, thickened, featureless rim, depressed shoulder and tapering sides. Of fine fabric, treated with a slip and well-fired. L
- Type 21. Fragment of a bowl of black ware with an incurved, externally bevelled rim and a slightly incurved sides. Of fine fabric, treated with a slip and well-fired. L
- Type 22. Fragment of a bowl of red ware with a slightly out-curved featureless rim and externally corrugated rounded sides. Of fine fabric, treated with a slip and well-fired. M
- Type 23. Fragment of a bowl of black ware with an incurved, sharpened, featureless rim and incurved sides. Of medium fabric, treated with a slip and well-fired. L
- Type 24. Fragment of a dish of black ware with a vertical, thickened rim and incurved sides. Of medium fabric, treated with a slip and well-fired. L
- Type 25. Fragment of a dish of black ware with a slightly out-curved, sharpened rim and incurved sides. Of fine fabric, treated with a slip and well-fired. L
- Type 26. Fragment of a dish of black ware with a vertical, thickened rim and rounded sides. Of fine fabric, treated with a slip and well-fired. L
- Type 27. Fragment of a shallow dish of black ware with a slightly incurved sharpened rim and tapering sides. Of fine fabric, treated with a slip and well-fired. L
- Type 28. Fragment of a bowl of black ware with a vertical, featureless rim, externally grooved shoulder and rounded sides. L
- Type 29. A variant of type 14 of burnished dark red ware. M
- Type 30. Fragment of a bowl of grey ware with vertical feature-less rim and almost straight sides. Of fine fabric and well-fired. L

Fig. 51

- Type 1. Fragment of a wide-mouthed vase of red ware with an out-turned, externally thickened, grooved, drooping rim, short concave neck, grooved shoulder and globular body. Of coarse fabric, externally treated with a slip and well-fired. L

POTTERY

- Type 2. A variant of type 1. M
- Type 3. Fragment of a vase of red ware with an out-turned, externally oblique-cut, drooping rim, mild-ridged, concave neck, grooved shoulder and rounded globular body. Of medium fabric, treated with a slip externally and ill-fired showing blackish core. L
- Type 4. Fragment of a vase of red ware with out-turned drooping rim, short concave neck and mild-groove oblique shoulder. Of medium fabric, treated with a slip externally and ill-fired. M
- Type 5. Fragment of a wide-mouthed vase of red ware with externally thickened, collared, drooping rim, grooved short concave neck and oblique shoulder. Of coarse fabric, treated with a slip and ill-fired. M
- Type 6. Fragment of a vase of red ware with a horizontally splayed-out rim, concave neck and oblique shoulder. Of medium fabric, treated with a slip externally and well-fired. L
- Type 7. Fragment of a wide-mouthed vase of red ware with splayed-out thickened rim, short concave neck and oblique shoulder. Of coarse fabric, treated with a slip externally and ill-fired. L
- Type 8. Fragment of a vase of red ware with an externally clubbed, thickened, drooping rim, ridged concave neck and oblique shoulder. Of medium fabric, treated with a slip and well-fired. L
- Type 9. Fragment of a vase of red ware with externally thickened rim and long concave neck. Of medium fabric, externally treated with a slip and well-fired. L
- Type 10. Fragment of a vase of red ware with externally thickened rim and well-fired. L
- Type 11. A variant of type 10 with a plain neck. L
- Type 12. Fragment of a vase of red ware with an externally collared, drooping rim, short concave neck and grooved oblique shoulder. Of medium fabric, externally treated with a slip and well-fired. M
- Type 13. Fragment of a vase of red ware with externally thickened rebated drooping rim and ridged concave neck. Of medium fabric, treated with a slip and well-fired. M
- Type 14. Fragment of red ware with externally thickened rim, almost vertical multi-grooved neck and probably oblique shoulder. Of coarse fabric, treated with a slip and well-fired. L
- Type 15. Fragment of a vase of red ware with externally thickened, clubbed rim, concave-ridged neck. Of medium fabric, treated with a slip and well-fired. L
- Type 16. Fragment of a vase of red ware with incurved, externally thickened, grooved rim. Of medium fabric, treated with a slip and well-fired. M

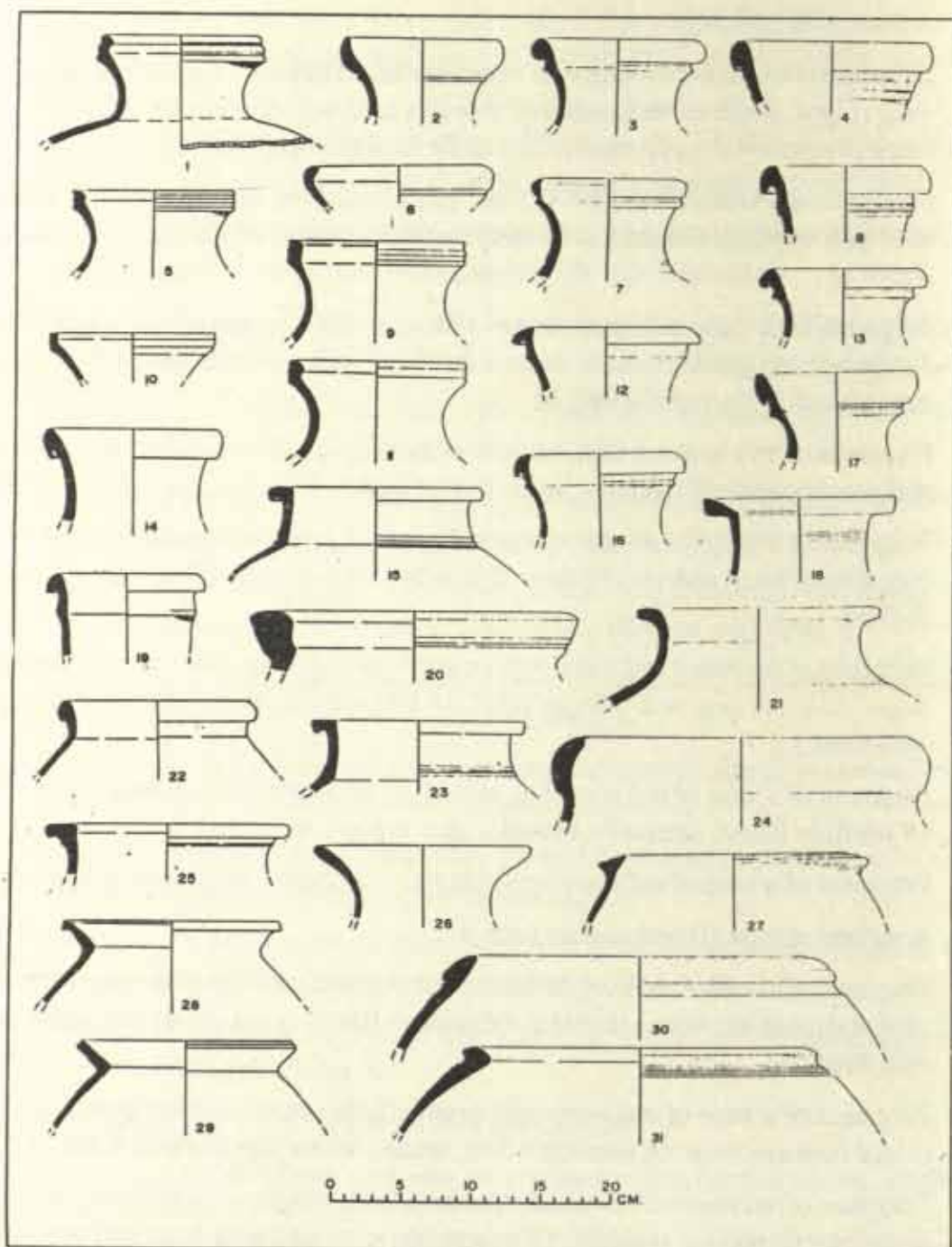


FIG. 52. Ganwaria : Pottery types, Period IV

POTTERY

- Type 17. Fragment of a vase of red ware with externally thickened, clubbed rim and long concave neck. Of medium fabric, treated with a slip and well-fired. M
- Type 18. A variant of type 16 having slightly incurved rim. M
- Type 19. A variant of type 13. M
- Type 20. A variant of type 16 having a vertical, externally thickened rim. L
- Type 21. Fragment of a vase of red ware with a mild rebated rim and concave neck. Of fine fabric, treated with a slip and well-fired. M
- Type 22. Fragment of a vase of red ware with a horizontally splayed-out rim, multi-grooved neck with prominent flange above the oblique shoulder. Of medium fabric, treated with a slip and well-fired. M
- Type 23. A variant of type 18. L
- Type 24. A variant of type 20. M
- Type 25. Fragment of a vase of red ware with a vertical, externally collared rim and depressed shoulder. Of fine fabric, treated with a slip and well-fired. L
- Type 26. Fragment of a vase of red ware with an externally collared rim and short concave neck. Of fine fabric, treated with a slip and well-fired. L
- Type 27. Fragment of a vase of red ware with an incurved externally collared rim and prominent ridged-neck. Of medium fabric, treated with a slip and well-fired. L
- Type 28. Fragment of a vase of red ware with a flared, featureless, internally depressed rim, short concave neck and oblique shoulder. Of medium fabric, treated with a slip and well-fired. L
- Type 29. Fragment of a vase of red ware with an out-turned, thickened, drooping rim. Of medium fabric, treated with a slip and well-fired. L
- Type 30. A variant of type 23. L

Fig. 52

- Type 1. Fragment of vase of red ware with thickened incurved, flattened top, externally grooved rim, concave neck and oblique shoulder. Of fine fabric, treated with a slip and well-fired. M
- Type 2. Fragment of red ware with a slightly incurved, sharpened, externally thickened rim and ridged- concave neck. Of fine fabric, treated with a slip and well-fired. M
- Type 3. Fragment of a vase of red ware with a thickened, externally clubbed rim, prominently ridged-neck. Of medium fabric, treated with a red slip and well-fired. L

- Type 4. Fragment of a vase of red ware with an out-turned, thickened, drooping rim and corrugated concave neck. Of medium fabric, treated with a red slip and well-fired. L
- Type 5. A variant of type 1. M
- Type 6. Fragment of a vase of red ware with an incurved, externally thickened rim and internally grooved rim. Of medium fabric, treated with a slip and well-fired. M
- Type 7. A variant of type 6 having a long concave neck. L
- Type 8. Fragment of a vase of red ware with thickened, out-turned, drooping rim, externally ridged -neck with multiple grooving. Of medium fabric, treated with a slip and well-fired. M
- Type 9. Fragment of a vase of red ware with a slightly incurved, thickened, flattened top, externally grooved rim and long concave neck. Of fine fabric, treated with a slip and well-fired. E
- Type 10. A variant of type 9. M
- Type 11. Fragment of a vase of red ware with a thickened, internally bevelled, externally grooved rim and long concave neck. Of medium fabric, treated with a slip and well-fired. L
- Type 12. Fragment of a vase of red ware with thickened, out-turned drooping rim, ridged-concave neck. Of fine fabric, treated with a slip and well-fired. M
- Type 13. A variant of type 12. M
- Type 14. Fragment of a vase of red ware with an externally thickened, drooping rim, long concave neck. Of medium fabric, treated with a slip and ill-fired. E
- Type 15. Fragment of a vase of red ware with a thickened, horizontally splayed-out, drooping rim, concave neck, oblique shoulder below a groove. Of medium fabric, treated with a slip and well-fire. L
- Type 16. Fragment of a vase of red ware with thickened, externally clubbed, drooping rim, a ridge above the concave neck. Of medium fabric, treated with a slip and well-fired. M
- Type 17. Fragment of a vase of red ware with a thickened, externally collared rim, concave neck below a ridge. Of medium fabric, treated with a slip and well-fired. M
- Type 18. Fragment of a vase of red ware with a thickened, splayed-out rim, long vertical externally groove neck. Of fine fabric, treated with a slip and well-fired. M
- Type 19. Fragment of a vase of red ware with a thickened, externally clubbed, drooping rim, long vertical neck below a ridge. Of medium fabric, treated with a slip and well-fired. E

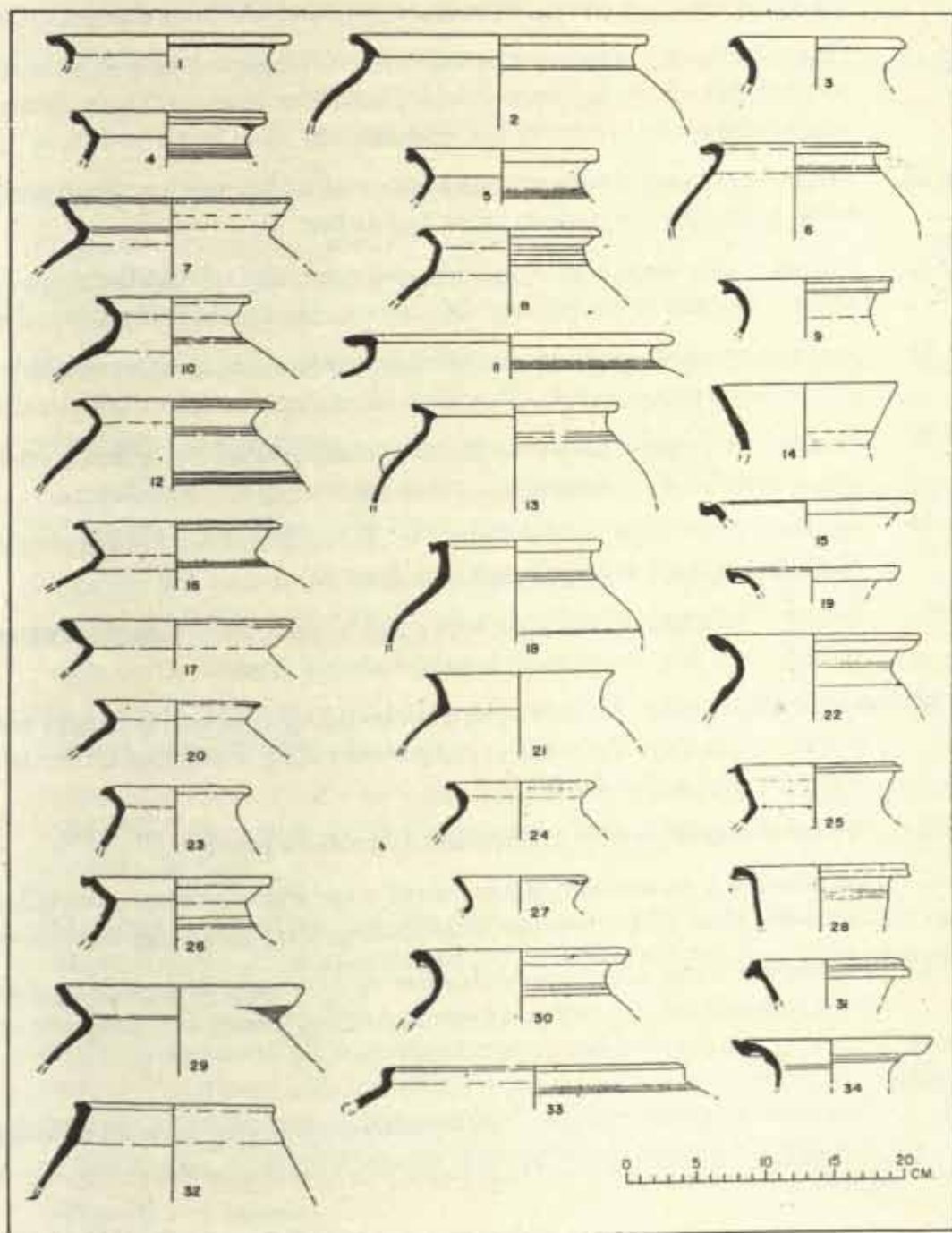


FIG. 53. Ganwaria : Pottery types, Period IV

- Type 20. Fragment of a wide-mouthed jar of red ware with a vertical, thickened, internally depressed and grooved rim. Of coarse fabric, treated with a slip and ill-fired. L
- Type 21. Fragment of a vase of red ware with a horizontally splayed-out rim, internally depressed concave neck, oblique grooved shoulder and probably rounded body. Of medium fabric, treated with a slip externally and well-fired. M
- Type 22. Fragment of a vase of red ware with an externally thickened rim, short concave neck and oblique shoulder. Of medium fabric and ill-fired. E
- Type 23. Fragment of a vase of red ware with a horizontally splayed-out rim, concave neck, oblique shoulder below grooves. Of coarse fabric, treated with a slip and well-fired. E
- Type 24. Fragment of a wide-mouthed vase of red ware with an incurved, externally oval, collared rim and short concave neck. Of medium fabric, treated with a slip and well-fire. E
- Type 25. Fragment of a vase of red ware with horizontally splayed-out, internally ridged rim and concave neck. Of medium fabric, treated with a slip and well-fire. L
- Type 26. Fragment of a vase of red ware with a thickened, flared-out rim and concave neck. Of fine fabric, treated with a slip and well-fired. M
- Type 27. Fragment of a vase of red ware with a nail-headed, short concave neck and rounded body. Of fine fabric, treated with a slip and well-fired. E
- Type 28. Fragment of a vase of re ware with a thickened, splayed-out, externally and internally depressed rim, short concave neck and probably oblique shoulder. Of fine fabric, treated with a slip and well-fired. M
- Type 29. A variant of type 28 with a featureless splayed-out rim. L
- Type 30. Fragment of a wide-mouthed vase of red ware with a closing, externally thickened, externally grooved, collared rim, neck distinguished with a slip and well-fired. M
- Type 31. Fragment of a vase of red ware with a closing, externally thickened rim, multi-grooved short neck and bulging profile. Of medium fabric, treated with a slip and well-fired. E

Fig. 53

- Type 1. Fragment of a vase of red ware with flared internally, grooved and externally drooping rim, internally ridge above the neck. Of medium fabric, treated with a slip and well-fired. L
- Type 2. Fragment of a vase of red ware with a splayed-out and internally ledged rim, grooved shoulder having a globular body. Of medium fabric, treated with a slip and well-fired. L

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- Type 3. Fragment of a vase of red ware with a flared-out rim, short concave neck below a depression and oblique shoulder. Of medium fabric, treated with a slip and well-fired. M
- Type 4. Fragment of a vase of red ware with a flared-out, externally grooved rim, internally depressed to form a groove and multi-grooved oblique shoulder. Of medium fabric, treated with a slip and well-fired. L
- Type 5. A variant of type 4 with drooping rim. L
- Type 6. Fragment of a vase of red ware with an out-turned, drooping rim, short concave, grooved neck, oblique shoulder and globular body. Of medium fabric, treated with a slip and well-fired. M
- Type 7. Fragment of a vase of red ware with a flared, flattened top, internally depressed, externally mild-corrugated rim, short neck and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 8. Fragment of a vase of red ware with a flared-out rim, multi-grooved concave neck and oblique shoulder. Of medium fabric, treated with a slip and well-fired. L
- Type 9. Fragment of a vase of red ware with an out-turned, externally grooved rim and long concave neck. Of medium fabric, treated with a slip and well-fired. M
- Type 10. Fragment of a vase of red ware with an out-turned, externally mild-ridged rim, short concave neck, grooved oblique shoulder and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 11. Fragment of a vase of red ware with a splayed-out, groove top rim, short concave neck, oblique shoulder below grooves and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 12. Fragment of a vase of red ware with a splayed-out, grooved top rim, short concave neck, oblique shoulder below grooves and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 13. Fragment of a vase of red ware with a splayed-out, internally-ridged rim, short concave neck, multi-grooved oblique shoulder and globular body, and applique knob below shoulder. Of medium fabric, treated with a slip and ill-fired. L
- Type 14. Fragment of a vase of red ware with a featureless flared rim. Of medium fabric, treated with a slip and well-fired. L
- Type 15. Fragment of a vase of red ware with a splayed-out, internally and externally depressed rim. Of medium fabric, treated with a slip and well-fired. L
- Type 16. A variant of type 15. L

- Type 17. Fragment of a vase of red ware with a flared-out, sharpened featureless rim, neck distinguished by a cut and oblique shoulder. Of medium fabric, treated with a slip and well-fired. L
- Type 18. Fragment of a vase with a horizontally splayed-out, grooved top, drooping rim, vertical short neck, oblique shoulder below grooves and globular body. Of medium fabric, treated with a slip and well-fired.
- Type 19. Fragment of a vase of red ware with a splayed-out, drooping, internally grooved rim and oblique shoulder. Of medium fabric, treated with a slip and well-fired. L
- Type 20. A variant of type 17. M
- Type 21. A variant of type 17 having short concave neck and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 22. Fragment of a vase of red ware with a thickened, splayed-out, drooping rim, short concave neck and oblique shoulder. Of fine fabric, treated with a slip and well-fired. L
- Type 23. A variant of type 20. M
- Type 24. Fragment of a vase of red ware with an out-turned, featureless rim, short concave multi-grooved neck and oblique shoulder. Of medium fabric, treated with a slip and well-fired. L
- Type 25. Fragment of a vase of red ware with a splayed-out, depressed top rim, concave neck with internally mild multiple corrugation. Of fine fabric, treated with a slip and well-fired. M
- Type 26. A variant of type 16 with a grooved shoulder. L
- Type 27. A variant of type 14, differs in having short and sharpened rim. L
- Type 28. Fragment of a vase of red ware with an out-turned, externally grooved, drooping rim and almost vertical grooved neck. Of medium fabric, treated with a slip and well-fired. L
- Type 29. A variant of type 7. L
- Type 30. A variant of type 28, differs in concave neck and multi-grooved shoulder. L
- Type 31. Fragment of a vase of red ware with a short vertical, externally ledged, drooping rim. Of medium fabric, treated with a slip and well-fired. L
- Type 32. Fragment of a vase of red ware with a vertical featureless, thickened, flattened top rim, slightly concave neck and tapering sides. Of medium fabric, treated with a slip and well-fired. M

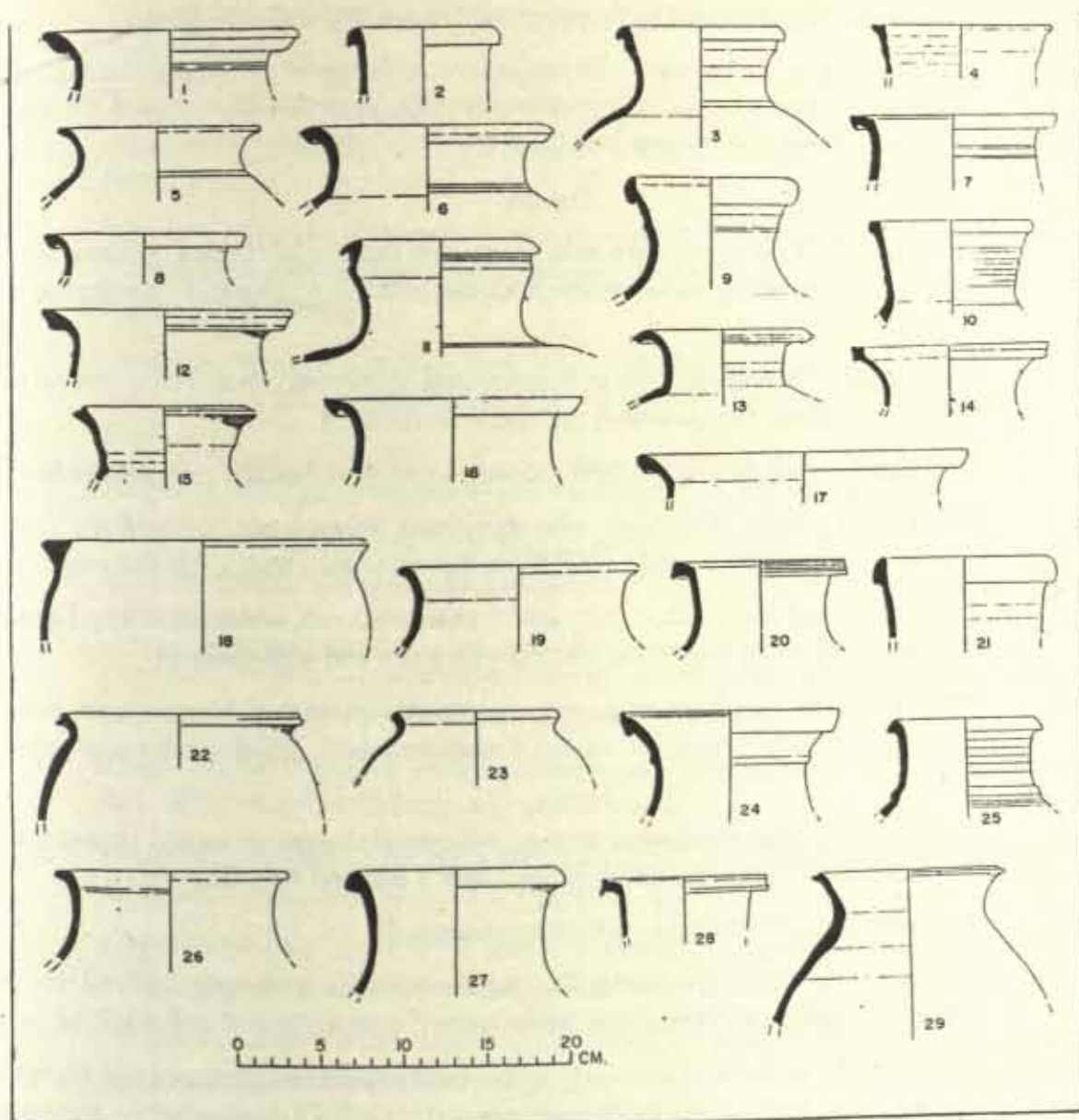


FIG. 54. *Ganwaria* : Pottery types, Period IV

- Type 33. Fragment of a vase of red ware with incurved, internally depressed rim and expanded oblique shoulder. Of medium fabric, treated with a slip and well fired. L
- Type 34. Fragment of a vase of red ware with a splayed-out, sharpened externally, collared, multi-grooved rim, short neck with depression externally and internally cut mark. Of medium fabric, treated with a slip and well-fired. L
- Fig. 54
- Type 1. Fragment of a vase of red ware with sharpened, externally clubbed, grooved rim and long concave, externally grooved neck. Of medium fabric, treated with a slip and well-fired. L
- Type 2. Fragment of a vase of red ware with out-turned, thickened rim and long vertical neck. Of medium fabric, treated with a slip and well-fired. M
- Type 3. A variant of type 2 having multiple grooves at neck and shoulder and globular body. M
- Type 4. Fragment of a vase of red ware with sharpened, splayed-out, grooved top rim and internally corrugated vertical neck. Of fine fabric, treated with a slip and well-fired. L
- Type 5. Fragment of red ware with an out-turned, sharpened rim, concave neck and grooved oblique shoulder. Of fine fabric, treated with a slip and well-fired. M
- Type 6. Fragment of a vase of red ware with out-curved, thickened, drooping rim, concave grooved neck and oblique shoulder. Of medium fabric, treated with a slip and well-fired. L
- Type 7. Fragment of a vase of red ware with an out-curved drooping rim and almost vertical grooved neck. Of medium fabric, treated with a slip and well-fired. M
- Type 8. A variant of type 7 having a short concave neck. M
- Type 9. Fragment of a vase of red ware with a slightly incurved, externally collared rim, long concave ridged-neck. Of medium fabric, treated with a slip and well-fired. M
- Type 10. Fragment of a vase of red ware with an externally thickened, flattened top, featureless rim and almost vertical, externally mild corrugated neck. Of medium fabric, treated with a slip and well-fired. L
- Type 11. Fragment of a vase of red ware with a slightly incurved, externally thickened, drooping externally, ridged internally, depressed rim, long concave neck and multi-grooved oblique shoulder. Of medium fabric, treated with a slip and ill-fired. L
- Type 12. Fragment of a vase of red ware with splayed-out, externally depressed, collared rim and almost vertical neck. Of medium fabric, treated with a slip and well-fired. L

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- Type 13. Fragment of a vase of red ware with a splayed-out, out-curve drooping rim and almost vertical corrugated neck and oblique shoulder. Of medium fabric, treated with a slip and well-fired. M
- Type 14. Fragment of a vase of red ware with a slightly incurved, thickened, flattened top, externally grooved rim and concave neck. Of medium fabric, treated with a slip and ill-fired. L
- Type 15. Fragment of a vase of red ware with a short vertical, externally thickened, grooved top rim and almost vertical, internally corrugated neck. Of fine fabric, treated with light red slip and well-fired. L
- Type 16. Fragment of a vase of red ware with thickened, out-curved, externally grooved, drooping rim and almost vertical neck. Of medium fabric, treated with a slip and well-fired. L
- Type 17. Fragment of a vase of red ware with a sharpened, flared-out rim. M
- Type 18. Fragment of a vase of red ware with an out-curve, externally grooved, drooping rim and almost vertically corrugated long neck. Of fine fabric treated with a slip and well-fired. L
- Type 19. Fragment of a basin of red ware with an out-curved drooping rim and globular body. Of medium to fine fabric, treated with a slip and well-fired. M
- Type 20. Fragment of a bowl of red ware with a thickened, nail-headed rim and globular body. Of fine fabric, treated with a slip and well-fired. M
- Type 21. Fragment of a vase of red ware with a horizontally splayed-out, externally grooved, drooping, almost vertical rim and long neck. M
- Type 22. Fragment of vase of red ware with a thickened, externally clubbed rim and almost vertical slightly corrugated neck. Of coarse fabric, treated with a slip and ill-fired. M
- Type 23. Fragment of a bowl with a flared-out, externally grooved rim and globular body. Of fine fabric, treated with a slip and well-fired. L
- Type 24. Fragment of a vase of red ware with a thickened splayed-out rim, short concave neck and globular body. Of medium fabric, treated with a slip and well-fired. M
- Type 25. Fragment of a vase of red ware with a short sharpened, externally clubbed rim and long concave neck with a ridge. Of coarse fabric, treated with a slip and ill-fired. L
- Type 26. Fragment of vase of red ware with an externally thickened, featureless rim, almost long vertical corrugated neck and prominent ridge above the shoulder. Of medium fabric, treated with a slip and well-fired. M

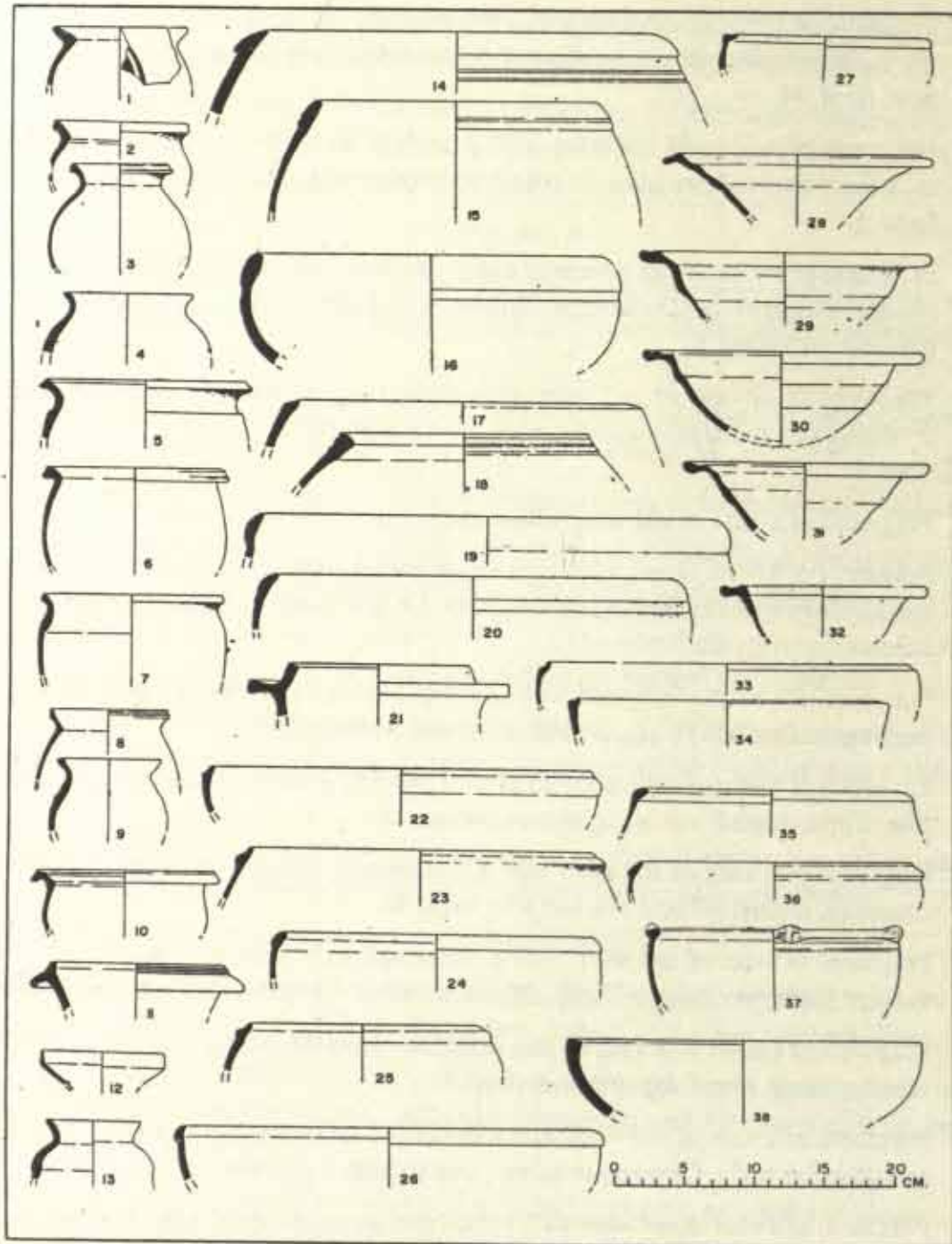


FIG. 55. Ganwaria : Pottery types, Period IV

- Type 27. Fragment of a vase of red ware an externally thickened, featureless rim and long concave neck. Of medium fabric treated with slip and ill-fired. M
- Type 28. Fragment of a vase of red ware with a horizontally splayed-out, externally grooved rim and almost vertical neck. Of medium fabric treated with slip an ill-fired. M
- Type 29. Fragment of a vase of red ware with a flared-out, groove top rim, concave neck and globular body. Of medium fabric, treated with a slip and well-fired. M

Fig. 55

- Type 1. Fragment of miniature vase of red ware with a splayed-out thickened rim, short concave neck and globular body. Of medium fabric, treated with a slip an well-fired. M
- Type 2. A variant of type 1. L
- Type 3. Fragment of a miniature vase of red ware with a thickened, out-curved, grooved top rim, concave neck and globular body. Of fine fabric, treated with a slip and well-fired. L
- Type 4. Fragment of a miniature vase with sharpened, splayed-out rim, concave neck and globular body. Of medium fabric, treated with a slip and well-fired. M
- Type 5. Fragment of a vase of red ware with a short sharpened, externally ledged rim, short concave neck, ledged shoulder. Of fine fabric, treated with slip and well-fired. M
- Type 6. Fragment of a bowl of red ware with externally thickened grooved, rim and globular body. Of fine fabric, treated with a slip and well-fired. E
- Type 7. Fragment of a bowl of red ware with a short flared, featureless rim, concave neck and globular body. Of fine fabric, treated with a slip and we-fired. M
- Type 8. Fragment of a miniature vase of red ware with a slightly thickened, flared-out rim, externally-cut internally-ridged neck and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 9. Fragment of a miniature vase of red ware with a short, thickened, flared rim, concave neck and globular body. Of medium fabric, treated with a slip and well-fired. M
- Type 10. Fragment of a bowl of red ware with an out-curved, externally grooved rim, externally depressed and internally ridged neck and globular body. Of fine fabric, treated with a slip and well-fired. L
- Type 11. Fragment of a vase of red ware with a short vertical, externally flanged, grooved, drooping rim. Of fine fabric, treated with a slip and well-fired. L
- Type 12. Fragment of a bowl of red ware with a vertical, sharpened rim and tapering sides. Of fine fabric, treated with a slip and well-fired. M

- Type 13. Fragment of a miniature vase of red ware with sharpened flare-out rim, internally ridged, externally depressed neck and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 14. Fragment of a basin of red ware with externally collared, closing rim and grooved rounded profile. Of coarse fabric treated with a slip and well-fired. M
- Type 15. A variant of type 14. M
- Type 16. Fragment of a basin of red ware with an incurved, externally thickened rim and rounded body below a depression. L
- Type 17. Fragment of a basin of red ware with a sharpened, closing and externally depressed rim and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 18. A variant of type 17 having thickened, closing externally, grooved rim. Of coarse fabric, treated with a slip and ill-fired. L
- Type 19. Fragment of a basin of red with a slightly incurved, externally thickened rim. Of medium fabric, treated with a slip and well-fired. L
- Type 20. A variant of type 19. L
- Type 21. Fragment of a lid-cum-bowl of red ware with an incurved flattened top rim and horizontally flanged shoulder and globular body. Of fine fabric, treated with a slip and well-fired. M
- Type 22. Fragment of a basin of red ware with a sharpened, closing, externally collared rim and rounded sides. Of fine fabric, treated with a slip and well-fired. L
- Type 23. A variant of type 22. M
- Type 24. Fragment of a basin of red ware with a thickened closing rim and rounded body. Of fine fabric, treated with a slip and well-fired. L
- Type 25. A variant of type 22 having an internally depressed rim. L
- Type 26. Fragment of a basin of red ware with a slightly incurved, externally collared rim and rounded body. Of medium fabric, treated with a slip and well-fired. L
- Type 27. Fragment of a bowl of red ware with an incurved, sharpened, depressed top rim and incurved sides. Of fine fabric, treated with a slip and well-fired. M
- Type 28. Fragment of a bowl of red ware with a flared-out, featureless, internally depressed rim and internally corrugated tapering sides. Of medium fabric, treated with a slip and well-fired. M
- Type 29. A variant of type 28, having a thickened rim. L

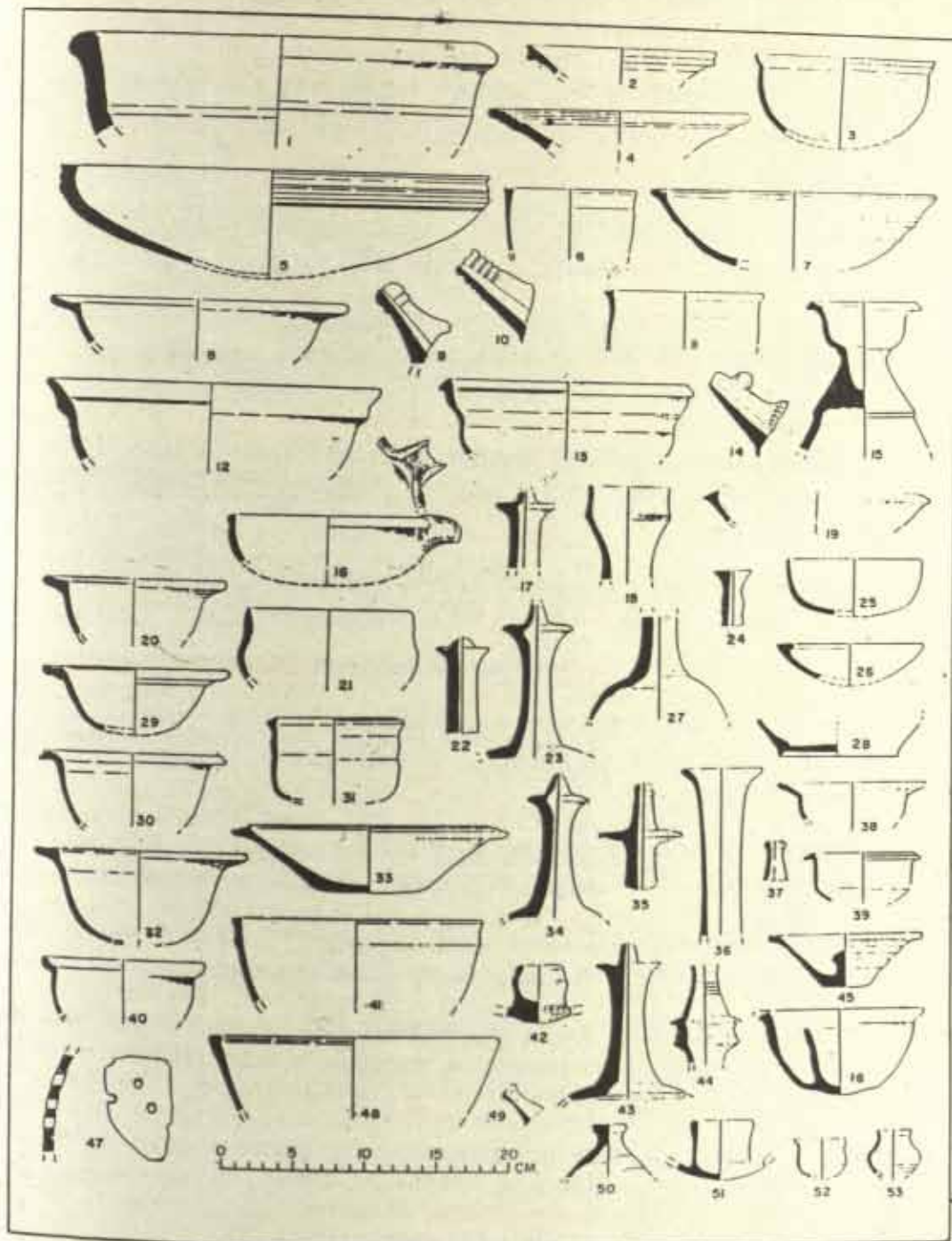


FIG. 56. Ganwaria : Pottery types, Period IV

- Type 30. A variant of type 28, having incurved sides and probably rounded base. L
- Type 31. A variant of type 30. M
- Type 32. Fragment of a bowl of red ware with a short vertical, horizontally flanged rim and incurved sides. Of medium fabric, treated with a slip and well-fired. L
- Type 33. A variant of type 25. L
- Type 34. Fragment of a bowl of red ware with a vertical, externally thickened, grooved top rim and incurved sides. Of medium fabric, treated with a slip and well-fired. L
- Type 35. Fragment of a basin of red ware with an incurved, externally thickened rim and expended shoulder. Of medium fabric, treated with a slip and ill-fired. L
- Type 36. A variant of type 25. L
- Type 37. Fragment of a bowl of red ware with a nail-headed rim, externally grooved just above the globular body and probably a loop handle (broken). Of fine fabric, treated with a slip and well-fire. M
- Type 38. Fragment of a bowl of red ware with an incurved, flattened top, featureless rim and incurved sides. Of coarse fabric, treated with slip and well-fired. M

Fig. 56

- Type 1. Fragment of a basin of red ware with an externally thickened rim, almost vertical, externally and internally grooved sides and incurved body. Of coarse fabric, treated with a slip and ill-fired. L
- Type 2. Fragment of a bowl of red ware with vertical short, featureless, externally ledged rim and tapering sides. Of medium fabric treated with a slip and well-fired. L
- Type 3. Fragment of a bowl of red ware with sharpened, internally depressed and externally grooved rim and rounded body. Of medium fabric, treated with a slip and well-fired. M
- Type 4. Fragment of a bowl of red ware with a flared, featureless rim, externally and internally depressed and grooved tapering sides. Of medium fabric, treated with a slip and well-fired. M
- Type 5. Fragment of a basin of red ware with a vertical grooved top, externally grooved rim, incurved sides and almost rounded base. Of medium fabric, internally treated with a slip and ill-fired. L
- Type 6. Fragment of a bowl of red ware with a vertical, thickened, depressed top rim and almost vertical grooved sides. Of fine fabric, treated with a slip and well-fire. M
- Type 7. Fragment of a shallow bowl with out-turned, thickened internally, ledged rim and

- almost tapering corrugated sides. Of medium fabric, treated with a slip and well-fired. M
- Type 8. Fragment of bowl with splayed-out, depressed top rim and incurved body. Of medium fabric, treated with a slip and well-fired. M
- Type 9. Fragment of a spout of red ware with externally round, collared, grooved rim. Of medium fabric, treated with a slip and well-fired. M
- Type 10. A variant of type 9, differs in having multi-grooves. M
- Type 11. A variant of type 6. M
- Type 12. Fragment of a basin of red ware with a sharpened, flared-out, internally grooved and externally ridged-rim and rounded body. Of medium fabric, treated with a slip and well fired. M
- Type 13. Fragment of a bowl of red ware with an out-curved, thickened internally, grooved rim and corrugated sides. Of medium fabric, treated with a slip and well-fired. L
- Type 14. Fragment of a spout of red ware with a sharpened opening, rounded, ridged on top and notched design near the luting portion. Of medium fabric, treated with a slip and well-fired. E
- Type 15. Fragment of a bowl-on-stand with an out-curved, internally depressed, grooved rim. Of medium fabric treated with a slip and well-fired. M
- Type 16. Fragment of a lipped bowl of red ware with an externally thickened, grooved rim and incurved sides. Of medium fabric, treated with a slip and well-fired. M
- Type 17. Fragment of a bottle-necked sprinkler of red ware with flanged rim and conical-knobbed opening. Of medium fabric, treated with a slip and well-fired. L
- Type 18. Fragment of *surahi* of red ware with vertical featueless rim, ridged-shoulder and long tubular body. Of medium fabric, treated with a slip and well-fired. E
- Type 19. Fragment of a bowl with a thickened, flattened top, both externally and internally ridged-rim and tapering body. Of medium fabric, treated with a slip and well-fired. M
- Type 20. Fragment of a bowl of red ware with a horizontally splayed-out depressed top rim and rounded body. Of medium fabric, treated with a slip an well fired. M
- Type 21. Fragment of a bowl of red ware with a vertical sharpened rim, rounded body. Of medium fabric, treated with a slip and well-fired. L
- Type 22. A variant of type 17, with an areca-nut knobbed opening in the same fabric and from the same level.

