# ANNUAL REPORT

# 1914-15

EDITED BY SIR JOHN MARSHALL, Kt., C.I.E., M.A., Litt.D., F.S.A., Hon. A.R.I.B.A., Director General of Archæology in India.



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ERRATUM.

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The relief in Pl. XLI b has been reproduced upside down.

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# EXCAVATIONS AT TAXILA 1914-15.

TN the last account<sup>1</sup> which I published of my Excavations at Taxila I stated that a detailed survey of the locality and of its remains was then in progress, and that I looked forward to publishing in a future report an accurate and large scale map of the whole of this interesting tract of country. This map, which has now been completed, is divided into four sheets and covers an area of over thirty square miles, extending from the Haro river on the north to the Margalla hills