- Type 23. A variant of type 17 with conical-knobbed opening. L
- Type 24. Fragment of a sprinkler of red ware with a flattened top opening and tubular neck with groove. Of fine fabric, treated with a slip and well-fired. L
- Type 25. Fragment of a bowl of red ware with a vertical, sharpened featureless rim, incurved sides and flat base. Of fine fabric, treated with a slip and well-fired. M
- Type 26. Fragment of a bowl of red ware with thickened in curved, flattened top rim and almost tapering sides. Of medium fabric, treated with a slip and well-fired. M
- Type 27. Fragment of a sprinkler of red ware with bottle-neck and globular body. Of medium fabric, treated with a slip and well-fired. L
- Type 28. Fragment of bowl of re ware with a ring-footed base and tapering sides. Of medium fabric, treated with a slip and well-fire. L
- Type 29. A variant of type 20. M
- Type 30. A variant of type 21 with a short splayed-out, externally depressed rim. E
- Type 31. Fragment of a bowl of re ware with a short, slightly incurved, sharpened externally, ridged rim, almost vertical corrugated sides, incurved lower portion and almost flat base. Of medium fabric, treated with a slip and well-fired. M
- Type 32. A variant of type 20. M
- Type 33. Fragment of a shallow bowl with a thickened grooved top, flattened-out rim, tapering sides and flat base. Of coarse fabric, treated with a slip and well-fired. M
- Type 34. A variant of type 17 with a slightly out-curved flattened rim. L
- Type 35. A variant of type 17, having a prominent, sharpened, flanged-rim and rounded grooved opening. L
- Type 36. Fragment of a *surahi* with a flared, featureless rim and tubular elongated neck. Of medium fabric, treated with a slip and well-fired. L
- Type 37. Fragment of a spout of red ware with a rounded, externally depressed, grooved opening. M
- Type 38. A variant of type 16. M
- Type 39. Fragment of a bow with a sharpened, out-curved rim, vertical side and carinated waist and almost rounded base. Of fine fabric, treated with a slip and well-fire. E
- Type 40. Fragment of a bowl red of ware with short flared, incurved rim and almost incurved sides. Of fine fabric; treated with a slip and well-fired. E

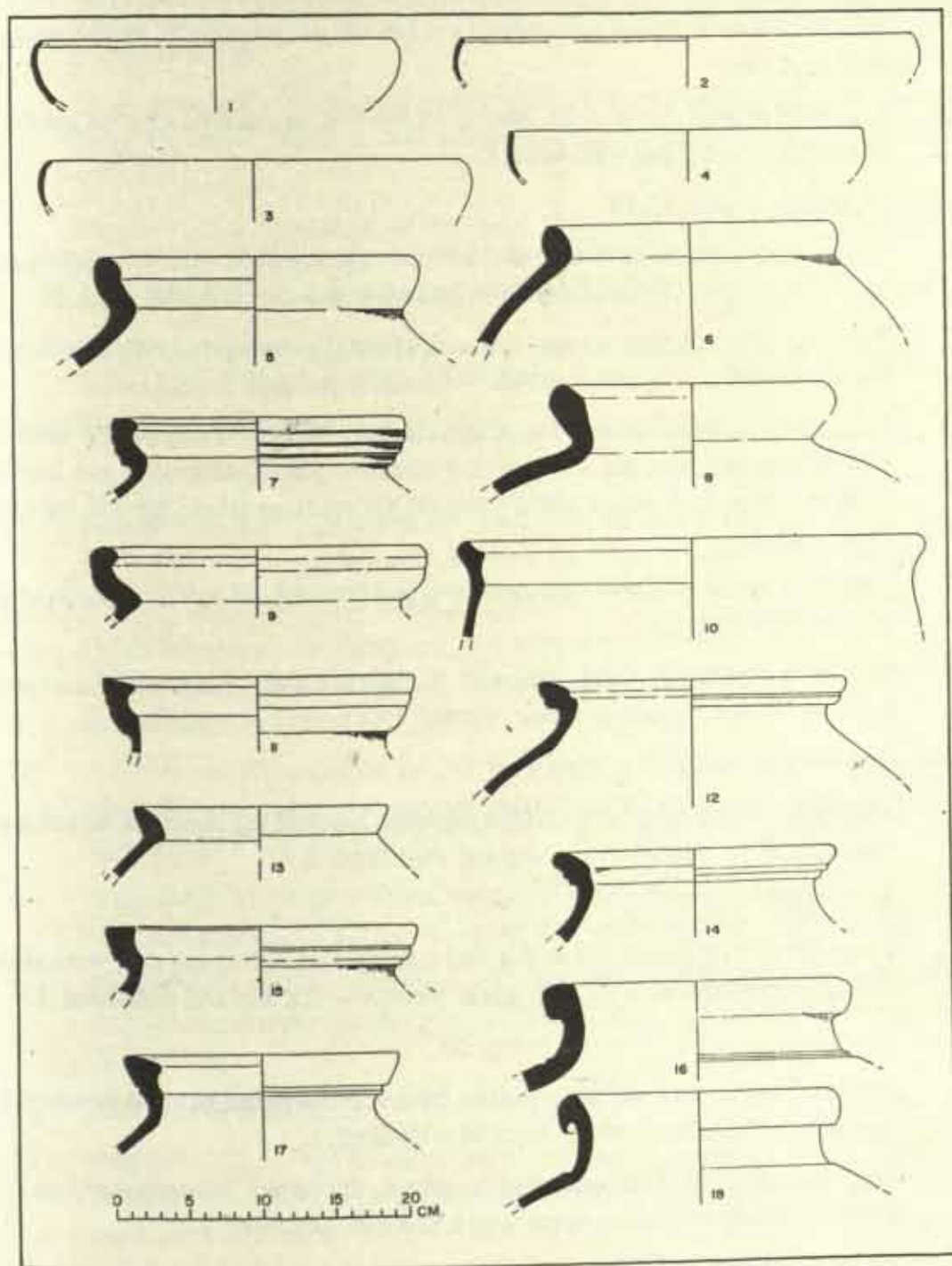


FIG. 57. Ganwaria : Pottery types, Period IV

- Type 41. Fragment of a bowl of red ware with vertical, internally bevelled, externally depressed rim and almost incurved sides below a ridge. Of medium fabric, treated with a slip and well fired. M
- Type 42. Fragment of a lid of red ware, having an ink-pot, like central cup. Of medium fabric, treated with a slip and well-fired. L
- Type 43. A variant of type 17. M
- Type 44. Fragment of a sprinkler of red ware with a double-ridged waist, rounded top; and multi grooves opening. Of medium fabric, treated with a slip and well-fired. M
- Type 45. Fragment of a knobbed lid with a flared, internally corrugated rim, tapering sides and flat base. Of medium fabric, treated with a slip and well fired. L
- Type 46. Fragment of a lid of red ware with an externally thickened rim having an ink-pot-like central cup with vertical, sharpened, featureless rim. Similar type has been reported from Vaishali, Hastinapur and Kausambi. Of medium fabric, treated with a slip and well-fired. E
- Type 47. Fragmentary sherd of red ware showing perforations. Of medium fabric, treated with a slip and ill-fired. L
- Type 48. Fragment of a bowl of red ware with a slightly incurved, thickened rim and almost tapering sides. Of medium fabric, treated with a slip and well-fired. L
- Type 49. A variant of type 37. M
- Type 50. Fragment of a lid of red ware with a flattened ring-cut top knob and tapering sides. Of medium fabric, treated with a slip and well-fired. E
- Type 51. A variant of type 46. M
- Type 52. Fragment of a miniature pot with a short, sharpened, flared-out rim, vertical sides and weakly-carinated waist. Of fine fabric, treated with a slip and well-fired. L

Fig. 57

- Type 1. Fragment of a dish of red ware with an incurved sharpened rim and incurved sides. Of medium fabric, treated with a slip and well-fired. L
- Type 2. Fragment of a dish of red ware with a vertical, thickened, featureless rim and incurved sides. Of medium fabric, treated with a slip and well-fired. L
- Type 3. A variant of type 1. L
- Type 4. Fragment of a dish of red ware with a vertical, sharpened, featureless rim and incurved sides. Of medium fabric, treated with a slip and well-fired. L

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- Type 5. Fragment of a storage jar of red ware with slightly incurved, thickened internally, depressed rim and oblique shoulder. Of coarse fabric, devoid of any surface treatment and ill-fired. M
- Type 6. Fragment of a storage jar of red ware with a short, externally thickened rim and globular body. Of coarse fabric, devoid of any surface treatment and ill-fired to show blackish core. L
- Type 7. Fragment of a storage jar of red ware with a slightly incurved, externally grooved, thickened, internally depressed rim, short concave neck and oblique shoulder. Of coarse fabric, devoid of any surface treatment and ill-fired to show blackish core. L
- Type 8. Fragment of a storage jar of red ware with a flared, thickened, internally bevelled rim and expanded oblique shoulder. Of coarse fabric, devoid of any surface treatment and ill-fired to show blackish core. L
- Type 9. A variant of type 7. L
- Type 10. Fragment of a storage jar of red ware with an almost vertical, thickened, internally depressed rim and slightly oblique sides. Of medium fabric, treated with a slip and well-fired. L
- Type 11. Fragment of a storage jar of red ware with thickened, oblique-cut, internally depressed and externally grooved rim. Of coarse fabric, devoid of any surface treatment and ill-fired. M
- Type 12. Fragment of a storage jar of red ware with a thickened, out-curved, externally and internally grooved rim, short concave neck and oblique shoulder. Of medium fabric, treated with a slip and well-fired. L
- Type 13. Fragment of a storage jar of red ware with a short thickened, internally bevelled rim and oblique shoulder. Of coarse fabric, devoid of any surface treatment and ill-fired. M
- Type 14. Fragment of a storage jar of red ware with an out-curved, thickened externally, grooved, collared rim and oblique shoulder. Of coarse fabric, devoid of any surface treatment and ill-fired. M
- Type 15. A variant of type 11. L
- Type 16. Fragment of a storage jar of red ware with an out-curved, thickened, flattened top rim, concave neck and oblique grooved shoulder. Of medium fabric, devoid of any surface treatment and ill-fired. L
- Type 17. A variant of type 11. M

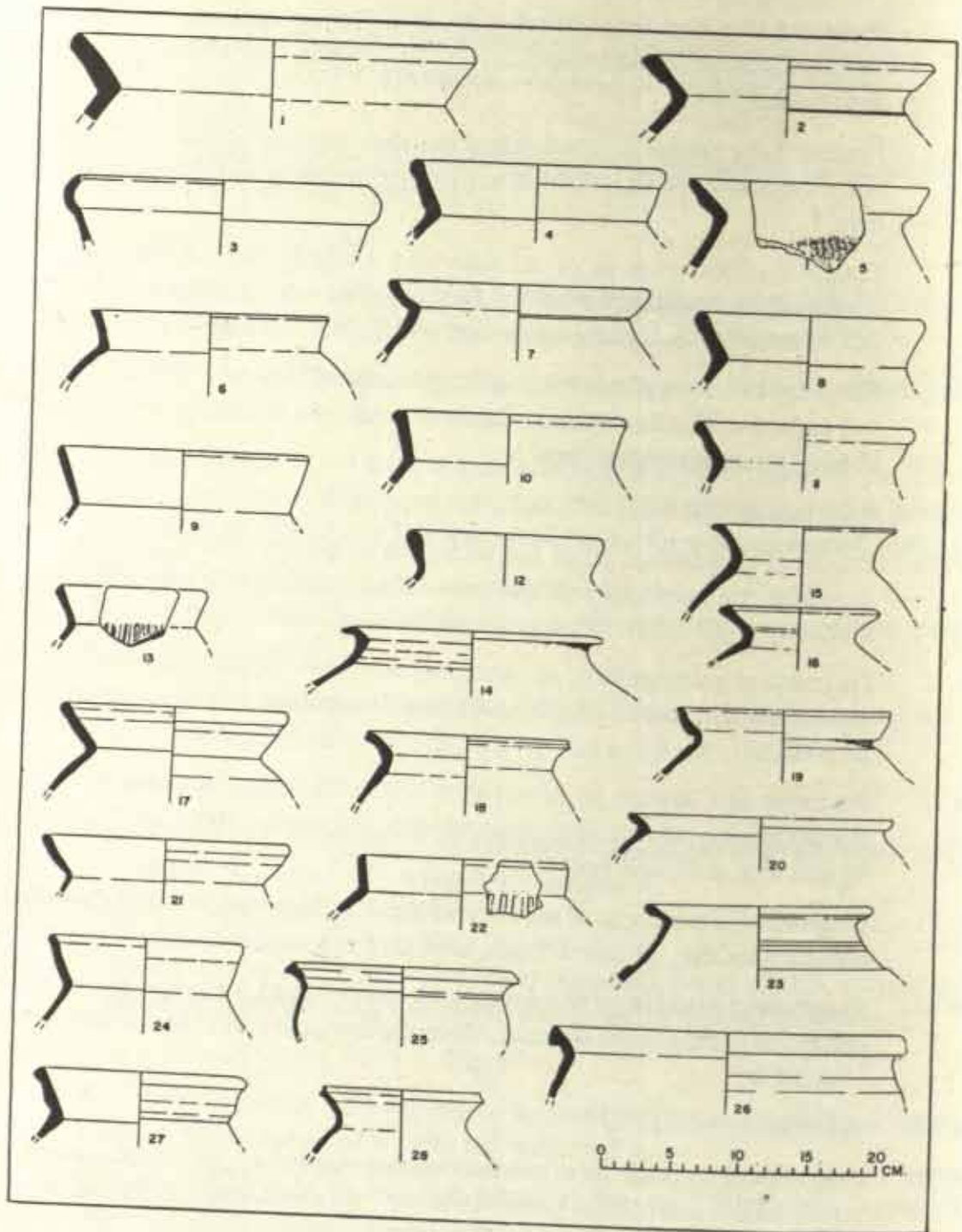


FIG. 58. Ganwaria : Pottery types, Period IV

- Type 18. Fragment of a storage jar of red ware with an out-turned, thickened, drooping rim, concave neck and oblique shoulder. Of coarse fabric, devoid of any surface treatment and ill-fired. M

Fig. 58

- Type 1. Fragment of a storage jar of red ware with flared-out featureless rim, cut neck and oblique shoulder. Of coarse fabric, devoid of any surface treatment and well-fired. L
- Type 2. Fragment of a storage jar with flared, thickened shoulder. Of coarse fabric, devoid of any surface treatment and well-fired. L
- Type 3. Fragment of a storage jar of red ware with an incurved, externally collared rim and tapering neck. Of coarse medium fabric, devoid of any surface treatment and ill-fired. L
- Type 4. A variant of type 1. L
- Type 5. Fragment of storage jar with flared-out sharpened rim, depressed neck and oblique shoulder with notched design. Of coarse fabric devoid of any surface treatment and well-fired. M
- Type 6. Fragment of a vase of red ware with an almost vertical, flared, featureless rim, short concave neck and globular body. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 7. Fragment of a jar of red ware with a flared internally depressed, featureless rim, obliquely cut neck and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 8. A variant of type 1. L
- Type 9. A variant of type 6, having a long, flared, featureless rim. L
- Type 10. Similar to type 6, having a flared, externally thickened rim. M
- Type 11. Another variant of type 6, having an externally mild-corrugated rim. L
- Type 12. Fragment of a vase of red ware with a vertical, featureless, thickened rim and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 13. Fragment of a vase of red ware with a flared-out, featureless rim, notched above the oblique shoulder. Of medium fabric, treated with a slip and well-fired. L
- Type 14. Fragment of a vase of red ware with a horizontally splayed-out sharpened rim, internally corrugated concave neck and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L

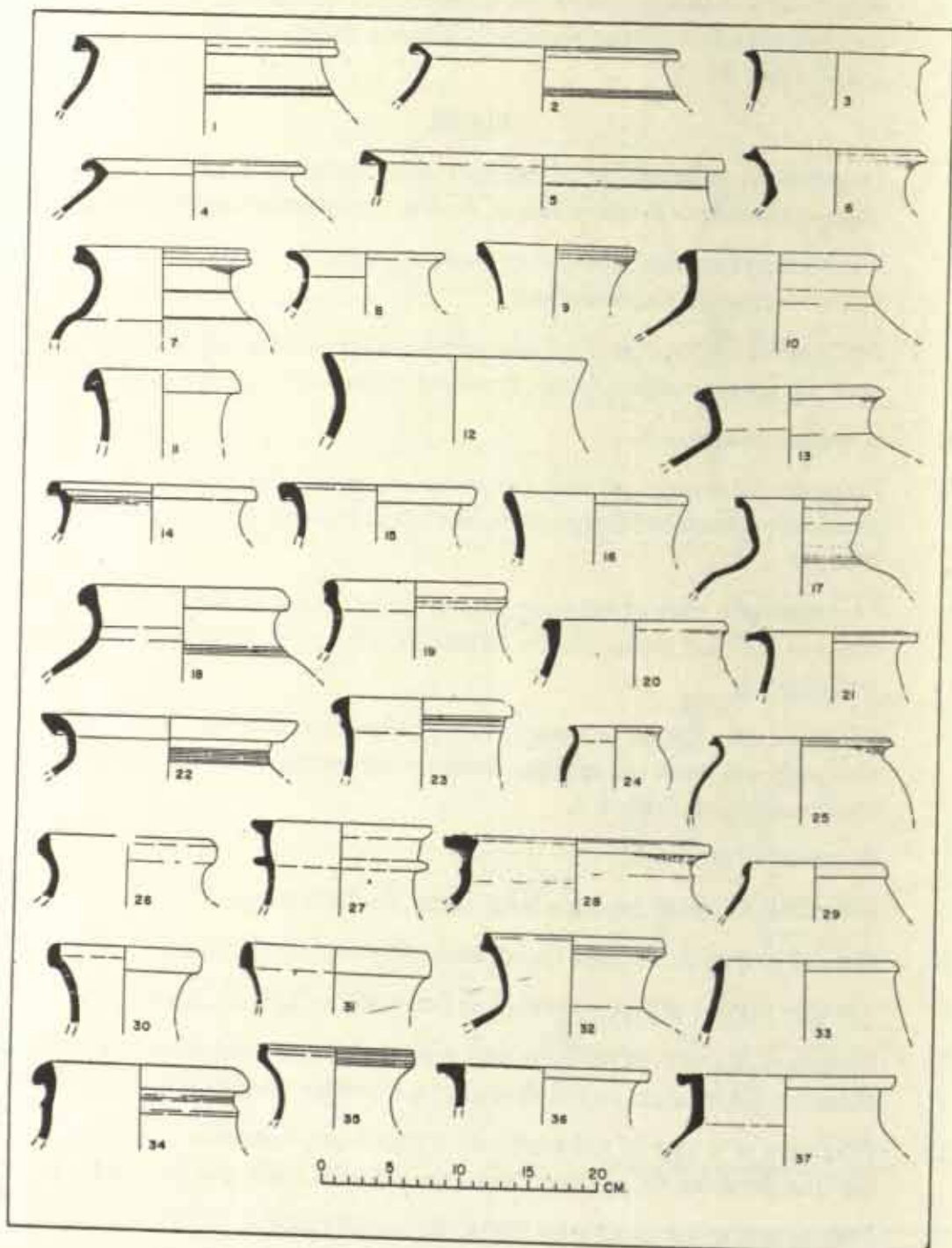


FIG. 59. Ganwaria : Pottery types, Period IV

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- Type 15. Fragment of a vase of red ware with a slightly thickened, flared-out rim, concave neck and globular body. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 16. Fragment of a vase of red ware with an incurved, thickened, flared-out rim, internally grooved, short concave. No surface treatment and well-fired. L
- Type 17. Fragment of a vase of red ware with a flared, featureless, externally mild-corrugated rim, cut neck and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 18. Fragment of a vase of red ware with a splayed-out featureless rim, concave neck and oblique shoulder. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 19. Fragment of a vase of red ware with a sharpened, flared internally, depressed externally, collared rim, depressed neck and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 20. Fragment of a vase of red ware with splayed-out thickened rim, short concave neck and globular body. Of coarse fabric, devoid of any surface treatment and well-fired.
- Type 21. Fragment of a vase of red ware with a flared-out, thickened rim and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 22. A variant of type 13. L
- Type 23. Fragment of a vase of red ware with flared-out, thickened rim and grooved oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 24. A variant of type 17. L
- Type 25. Fragment of a bowl of red ware with a splayed-out, thickened internally, corrugated rim and incurved body. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 26. Fragment of a vase of red ware with an out-curved thickened rim and globular body. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 27. A variant of type 17, having an externally multiple mild-ridged rim. L
- Type 28. Fragment of a vase of red ware with a short vertical, sharpened, externally ridged, internally depressed rim, concave neck and oblique shoulder. Of fine fabric, devoid of any surface treatment and well-fired. M

Fig. 59

- Type 1. Fragment of a vase of red ware with a splayed-out, externally depressed, drooping rim and grooved oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L

- Type 2. A variant of type 1. L
- Type 3. Fragment of a vase of red ware with an almost vertical, thickened rim and long concave neck. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 4. A variant of type 1. L
- Type 5. Fragment of a vase of red ware with an almost horizontally splayed-out, thickened, drooping rim and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 6. Fragment of a vase of red ware with a flared-out, externally ledged rim and internally corrugated concave neck. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 7. A variant of type 6 having a thickened, externally ledged rim, externally grooved concave neck and rounded body. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 8. Fragment of a vase of red ware with a flared, thickened externally, grooved concave neck. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 9. Fragment of a vase of red ware with a flared, thickened, externally ledged rim and long concave neck. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 10. Fragment of a vase of red ware with a flared-out thickened rim, almost vertical neck and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 11. A variant of type 10. L
- Type 12. Fragment of a vase of red ware with a flared-out featureless rim and long concave neck. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 13. A variant of type 10, having a slightly out-curved thickened rim. L
- Type 14. Fragment of a vase of red ware with a flared-out, thickened, drooping, internally grooved rim and long concave neck. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 15. Fragment of a vase of red ware with a thickened, out-curved, dropping rim and long concave neck. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 16. A variant of type 1, having a sharpened rim. M
- Type 17. Fragment of a vase of red ware with a flared-out rim, concave neck and grooved shoulder. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 18. A variant of type 11, having a concave neck and externally grooved shoulder. Of medium fabric, devoid of any surface treatment and ill-fired. L

- Type 19. Fragment of a vase of red ware with an almost vertical, thickened externally, grooved, collared and internally depressed rim and long concave neck. Of medium fabric, devoid of any surface treatment and well-fired.
- Type 20. Fragment of a vase of red ware with vertical, externally thickened rim and long concave neck. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 21. Fragment of vase of red ware with an almost vertical, horizontally splayed-out rim and almost vertical neck. Of medium fabric, devoid of any surface treatment and ill-fired. M
- Type 22. Fragment of a vase of red ware with an out-curved, collared, drooping rim, multi-grooved concave neck and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 23. Fragment of a vase of red ware with almost out-curved thickened, externally ridged-rim and almost vertical neck. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 24. Fragment of a miniature vase of red ware with a short, flared-out, featureless rim and globular body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 25. Fragment of a vase of red ware with a short flared-out rim and globular body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 26. Fragment of a vase of red ware with a sharpened, externally thickened rim and concave neck. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 27. Fragment of a vase of red ware with an almost vertical, externally thickened rim and prominent ledge at the neck. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 28. Fragment of a vase of red ware with an almost vertical, thickened externally ridged rim and ridged-neck. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 29. Fragment of a vase of red ware with almost vertical, externally collared rim and oblique shoulder. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 30. Fragment of a vase of red ware with an almost vertical, externally collared rim and long concave neck. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 31. A variant of type 30, having a vertical collared rim. L
- Type 32. Fragment of a vase of red ware with a thickened, externally grooved, collared rim, long concave neck and oblique shoulder. Of medium fabric, devoid of any surface treatment and well-fired. L

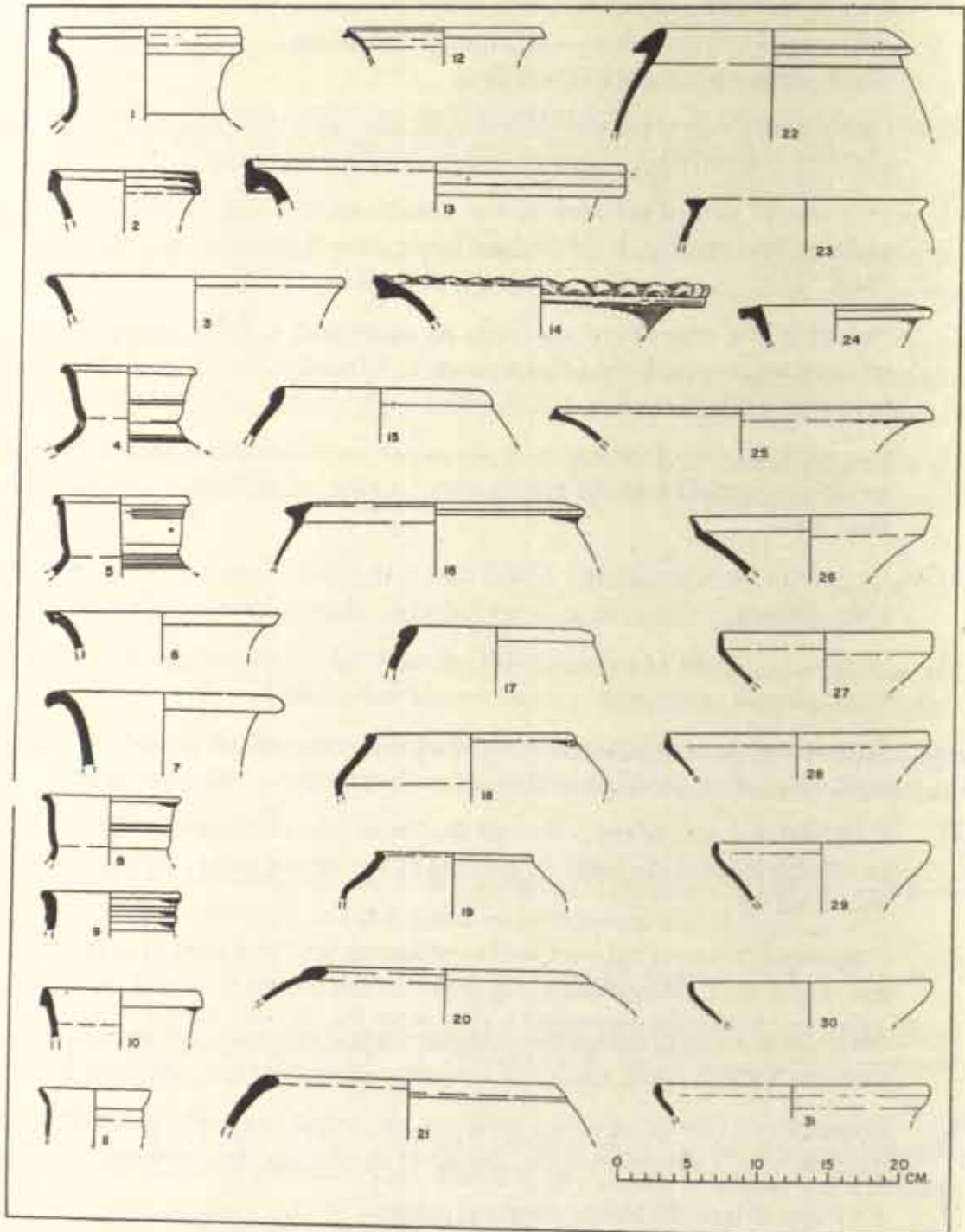


FIG. 60. Ganwaria : Pottery types, Period IV

- Type 33. A variant of type 29. L
- Type 34. Fragment of a vase of red ware with a externally clubbed rim and grooved, ridged, vertical neck. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 35. Fragment of a vase of red ware with a slightly incurved, externally grooved rim and long concave neck. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 36. Fragment of a vase of red ware with a horizontally splayed-out rim and almost vertical neck. Of coarse fabric, devoid of any surface treatment and ill-fired. L
- Type 37. A variant of type 36. L

Fig. 60

- Type 1. Fragment of a vase of red ware with slightly incurved, externally grooved rim and long concave neck. Of fine fabric, treated with a slip externally and well-fired. E
- Type 2. A variant of type 1. M
- Type 3. Fragment of a bowl of red ware with a flared-out, slightly thickened rim and almost tapering side. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 4. Fragment of vase of red ware with a slightly out-curved, featureless rim, externally grooved convex neck and grooved oblique shoulder. Of medium fabric, devoid of any surface treatment and ill-fired. M
- Type 5. A variant of type 4. M
- Type 6. Fragment of a vase of red ware with a thickened, slightly out-curved rim. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 7. A variant of type 6 having a prominent out-curved rim. E
- Type 8. Fragment of a vase of red ware with a slightly out-curved, featureless rim and externally grooved convex neck. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 9. Fragment of a vase of red ware with a slightly out-curved, thickened rim and externally corrugated neck. Of medium fabric, devoid of any surface treatment and well fired. L
- Type 10. Fragment of a vase of red ware with an out-curved, thickened rim and almost vertical internally mild-ridged-neck. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 11. Fragment of a miniature pot with a sharpened, featureless, externally collared rim and corrugation above the globular body. Of fine fabric, devoid of any surface treatment and well-fired. L

- Type 12. Fragment of a vase of red ware with a short vertical, externally ledged rim and concave neck. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 13. Fragment of a vase of red ware with a short vertical, sharpened, externally grooved, collared rim. Of medium fabric, devoid of any surface treatment and ill-fired. L
- Type 14. Fragment of a vase of red ware with a slightly incurved, thickened rim and globular sides, rim decorated with finger-pressed applique design at regular interval. Of fine fabric, devoid of any surface treatment and well-fired.
- Type 15. Fragment of a vase of red ware with a thickened externally, collared closing rim and globular body. Of coarse fabric, devoid of any surface treatment and well-fired.
- Type 16. Fragment of a vase of red ware with a nail-headed rim and globular body. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 17. A variant of type 15, having a rounded collared rim. Of fine fabric. E
- Type 18. Fragment of a vase of red ware with an out-curve thickened rim, oblique shoulder and bluntly-carinated body. Of medium fabric, devoid of any surface treatment and ill-fired. L
- Type 19. A variant of type 18. L
- Type 20. Fragment of a vase of red ware with an internally thickened, externally collared, closing rim and rounded body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 21. A variant of type 20, having a externally grooved collared rim. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 22. Fragment of a vase of red ware with an almost vertical, externally groove, prominent collared rim ad globular body. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 23. A variant of type 16. M
- Type 24. Fragment of a vase of red ware with a thickened, horizontally splayed-out, drooped rim. Of medium fabric, devoid of any surface treatment ad well-fired. L
- Type 25. Fragment of a basin of red ware with a short sharpened, vertical, externally ledged rim and almost tapering sides. Of medium fabric, devoid of any surface treatment, well-fired. L
- Type 26. Fragment of a bowl of red ware with a flared, sharpened featureless rim ad tapering sides. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 27. A variant of type 26, having a vertical sharpened rim. M

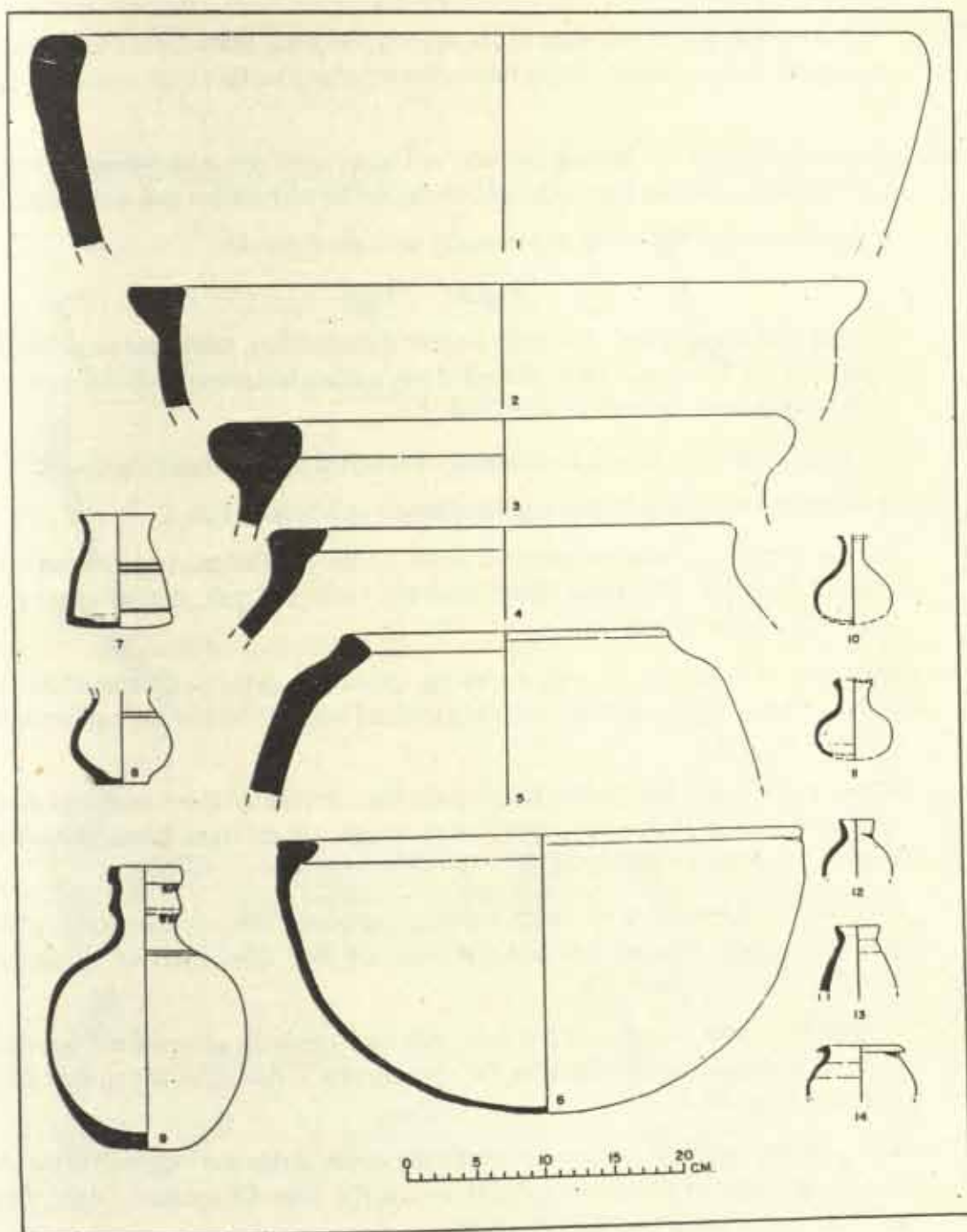


FIG. 61. Ganwaria : Pottery types, Period IV

- Type 28. A variant of type 27. M
- Type 29. Fragment of a bowl of red ware with a slightly incurved, featureless rim and externally corrugated tapering sides. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 30. A variant of type 29, having an incurved sharpened rim and internally corrugated tapering sides. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 31. A variant of type 29 having an internally thickened rim. M

Fig. 61

- Type 1. Fragment of a *nad* of red ware with a vertical featureless, thickened incurved rim and tapering sides. Of coarse fabric, devoid of any surface treatment and ill-fired showing unoxidized blackish core mixed with husk. L
- Type 2. A variant of type 1, having an externally thickened and flattened top rim. L
- Type 3. Another variant of type 1, having a thickened nail-headed rim. L
- Type 4. Similar to type 1, having a slightly incurved, thickened, flattened top rim and expanded oblique shoulder. Of coarse fabric showing husk and grit, devoid of any surface treatment and well-fired. M
- Type 5. Fragment of a storage jar with a closing, externally depressed, featureless rim and globular body. Of coarse fabric showing grit and husk, devoid of any surface treatment and well-fired. L
- Type 6. *Koha* of red ware with a thickened incurved, internally depressed and externally grooved rim and almost hemispherical in shape. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 7. Fragment of a miniature pot with a flared sharpened rim, concave neck, externally grooved, almost vertical side and flat base. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 8. Fragment of a miniature pot of red ware with concave neck, grooved oblique shoulder, globular body and ring-cut flat base. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 9. Bottle-necked vase of red ware with externally collared rim and externally ridged-neck, oblique grooved shoulder, elongated body and flat base. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 10. Fragment of a narrow-mouthed miniature pot with splayed-out, curved, featureless rim, concave neck and globular body. Of medium fabric, devoid of any surface treatment and over-baked. M

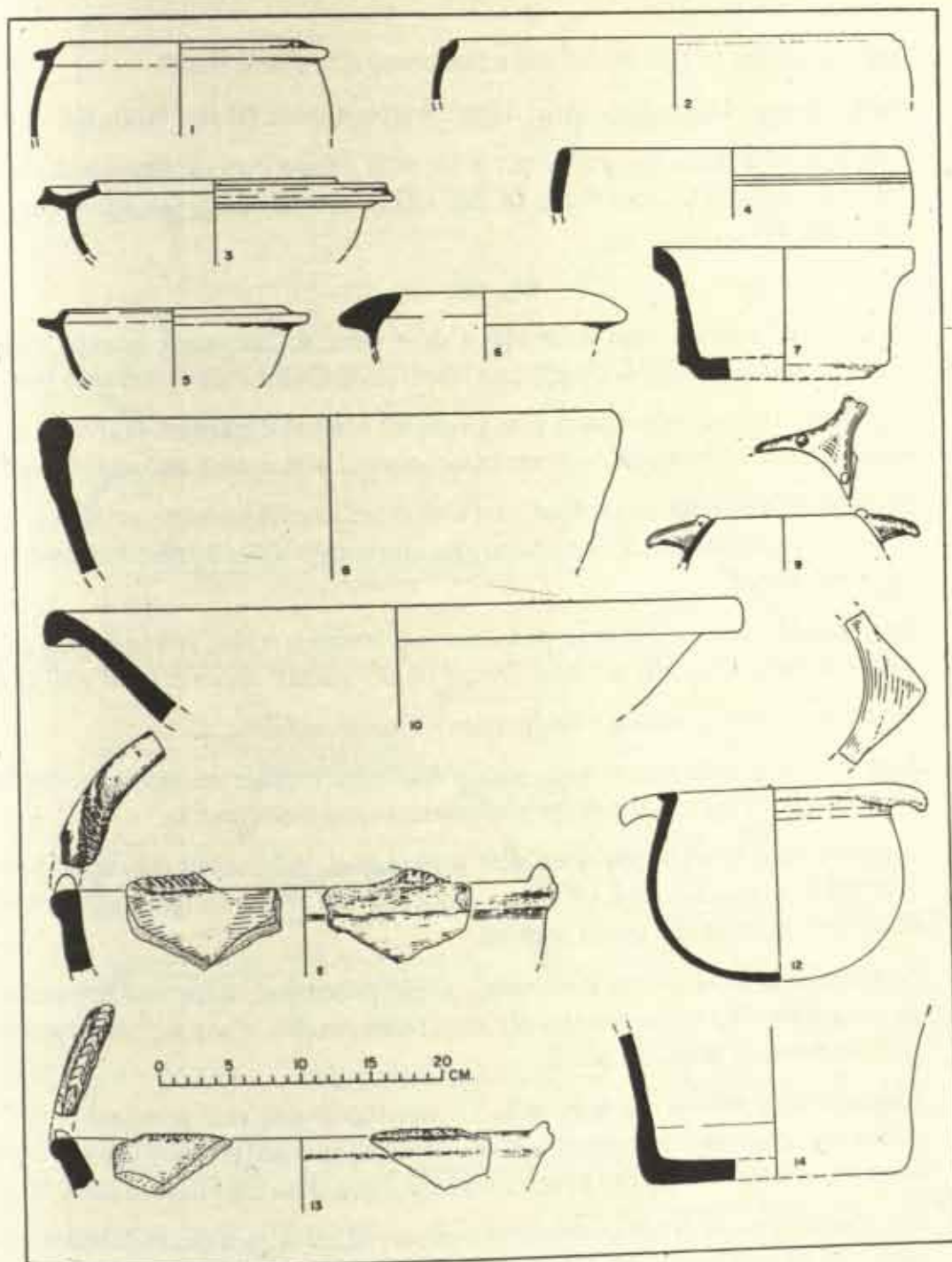


FIG. 62. *Ganwaria : Pottery types, Period IV*

- Type 11. A variant of type 10. M
- Type 12. Another variant of type 10, having a sharpened featureless rim. E
- Type 13. Similar to type 10, having a short flared, sharpened rim. Of fine fabric. M
- Type 14. Fragment of a miniature pot of red ware with an out-curved, sharpened rim, short concave neck and bulbous body. Of fine fabric, devoid of any surface treatment and well-fired. E

Fig. 62

- Type 1. Fragment of a bowl of red ware with a short vertical, sharpened, closing, externally ledged rim and globular body. Of fine fabric treated with a wash and well-fired. M
- Type 2. Fragment of a basin of red ware with an almost vertical thickened, externally grooved rim and incurved body. Of medium fabric, treated with a wash and well-fired. L
- Type 3. Fragment of a lid-cum-bowl of red ware with a thickened featureless, externally flanged rim to create a groove to fit as a lid and globular body. Of fine fabric, treated with a slip and well-fired. L
- Type 4. Fragment of a bowl of red ware with a vertical featureless rim, and externally grooved incurved body. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 5. A variant of type 3, having a flanged rim. Of medium fabric. L
- Type 6. Fragment of a bowl of red ware with a thickened closing rim and long handle. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 7. Fragment of a bowl of red ware with a thickened, out-curved rim, almost vertical grooved sides and flat base. Of coarse fabric, devoid of any surface treatment and ill-fired showing husk and grit in core. M
- Type 8. Fragment of a basin of red ware with a slightly incurved, thickened rim and a little tapering sides. Of a thicker variety of coarse fabric, devoid of any surface treatment and ill-fired showing blackish core. L
- Type 9. Fragment of a bowl of red ware with a sharpened closing rim, prominent lug handle giving an imitation of deer mouth with two knobbed eyes and globular body. Of medium fabric, devoid of any surface treatment and ill-fired showing blackish core. M
- Type 10. Fragment of a basin of red ware with an out-curved, thickened rim and almost tapering sides. Of thicker variety of coarse fabric, devoid of any surface treatment and ill-fired. M

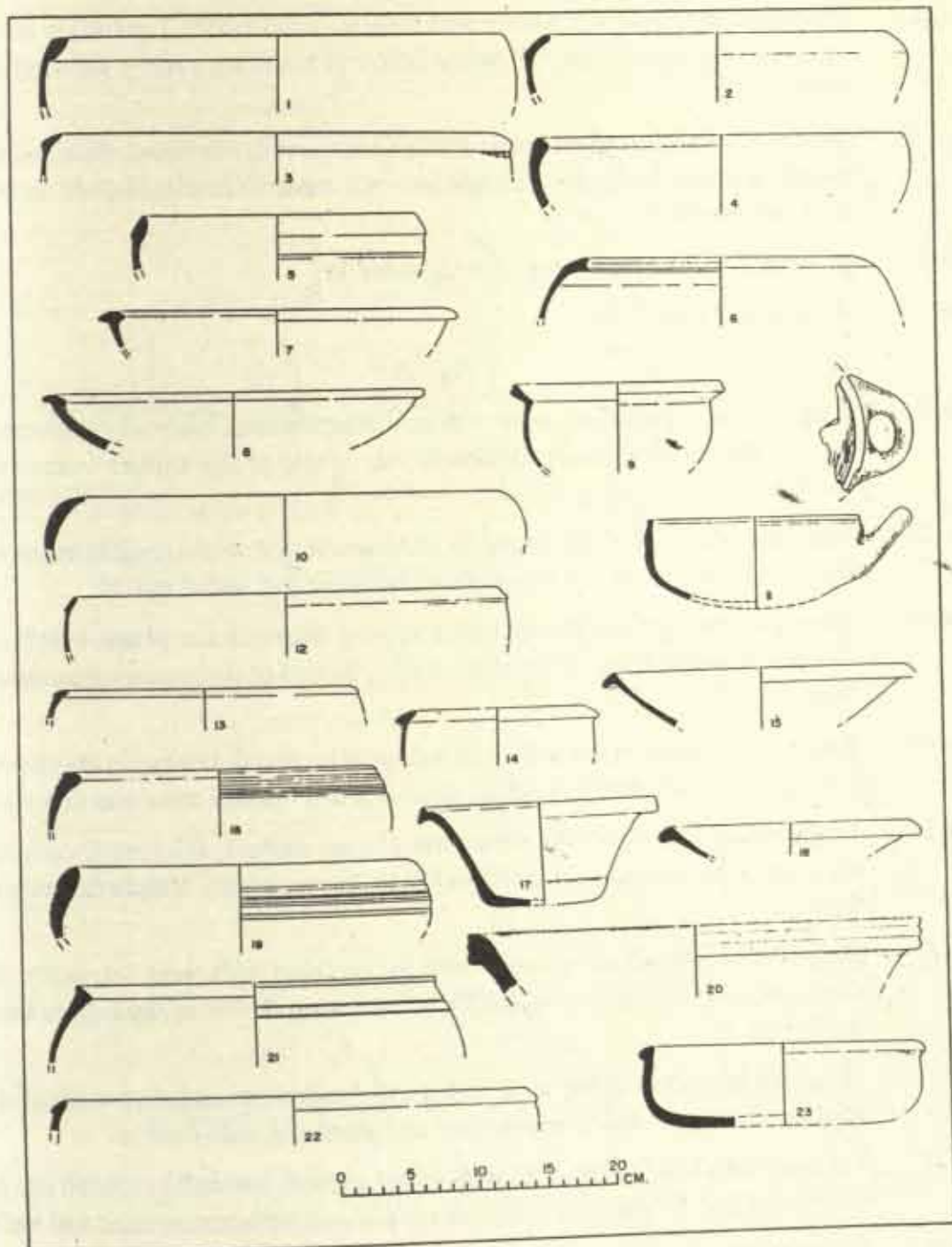


FIG. 63. Ganwaria : Pottery types, Period IV

- Type 11. Fragment of a basin of red ware with almost vertical sides, rim further decorated with applique notched design. Of coarse fabric of a thicker variety showing un-oxidized smoky core. L
- Type 12. Fragment of a bowl of red ware with an out-curved, thickened, flattened top rim, lug handle globular body and rounded base. Of medium fabric, ill-fired showing smoky mid-section. M
- Type 13. A variant of type 11, having tapering sides. L
- Type 14. A variant of type 7. M

Fig. 63

- Type 1. Fragment of a bowl of red ware with an almost vertical, internally thickened, flattened top rim and incurved sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 2. Fragment of a bowl of red ware with an incurved featureless rim and incurved sides. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 3. Fragment of a bowl of red ware with a slightly incurved, sharpened, externally collared rim and incurved sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 4. Fragment of a bowl of red ware with a slightly incurved, externally oblique-cut rim and incurved sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 5. Fragment of a bowl of red ware with almost vertical, thickened, collared rim and incurved grooved body. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 6. Fragment of a bowl of red ware with an incurved thickened, internally oblique-cut depressed rim and rounded body. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 7. Fragment of a bowl of red ware with a nail-headed rim and almost tapering sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 8. Fragment of a bowl of red ware with an out-curved, internally collared rim and almost incurved sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 9. Fragment of a bowl of red ware with a short thickened, splayed-out rim and globular body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 10. Fragment of a bowl with an incurved sharpened rim and incurved sides. Of medium fabric, devoid of any surface treatment and well-fired. L

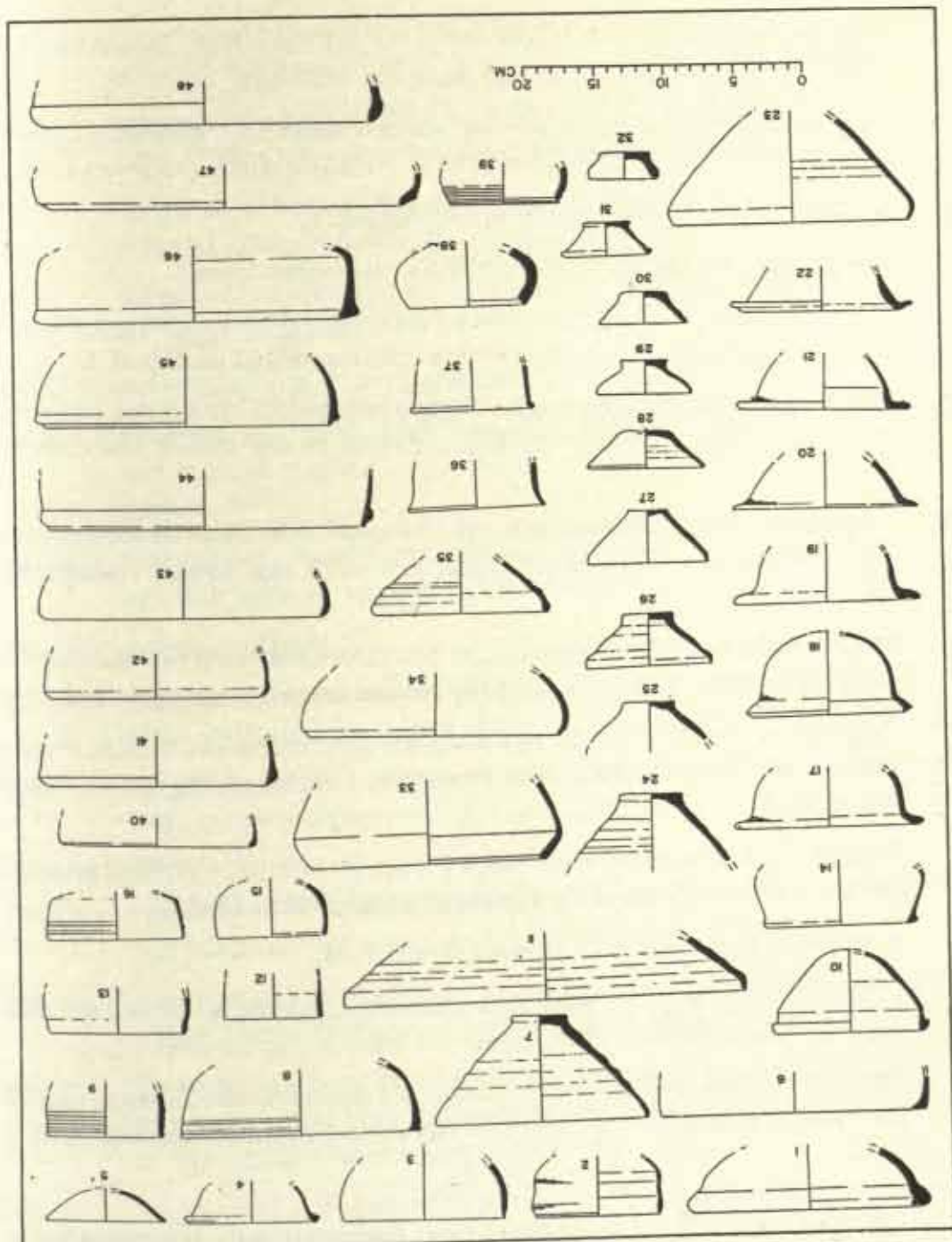


FIG. 64. Ganwaria : Pottery types, Period IV

- Type 11. Fragment of a fry-pan of red ware with a vertical featureless rim and loop handle. Of coarse fabric, devoid of any surface treatment and ill-fired. L
- Type 12. Fragment of a bowl of red ware with incurved featureless, externally collared rim and globular body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 13. A variant of type 12, having a short collared rim. L
- Type 14. Another variant of type 12, having a prominent collared rim. L
- Type 15. Fragment of a bowl of red ware with a thickened, out-curved rim and almost tapering sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 16. Fragment of a vase of red ware with a slightly incurved, thickened rim, grooved shoulder and incurved sides. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 17. Fragment of a bowl of red ware with a short vertical, externally oblique-cut rim, tapering sides and flat base. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 18. Fragment of a bowl of red ware with an out-curved thickened rim and almost tapering sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 19. Fragment of bowl of red ware with a slightly incurved, thickened rim, multi-grooved shoulder and globular sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 20. Fragment of a bowl of red ware with a thickened, externally grooved and collared rim. Of coarse fabric, devoid of any surface treatment and ill-fired. L
- Type 21. A variant of type 4, having a grooved shoulder. M
- Type 22. Fragment of a bowl of red ware with a thickened, externally collared rim and incurved sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 23. Fragment of a bowl of red ware with externally thickened rim, almost vertical sides and flat base. Of medium fabric, devoid of any surface treatment and well-fired. M

Fig. 64

- Type 1. Fragment of a bowl of red ware with a short, flared externally, ridged rim and an almost tapering sides. M
- Type 2. Fragment of bowl of red ware with a short, sharpened rim. M
- Type 3. Fragment of a bowl of red ware with a sharpened featureless rim and rounded body. Of fine fabric, devoid of any surface treatment and well-fired. L

- Type 4. Fragment of a bowl of red ware with an out-curved thickened rim and almost incurved sides. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 5. Fragment of a bowl of red ware with a featureless, flared, sharpened rim and tapering sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 6. Fragment of bowl of red ware with an incurved sharpened, flattened top rim and incurved sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 7. A bowl of red ware with a slightly incurved featureless rim, tapering corrugated sides and ring-footed base.
- Type 8. A variant of type 6, having externally grooved shoulder. L
- Type 9. Fragment of a bowl of red ware with a vertical featureless rim, vertical corrugated shoulder and rounded body. Of fine fabric, devoid of any surface treatment and well-fired. E
- Type 10. Fragment of a bowl of red ware with a thickened out-curve rim, internally corrugated incurved sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 11. A variant of type 7. L
- Type 12. Fragment of a bowl of red ware with a vertical, internally thickened rim and straight sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 13. Fragment of a bowl of red ware with a featureless, internally thickened rim, incurved body below a depression. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 14. Fragment of a bowl of red ware with an externally thickened rim and globular body. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 15. Fragment of a bowl of red ware with an almost vertical, internally bevelled rim and rounded body. Of medium fabric devoid of any surface treatment and well-fired. L
- Type 16. Fragment of a bowl of red ware with a vertical featureless, sharpened rim, externally grooved, vertical sides and blunt carination above the flat base. Of fine fabric, devoid of any surface treatment and well-fire. L
- Type 17. Fragment of a bowl of red ware with a flared-out, featureless rim and globular body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 18. Fragment of a bowl of red ware with a short, externally oblique-cut, internally depressed rim and globular body. Of fine fabric, devoid of any surface treatment and well-fired. M

- Type 19. Fragment of a bowl of red ware with a horizontally splayed, depressed top rim and globular body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 20. Fragment of a bowl of red ware with a flared sharpened rim and incurved sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 21. A variant of type 19. L
- Type 22. Another variant of type 19, having a flared-out rim. L
- Type 23. A variant of type 7, having a prominent incurved rim. M
- Type 24. Another variant of type 7. L
- Type 25. Fragment of a bowl of red ware with a ring-footed base and tapering sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 26. A variant of type 25 with a sharpened incurved rim. M
- Type 27. Another variant of type 25 with tapering sides. E
- Type 28. Fragment of a bowl of red ware with a flared sharpened rim, internally corrugated, tapering sides and flat base. Of medium fabric, devoid of any slip and well-fired. L
- Type 29. Fragment of miniature bowl with an incurved sharpened rim tapering sides and ring-footed base. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 30. Fragment of a bowl of red ware with a flared featureless rim, internally corrugated tapering sides and ring-cut base. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 31. Fragment of a *deep* of red ware with an externally thickened rim, externally mild corrugated sides and ring-cut flat base. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 32. A *deep* of red ware with a vertical featureless thickened rim and almost tapering sides and flat base. Of fine fabric, devoid of any surface treatment and well-fired. M
- Type 33. Fragment of a bowl of red ware with an incurved featureless rim, weakly-carinated shoulder and tapering sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 34. Fragment of a bowl of red ware with a slightly incurved rim and incurved sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 35. Fragment of a bowl of red ware with an incurved, externally grooved rim and tapering sides. Of medium fabric, devoid of any surface treatment and well-fired. L

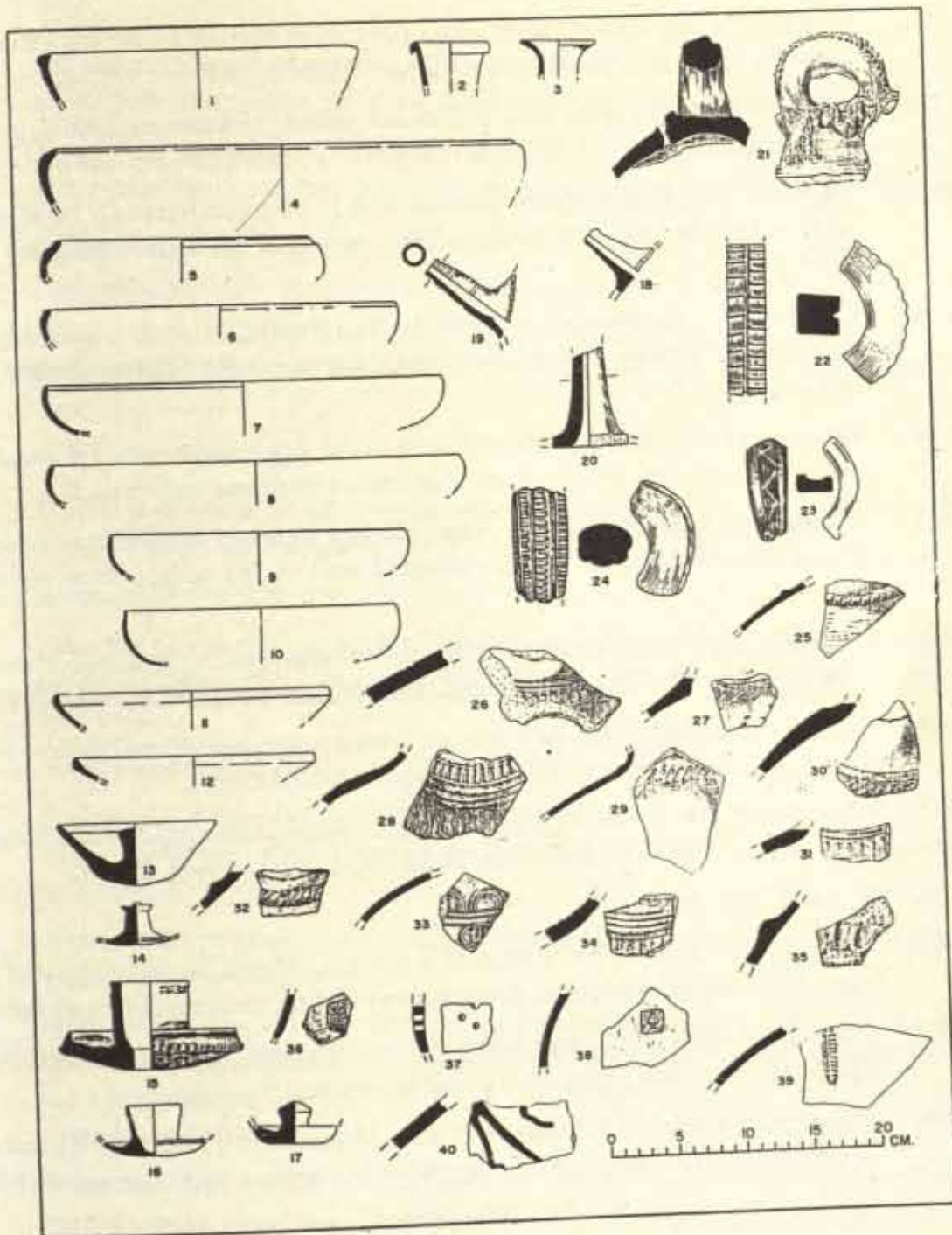


FIG. 65. Ganwaria : Pottery types, Period IV

- Type 36. Fragment of a bowl of red ware with a out-curved featureless rim and almost vertical sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 37. Fragment of a bowl of red ware with an out-turned, thickened externally, grooved rim and vertical sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 38. Fragment of a miniature pot of red ware with an incurved, internally bevelled rim and weakly-carinated body. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 39. Fragment of a miniature pot of red ware with a featureless vertical, internally grooved rim, globular body and grooved shoulder. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 40. Fragment of a bowl of red ware with an incurved, externally bevelled rim and incurved sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 41. Fragment of a bowl of red ware with a slightly incurved, externally oblique rim and almost vertical sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 42. Fragment of a bowl of red ware with an incurved sharpened, externally collared rim and incurved sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 43. Fragment of a bowl of red ware with a incurved featureless rim and incurved sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 44. Fragment of a bowl of red ware with vertical, externally rounded rim and almost rounded body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 45. A variant of type 44. L
- Type 46. Fragment of a bowl of red ware with a nail-headed rim, vertical sides and weakly-carinated waist. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 47. Fragment of a bowl of red ware with a closing, depressed top rim and rounded body. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 48. Fragment of a bowl of red ware with a slightly incurved, externally corded rim and incurved sides. Of medium fabric, devoid of any surface treatment and well-fired. L

Fig. 65

- Type 1. Fragment of a bowl of red ware with a slightly incurved, flattened top rim and incurved sides. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 2. Fragment of a *surahi* of red ware with an out-curved thickened, drooping rim. Of fine fabric, treated with a wash and well-fired. L

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- Type 3. Fragment of a *surahi* of red ware with a splayed-out, internally grooved rim and vertical neck. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 4. Fragment of a bowl of red ware with an incurved, slightly thickened, depressed rim and incurved body. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 5. A variant of type 4. L
- Type 6. Another variant of type 4, having a thickened, externally depressed rim. L
- Type 7. Fragment of a dish of red ware with a slightly incurved featureless rim, incurved sides and probably flat base. Of fine fabric, Of fine fabric, treated with a wash and well-fired. L
- Type 8. A variant of type 7. L
- Type 9. Fragment of a bowl of red ware with an almost vertical, sharpened, featureless rim and incurved sides. Of fine fabric, treated with a wash and well-fired. L
- Type 10. A variant of type 9, having a slightly out-curved sharpened rim. L
- Type 11. Fragment of a bowl of red ware with an incurved, sharpened, featureless rim, internally depressed above the tapering sides. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 12. A variant of type 11, having an externally thickened rim. L
- Type 13. Fragment of a flattened top of knobbed lid of red ware with a flared sharpened rim, tapering sides and rounded base. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 14. A variant of type 13 with a prominent pointed knob. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 15. Fragment of a lid of red ware having an ink-pot-like central cup with featureless vertical, flattened top rim and horizontally flanged base with a slightly incurved sharpened edge top and decorated with notched profile. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 16. Fragment of a lid of red ware with an ink-pot-like central cup having sharpened vertical rim and almost convex base. Of medium fabric devoid of any surface treatment and well-fired. L
- Type 17. A variant of type 13, having a rounded knob. M
- Type 18. Fragment of spout of red ware with an externally rounded opening. Of fine fabric, treated with a wash and well-fired. L

- Type 19. Fragment of a spout of red ware with a slightly out-curved opening. Of medium fabric, treated with a wash and well-fired. E
- Type 20. Fragment of a bottle-neck sprinkler of red ware. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 21. Fragment of looped-handle of a vessel of red ware, profile of the loop decorated with notched design in three parallel panels and body of the vessel carrying a design of an insect having beaded punch in a row. Of coarse fabric, treated with a wash and ill-fired. M
- Type 22. Fragment of a looped-handle of a red ware, profile decorated with incised pattern in parallel panels. Of coarse fabric, treated with a wash and well-fired. L
- Type 23. A variant of type 22, profile decorated with wavy lines and dots running between two parallel lines. Of medium fabric, treated with a wash and well-fired. E
- Type 24. A variant type 22, profile decorated with applique notches in three parallel panels. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 25. Fragmentary sherd of red ware with an applique notch design probably at shoulder. Of fine fabric, devoid of any surface treatment and well-fired. L
- Type 26. Fragmentary sherd of red ware with parallel lines above notched decoration in a panel, probably at the shoulder. Of coarse fabric, devoid of any surface treatment and well-fired. L
- Type 27. Fragmentary sherd of red ware with a parallel slanting incised decoration in a panel. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 28. Fragmentary sherd of red ware, having a leaf motif and incised decoration both in a panel divided by grooved parallel lines probably at the shoulder. Of medium fabric, devoid of any surface treatment and well-fired. E
- Type 29. Fragmentary sherd of red ware decorated with deep incised vertical spokes in a panel. Of medium fabric, devoid of any surface treatment and well-fired. M
- Type 30. Fragmentary sherd of red ware decorated with graffiti marks in criss-cross pattern below two parallel lines. Of medium fabric, externally treated with a slip and well-fired. M
- Type 31. Fragmentary sherd of red ware with notched design in a panel below rim. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 32. Fragmentary sherd of red ware with an applique notched design. Of medium fabric, devoid of any surface treatment and well-fired. L

POTTERY

- Type 33. Fragmentary sherd of red ware, having graffiti marks and designs of three concentric half circle above three parallel lines. Of medium fabric, treated with thick slip externally and well-fired. M
- Type 34. Fragmentary sherd of red ware decorated with a notched panel below five parallel lines. Of medium fabric, treated with a wash and well-fired. E
- Type 35. Fragmentary sherd of red ware with a finger-pressed applique design in a panel. Of coarse fabric, devoid of any surface treatment and well-fired. L
- Type 36. Fragmentary sherd of red ware with a stamped decoration of a flower-plant motif. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 37. Fragmentary sherd of red ware with perforation. Of medium fabric, devoid of any surface treatment and well-fired. L
- Type 38. Fragmentary sherd of red ware with a stamped *pipal*-leaf motif design. Of medium fabric, treated externally with bright red slip and well-fired. M
- Type 39. Fragmentary sherd of red ware with a plam-leaf motif stamped design. Of medium fabric, externally treated with bright red slip and well-fired. E
- Type 40. Fragmentary sherd of red ware painted in red with wavy and vertical line. Of coarse fabric, devoid of any surface treatment and ill-fired showing un-oxidized mid-section. L

CHAPTER XIV
ANIMAL REMAINS FROM PIPRAHWA-GANWARIA

Animal remains in substantial quantity were recovered from the excavations at Kapilavastu, but most of them were fragmentary. A large number of these had to be discarded, because in the absence of characteristic features for identification, they were not useful for any study purpose.

The selected collection is represented by the following species viz., turtle, fowl, dog, *Sus* (pig), spotted deer, barasingha, *Bos indicus* (Humped Cattle of India), Indian buffalo, goat, the horse and ass.

Of all the animals recorded in the collection, *Bos indicus* predominates and accounts for more than seventy percent. This evidently points out that this species was the most favoured domestic animal of the inhabitants of Kapilavastu. Next in the order of preference is *Sus* (pig) whose occurrence is about seventeen percent. The *Sus* is followed by goat, but its presence is far less than *Bos indicus* and *Sus*. The other identified species like the horse, ass, barasingha, spotted deer, turtle, fowl, buffalo and dog, are much more less in number. The presence of barasingha, and spotted deer indicates that the area surrounding Kapilavastu was marshy and covered by forest.

A systematic account of the animal remains is as follows :

VERTEBRATA

Class	Reptile
Order	Chelonia
Family	Trionychidae

Lissemys punctata (Bonnaterre), forma *typia*

(The common-shelled Box turtle)

MATERIAL : Three fragments of epiplastron. These three fragments are of a single species and belong to the box turtle.

Chitra indica (Grey) — (The River Turtle)

MATERIAL : Eight fragments of hypoplastron. These remains are identified as those of the river turtle.

ANIMAL REMAINS

Class Aves
Order Galline
Family Phasinoidae

Gallus Sp.

MATERIAL : Five fragment of limb bones. These fragments which belong to the fowl are almost similar to those of the modern species.

Class Mammalia
Order Carnivora
Family Canidae

Canis familiaris Linnaeus

(The Domestic dog)

MATERIAL : A single fragment of humerus. This solitary fragment of humerus is identified as that of a domestic dog and it is quite matching with the modern one.

Order : Perissodactyla
Family Equidae

Equus asinus Linnaeus

(the Ass)

MATERIAL : A premolar and a molar. These two teeth match with the modern species. Except these two remains no other bone of this animal was recorded.

Equus Caballus Linnaeus

(The Horse)

MATERIAL : Three premolars and three molars along with an incomplete and fragmentary skull. Except these six teeth and the few small fragmentary pieces of the skull no other bone of this animal could be traced from the collection. The teeth which have been identified are quite matching with the modern horse.

Order Artiodactyla
Family Suidae

Sus scrofa cristatus hagner

(The Indian Domestic pig)

MATERIAL : Eighty-four remains of this species were identified which include some twenty-seven fragments of mandibles with teeth, nine fragments of humerus and others like tibia, scapula upper jaw, femur and also some intact bones like astragalus, calcaneum and phalanges. From the number of bones appearing in the collection it can be inferred that *Sus* is perhaps the most sought after animal next to *Bos indicus*.

Family Cervidae

Axis axis Erxleben

(The Spotted deer)

MATERIAL : Three antler fragments and four fragments of limb bones.

These remains are of spotted deer and resemble the modern animal.

Cervus Duvauceli Curier

(The Barasingha)

MATERIAL : Two antler fragments. The two antler fragments which belong to the Barasingha bear saw marks.

Order Artiodactyla

Family Bovidae

Bubalis bubalis Linnaeus

(The Indian buffalo)

MATERIAL : Four remains consisting of two vertebrae, a premolar and a molar.

The scanty remains of the buffalo suggest that this animal was not in general domestication.

Bos indicus Linnaeus

(The Domestic Humped Cattle of India)

MATERIAL : A total number of three hundred and forty-seven remains of *Bos indicus* were identified and these include some intact bones like astragalus, calcaneum, third and fourth metacarpal and metatarsals, carpal and tarsal bones, phalanges and broken fragments of humerus, radius, femur, tibia, third and fourth metacarpals, astragalus, calcaneum ribs, vertebrae mandible upper jaw, horns scapula, pelvic bone, etc.

It is already mentioned earlier that the bulk of the collection contains the remains of this animal and that itself signifies that *Bos indicus* was the most popular species for the people of Kapilavastu.

ANIMAL REMAINS

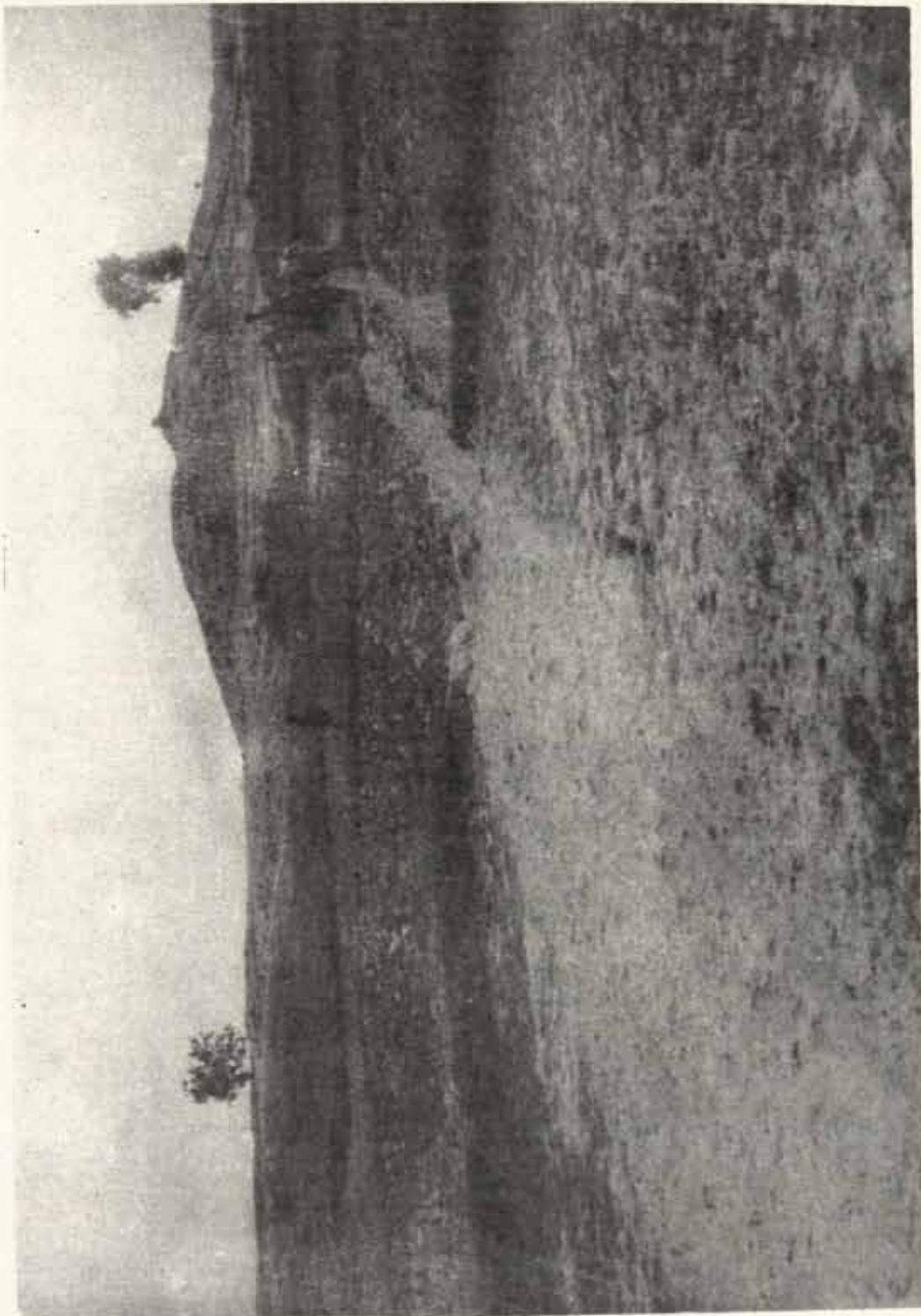
Capra hircus aegegrus Evxleben

(The Indian Domestic Goat)

MATERIAL : Twenty-one remains which include fragments of lower jaw, scapula, humerus, tibia, horn and few intact ones like calcaneum and astragalus. The remains of this animal are almost similar to those of the modern species. The number of remains of this animal, though very much less compared to *Bos indicus* and *Sus* shows, that this was also largely domesticated.

82482

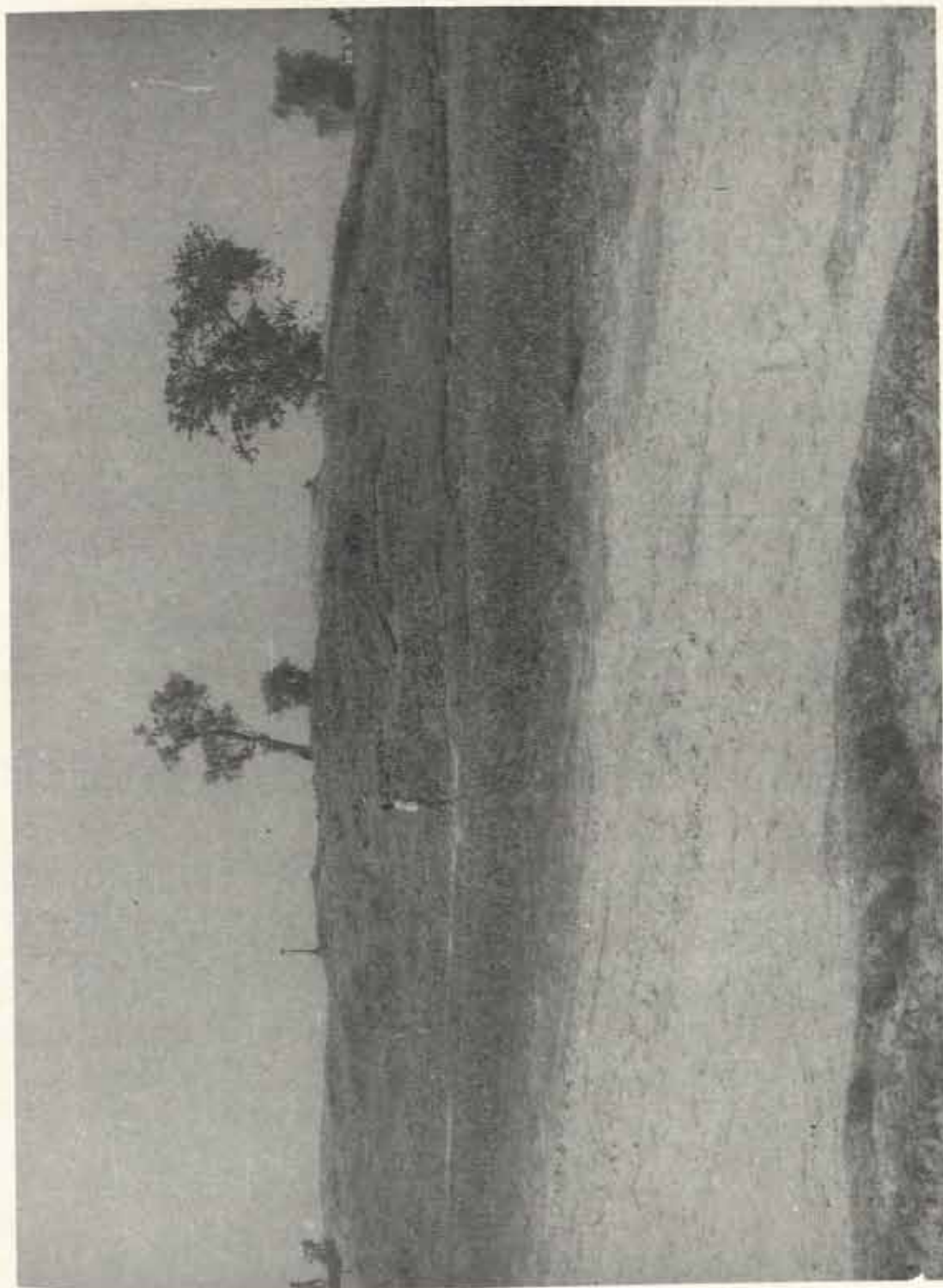




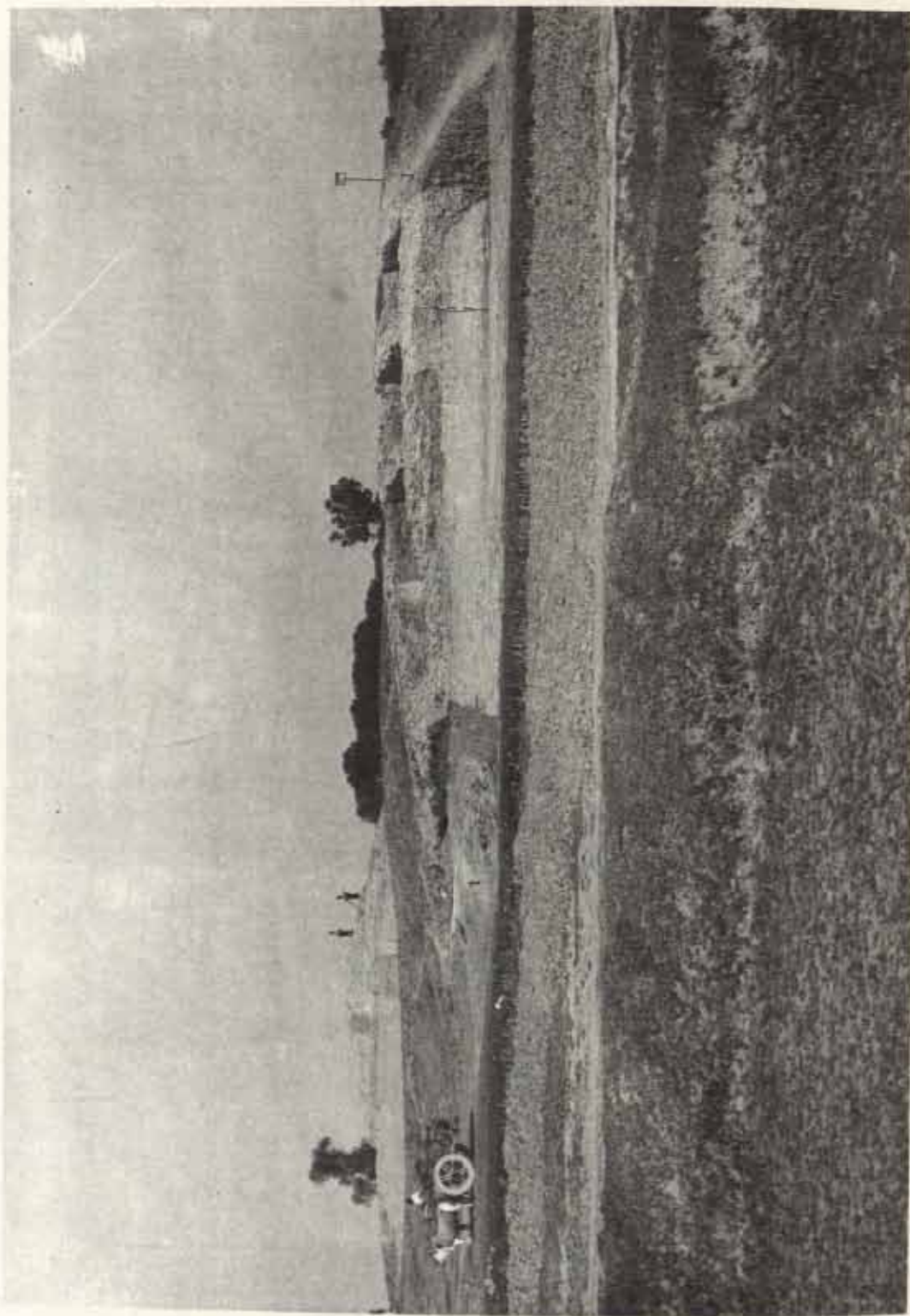
Piprahwa : general view (from north-east) of the site before excavation. See p. 1



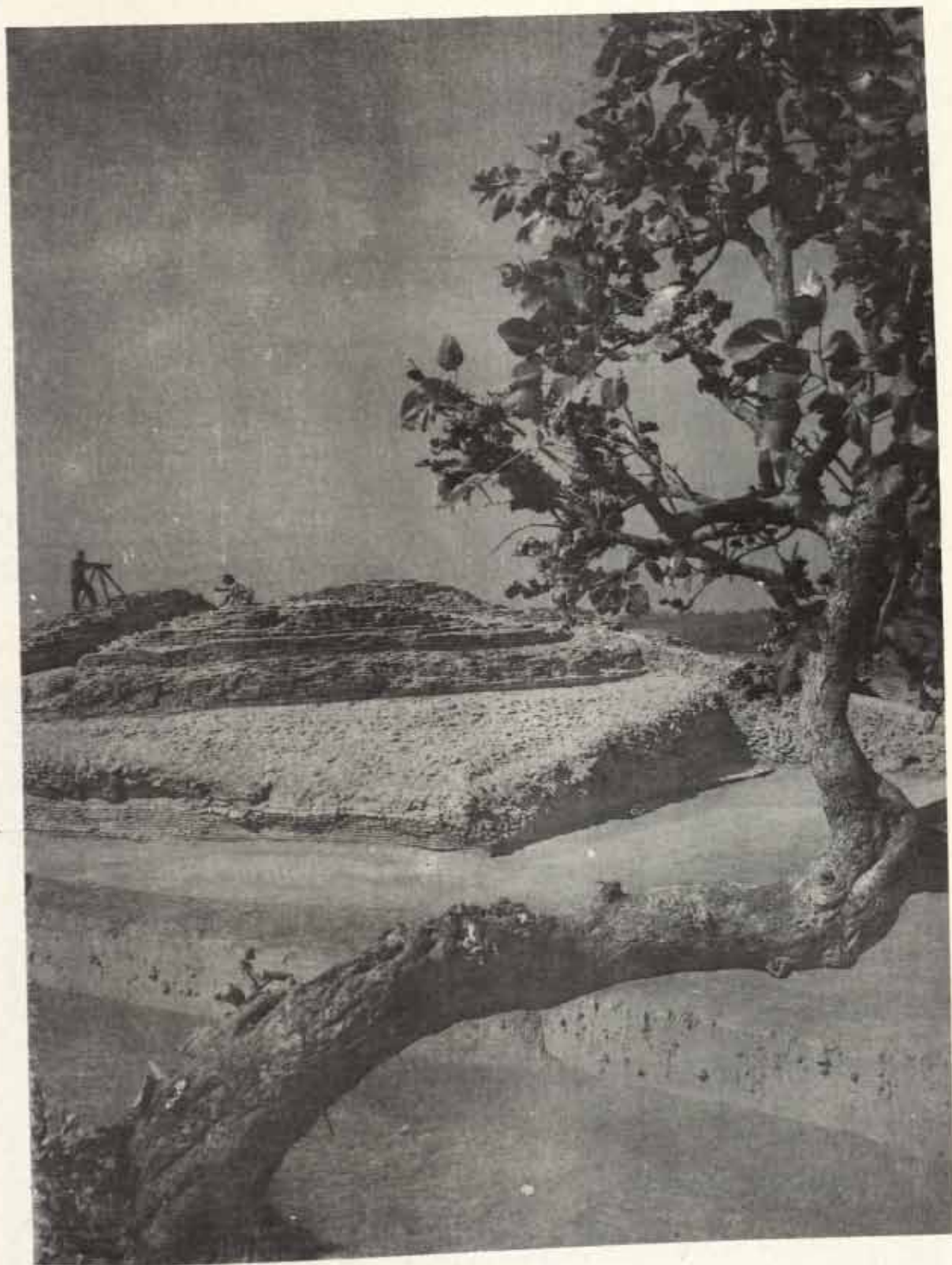
Piprahwa : general view (from south-west) of the site before excavation. See p. 1



Piprahwa : general view (from east) of the site before excavation. See p. 1



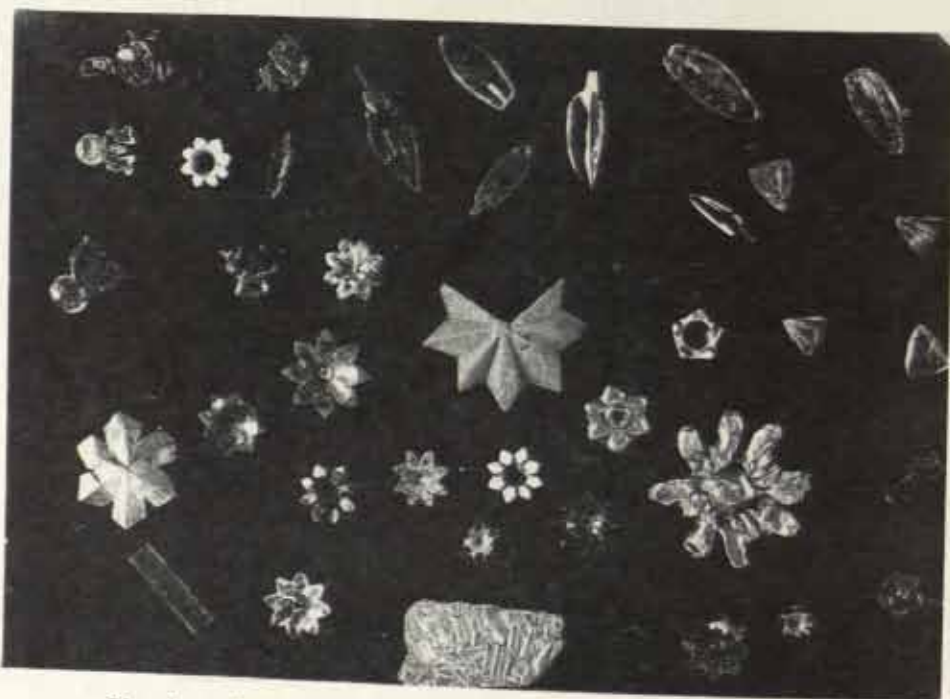
Piprahwa : general view of the site during excavation. See p. 33



Piprahwa : view of the stupa after excavation, See p. 30



A



B

*Piprahwa: A, inscribed soap-stone casket found in the stupa in 1898;
B, valuable objects in the stone casket. See pp. 5-6*



A

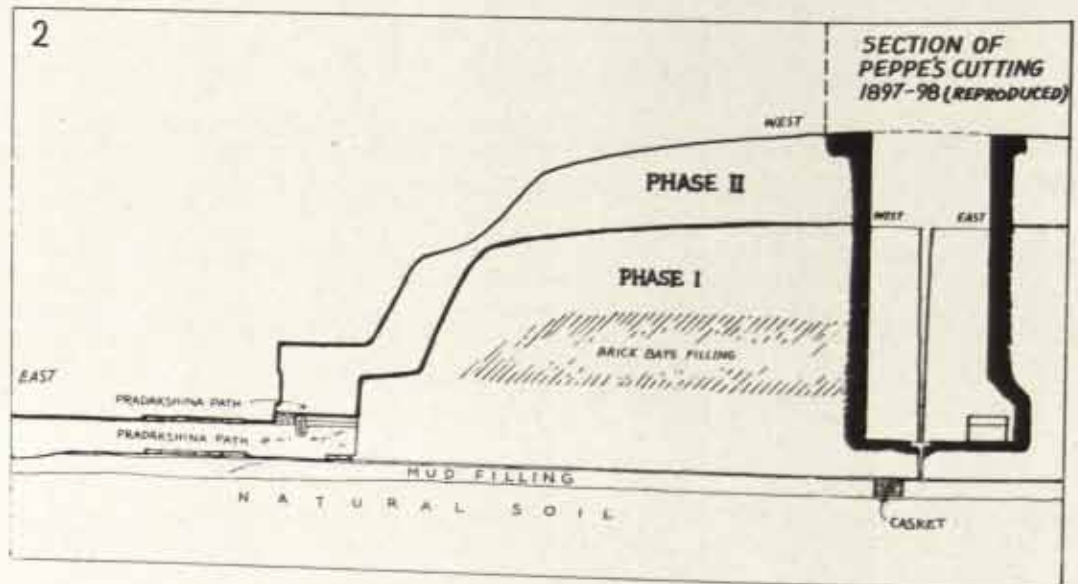
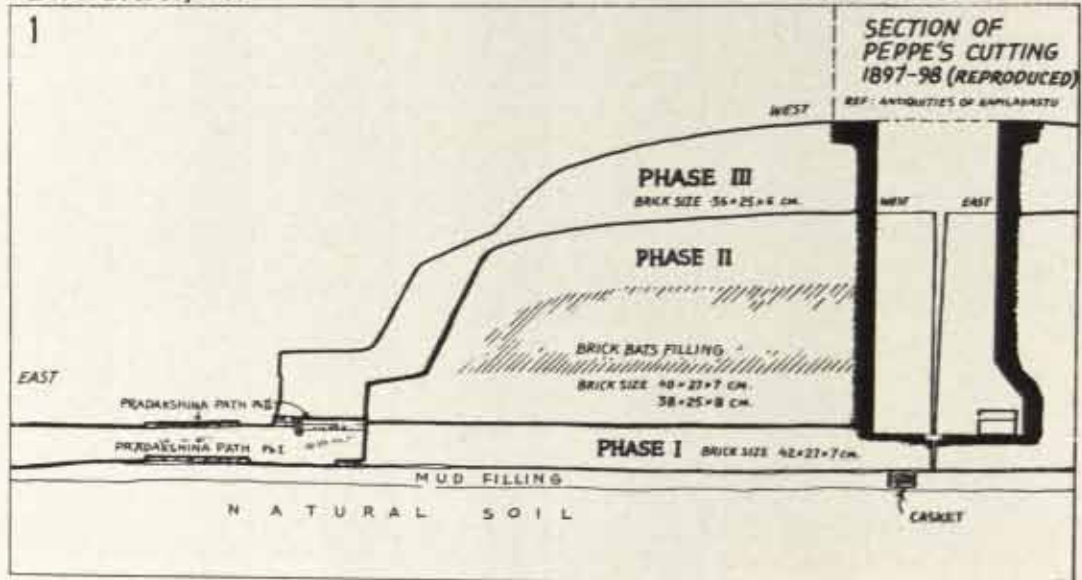


B

Piprahwa : A, close up of the stupa with pradakshinapath of Phase II and niches of Phase III; B, two burnt brick boxes before excavation in the stupa. See pp. 23-24

PIPRAHWA : 1971 -75 (KAPILAVASTU)
 DIST: BASTI, U.P.

SCHMATIC SECTION



Piprahwa : various phases of the stupa. See p. 24



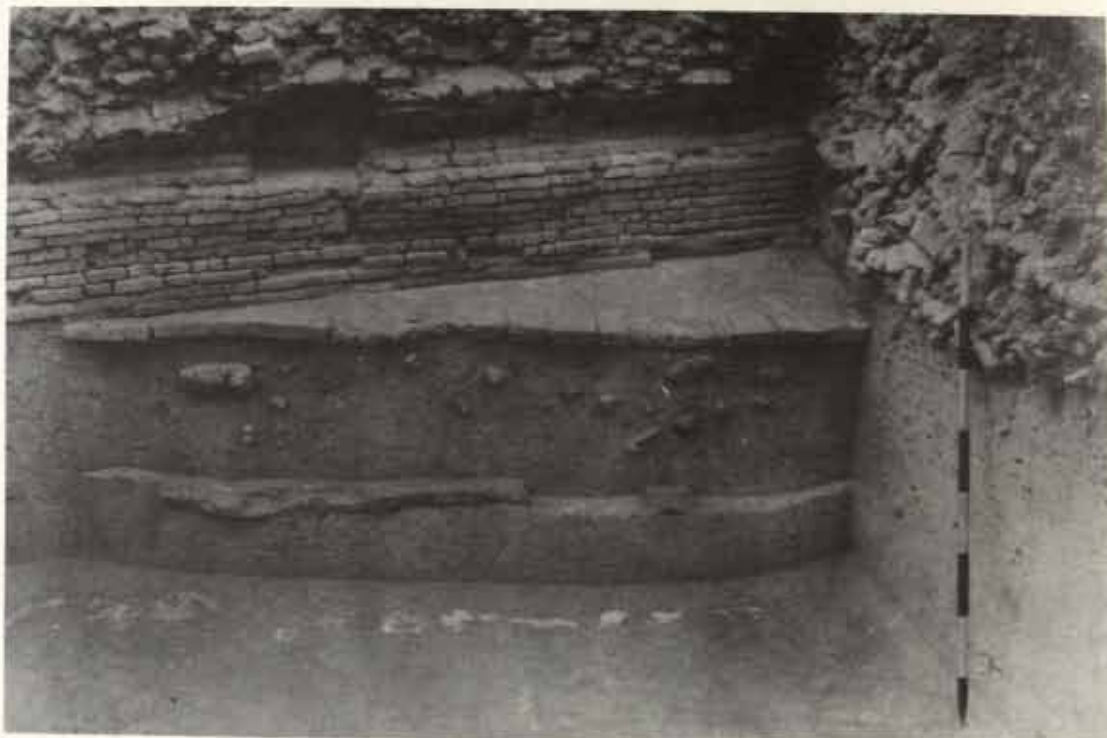
Piprahwa : soapstone casket and dish in the northern brick box after opening. See p. 24



Piprahwa : two dishes in the southern brick box after the removal of one brick course. See p. 25



Piprahwa : soapstone casket in the southern brick box after opening. See p. 25

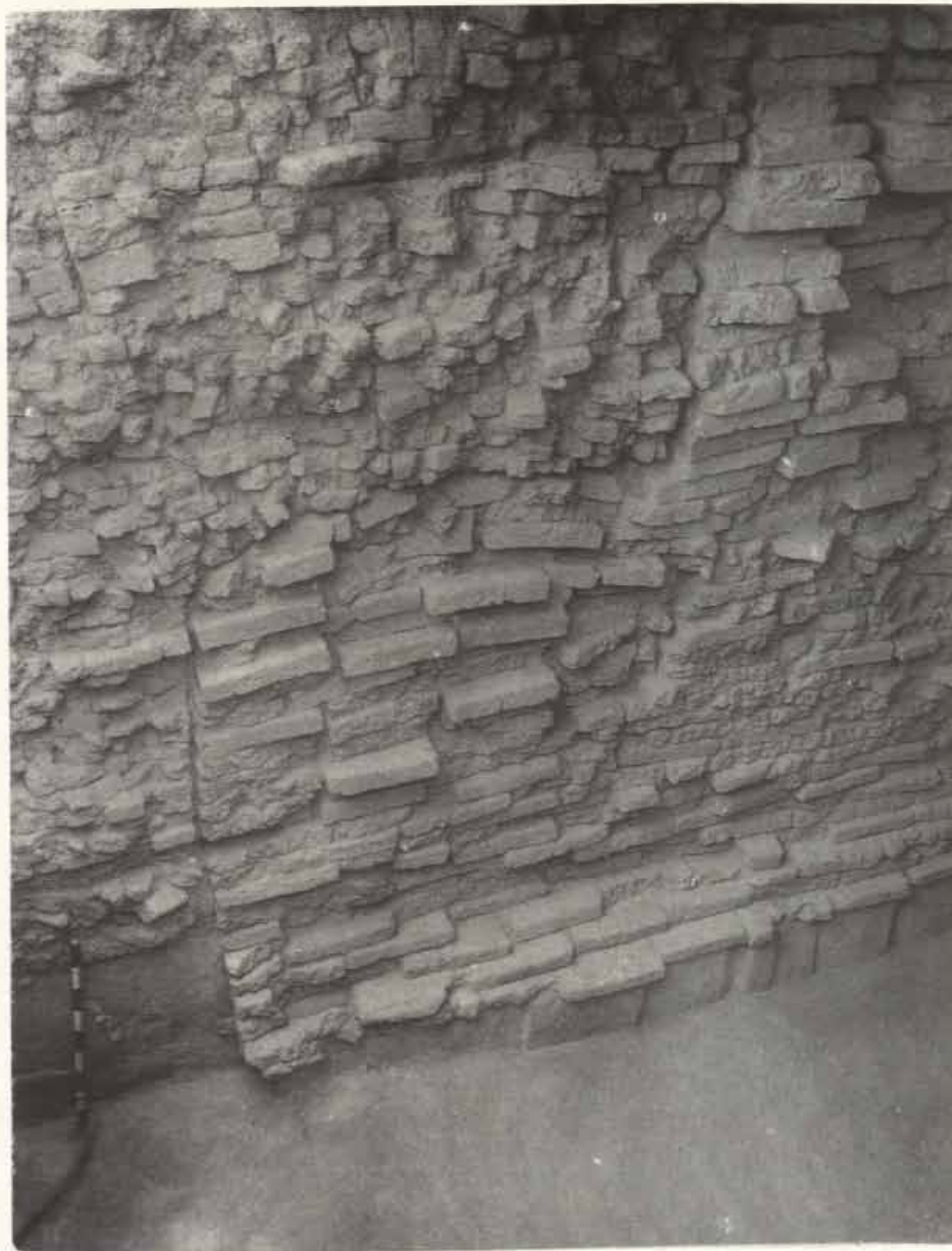


A



B

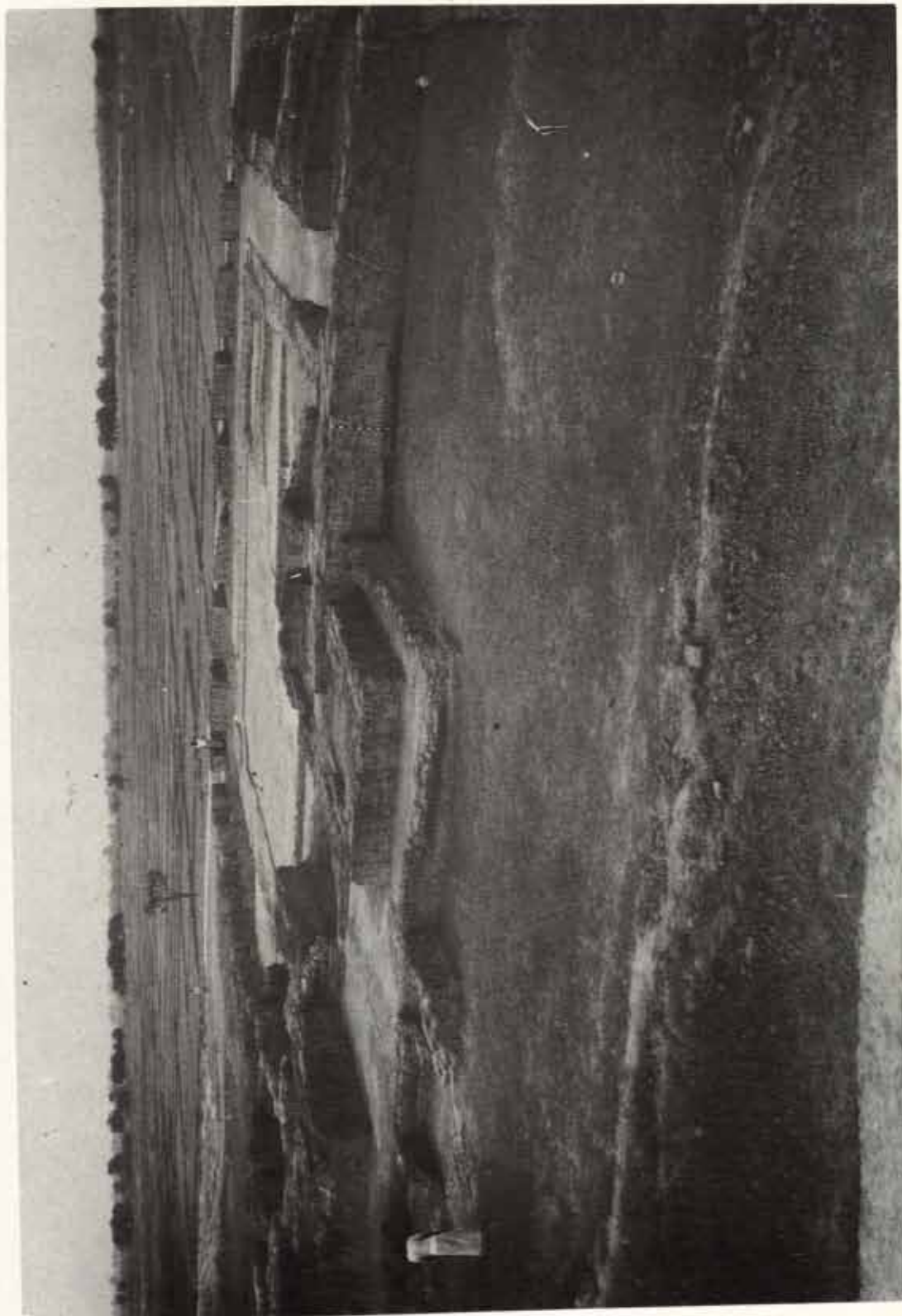
Piprahwa : A, three phases of the stupa; B, Phase II and III of the stupa. See pp.30-31



Piprahwa : Phase II of the stupa. See p. 30



Piprahwa ; various phases of the stupa. See p. 31



Pipruhwa : general view of the eastern monastery. See p. 33

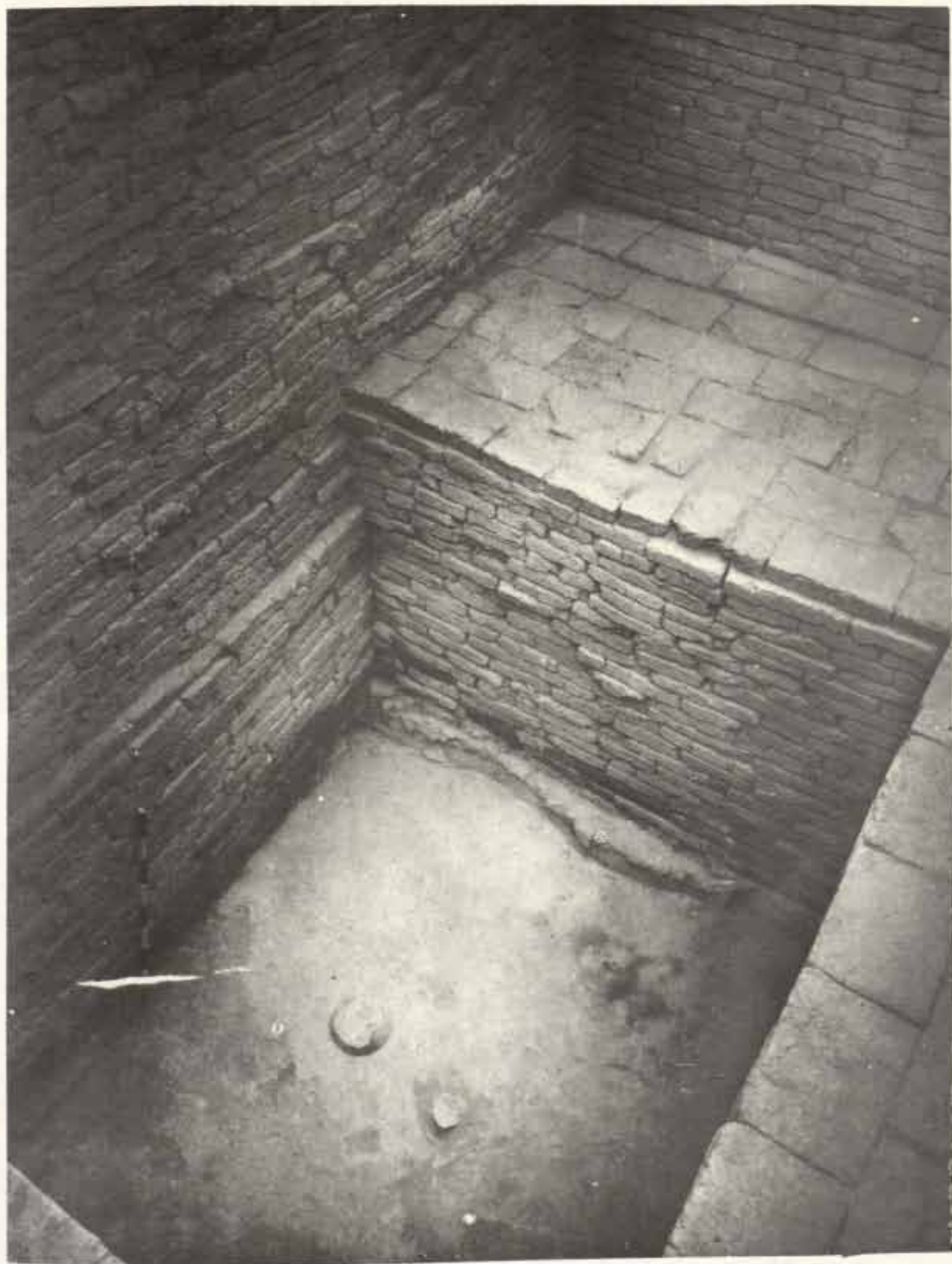


B

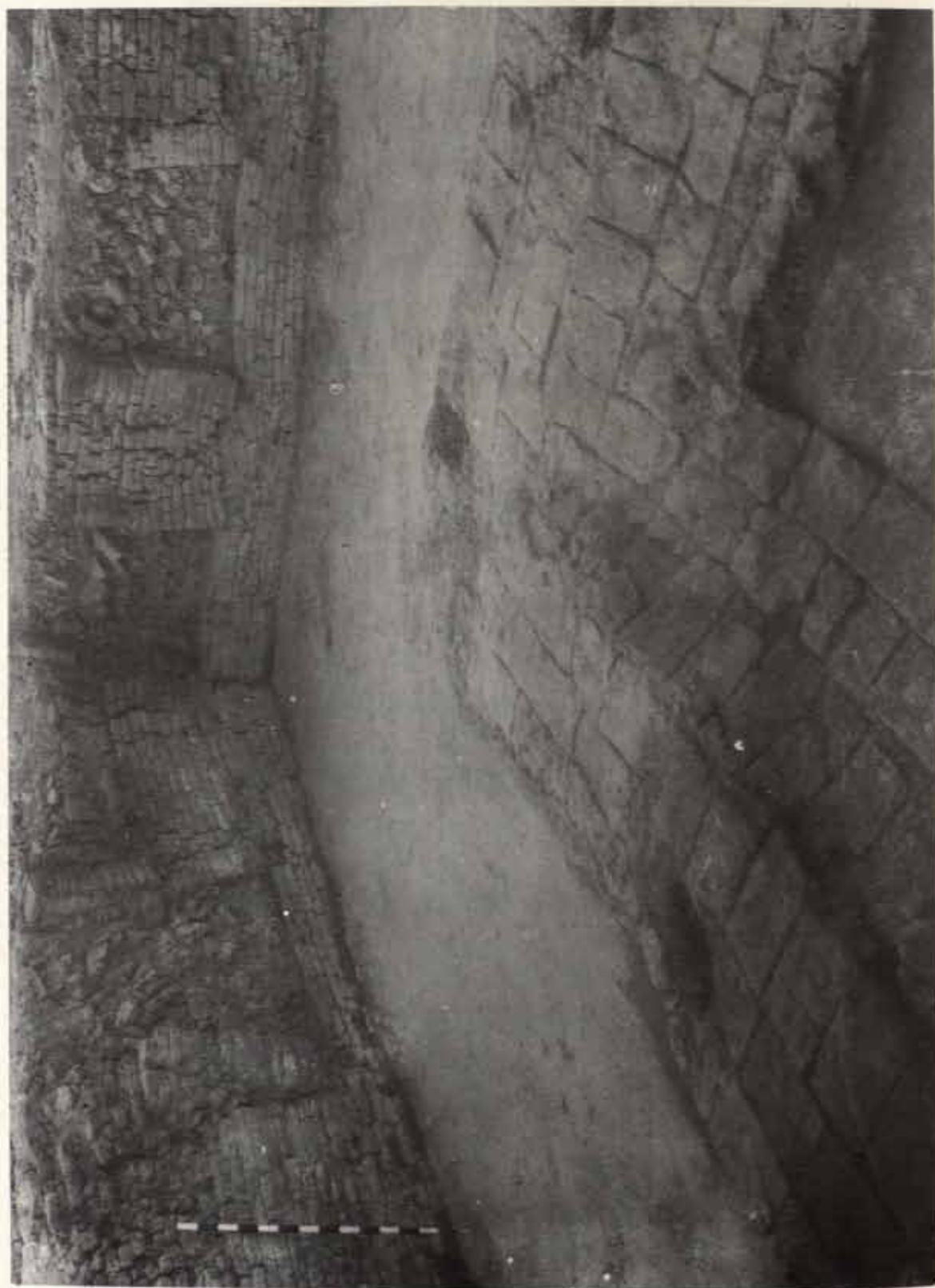


A

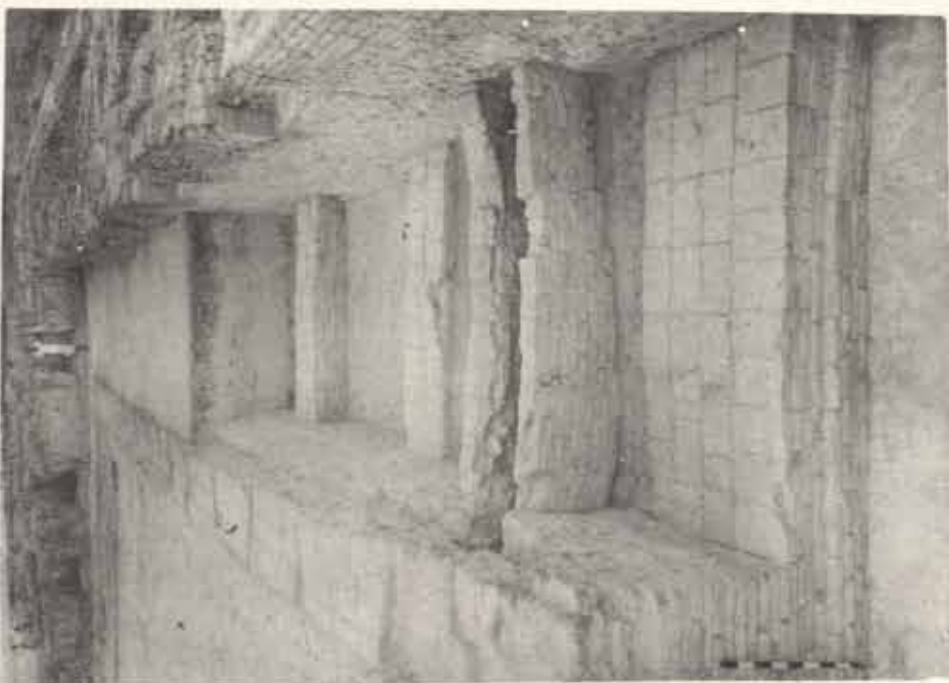
Piprahwa : A, four phases of eastern monastery; B, various phases of the eastern monastery. See p. 33



Piprahwa : first two phases of the eastern monastery. See p. 34



Piprahwa: domes of the *stupa* seen from the east. The *stupa* is the *stupa* of the eastern monastery. See p. 33



A



B

Piprahwa : A, burnt brick drain of the third phase of the eastern monastery; B, outlet of the drain on the northern side of the eastern monastery. See p. 35



A



B

Piprahwa: A, view of the northern monastery; B, burnt brick hall. See pp. 36 and 39.

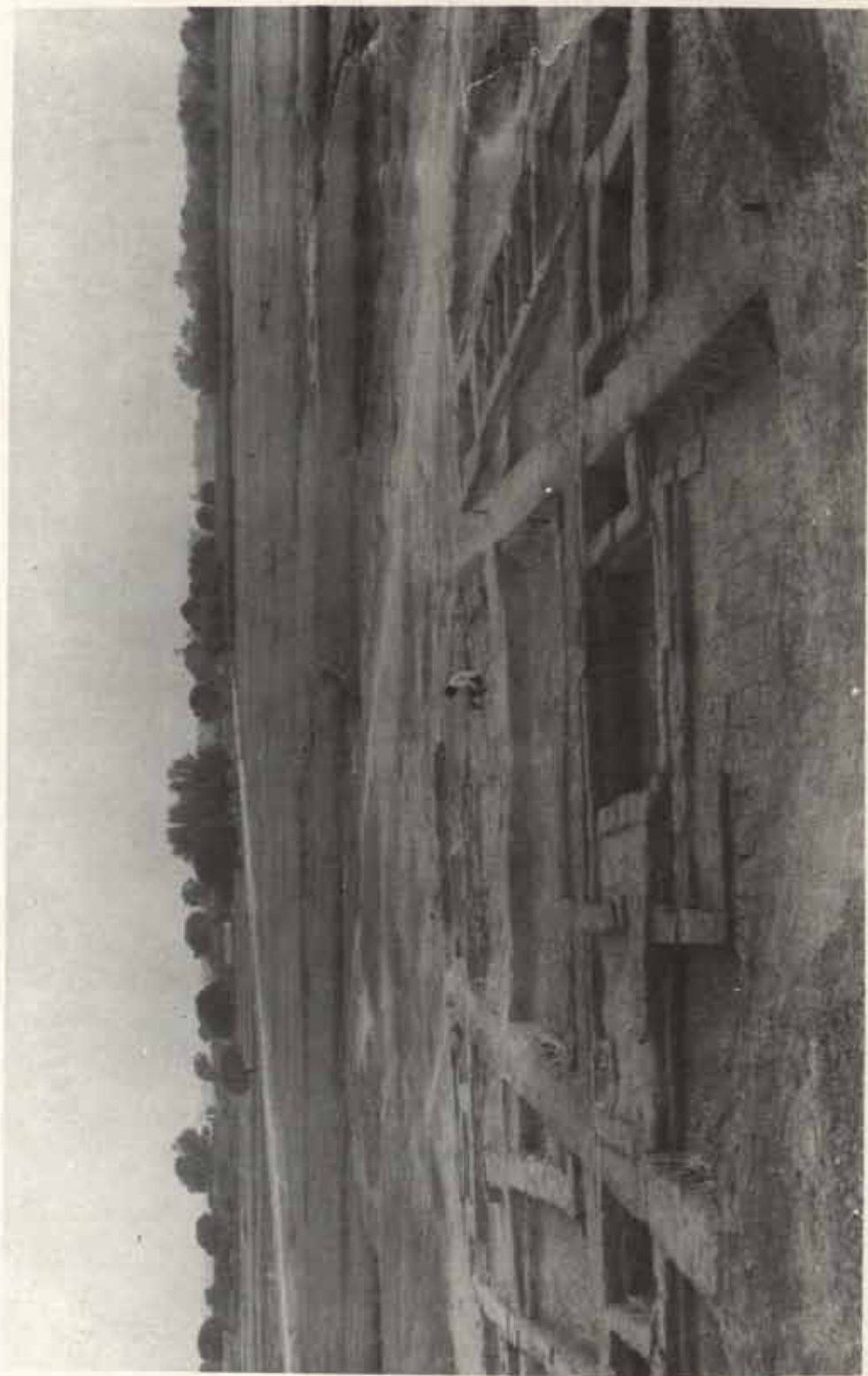


A



B

Piprahwa : A, burnt brick-on-edge portico; B, room with an enclosure wall. See pp. 39 and 43



Piprahwa : general view of the southern monastery. See p. 43

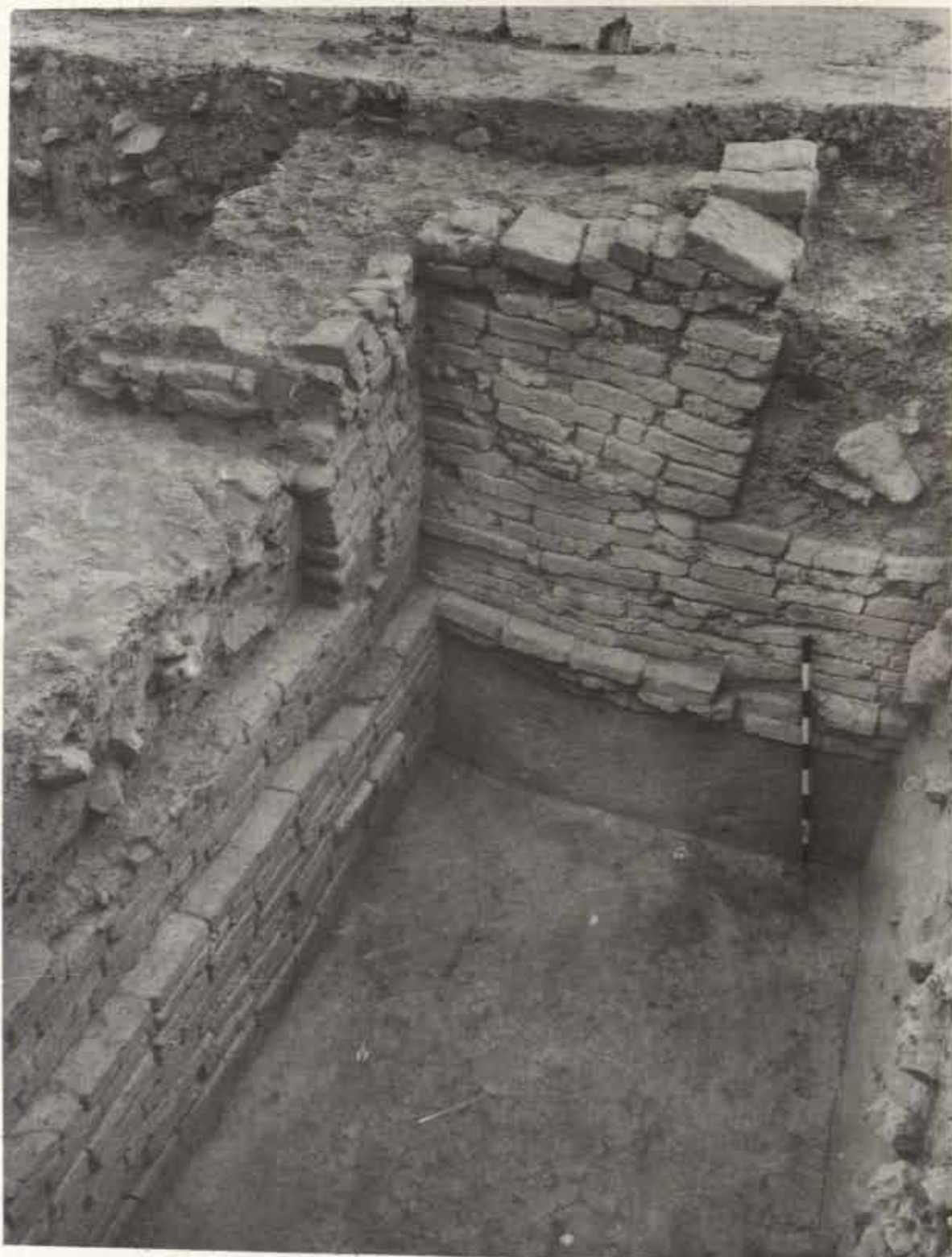


A



B

A, Piprahwa : central courtyard and a verandah of the western monastery; B, Salargarh : flight of steps in the monastery. See pp. 45 and 52



Salargarh : room of the monastery with door. See p. 52



A



B

Ganwaria : general view of the site before excavation. See p. 55

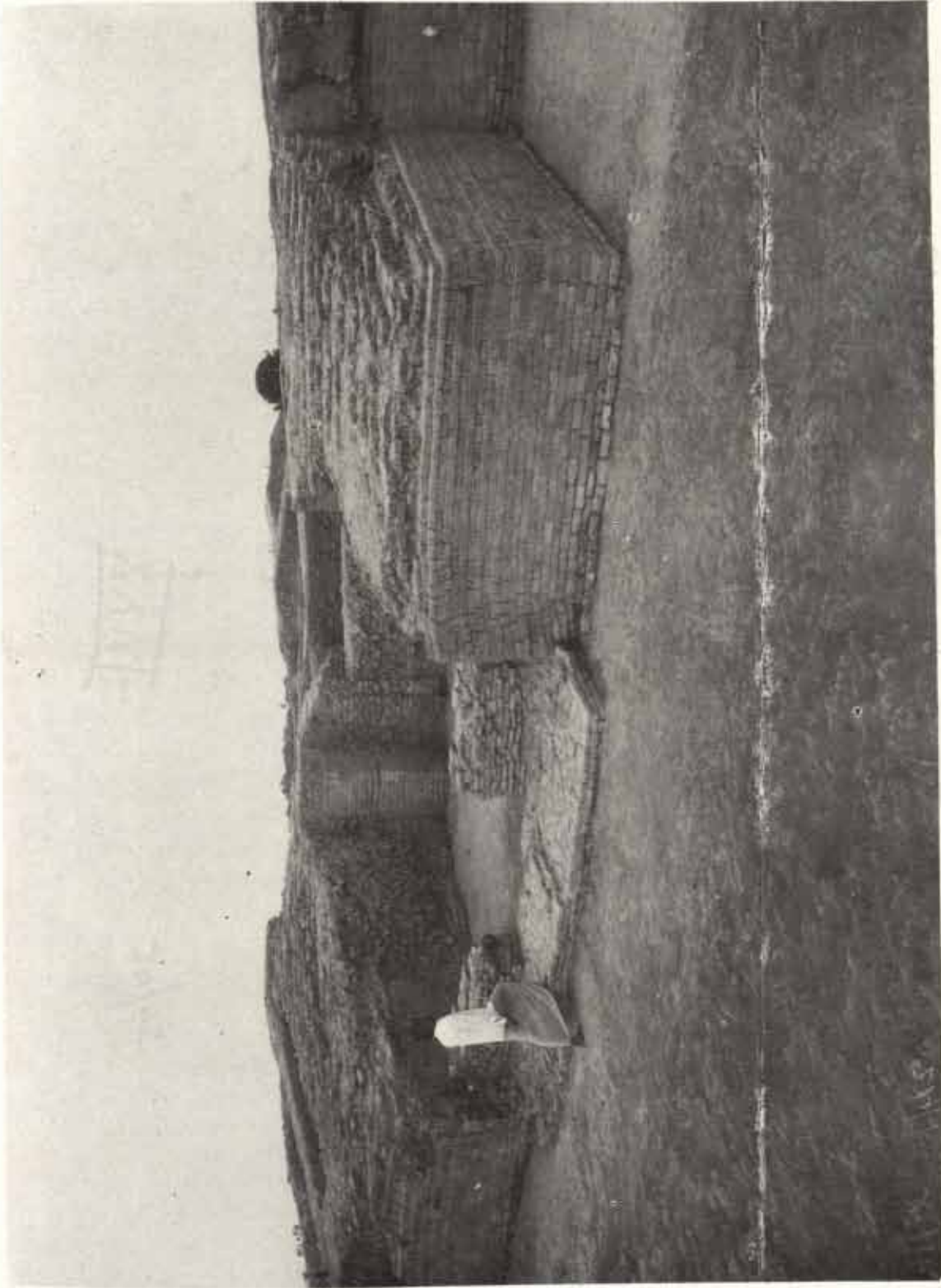


A

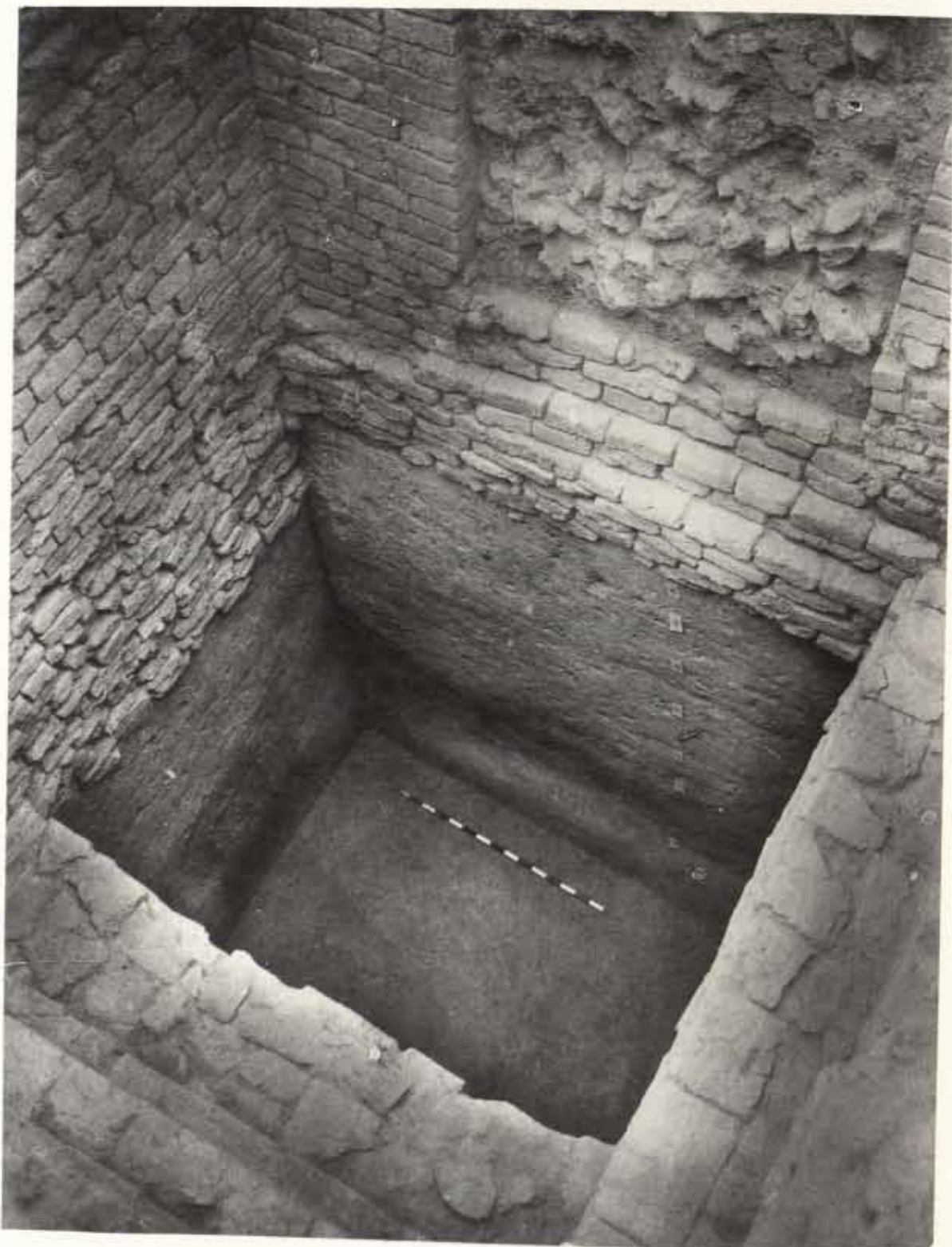


B

Ganwaria : A, mud wall of Period I; B, animal bone, Period I. See p. 58



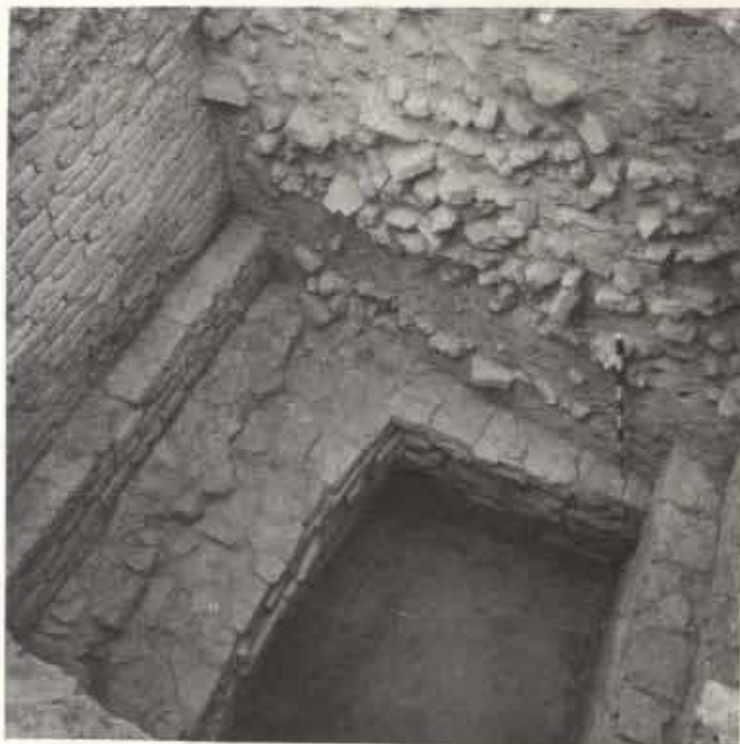
Ganwaria : gateway of the larger structural complex. See p. 60



Ganwaria : deep digging in larger structural complex. See p. 60



Ganwaria : curtain wall in the larger structural complex. See pp. 60-61

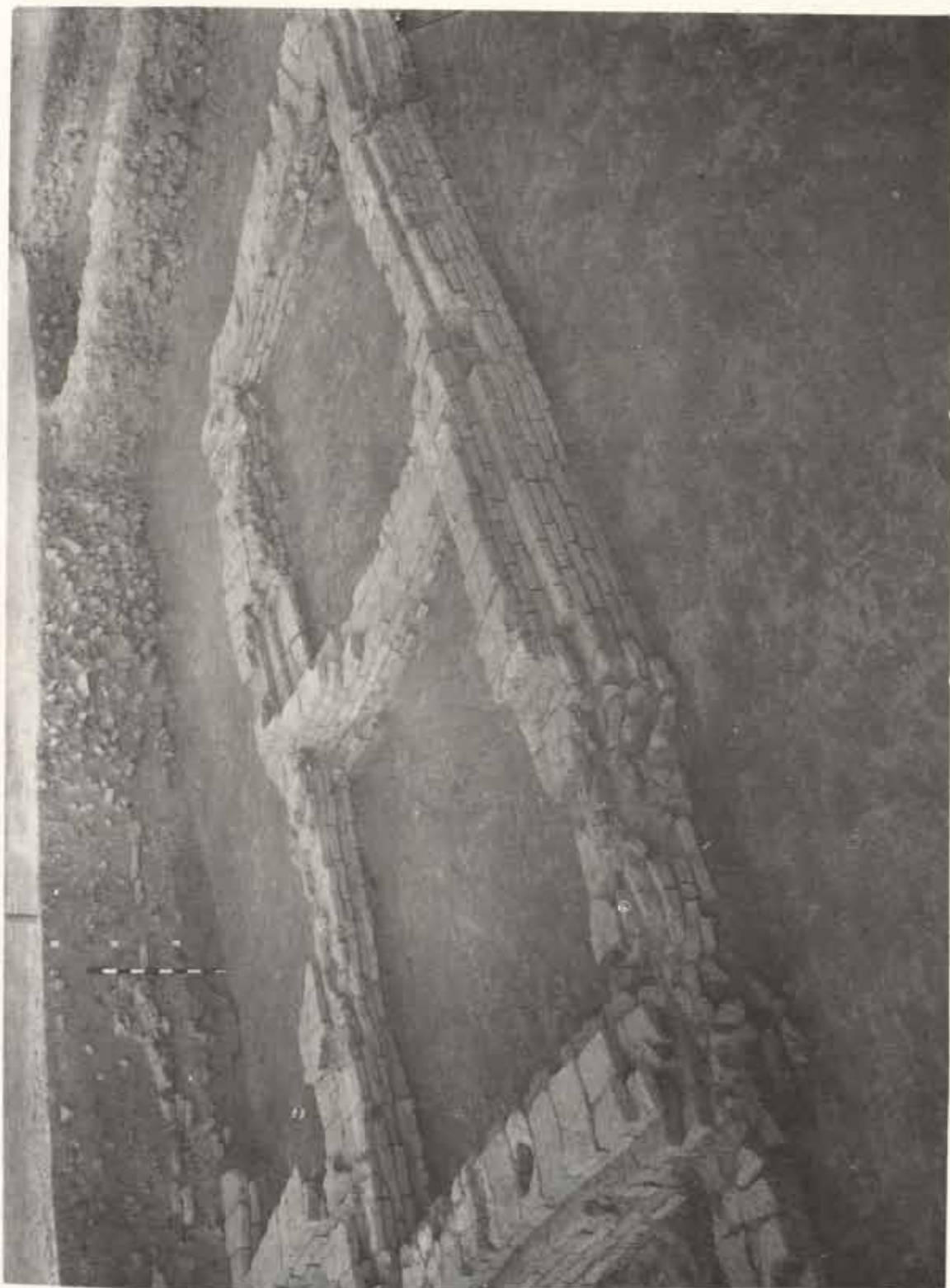


A

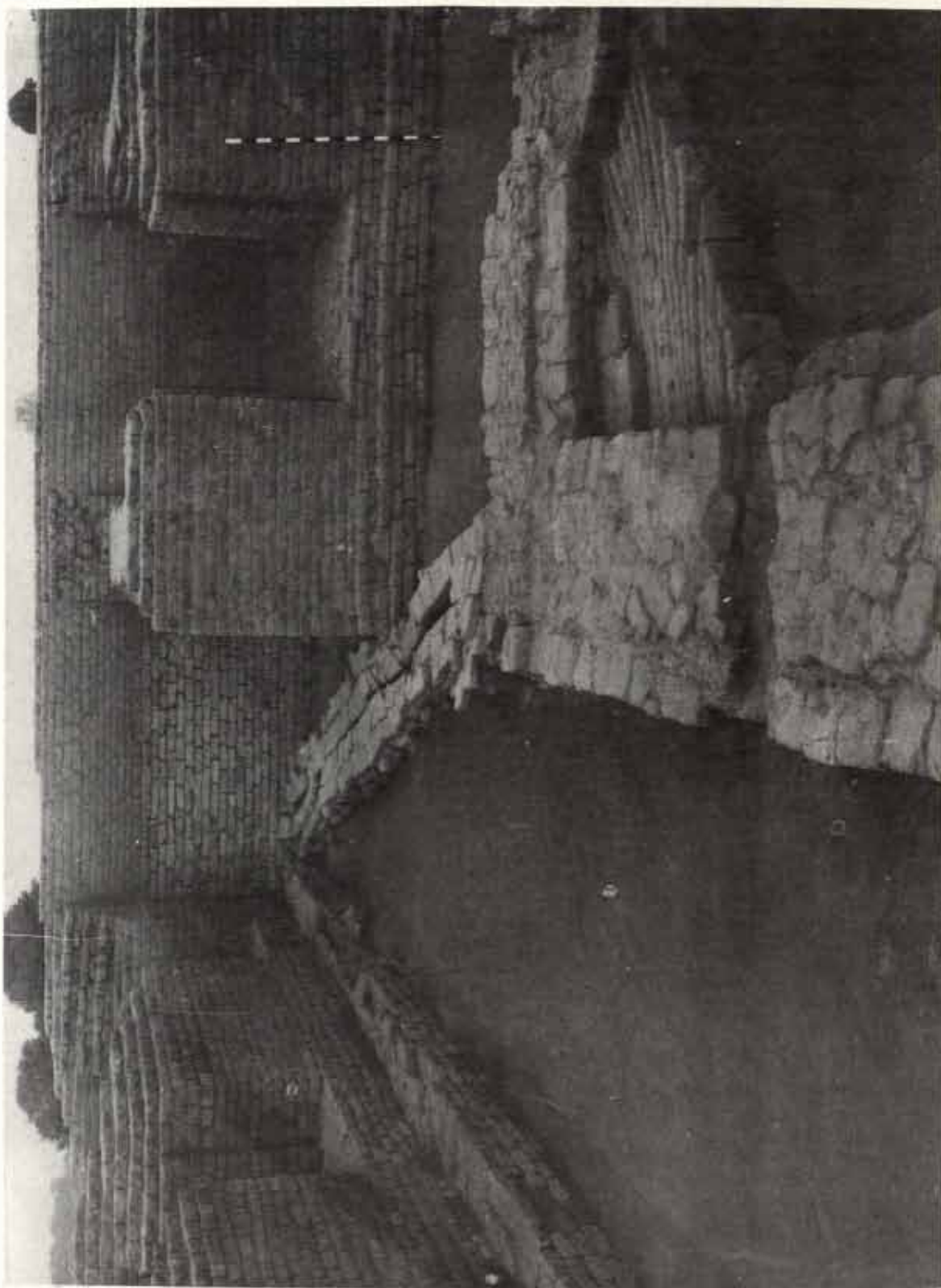


B

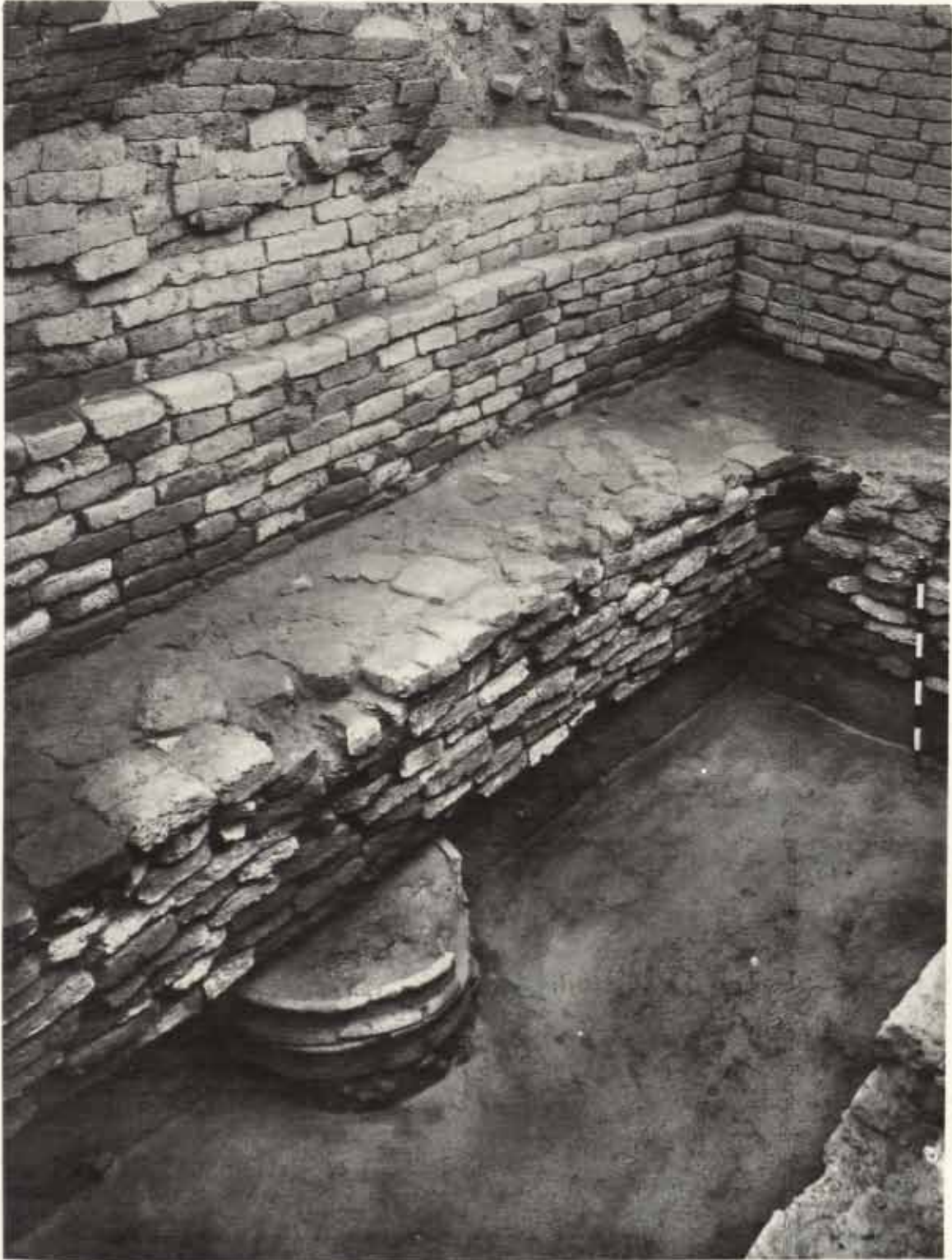
Ganwaria : A, deep digging in larger structural complex; B, partition wall between rooms of larger structural complex. See p. 61



Ganwaria : three rooms in the courtyard of larger structural complex. See p. 61



Ganwaria : burnt brick drain in the larger structural complex. See p. 61



Ganwaria : ring-well in the larger structural complex. See p. 61



A

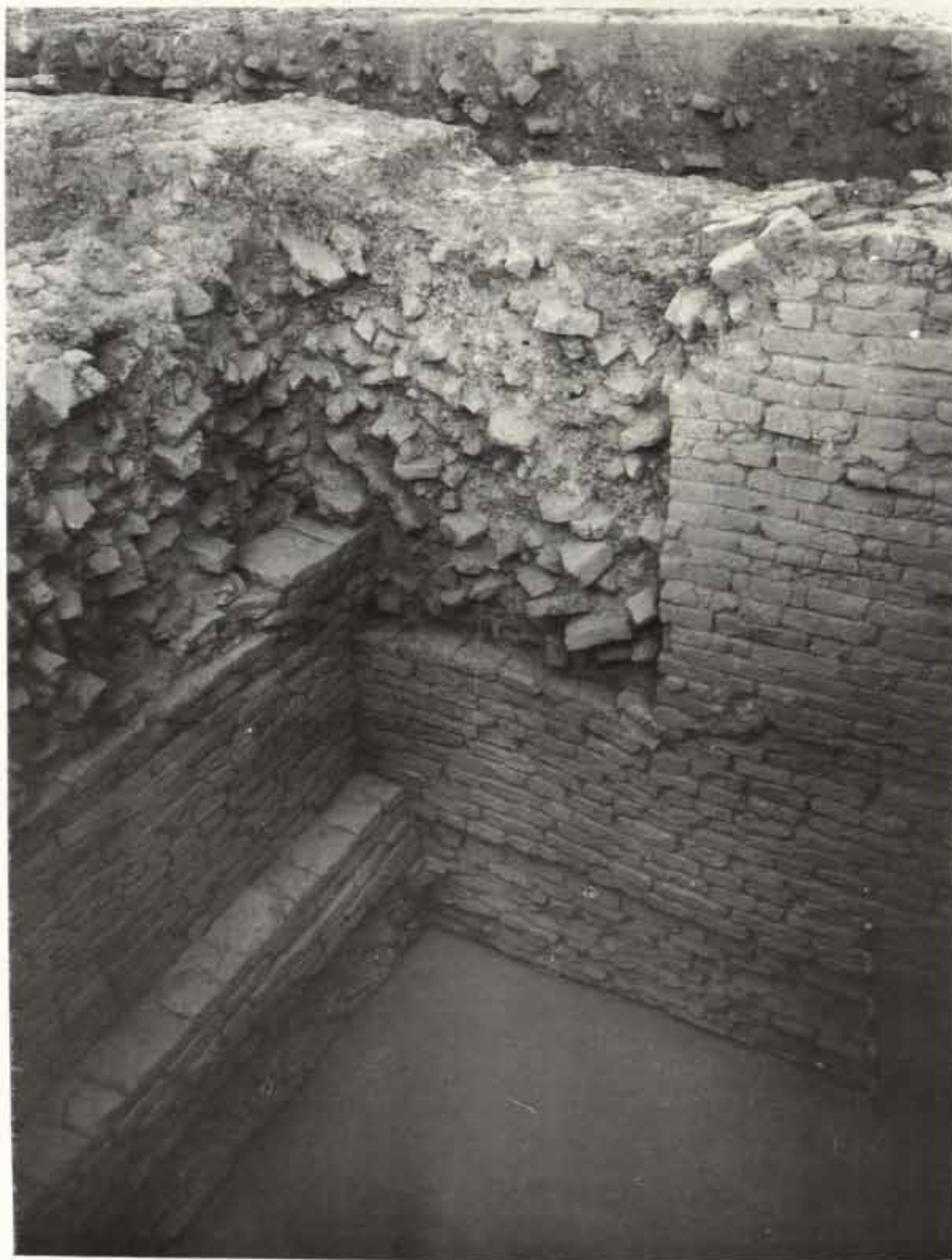


B

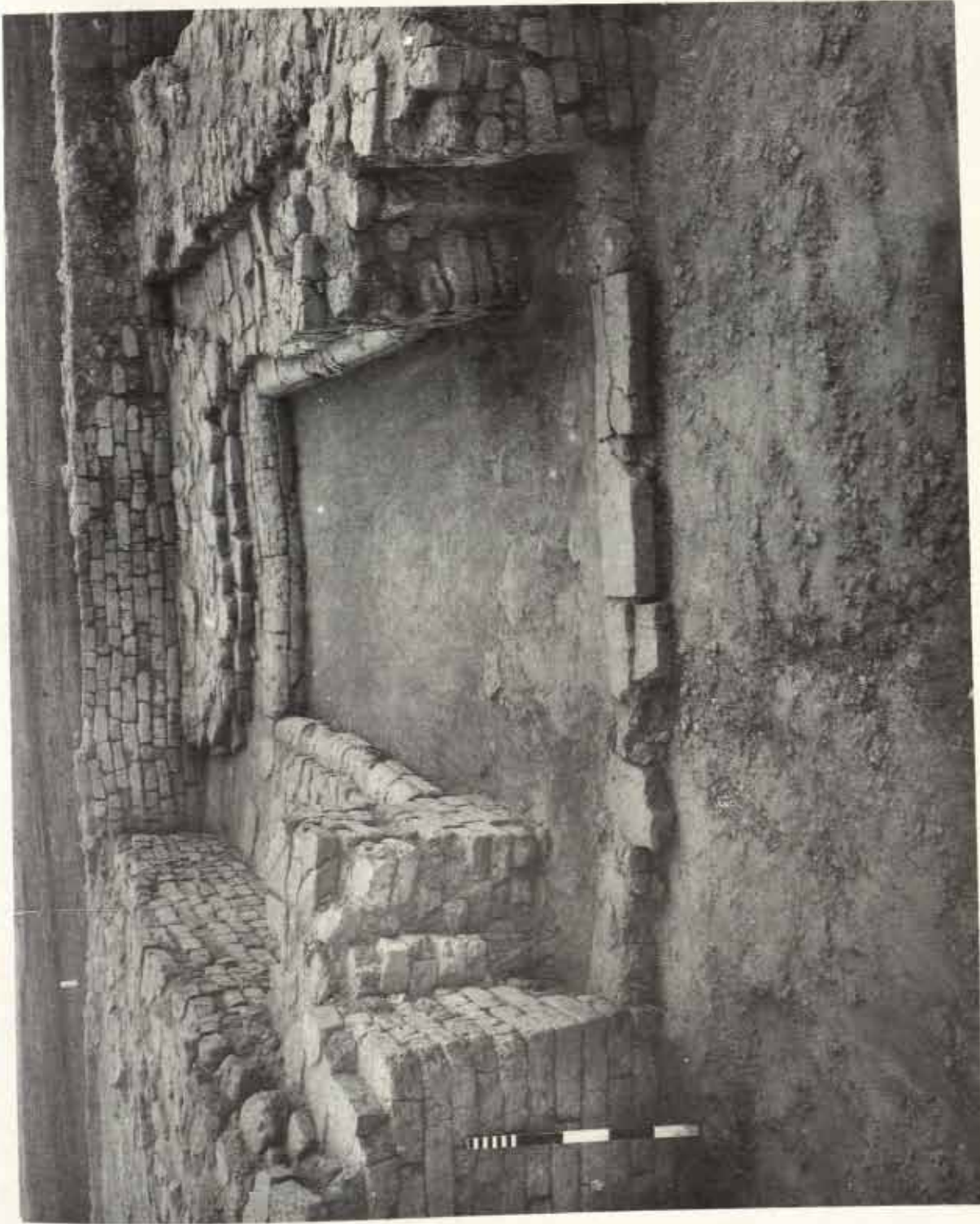
Ganwaria : small structural complex, A, entrance and B, burnt-brick courtyard and well. See pp. 63-64



Ganwaria: bathroom, larger structural complex. See p. 64



Ganwaria : various phases of the smaller structural complex. See p. 64



Ganwaria : room converted into a shrine, smaller structural complex. See p. 66



A



B

Ganwaria : A, house complex on the south of larger structural complex and B, house complex between larger and smaller complex. See pp. 66-67



A



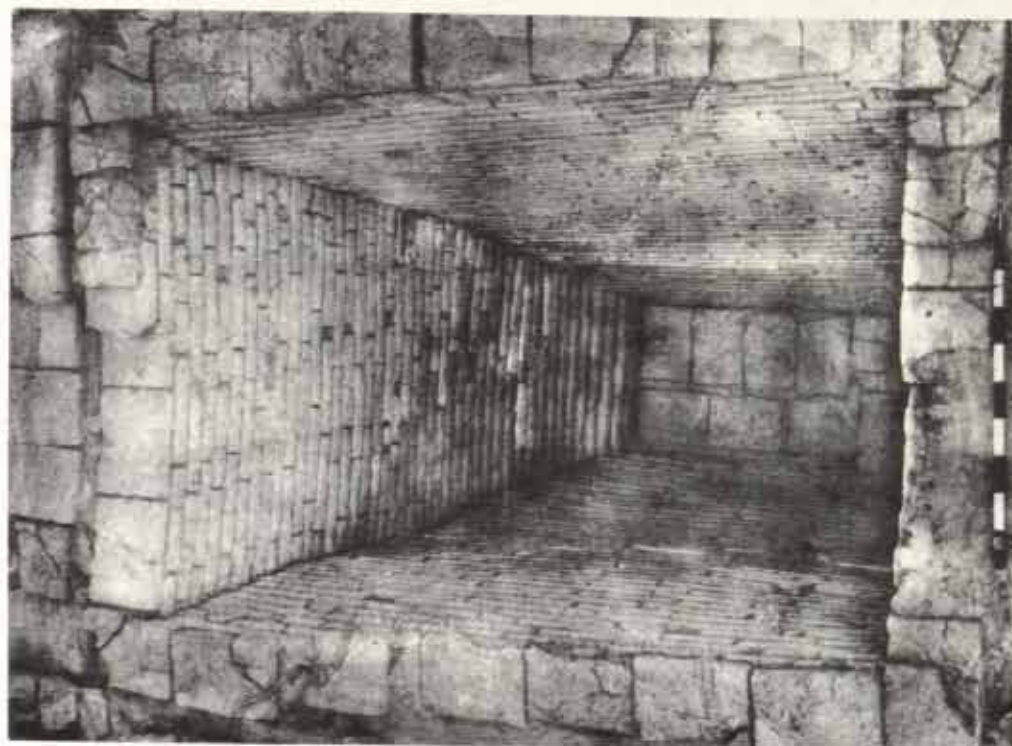
B

*Ganwaria : A, cistern on the north of smaller structural complex;
B, different phases of a structure. See p. 68*



B

Ganwaria : A, cistern on the north of larger structural complex; B, wall on the north of smaller structural complex. See pp. 60 and 68



A



Ganwaria : cistern on the north of smaller structural complex below Shrine 2. See p. 69



A



B

Ganwaria : A, house-complex below Shrine 2; B, Shrine 1. See pp. 70 and 72



A



B

Ganwaria : A, Shrine 1 and B, Shrine 2. See pp. 74 and 77



Ganwaria : unidentified massive structure. See p. 77



A



B

Ganwaria : massive structure, A, flight of steps and B, drain and reservoir. See pp. 77-78



A



B

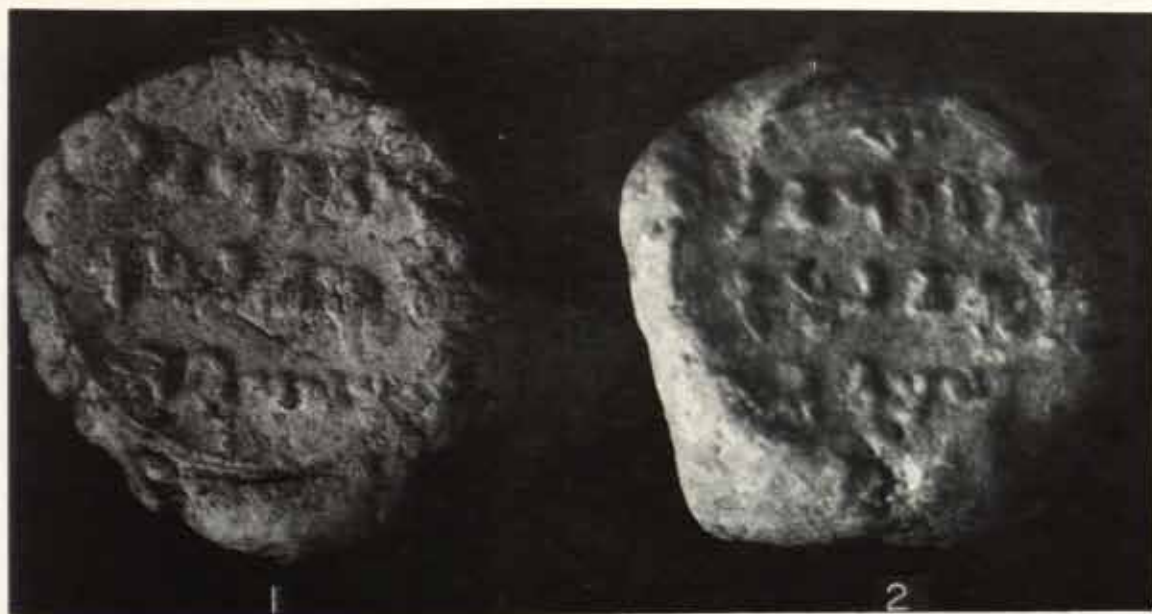


C

Piprahwa : terracotta sealings. See pp. 82-83

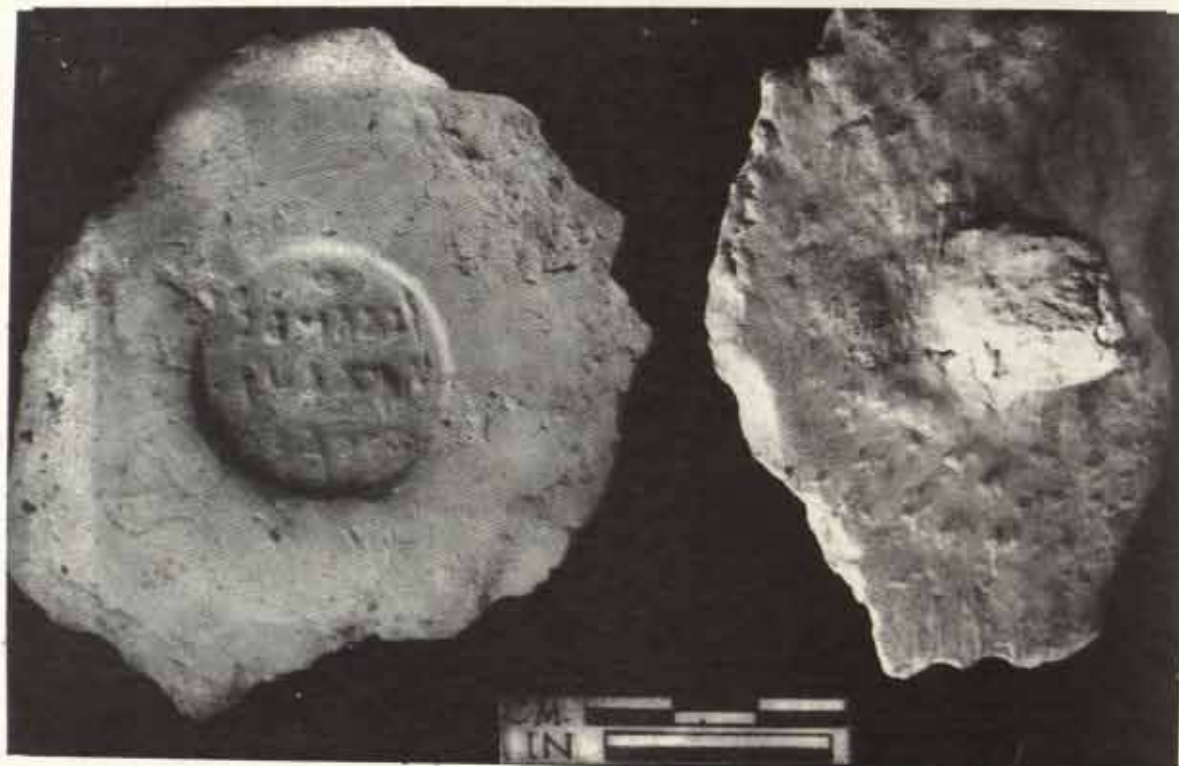


A



B

Piprahwa : terracotta sealings with the legend, A, Om Devaputra Vihare, Kapilavastus, Bhikhu Sanghas and B, Om Devaputra Vihare, Kapilavastus, Bhikhu Sanghas. See pp. 84-85

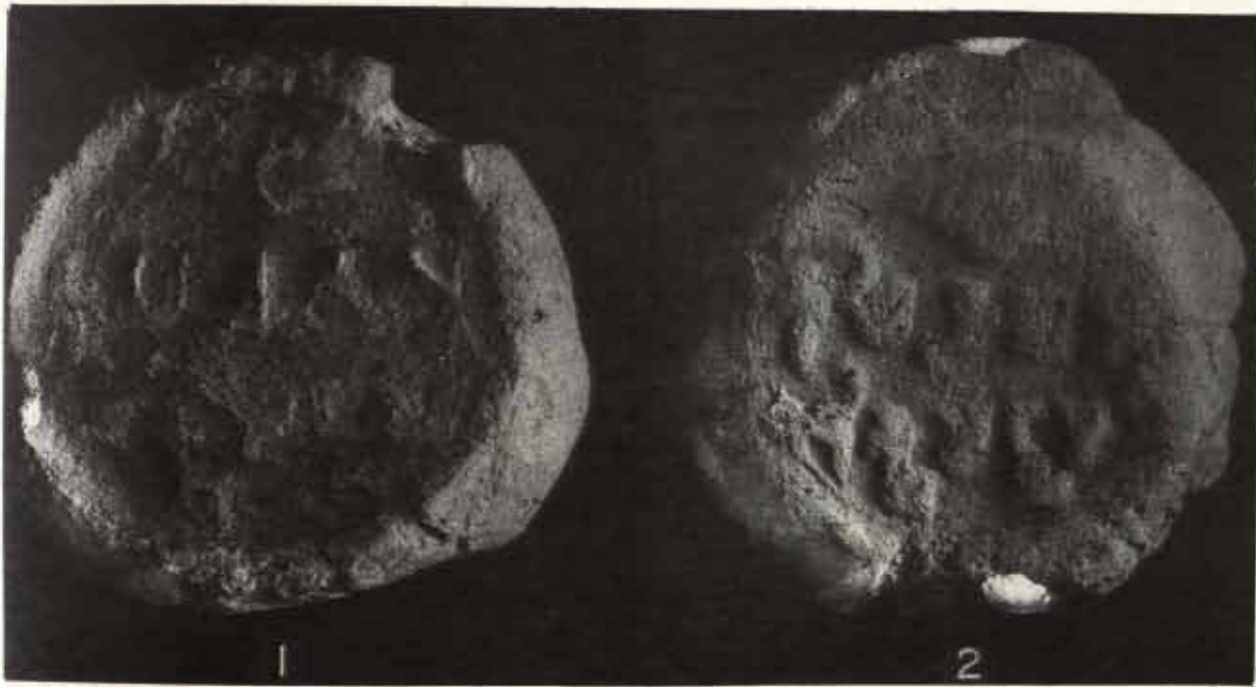


A



B

Piprahwa : terracotta sealings with legend, Om Devaputra Vihare, Kapilavastus, Bhikhu Sanghas. See pp. 85-86



A



B

*Piprahwa : terracotta sealings with legend 'Maha Kapilavastus,
Bhikshu Sanghas' . See pp. 87-89*



A



B



C



A



B



C



D

Ganwaria : A, terracotta sealing with the legend 'Kafu, Puta, Wimas' ; B-D, terracotta sealings. See pp. 92-93



A



B



C

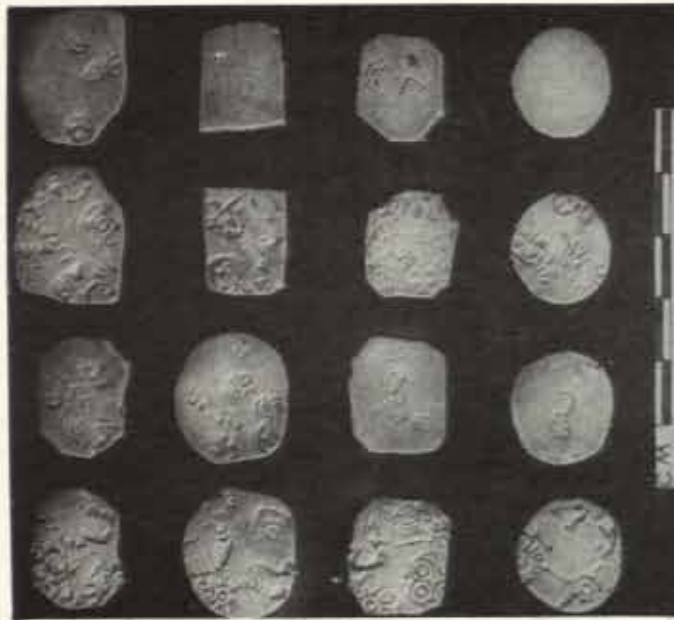


D

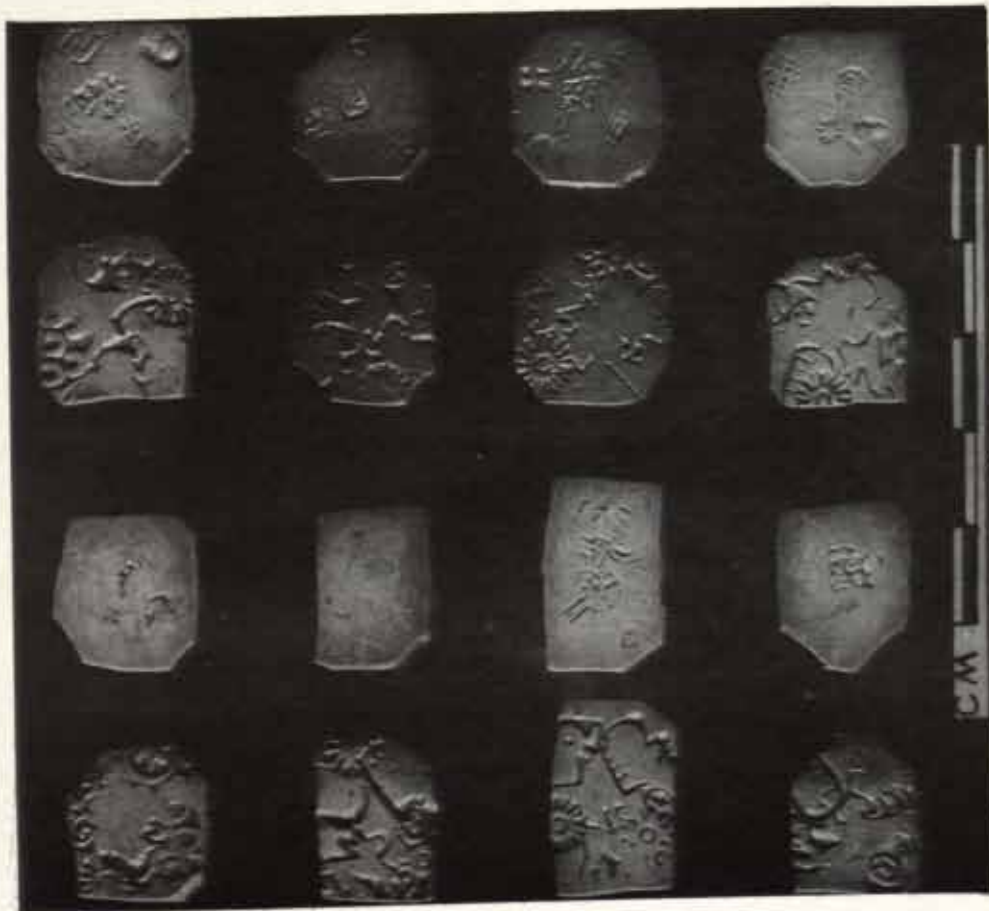
Ganwaria: terracotta sealings. See p. 94



A

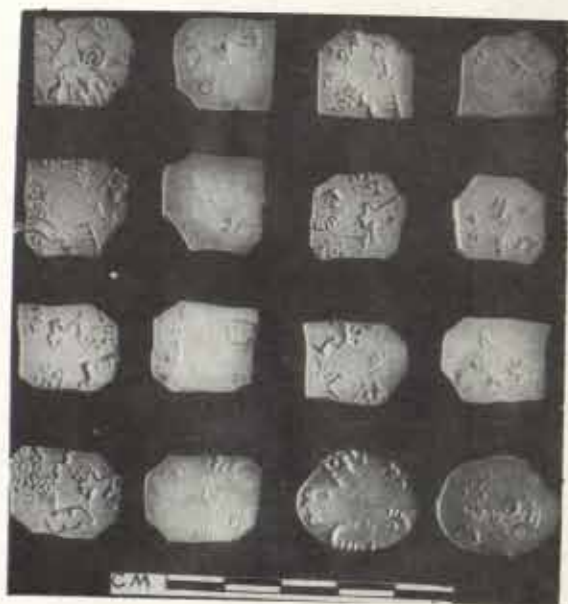


B

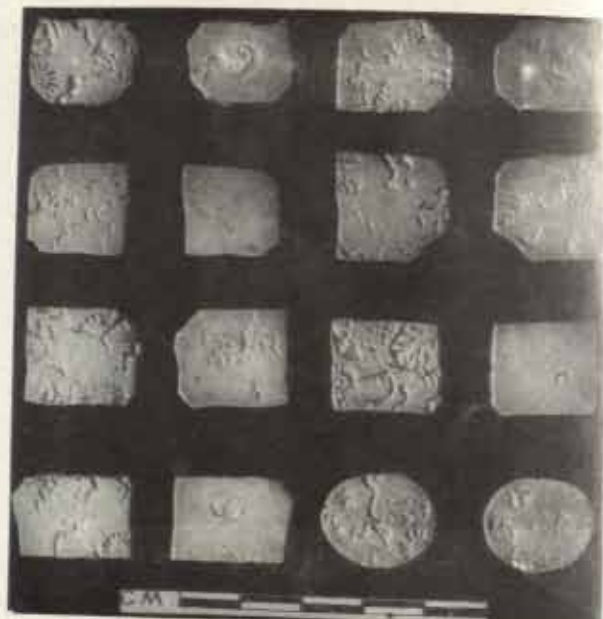


C

Ganwaria : A, Kosala coin; B-C, Punch-marked coins. See pp. 97 and 109



A



B

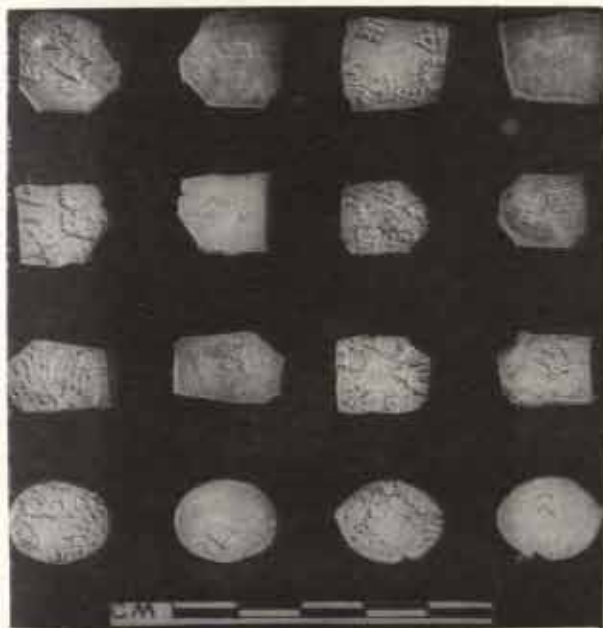


C

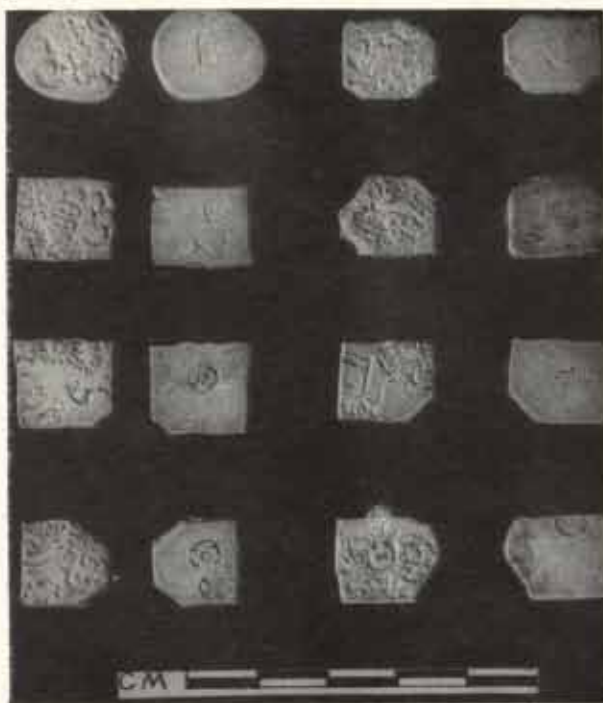


D

Ganwaria : Punch-marked coins. See p. 109



A



B

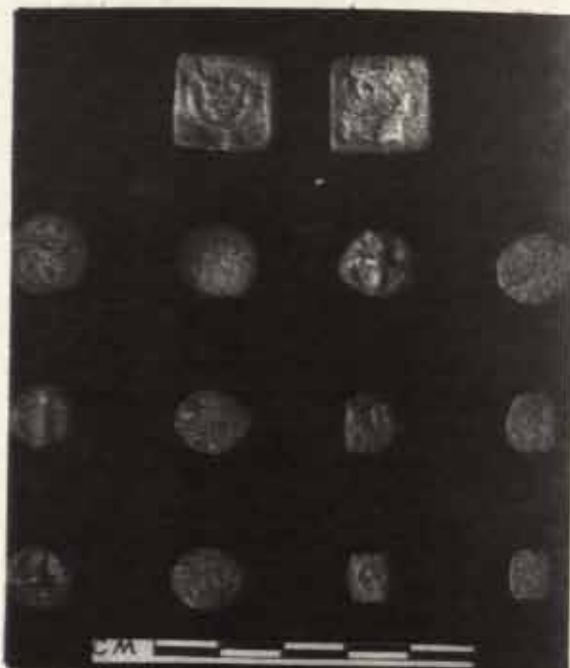


C

Ganwaria : Punch-marked coins. See p. 109



A



B

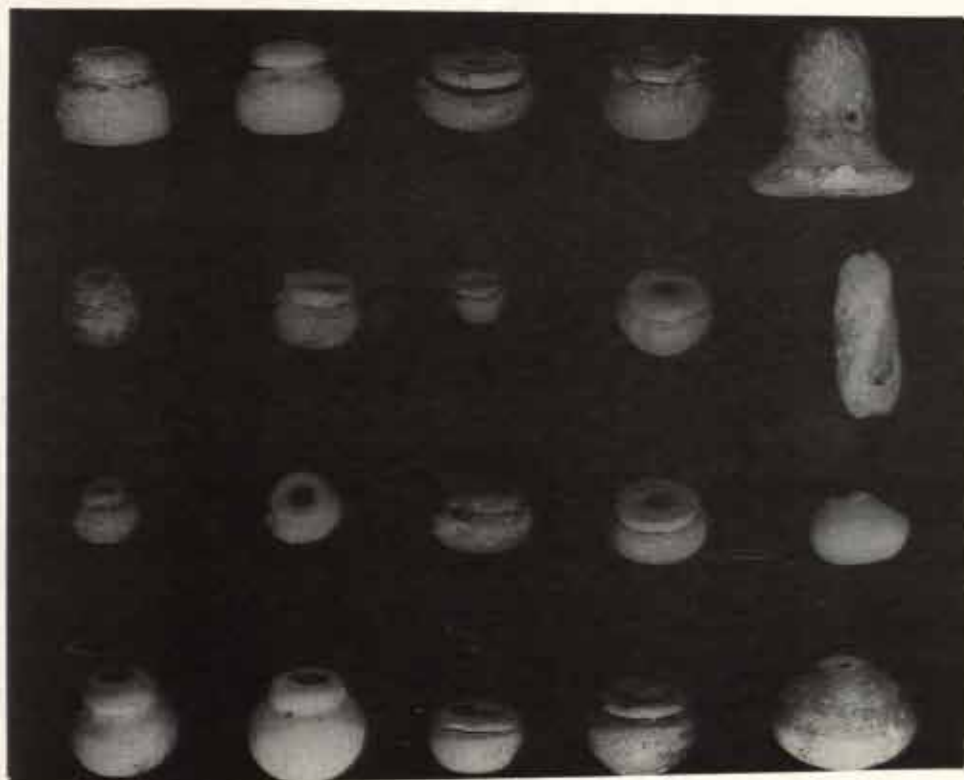


C

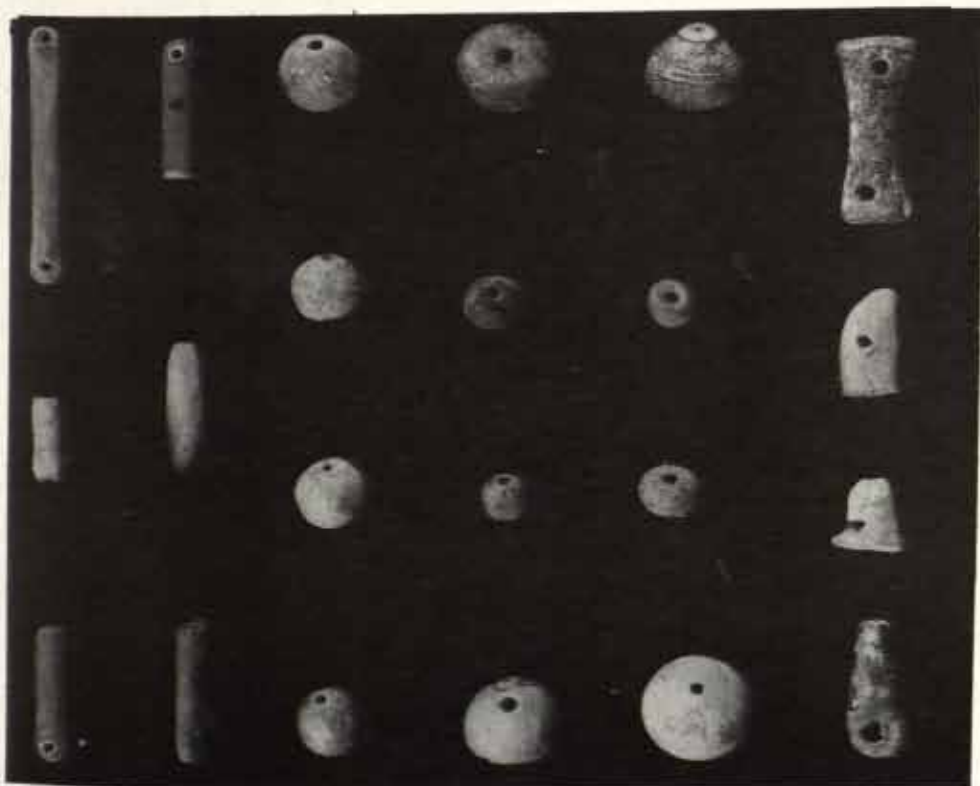


D

A-B and D, Ganwaria: coins; C, Piprahwa : Kushan coins. See pp. 130-131 and 133-144



B

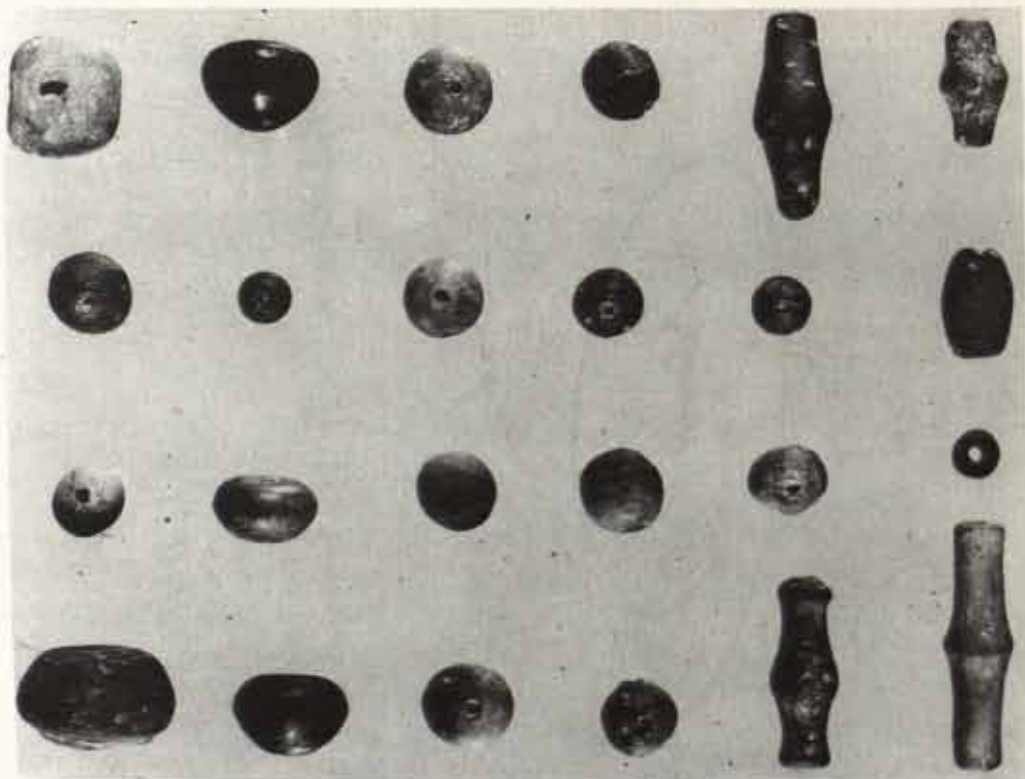


A

Beads from Piprahwa and Ganwaria. See pp. 149-150

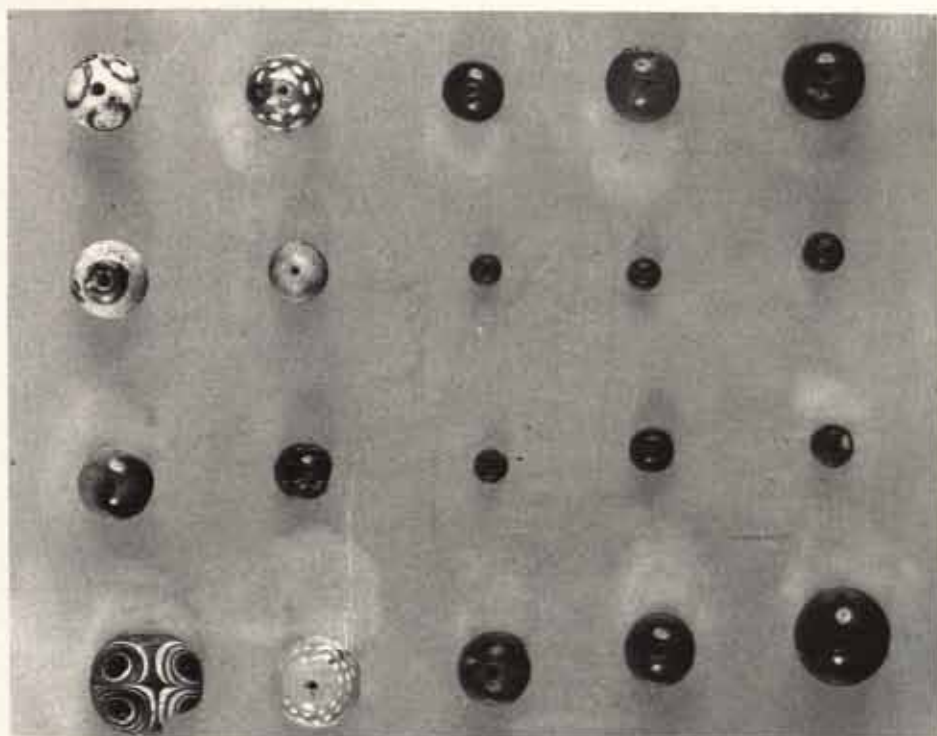


B



A

Beads from Piprahwa and Ganwaria. See pp. 152 and 157

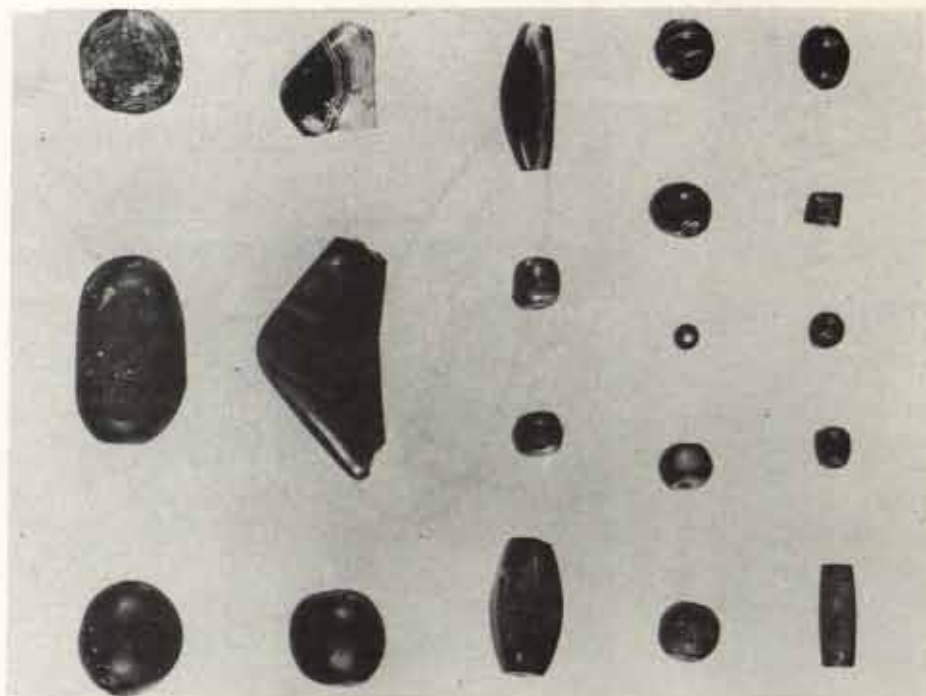


B

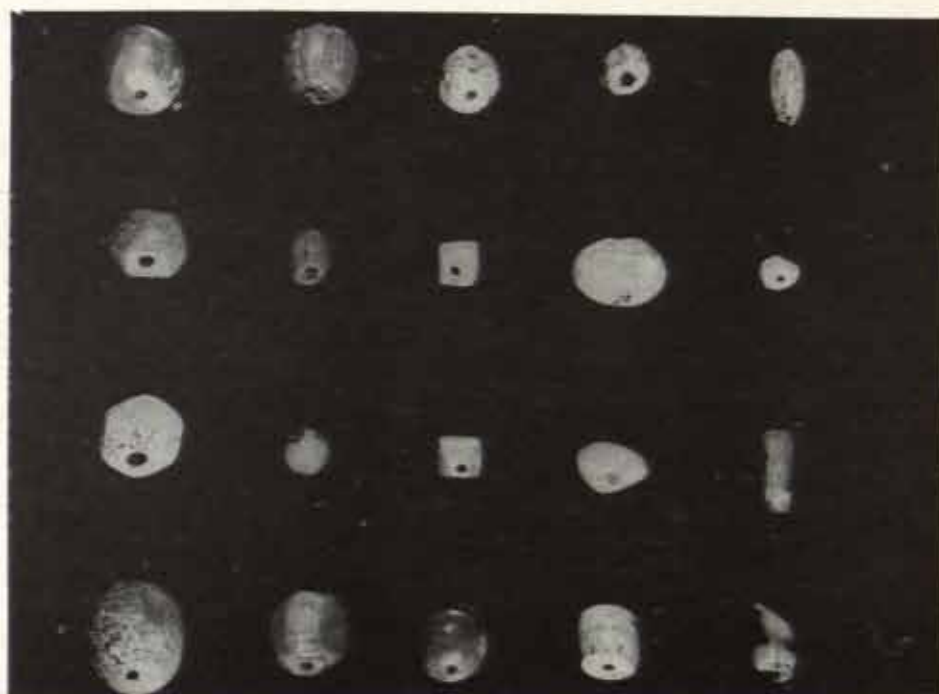


A

Beads from Piprahwa and Ganwaria. See pp. 158-159

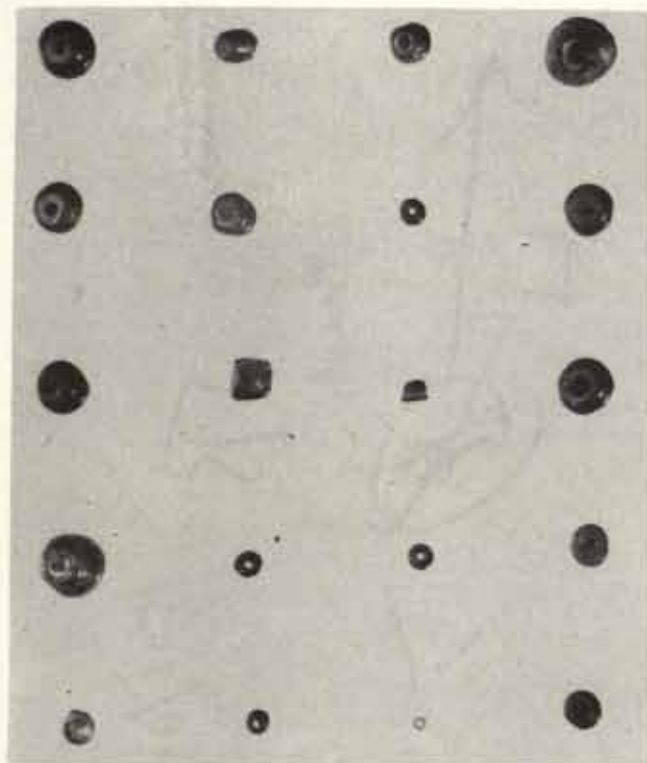


B

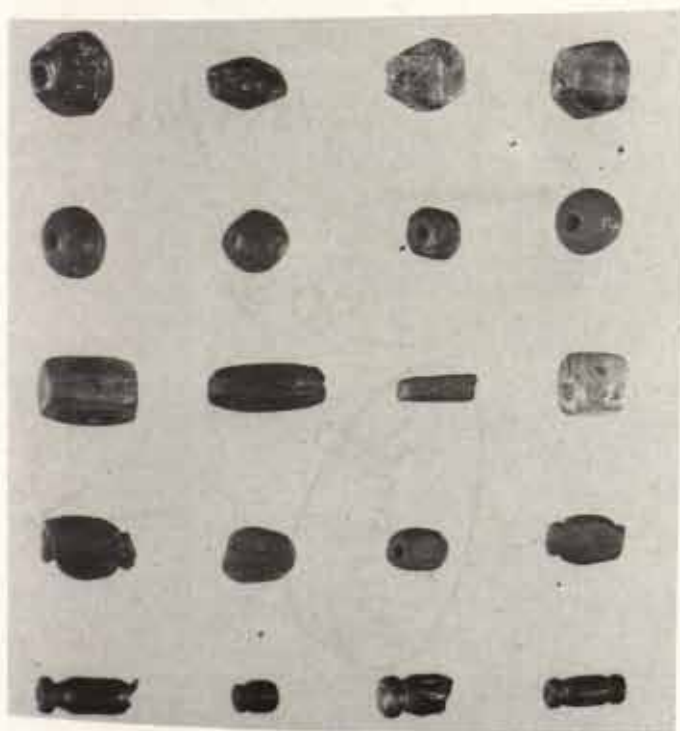


A

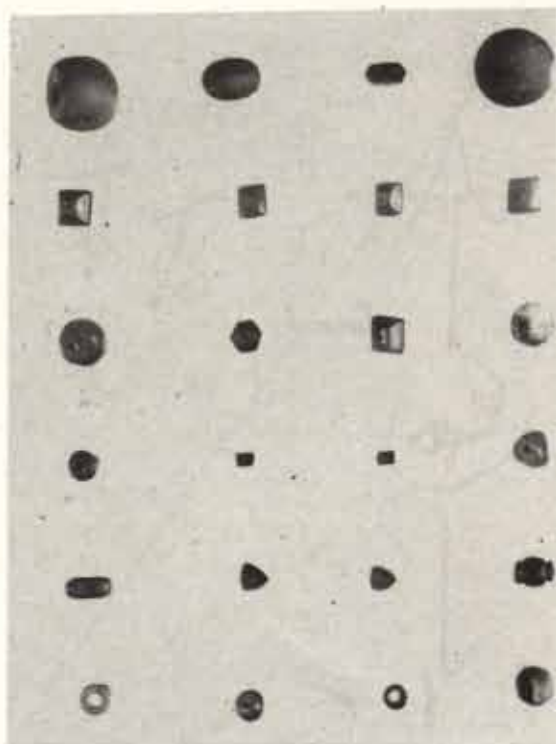
Beads from Piprahwa and Ganwaria. See pp. 160-161



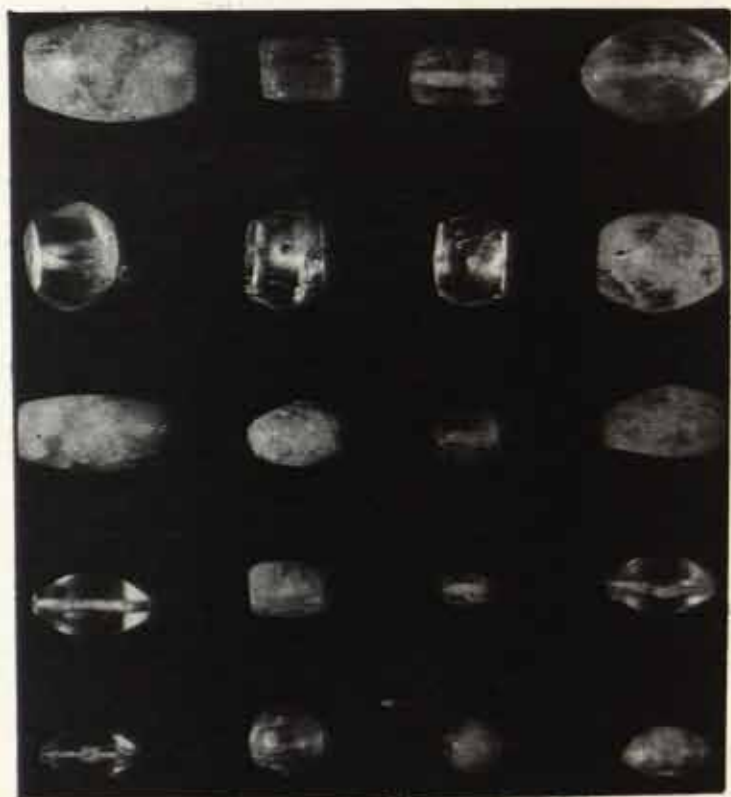
A



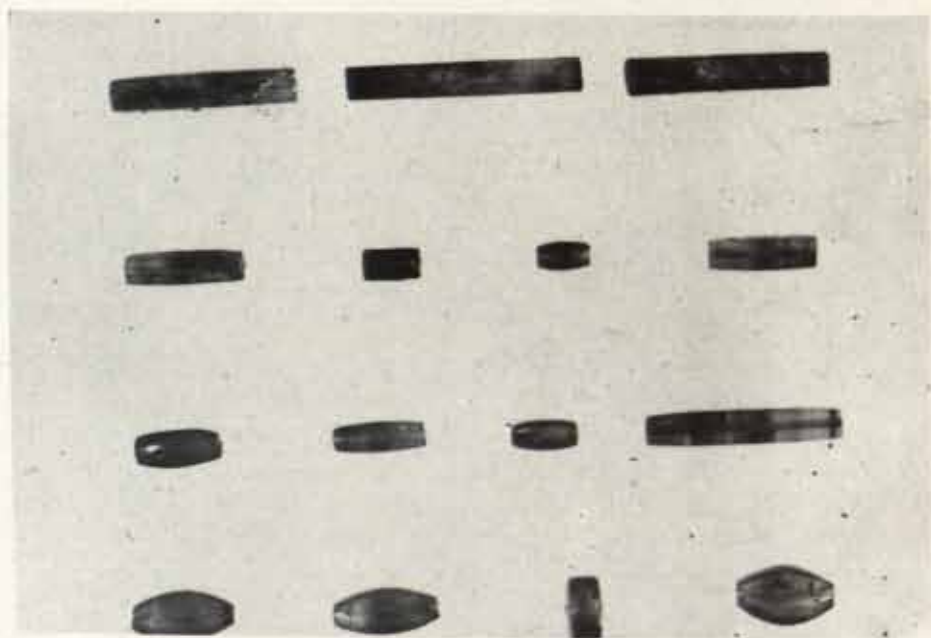
B



C



A

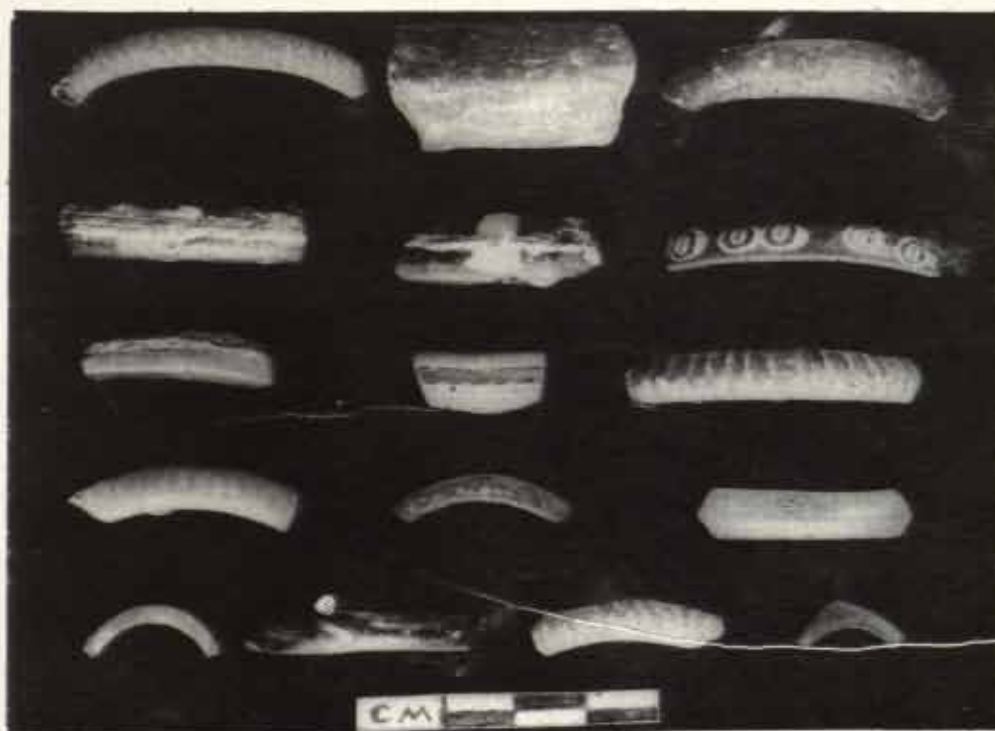


B

Beads from Piprahwa and Ganwaria. See pp. 165-166



A

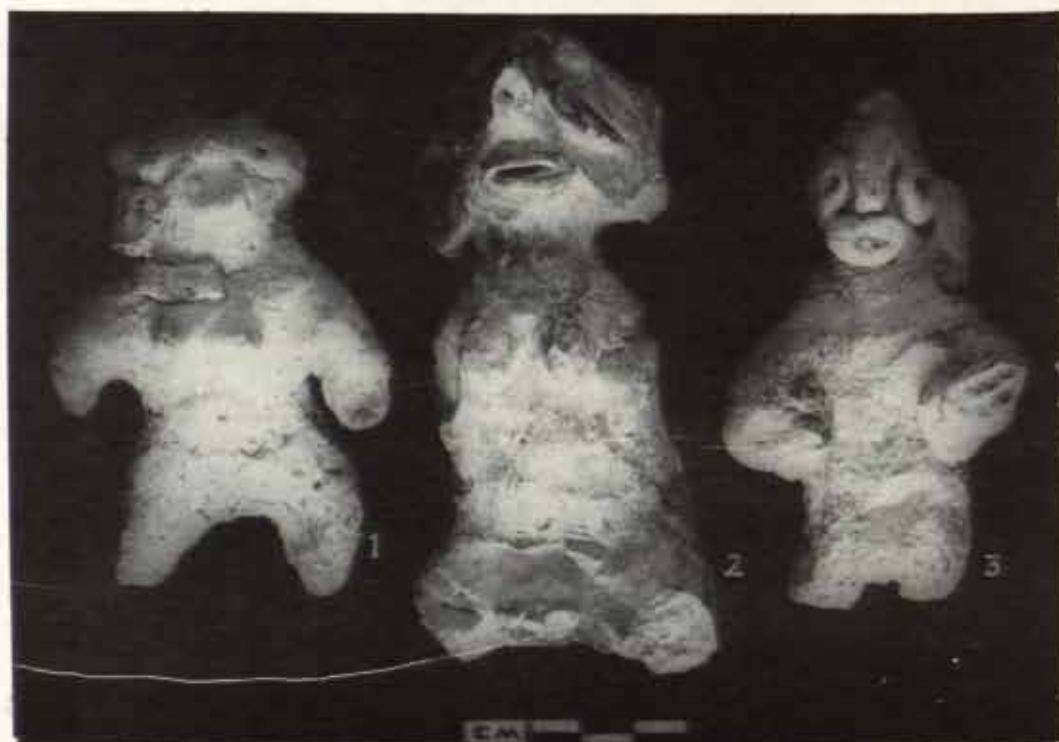


B

Glass bangles from Piprahwa and Ganwaria. See pp. 175 and 177

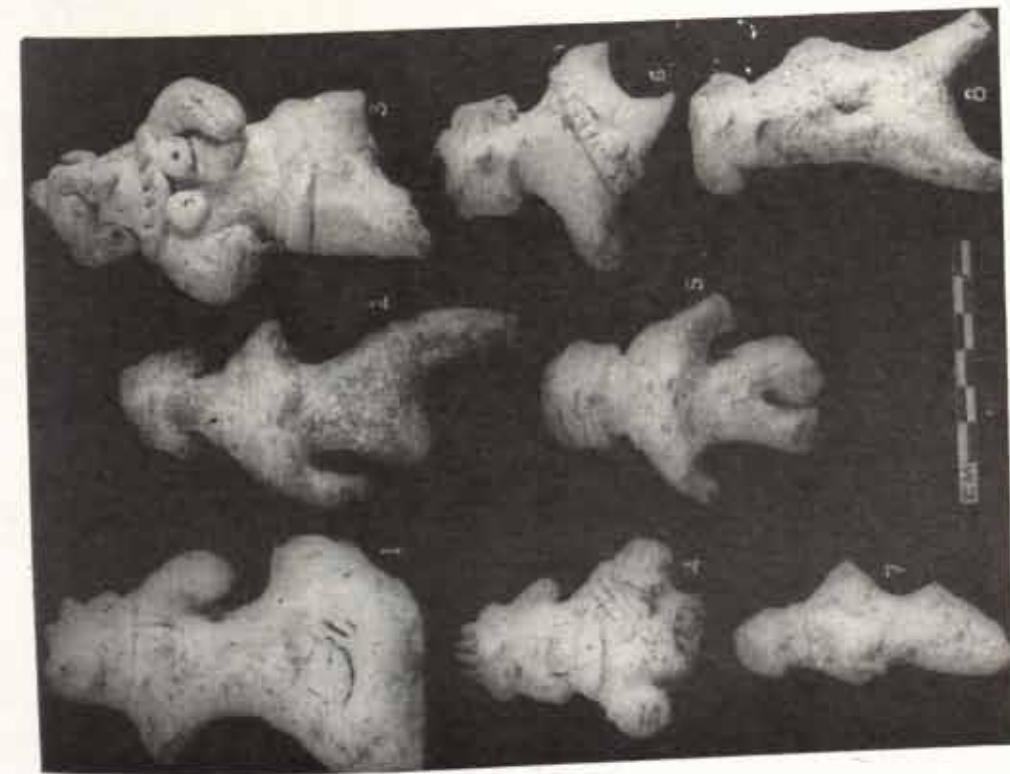


A

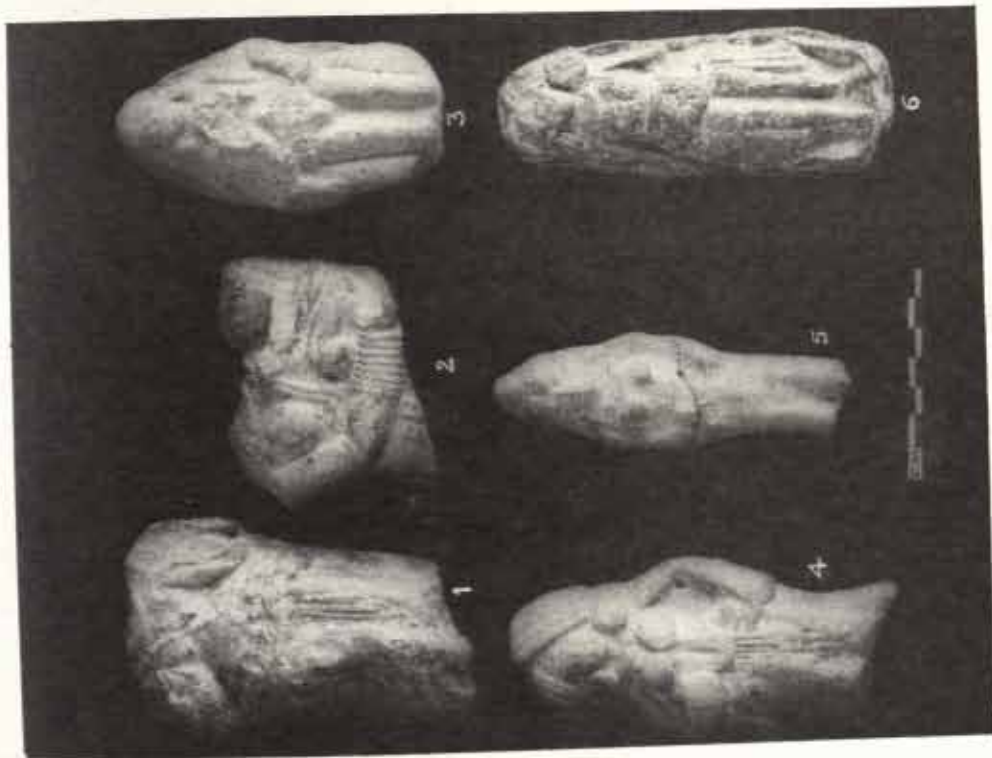


B

A, Piprahwa : red sandstone head of Indra (first century AD)
 B, Ganwaria : terracotta human figurines of
 musicians. See pp. 178 and 184



A



B

Ganwaria : terracotta human figurines. A, 1-6, Period III and 7-8, Period IV and B, 1-3, Period II and 4-6, Period III. See pp. 185 and 206



A



B

*Ganwaria : A, crudely handmade miniature figurines (1-5, Period II; 6, Period III; 7, Period IV); B, moulded heads (1, Period II; 2-7, Period III; 8-9, Period IV).
See pp. 186 and 206*

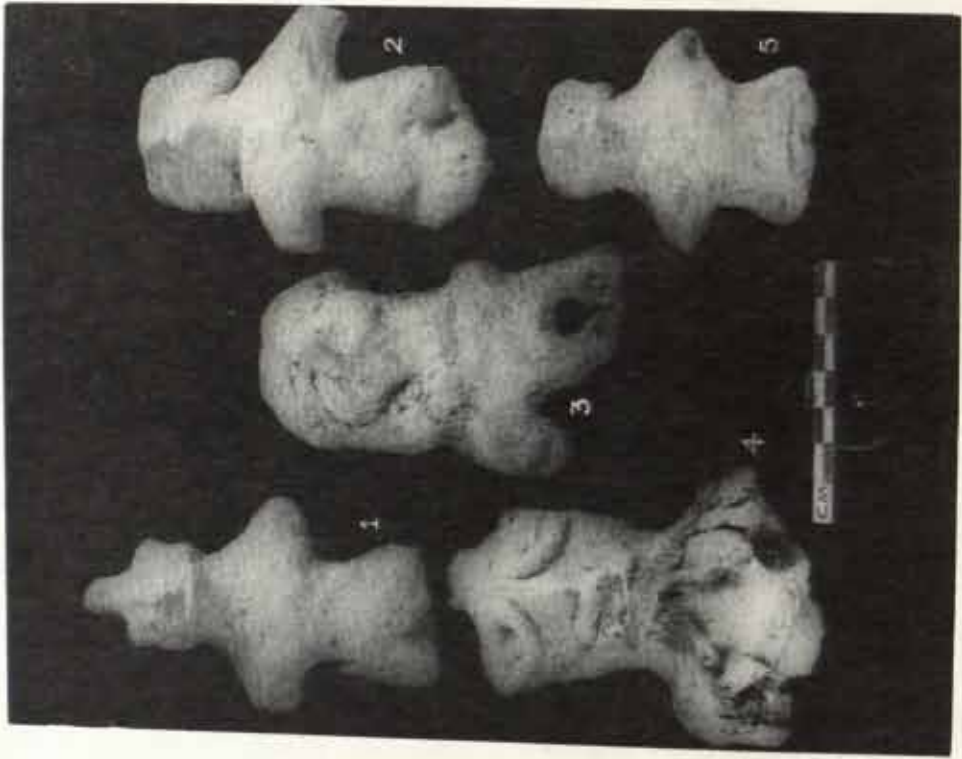


A

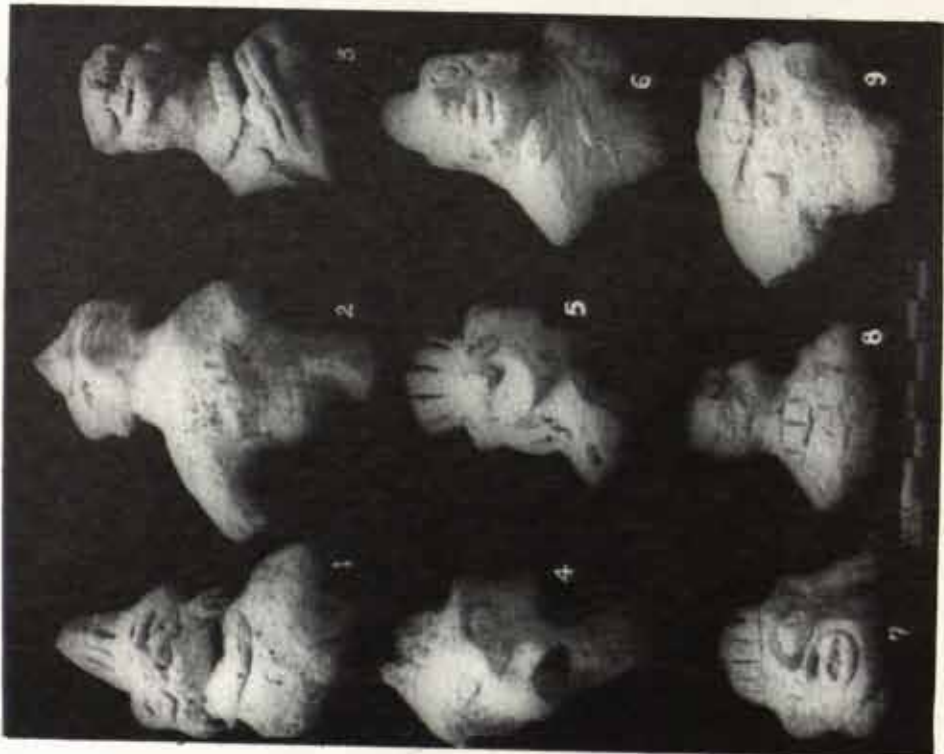


B

*Ganwaria : A, Pedestalled figures (1, Period II and 2-3, Period IV); B, crudely handmade figures with unimpressive face (1, Period III and 2-6, Period IV).
See pp. 187 and 207*



B



A

Ganwaria : crudely handmade figures with unimpressive face. A, 1-5, Period III; 6-9, Period IV and B, 1-4, Period III; 5, Period IV. See pp. 190-191 and 208



A

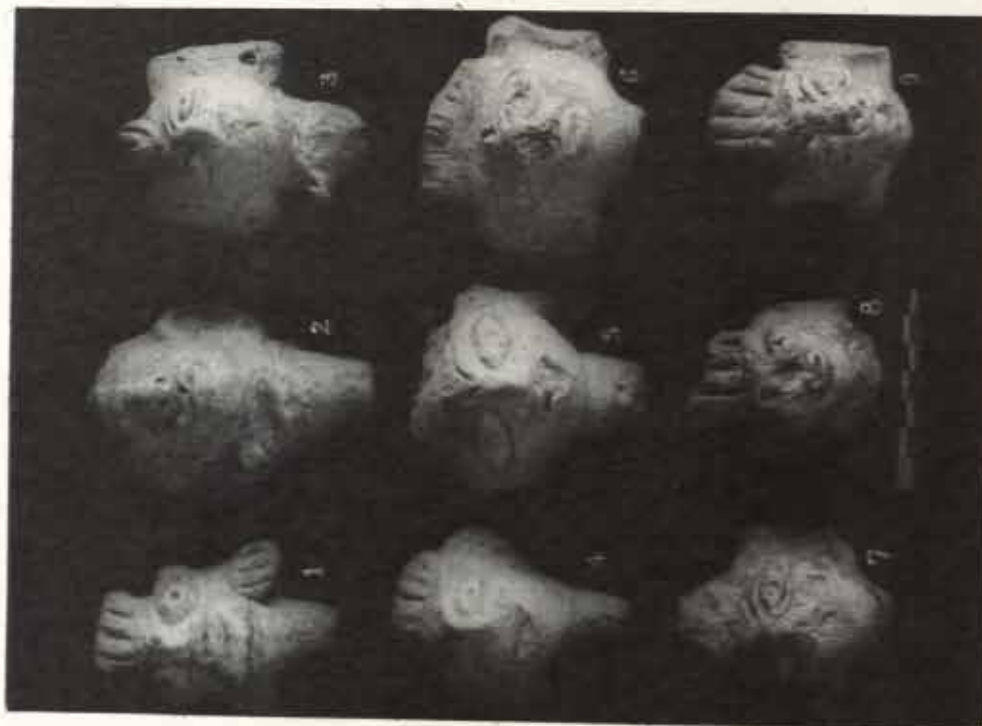


B

Ganwaria : crudely handmade heads with a tenon below, A, 1, Period II and 2-7, Period III and 8-9, Period IV and B, 1-5, Period III and 6, Period IV. See pp. 181, 187, 192 and 208

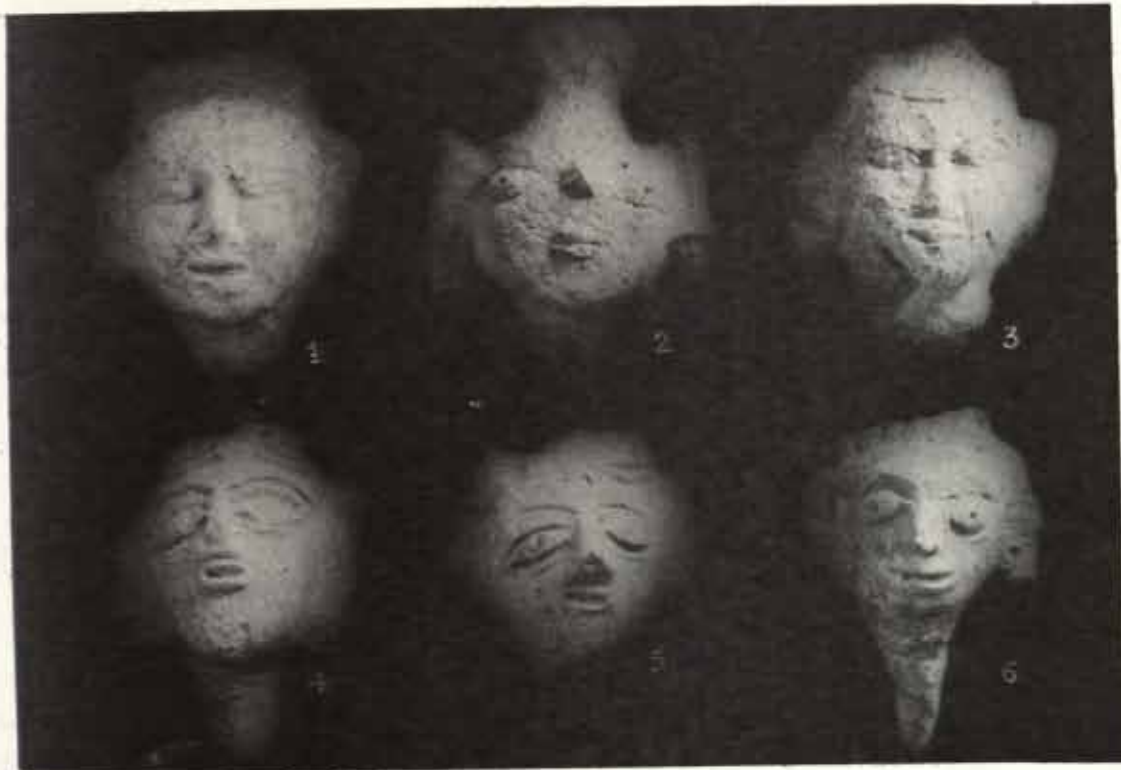


A



B

Ganwaria : crudely handmade heads with tenon below, A, 1-4, Period III and 5-9, Period IV and B, 1-3, Period III and 4-9, Period IV. See pp. 193-194 and 209



A



B

*Ganwaria : crudely handmade heads with a tenon below,
Period IV. See p. 210*



A



B

*Ganwaria : A, female torso with suspended ears (1, Period II; 2-4, Period III; 5, Period IV); B, female figures on stump (1, Period II; 2, Period III; 3, Period IV).
See pp. 187, 194 and 211*



A



B



C

Ganwaria: A, heads, handmade (1, Period III and rest Period IV);
 B-C, crude figures with a stand base (1-3, Period III and rest Period IV; 1-2,
 Period III; 3-4, Period IV). See pp. 195 and 211-212



A



B



C

Ganwaria : A, crude figures with a stand base, Period IV; B-C, moulded plaques, Period III. See pp. 181, 196 and 213



A



B

Ganwaria : A, moulded plaques (1-4, Period III and rest Period IV); B, pedestal votive figures (1, Period III and rest Period IV). See pp. 188-189, 197 and 214

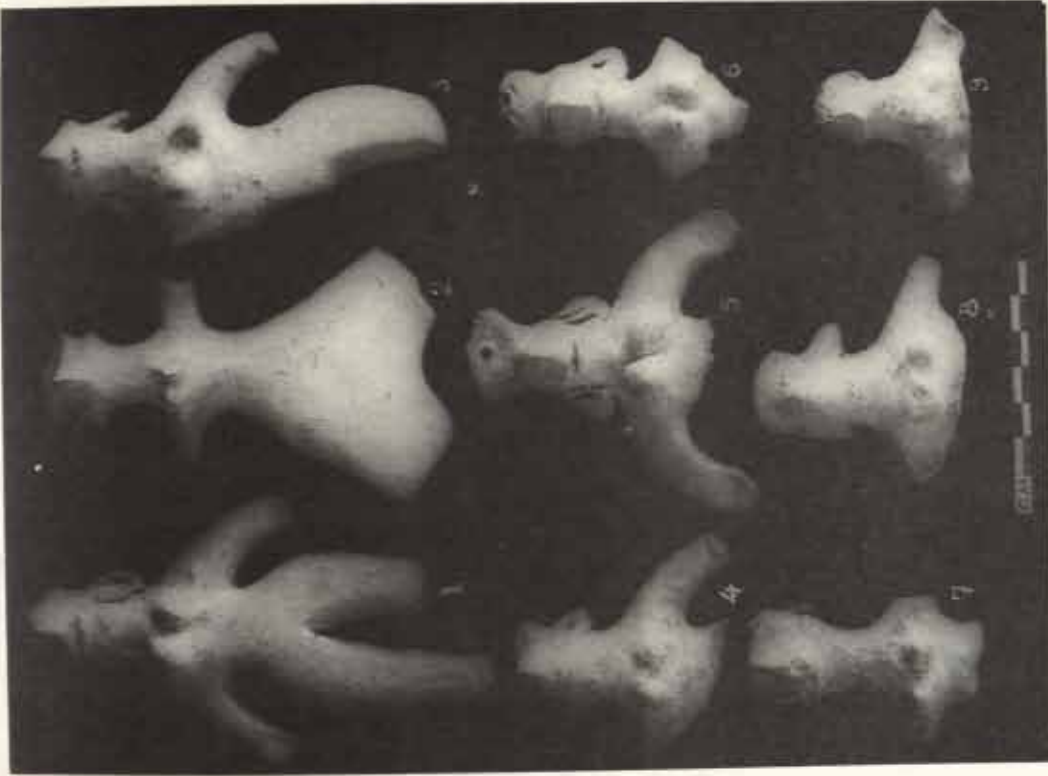


A

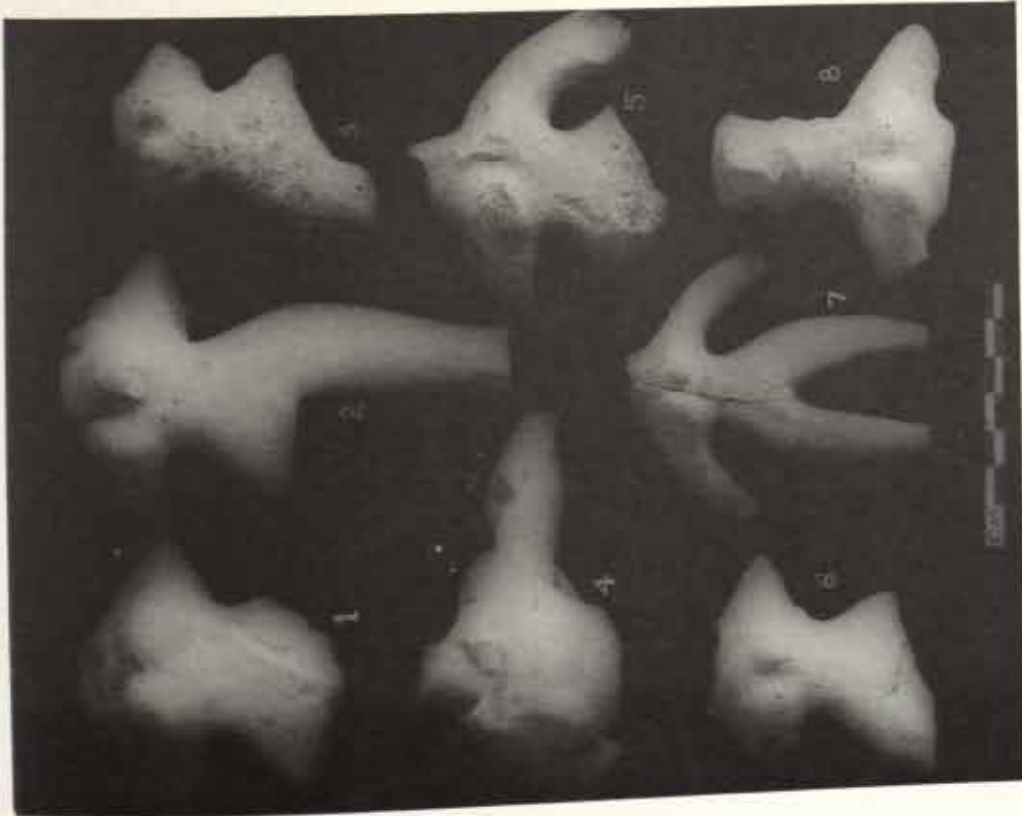


B

Ganwaria : A, crude handmade female figures with child on stump, Period II; B, crude handmade figures, Period III. See pp. 189-190 and 197-198

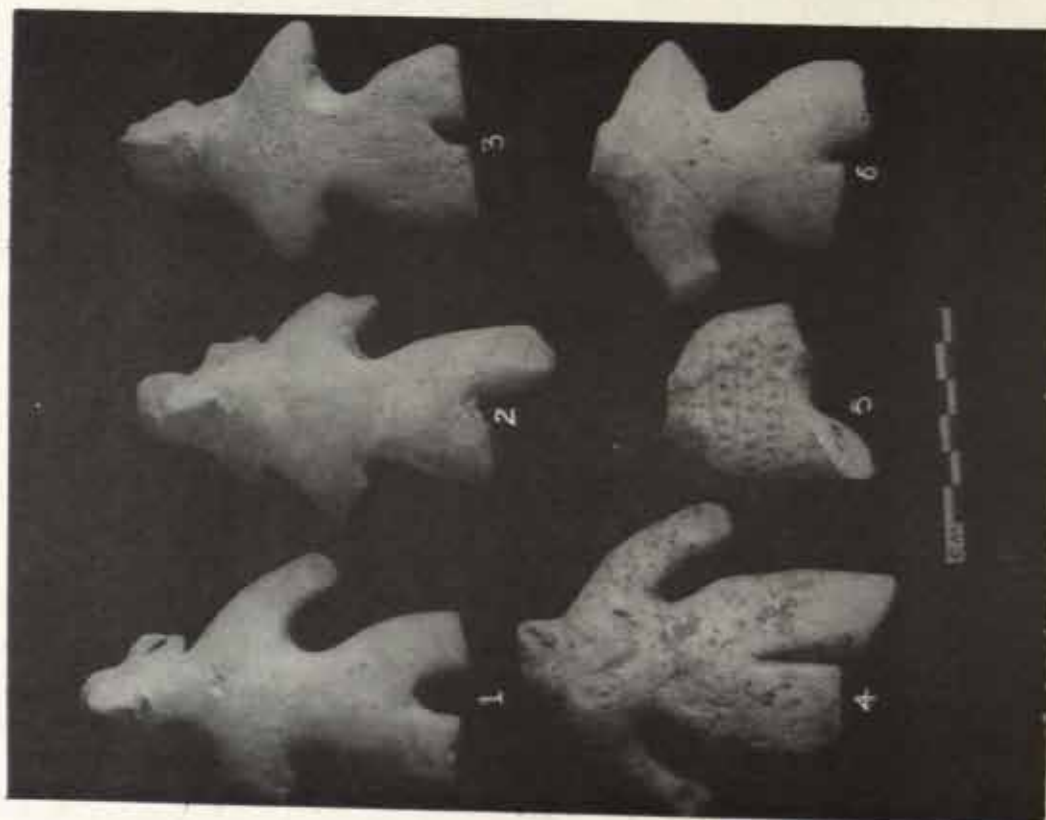
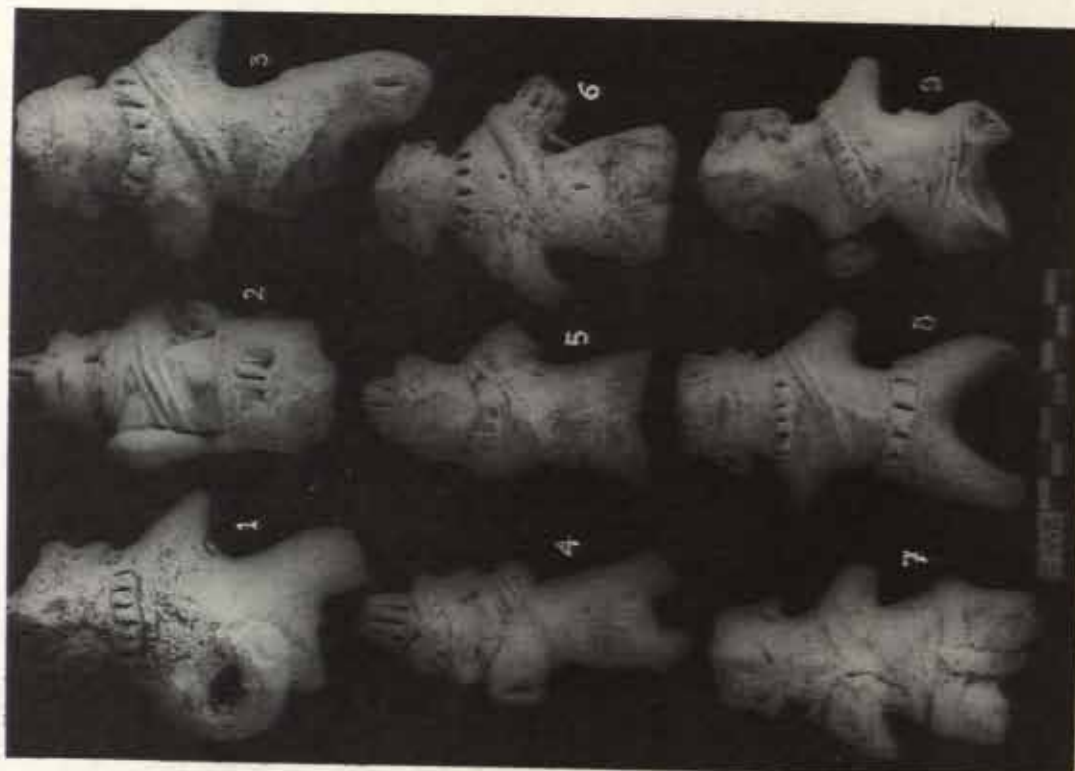


B



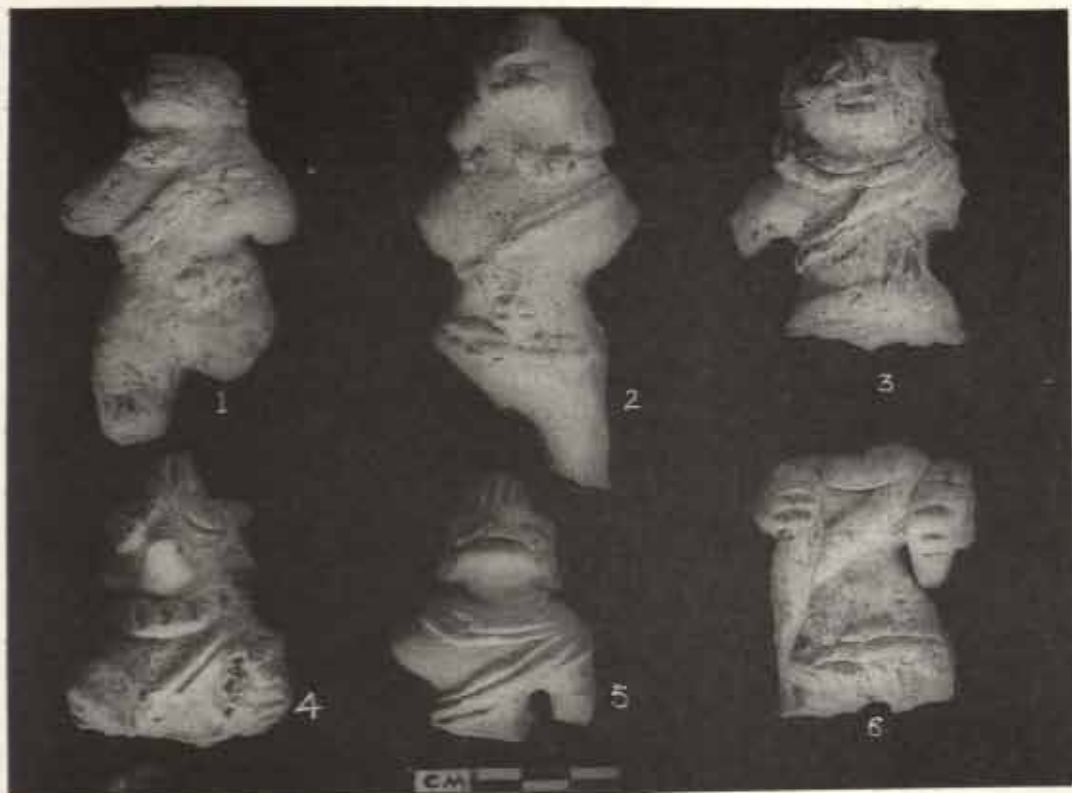
A

Ganwaria : handmade flat figures, Period III. See pp. 182 and 198-199



A
Ganwaria : A, handmade flat figurines, Period III; B, warriors, Period III. See pp. 182 and 200

B



A



B



C

*Ganwaria: A, warriors; B-C, demons, both Period III.
See pp. 181-182 and 202-203*



B



C



D



A

Ganwaria : A, crowned heads, Period III; B-D, dancing figures.

Period III. See nos. 101 and 203-204.



B



A

Ganwaria : A, crude handmade heads on handle (1-2, Period III; 3-4, Period); B, moulded heads in round (1-3, Period III; 4, Period IV).
See pp. 204 and 214



A



B

*Ganwaria : A, mould and cast; B, heads with side locks, both Period III.
See pp. 183 and 205*



A



B



C

*Ganwaria : A, crudely finished heads (1, Period III; rest Period IV);
B-C, front and back view of a heavy handmade female figure,
Period III. See pp. 205 and 214*



A



B

*Ganwaria : A, miscellaneous figurines (1-3, Period III; rest Period IV);
B, defaced heads with halo, Period IV. See pp. 201 and 215*



A



C



B

*Ganwaria : moulded heads with, A, a crown and tenon below and B, foreign features.
Period IV. See pp. 184 and 215-216*



A



C



B



D.

*Ganwaria : A, handmade female torso with decorated necklace;
B, crudely finished Buddha heads; C-D, Buddha head, all Period IV.
See pp. 183 and 216-217*



Ganwaria : standing Buddha with halo, Period IV. See p. 217



Ganwaria : unique seated Buddha, Period IV. See pp. 183 and 217



C

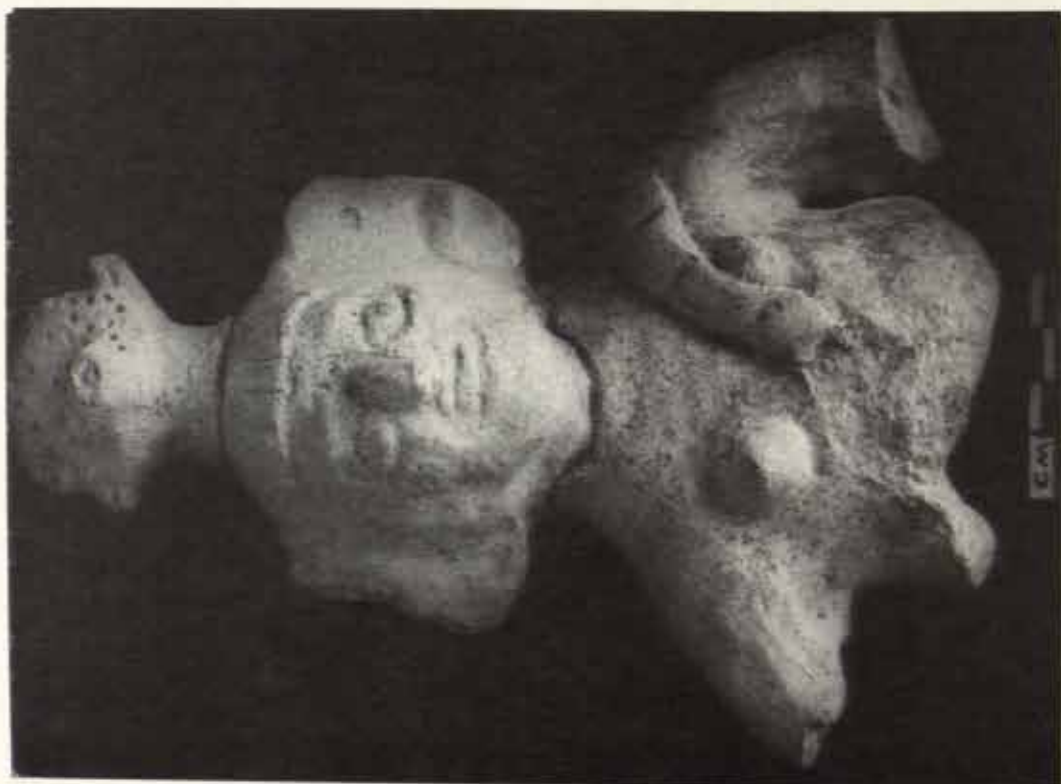


B

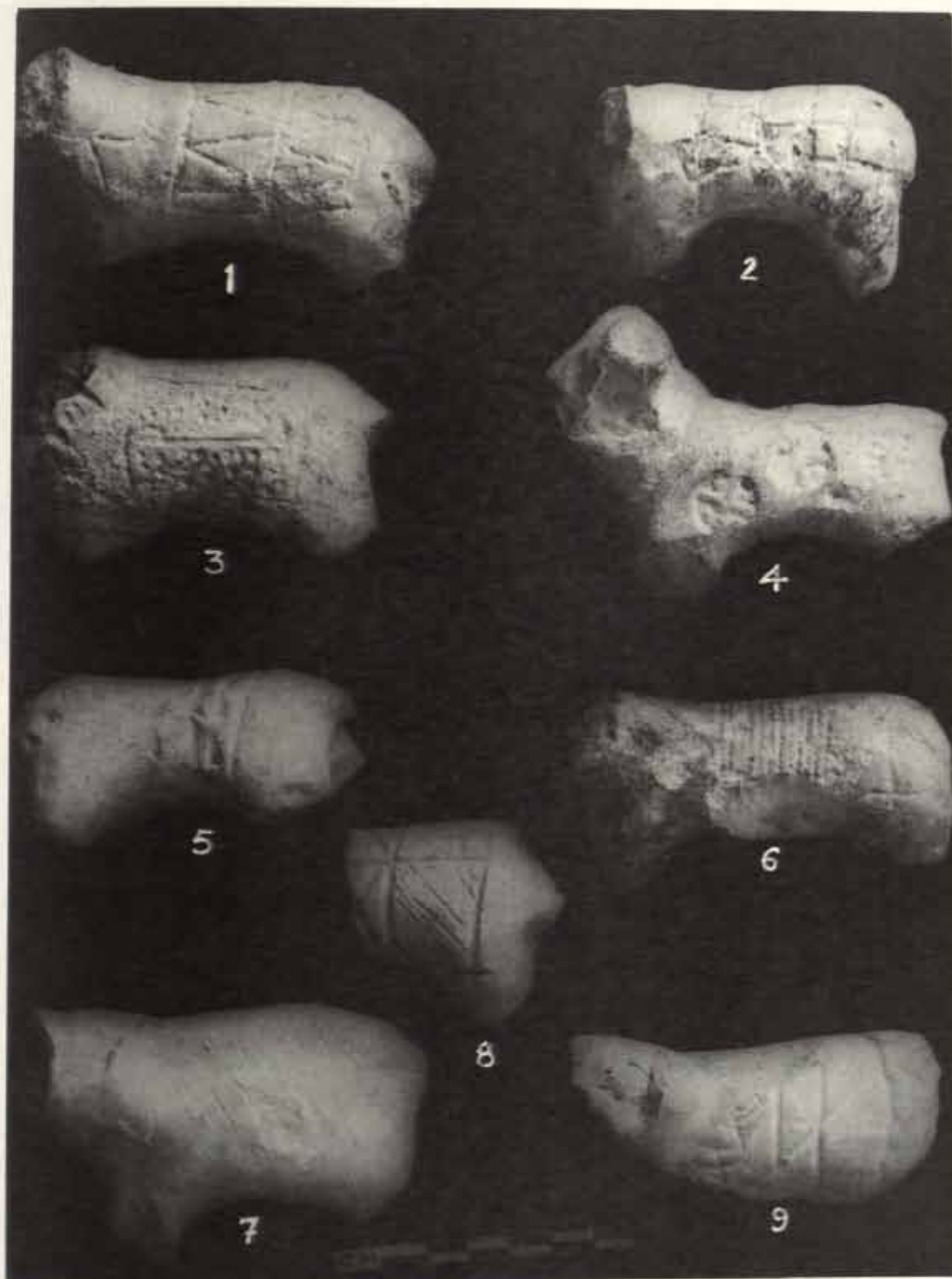


A

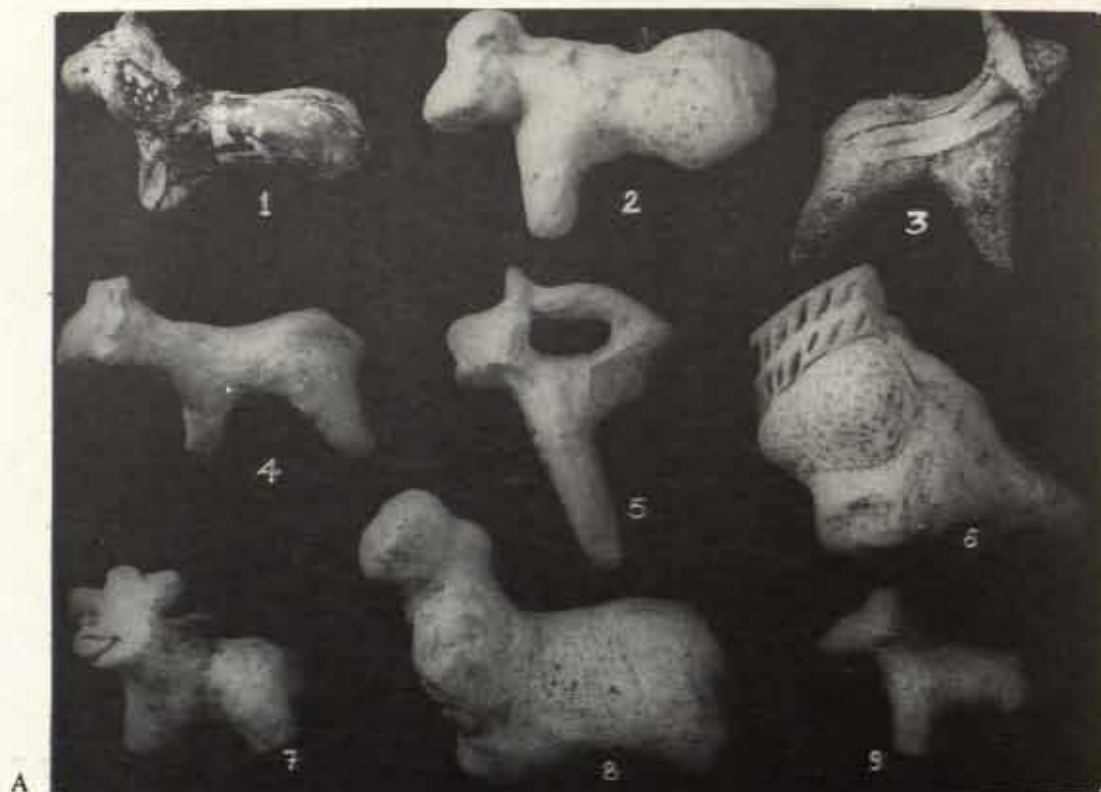
Ganwaria : A, leg portion of Buddha in dhyanamudra; B, sitting religious figures; C, nude Jaina figure, all Period IV. See pp. 217-218



Ganwarla : A, male figure with snake-hood (Siva), Period IV; B, three eyed head. See p. 218



Ganwaria : stamped animal figurines (1-3, Period II; 4-7 and 9, Period III; 8, Period IV). See p. 218



A



B

Ganwaria : A, painted animal figurines (1, Period II; 2-7 and 9, Period III; 8, Period IV);
 B, animal figures with raised heads (1-3, Period II; 4-7 and 9,
 Period III; 8, Period IV). See pp. 219-220

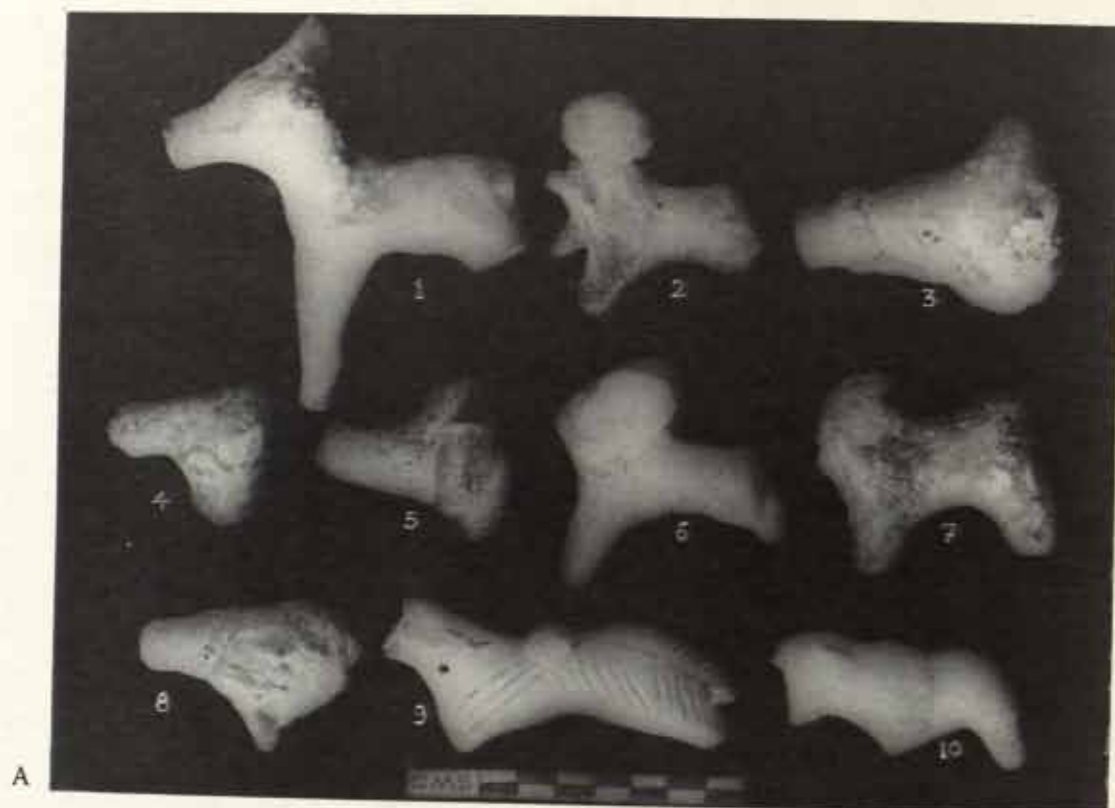


A.



B.

Ganwaria : A, stamped bulls (1-2 and 6, Period II; 3 and 5, Period III and 4, Period IV);
 B, elephants (1-5 and 7, Period III and 6, Period IV). See p. 221

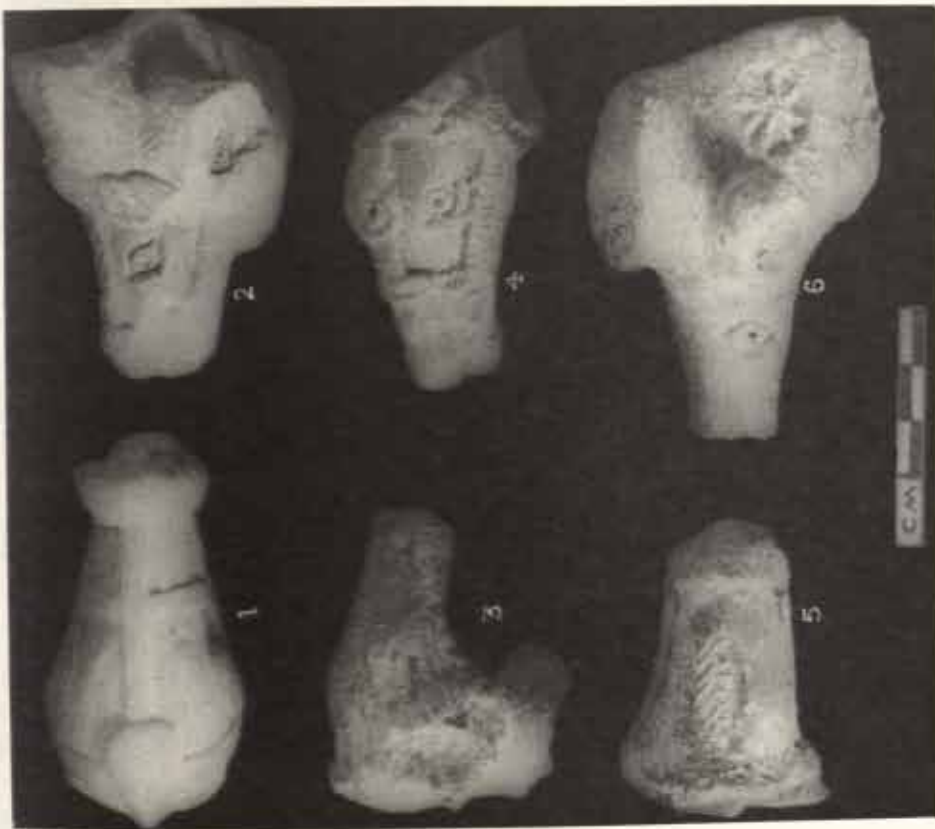


A



B

Ganwaria : A, cows, bulls and buffaloes (1-3, 5, 7-10, Period III and 6, Period IV);
 B, birds, Period III. See pp. 222-223



B



A

Ganwaria : A, birds (1, Period II; 3, Period III and rest, Period IV); B, bridled horse (1, Period II; 3-6, Period III; 2, Period IV). See pp. 223-224



B

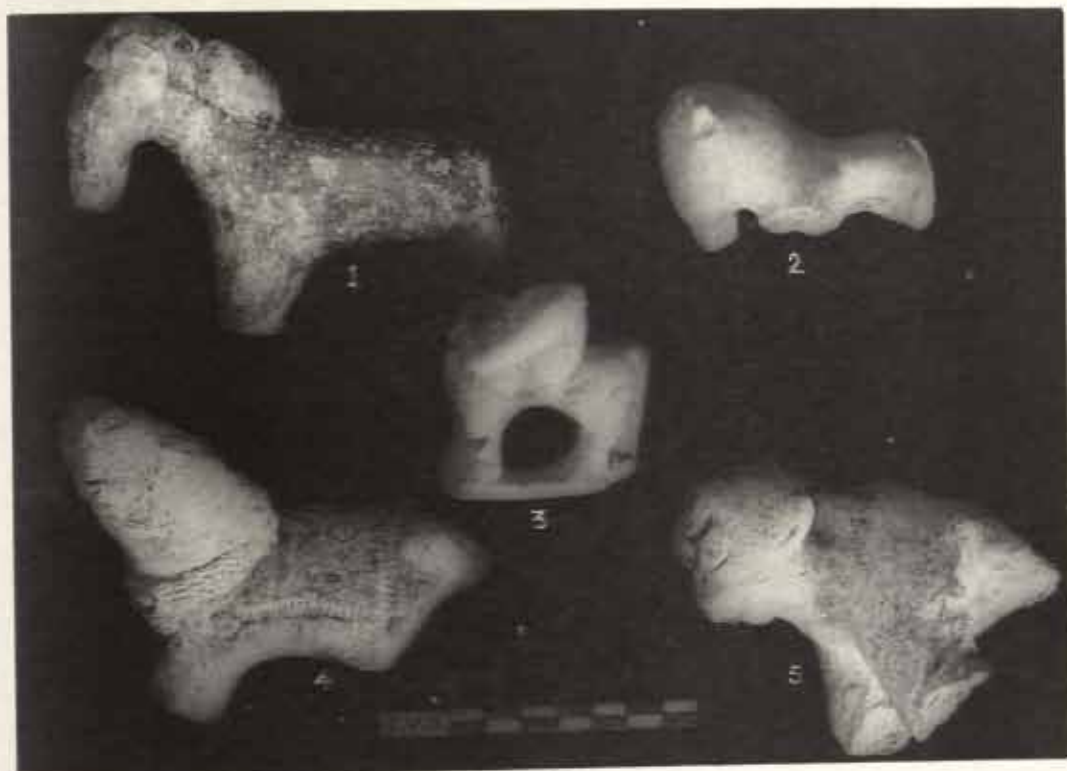


C



A

Ganwaria: bridled horse. A, Period IV and B, Period III; C, *Microcolletes* (small *Figurines*) (2-3), Period III, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. See p. 224.



A

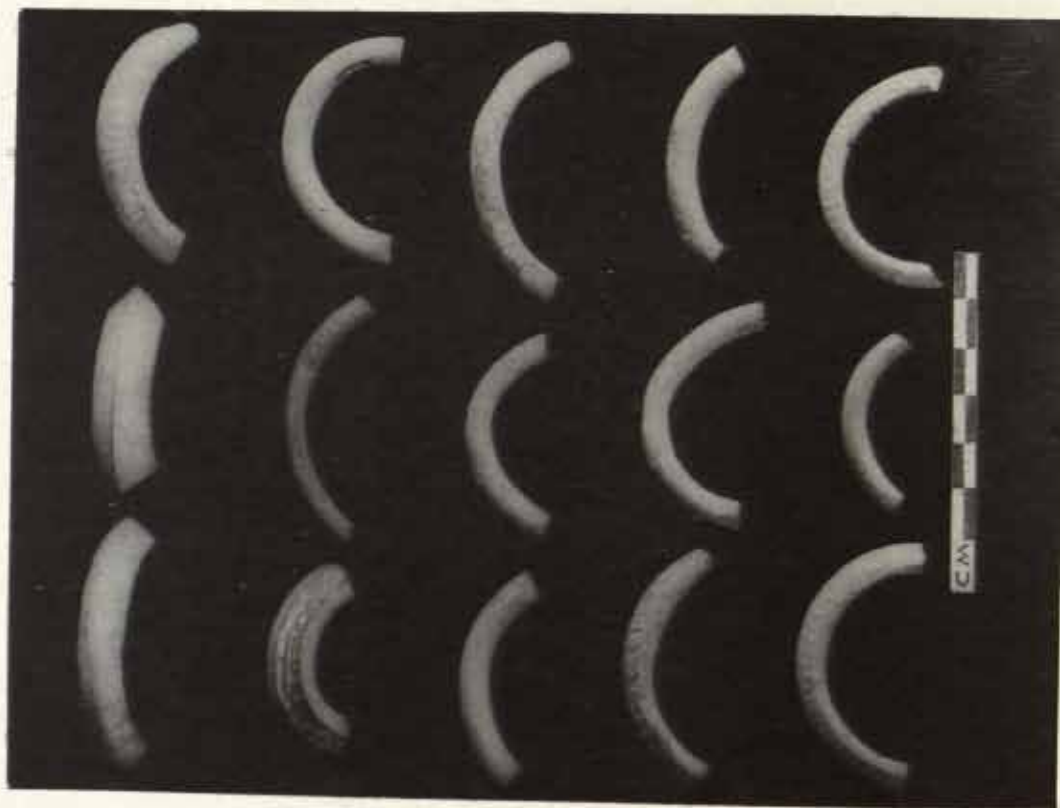


B

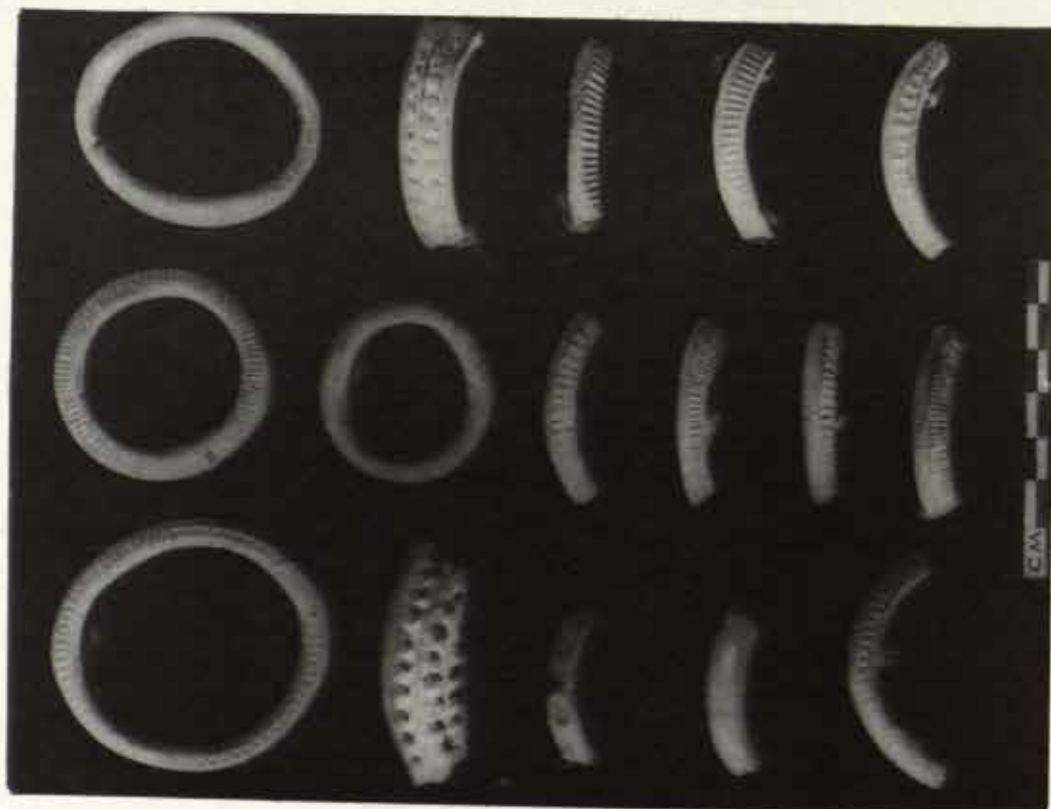


C

*Ganwaria : miscellaneous animal figures, A, 1, Period III and rest
Period IV; B, 1 and 7, Period II, 2-4 and 6, Period III and 5,
Period IV; C, Period IV. See pp. 225-226*

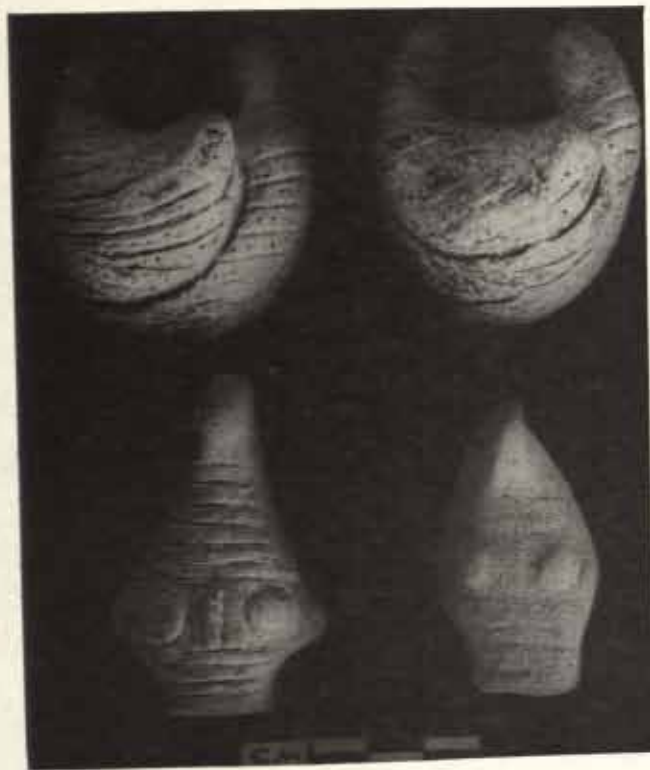


B



A

Ganwaria : terracotta bangles. See p. 227

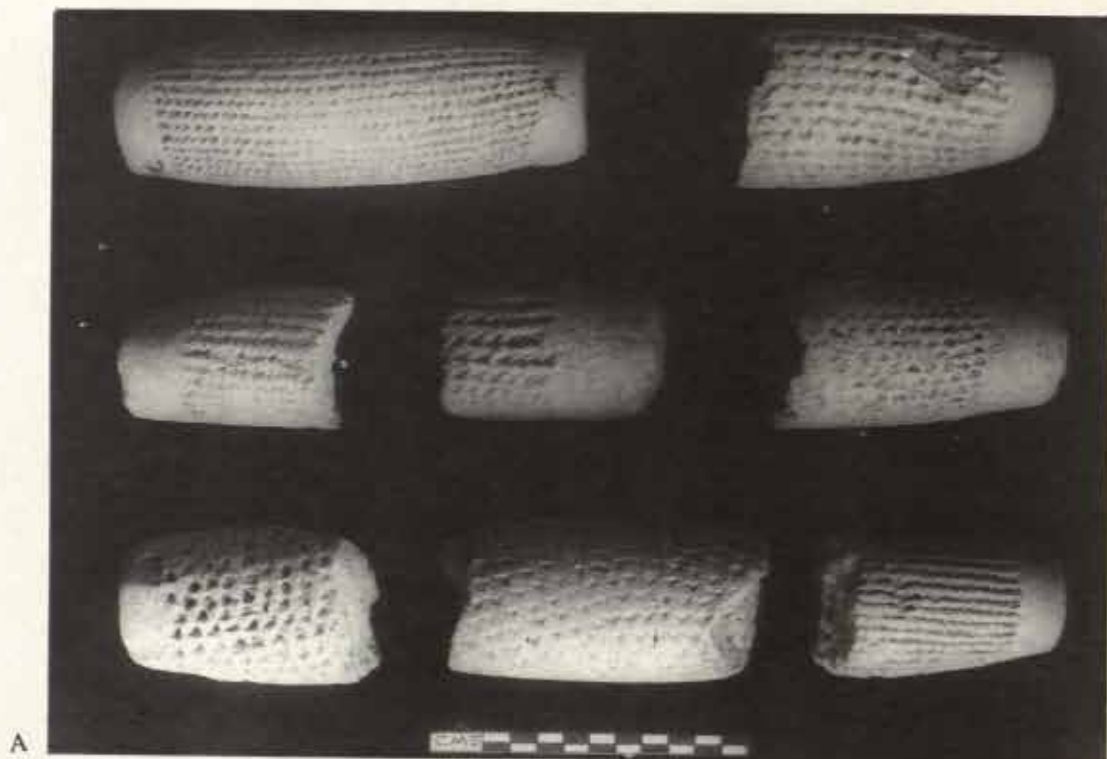


A

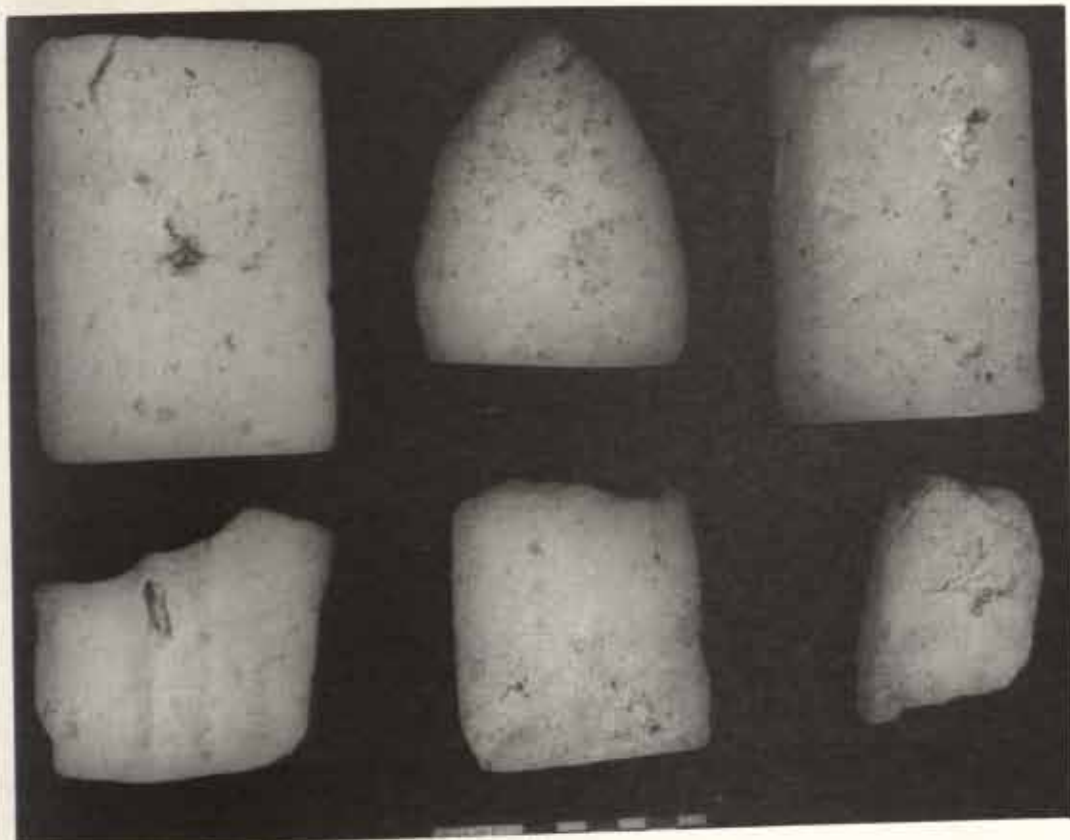


B

Ganwaria : terracotta, A, ear-ornaments and B, dabbers. See p. 229



Ganwaria : terracotta, A, pestles and B, skin rubbers. See pp. 229-230



A

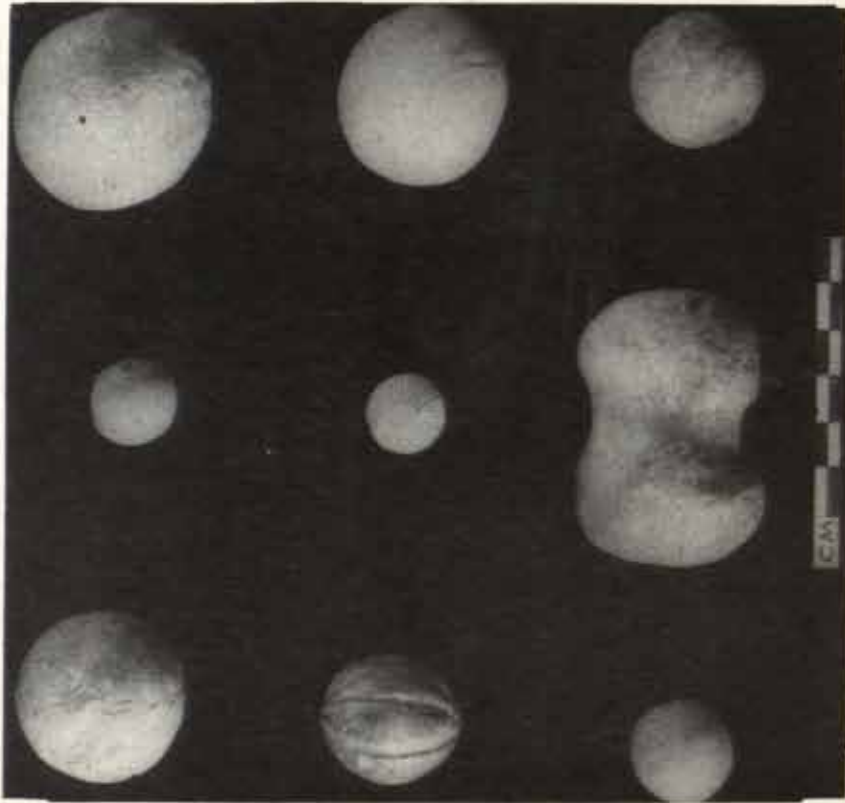


B

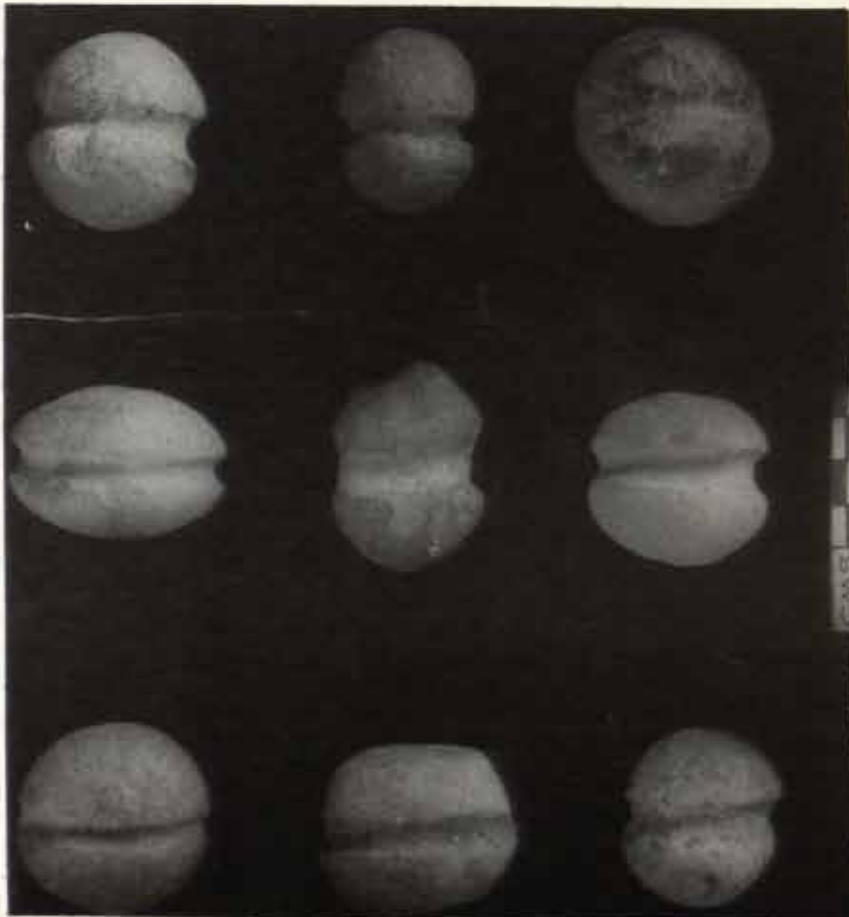


C

Ganwaria : terracotta brick cakes and tiles. See p. 230

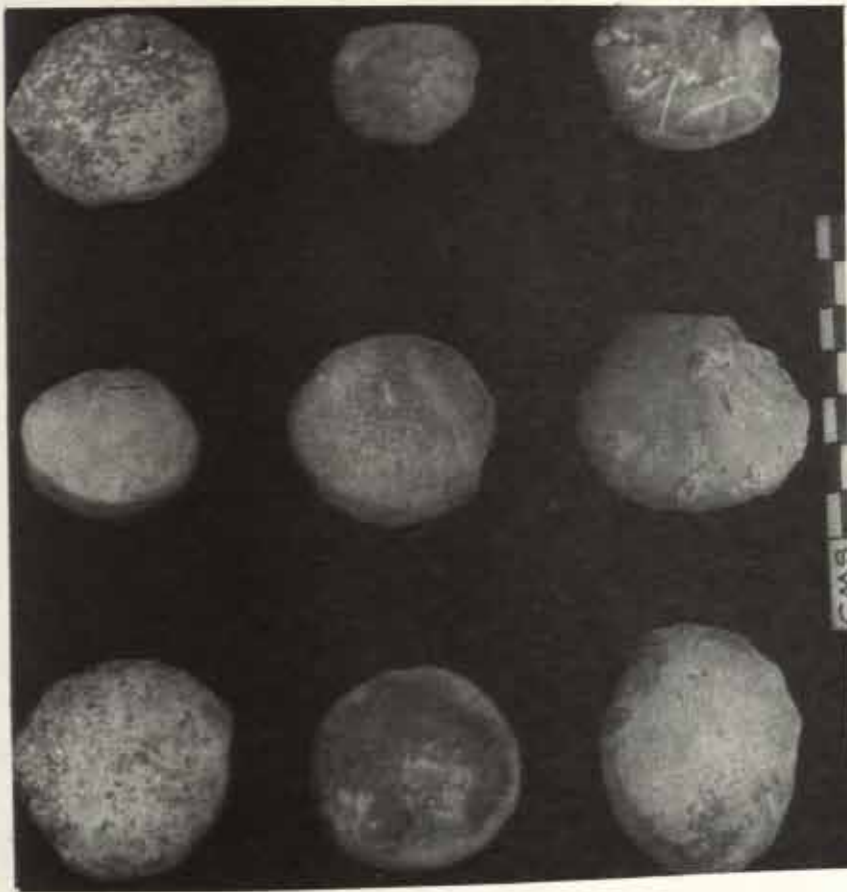


B

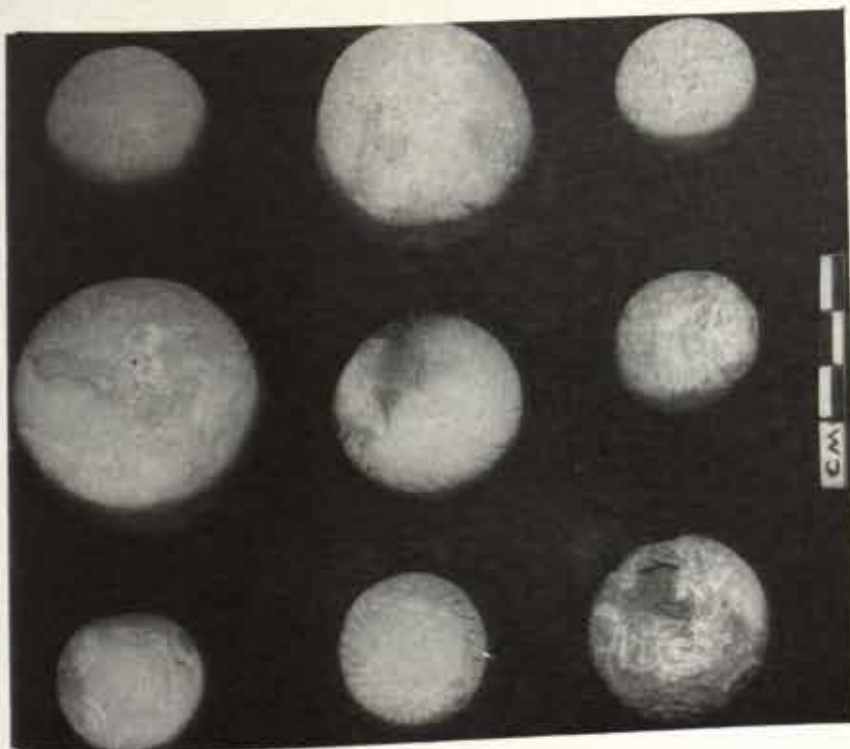


A

Ganwaria : terracotta, A, sling balls and B, balls. See pp. 230-231

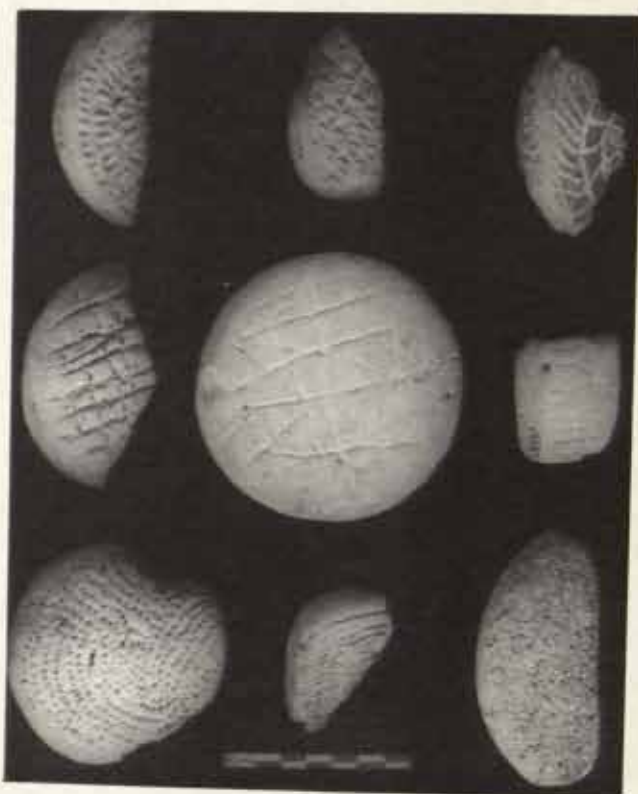


B

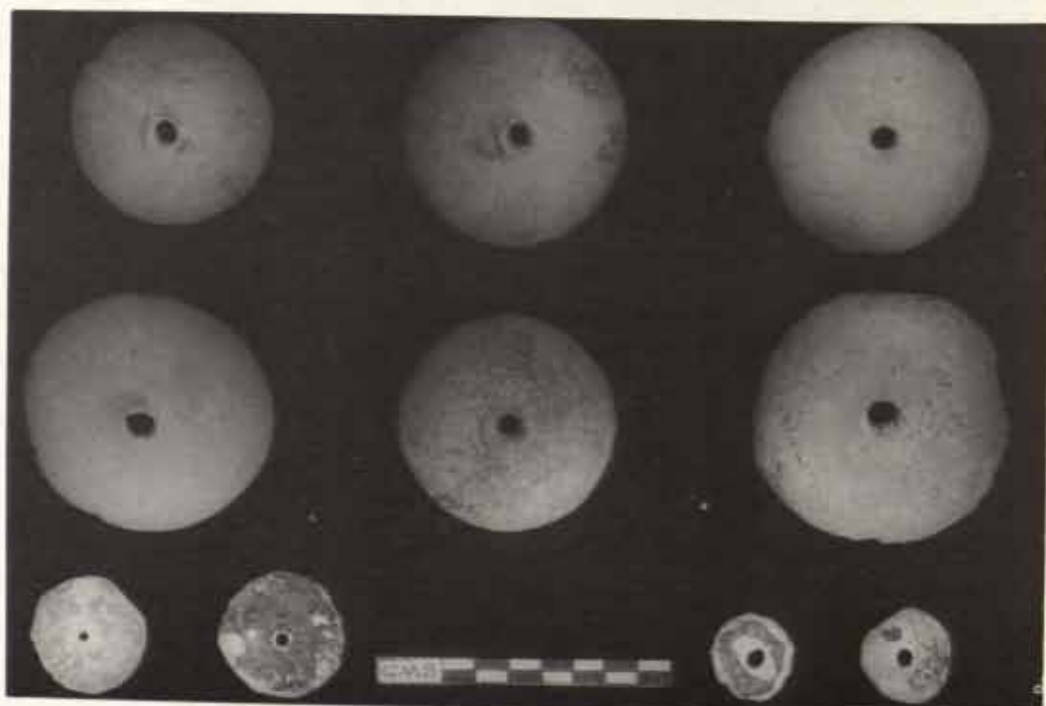


A

Ganwaria : terracotta gamesmen. See p. 231



A

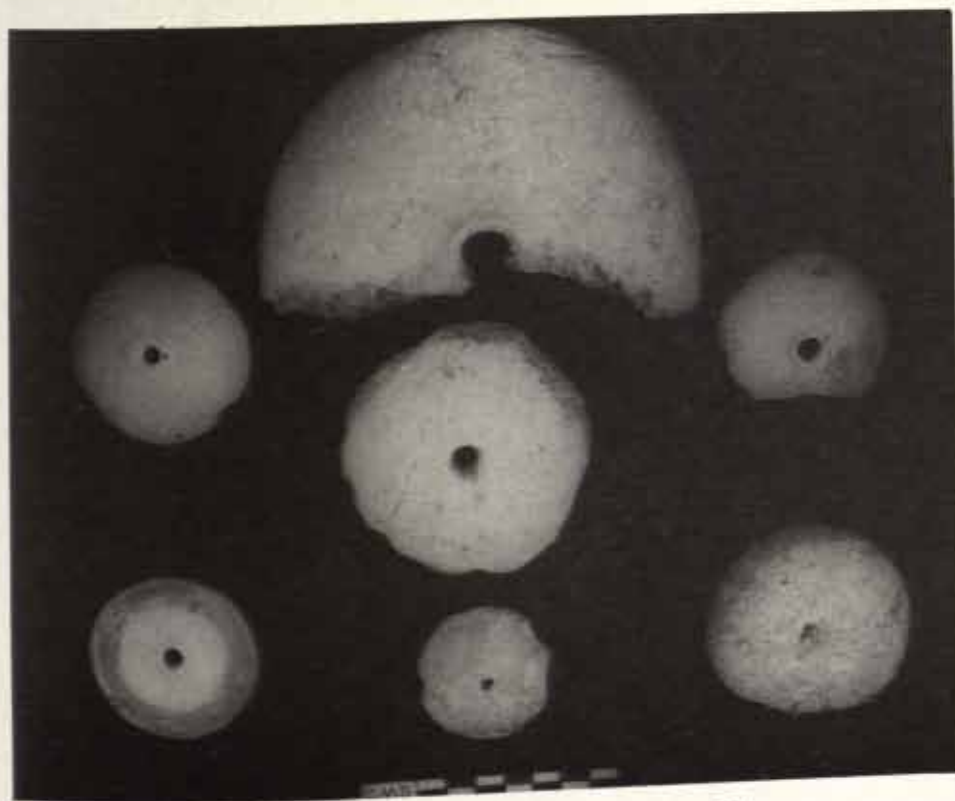


B

Ganwaria : terracotta toy cart wheel. See p. 231

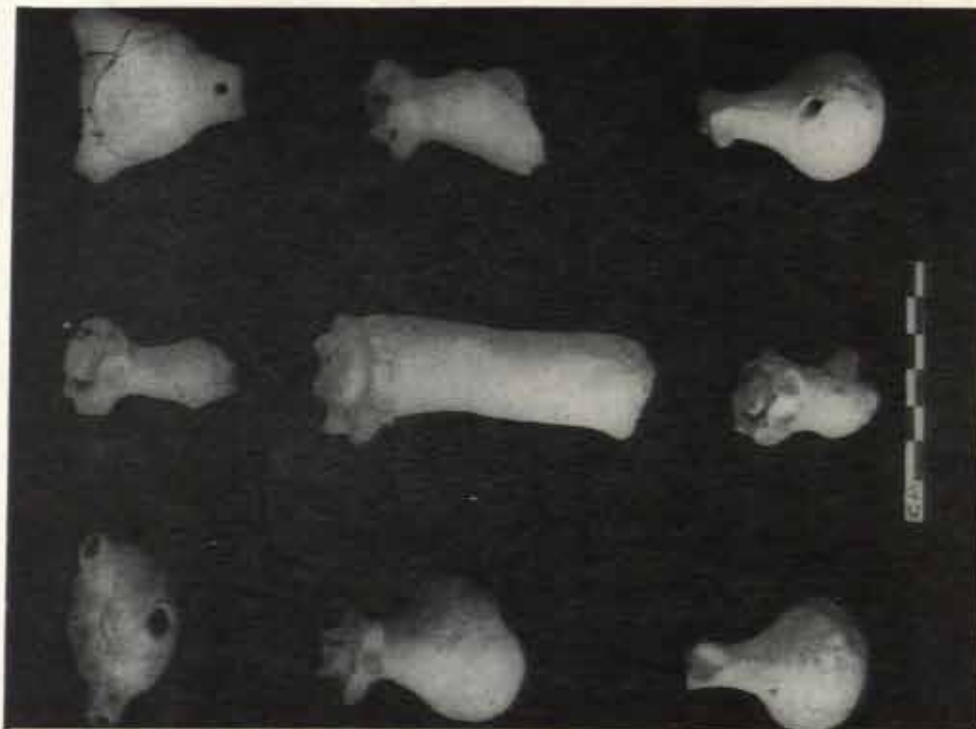


A

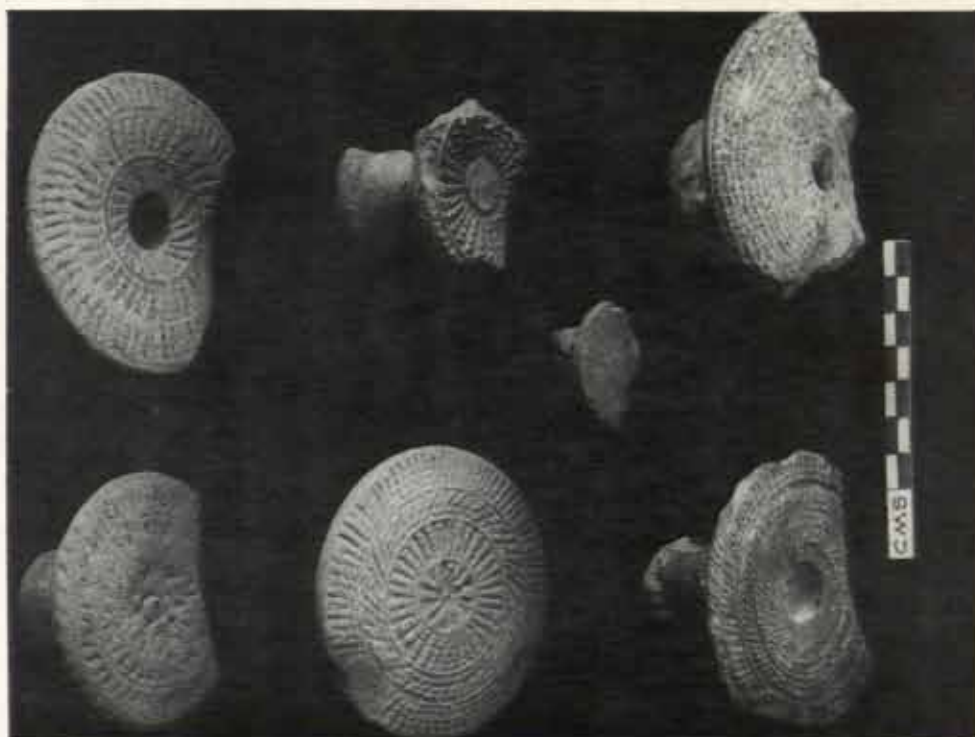


B

Ganwaria : terracotta toy cart wheel. See p. 231



B



A

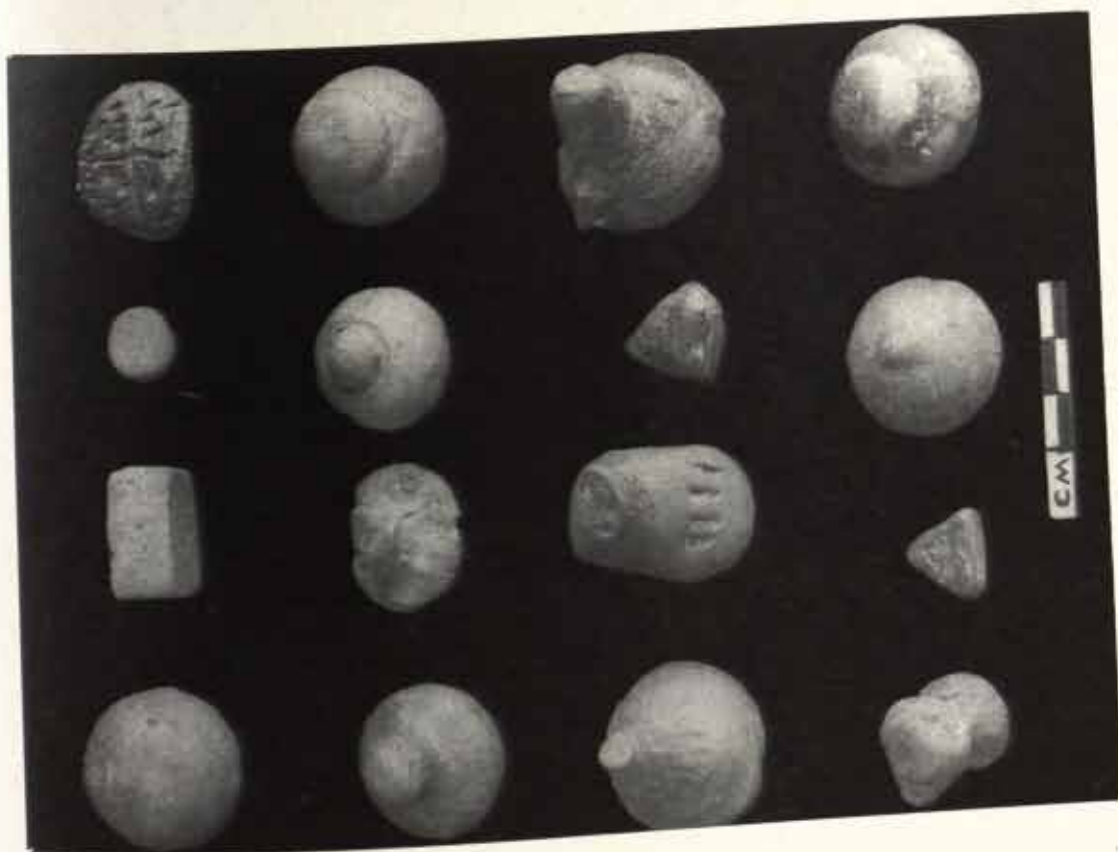
Ganwaria : terracotta stamps. See p. 232



B



C

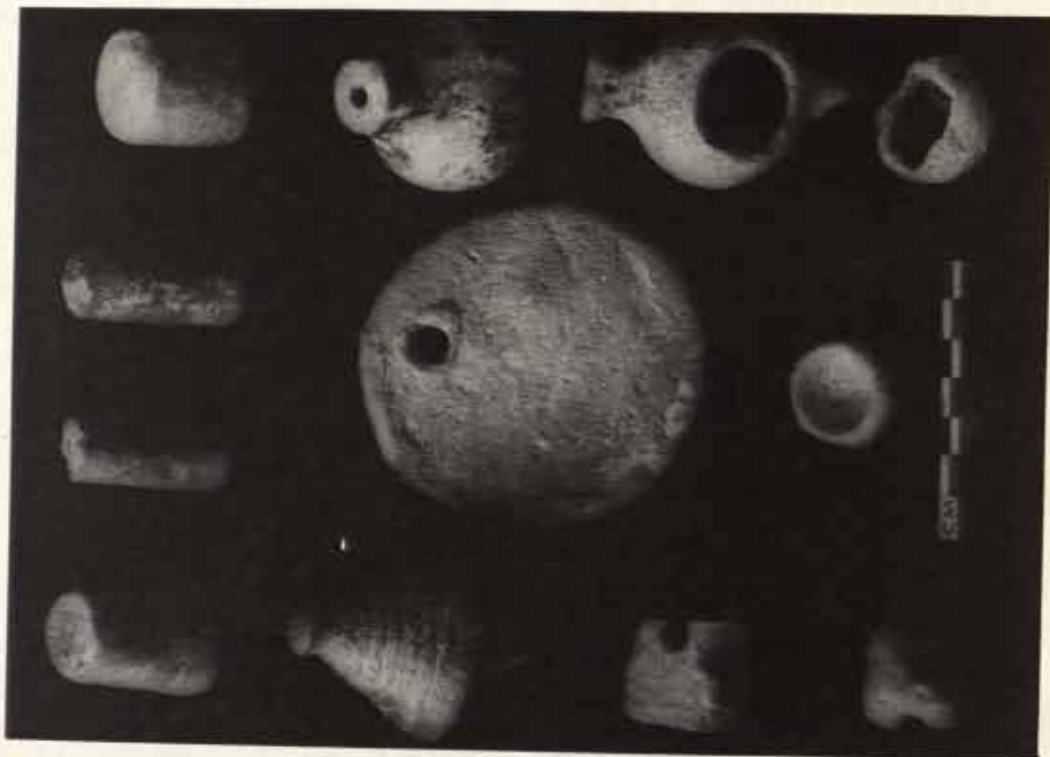


A

Ganwaria : terracotta miscellaneous objects. See p. 232



A

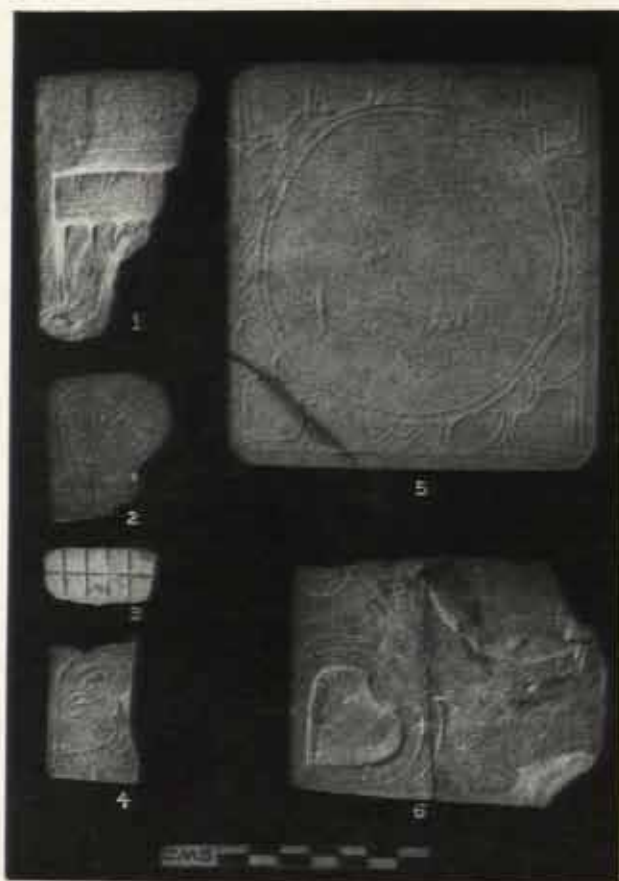


B

Ganwaria : terracotta objects. See p. 232



Ganwaria : decorated stone disc. See pp. 233 and 239



A

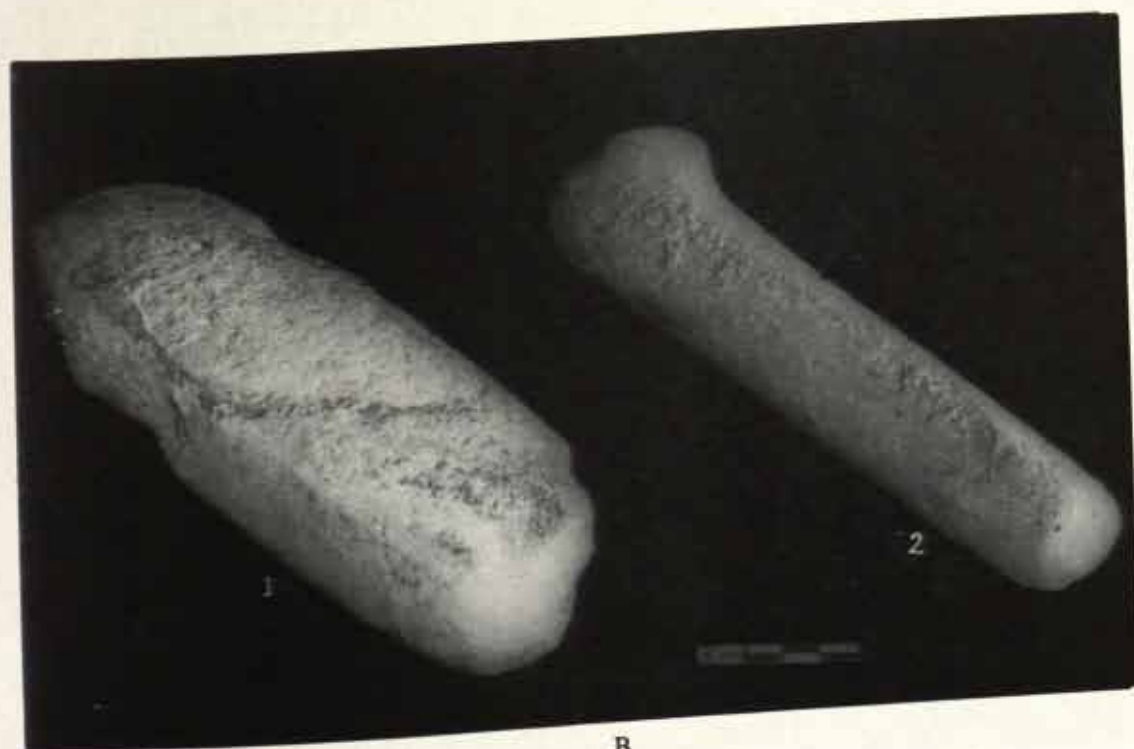


B

*Ganwaria : A, decorated stone tablets; B, stone querns, pestles and mullers.
See pp. 234, 237 and 239*



A



B

Ganwaria : stone querns, pestles and mullers See pp. 234 and 237-238

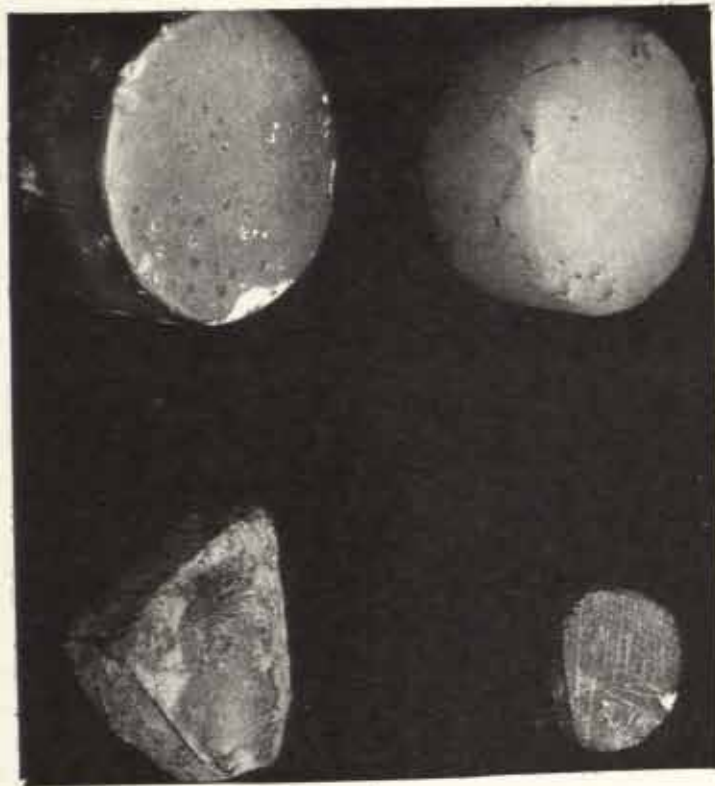


B



A

Ganwaria : stone objects. See pp. 235-236 and 238

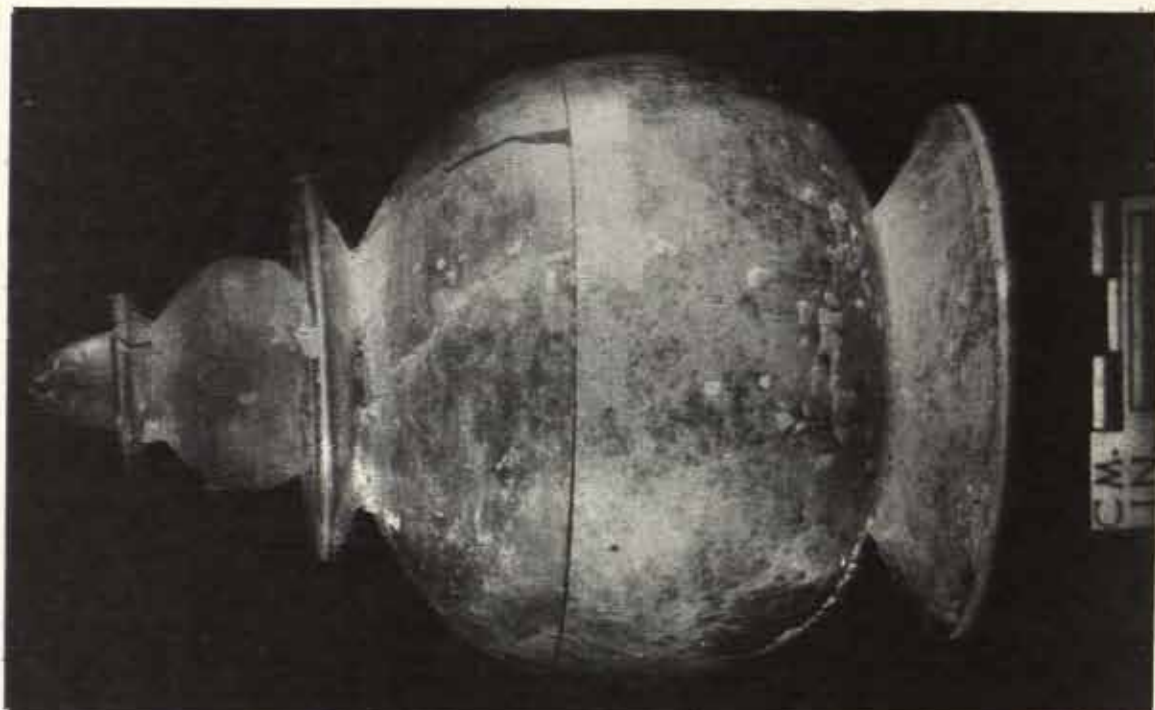


A

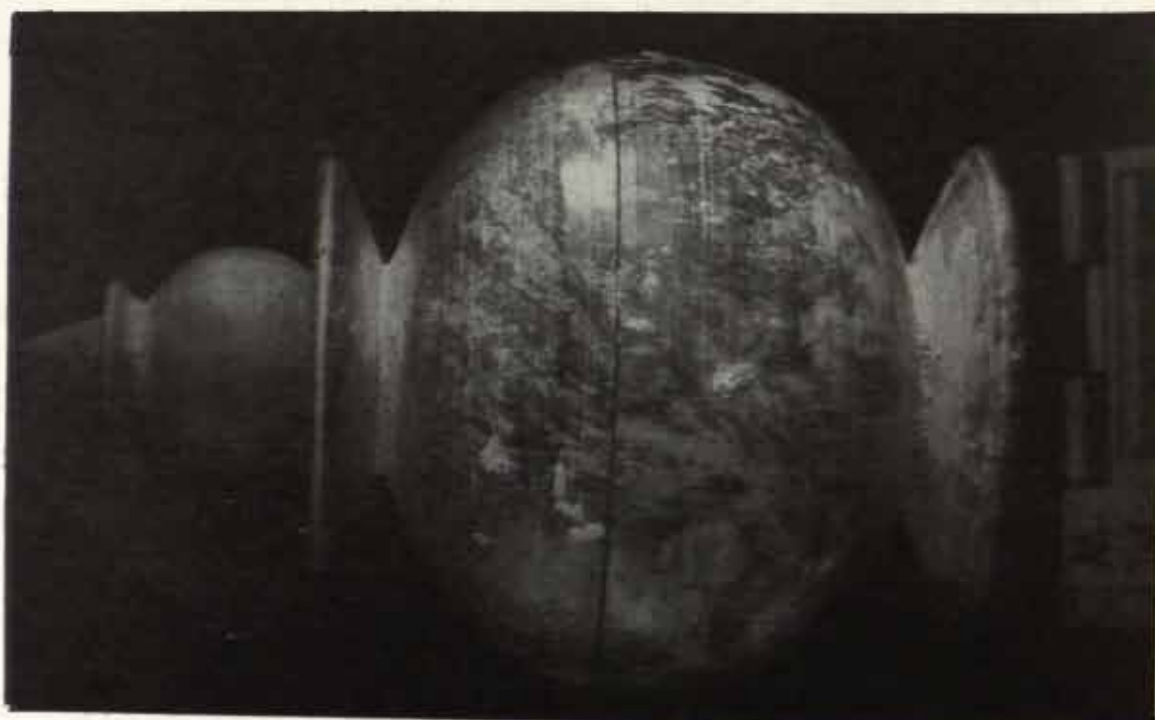


B

*Ganwaria : A, stone weights; B, stone vessel, bowl and lids of casket.
See pp. 236 and 240*

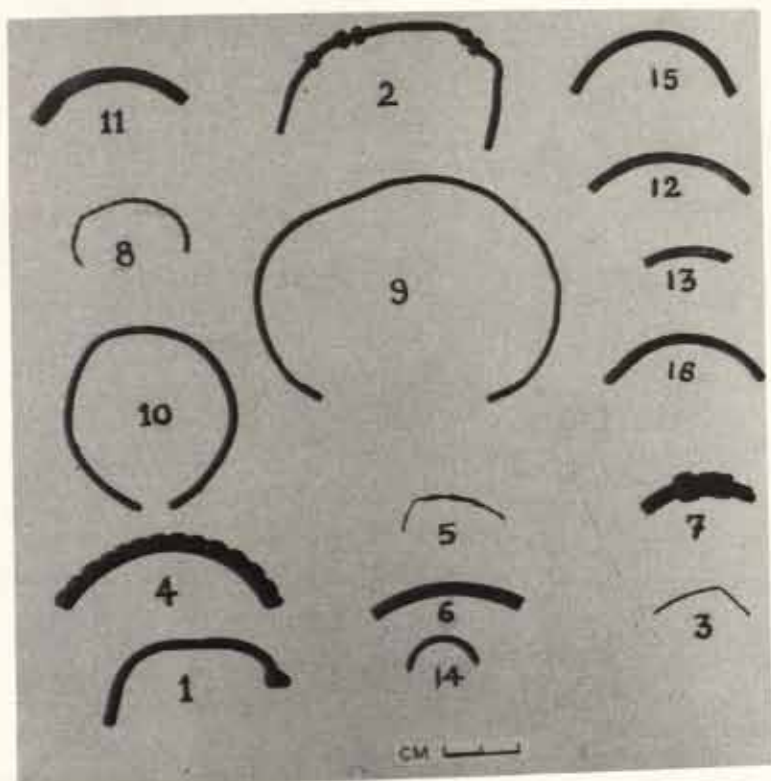


B

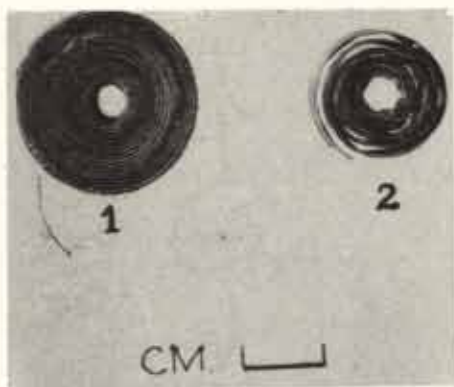


A

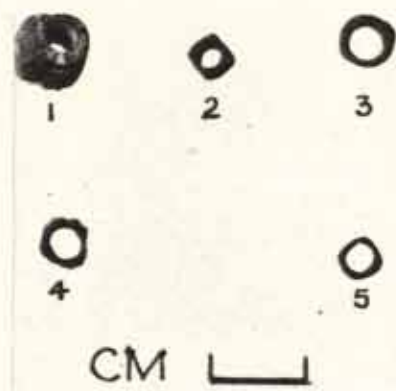
Ganwaria : trap stone vessel. See p. 226



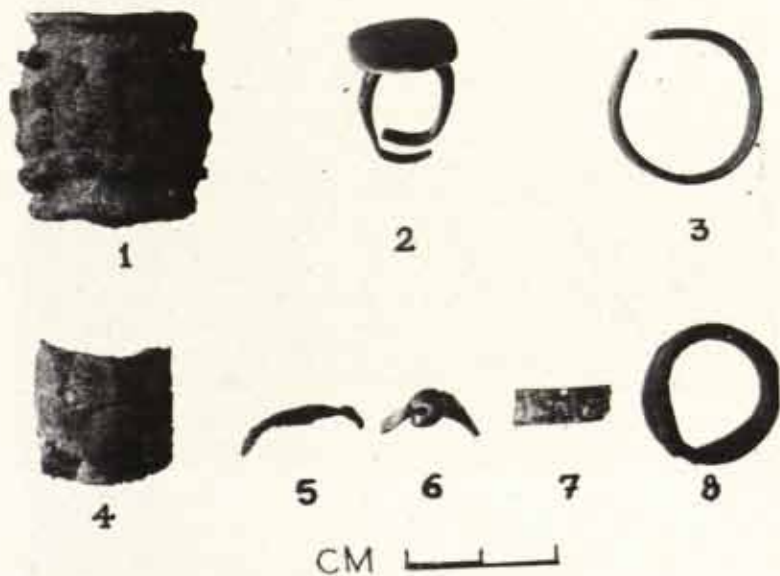
A



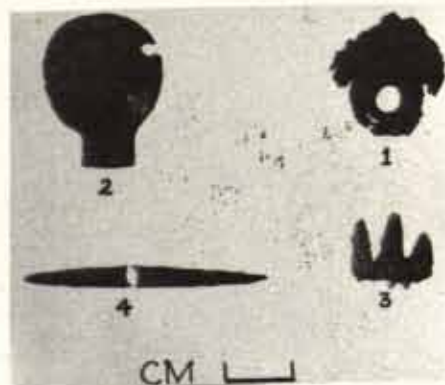
C



D

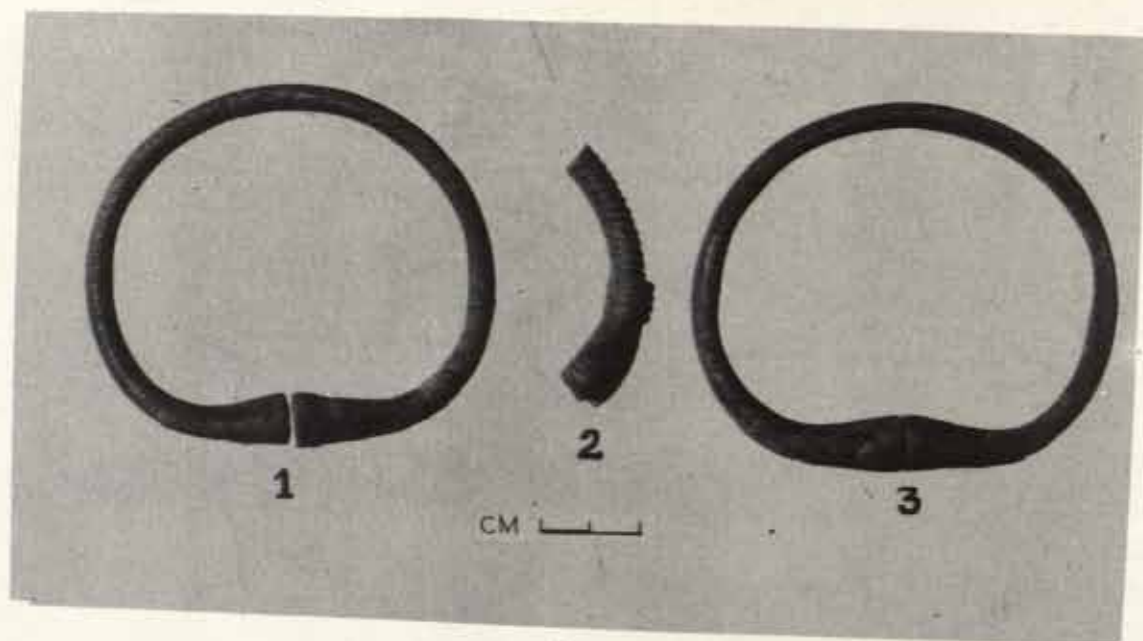


B

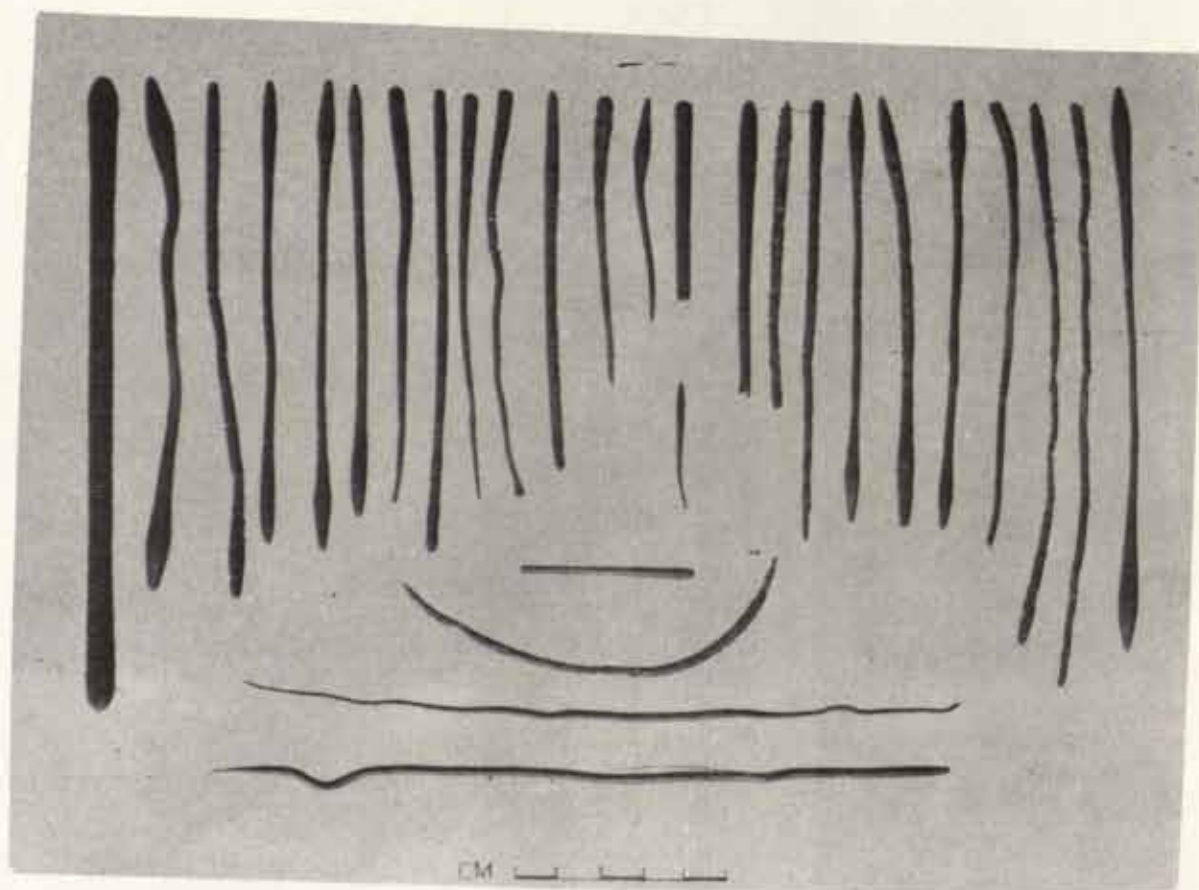


E

Ganwaria : copper. A, bangles; B, rings; C, ear-studs; D, beads; E, pendants.
See pp. 247-249

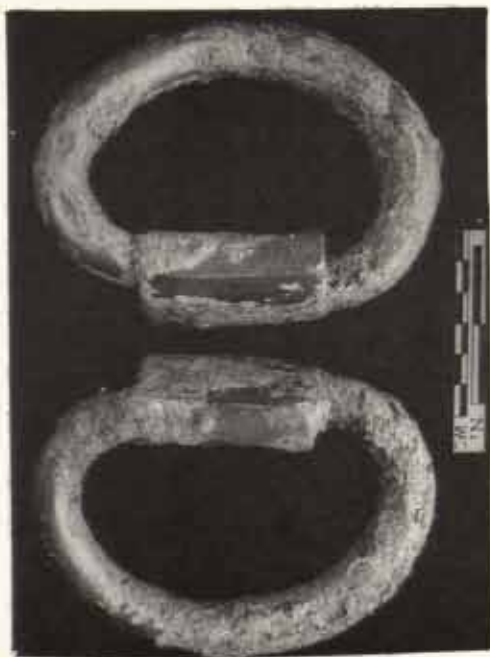


A



B

Ganwaria : A, copper armlet; B, copper antimony rod. See p. 249

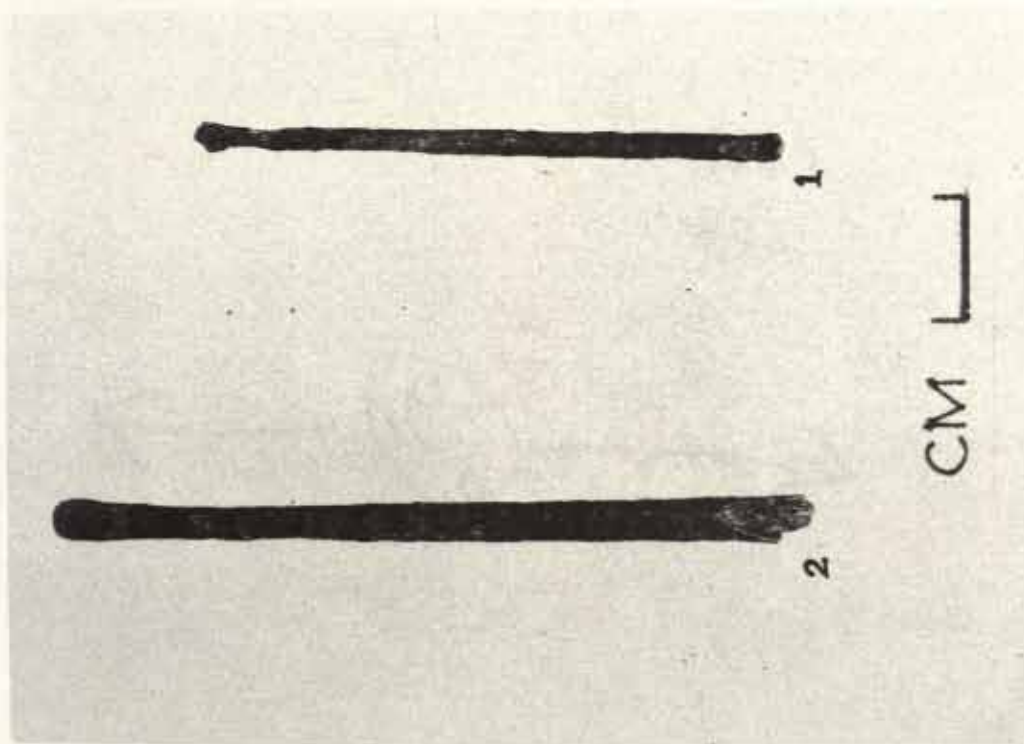


A

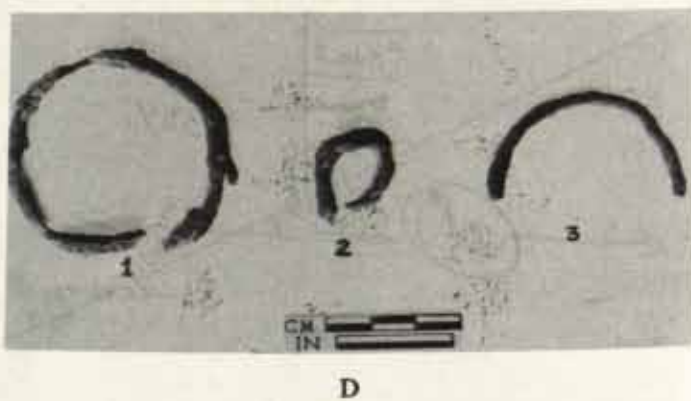
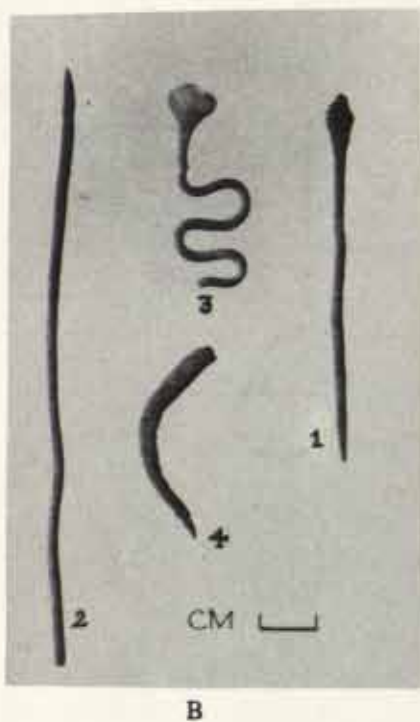
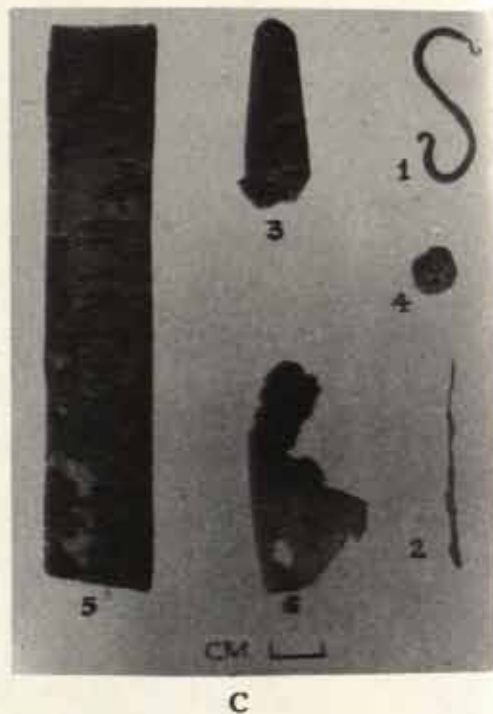
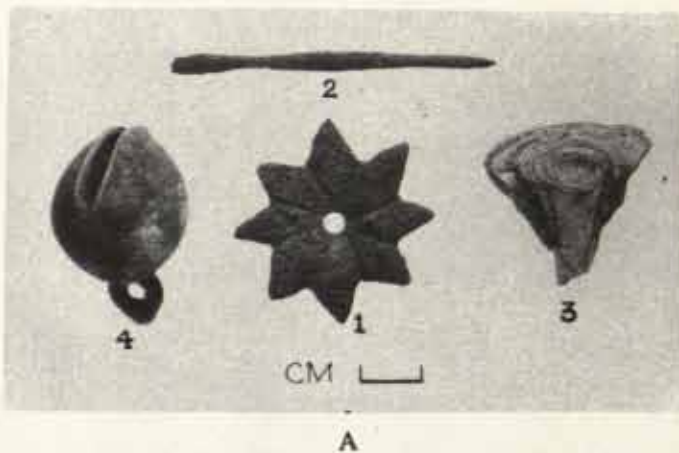


B

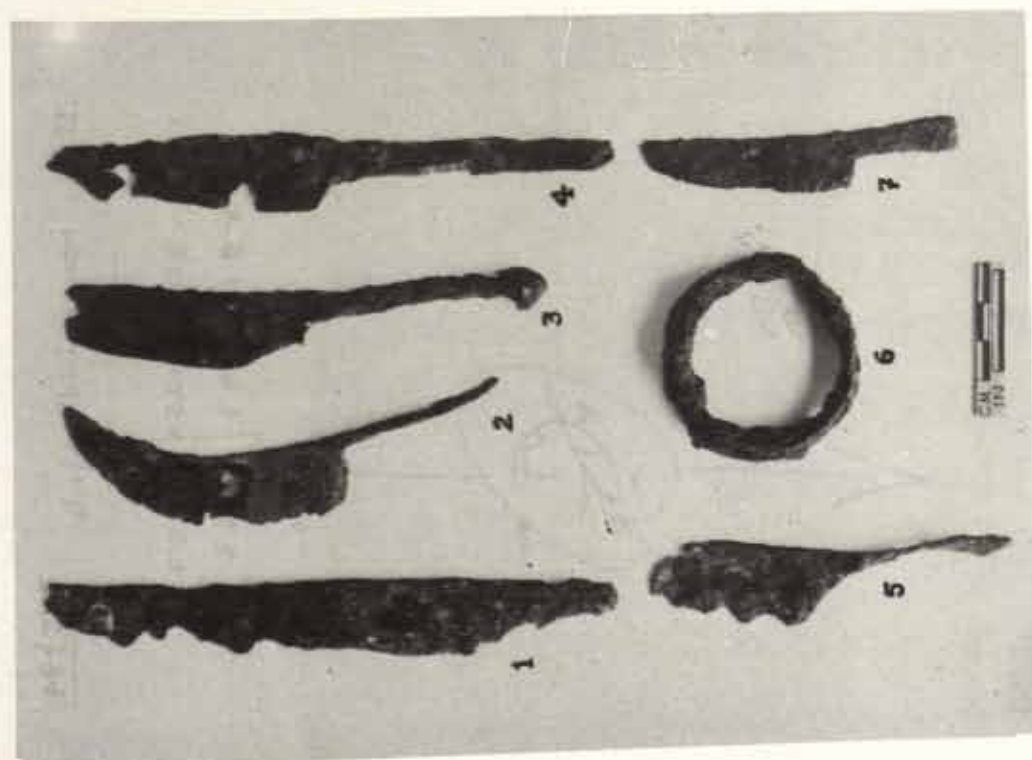
Ganwaria : A, bronze on anklets or handle; B, copper bowl; C, copper tooth-pick. See pp. 249 and 251



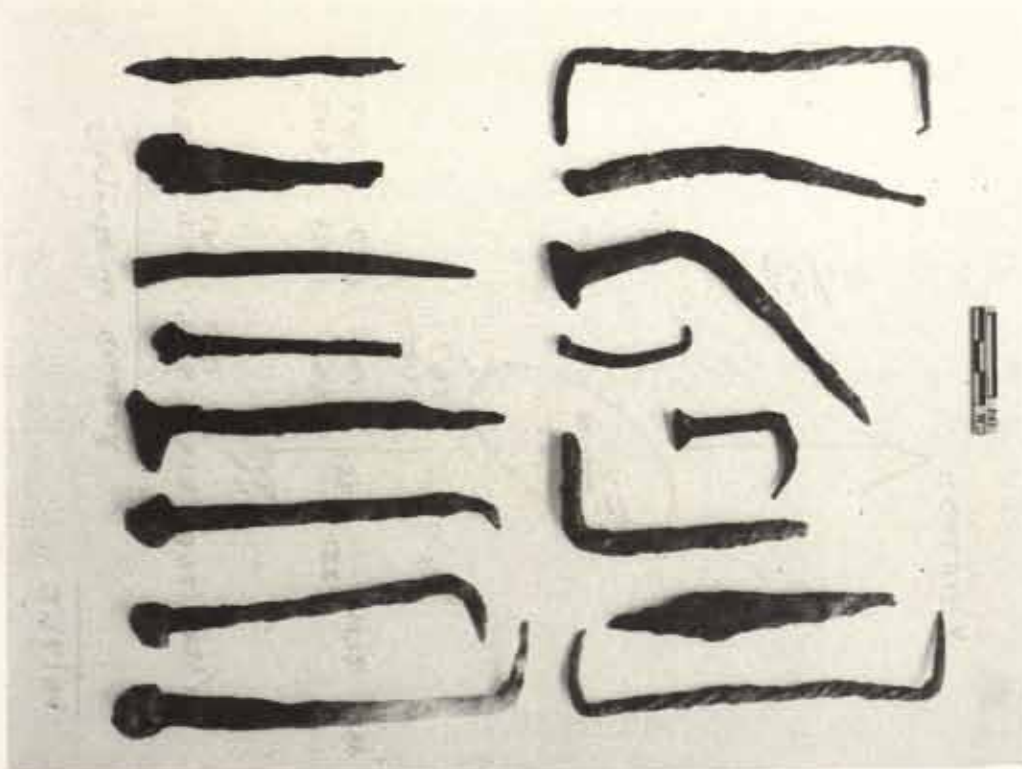
C



Ganwaria : copper objects. See pp. 251-253

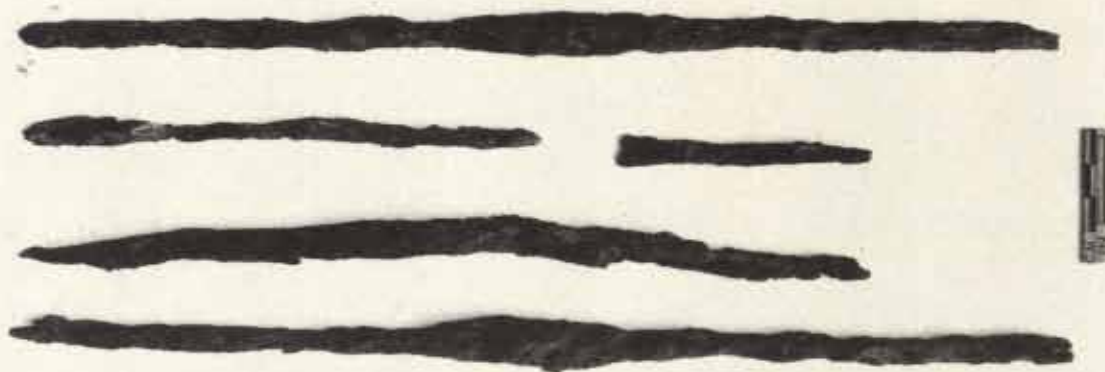


A

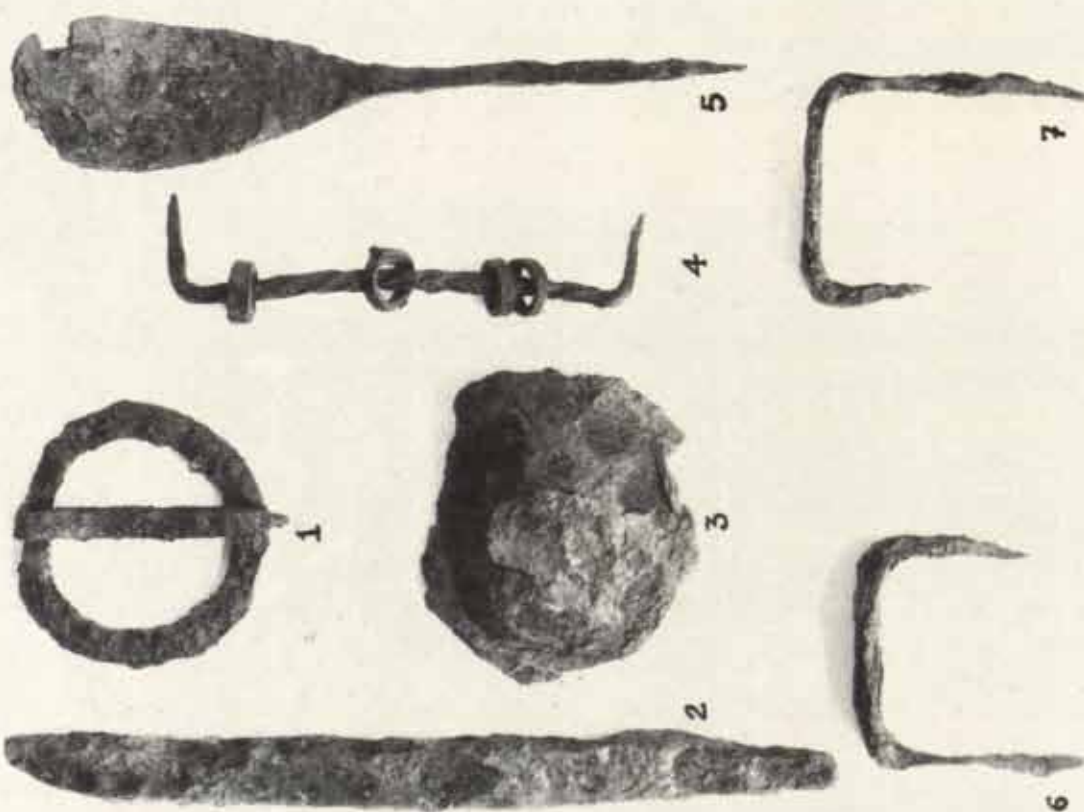


B

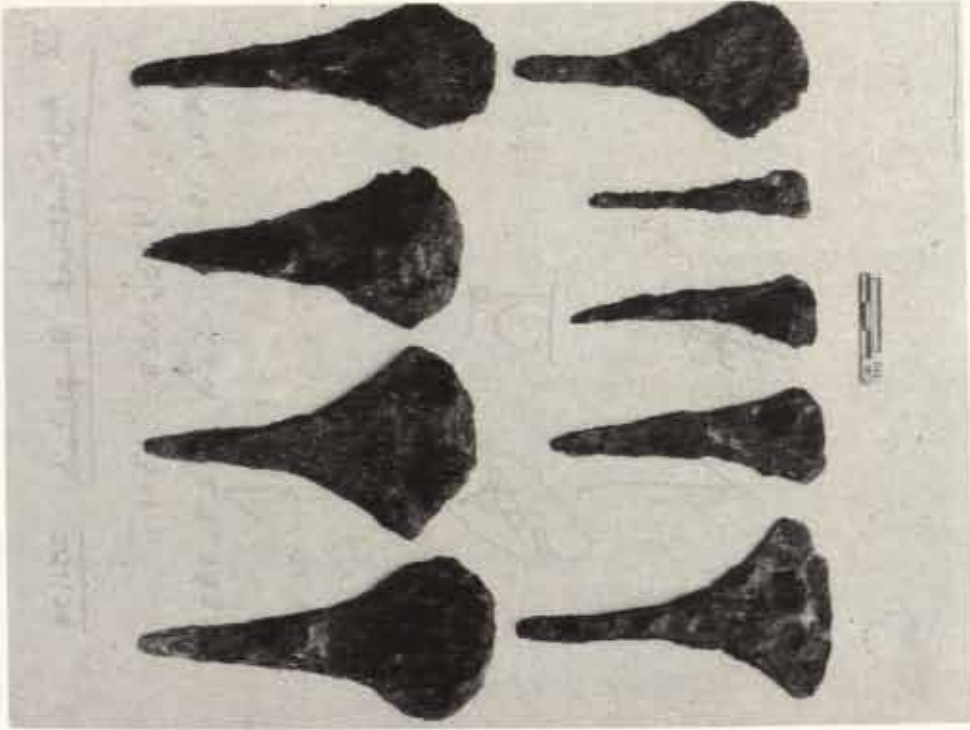
Ganwaria : iron objects. See p. 253



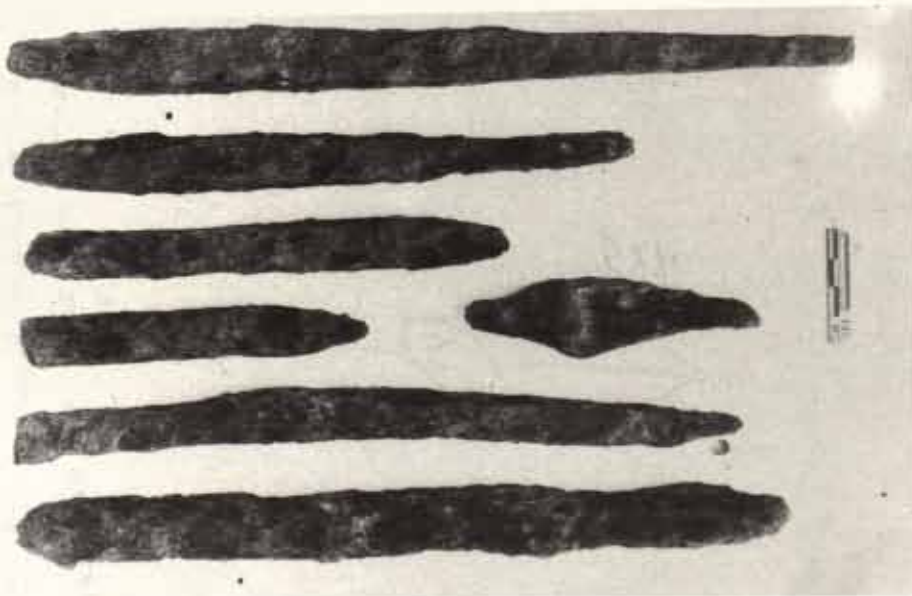
B



A

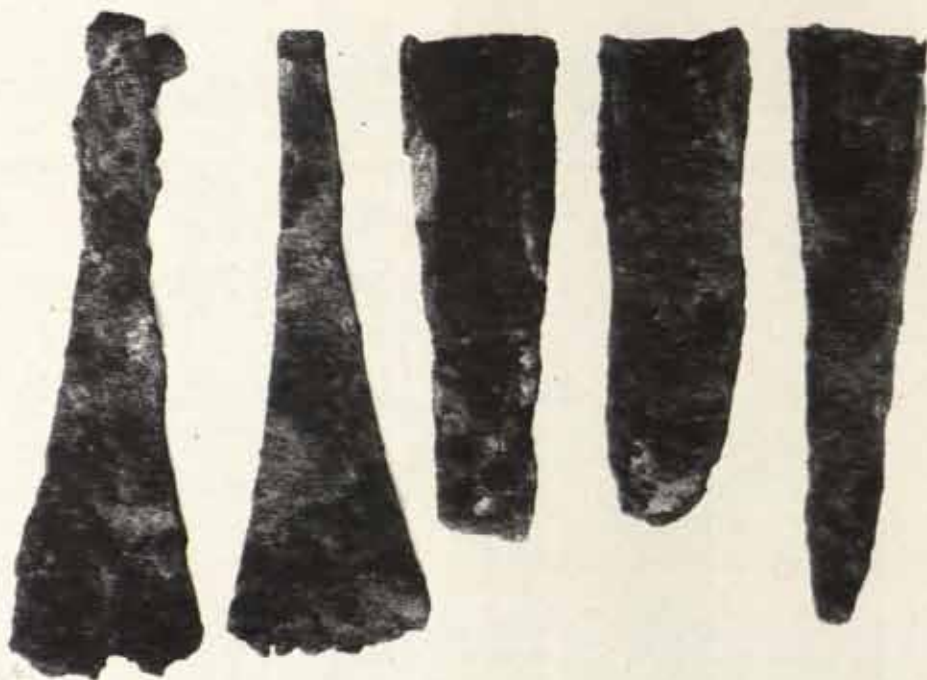


B



A

Ganwaria : iron agricultural implements. See p. 255

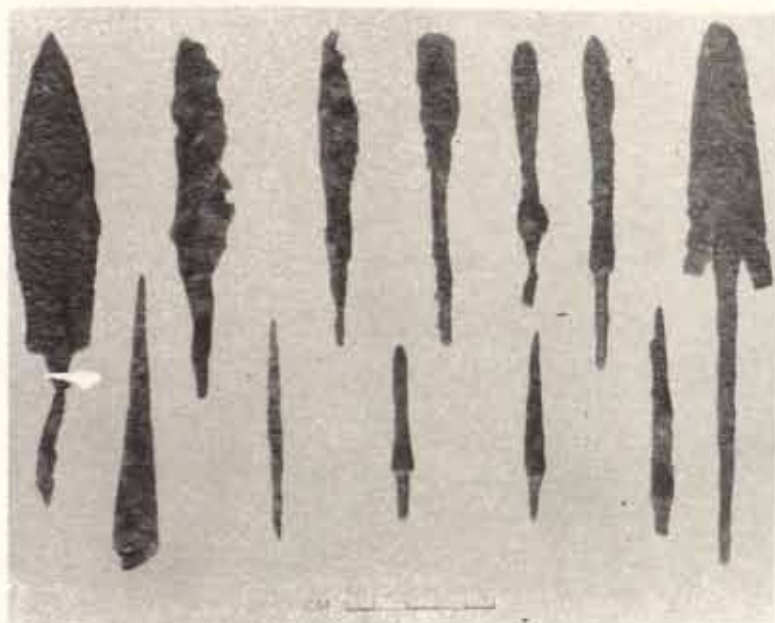


A



B

Ganwaria : iron agricultural implements. See p. 255



A



C

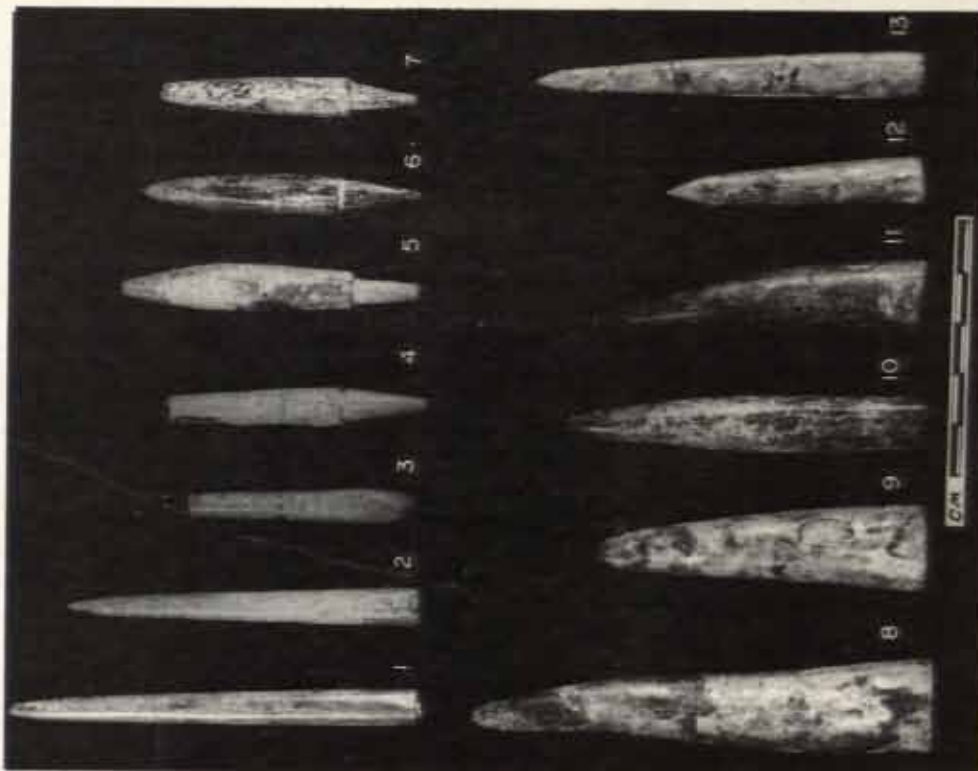


B

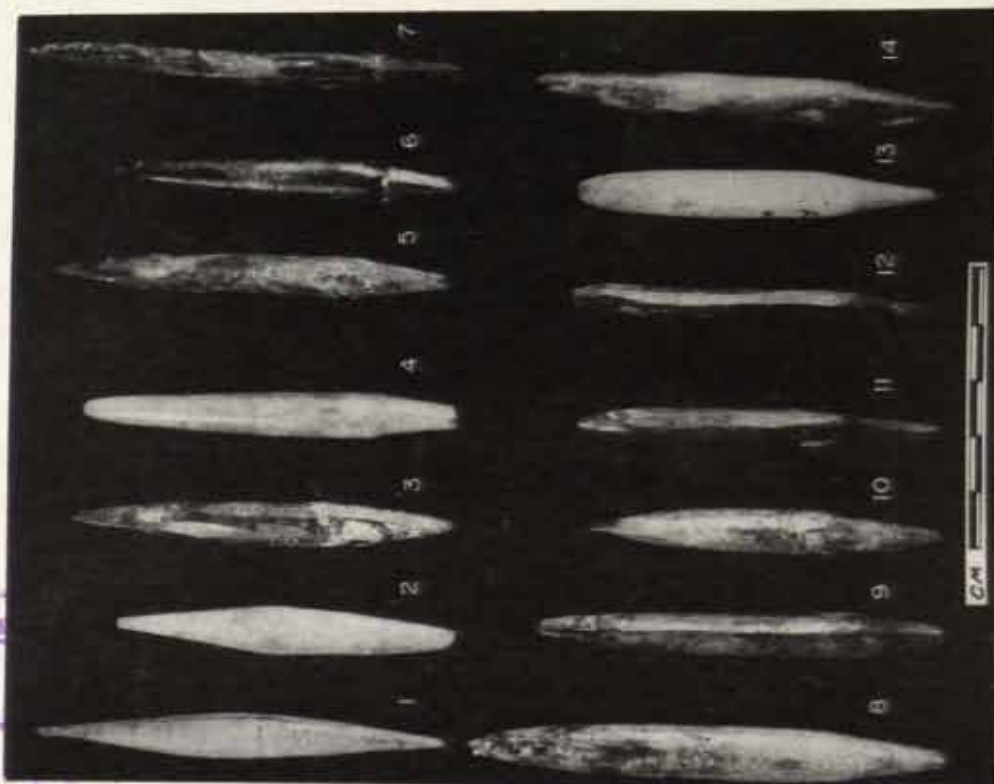


D

Ganwaria : iron objects. See pp. 256-257



B

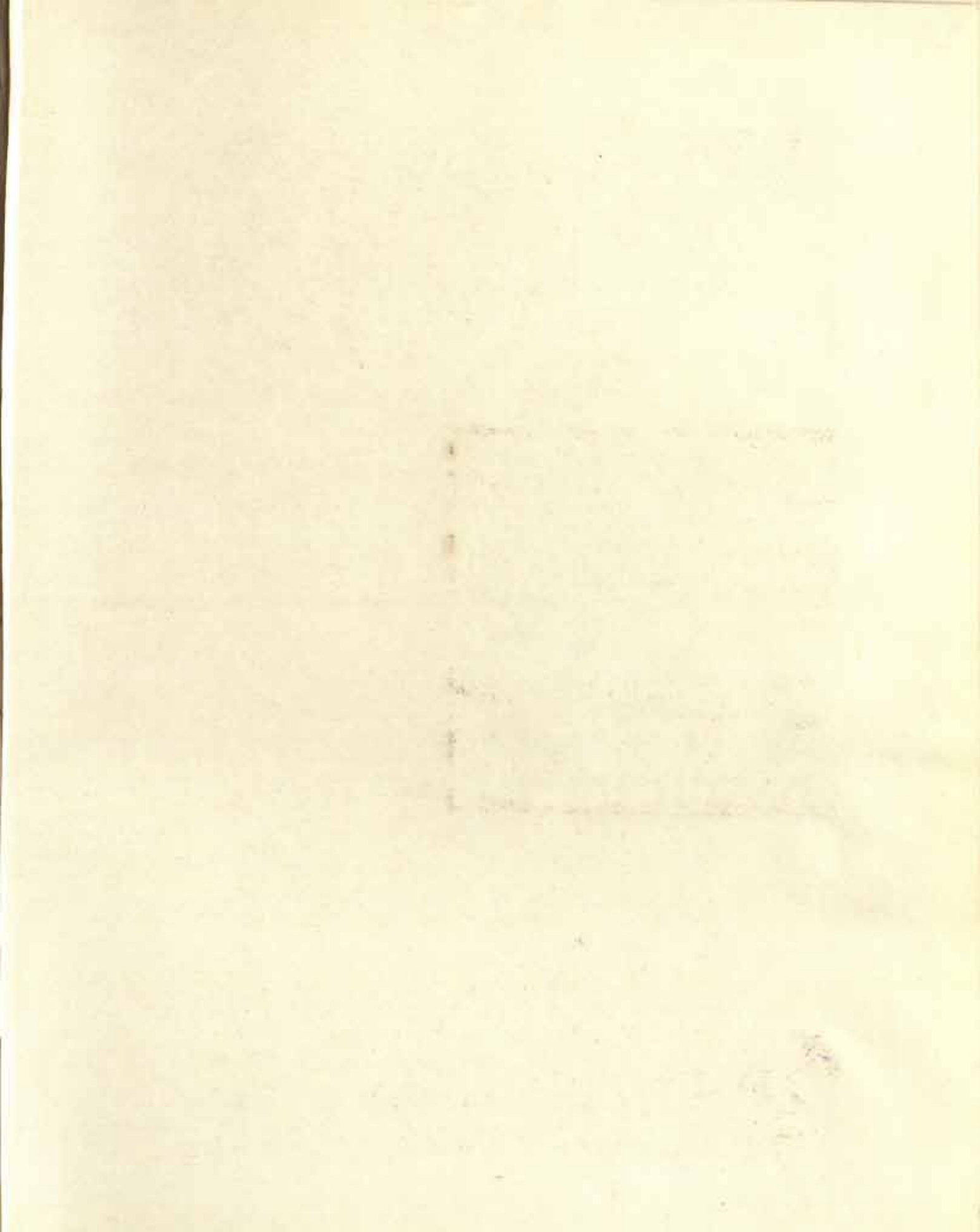


A

Ganwaria : bone objects. See pp. 259-260

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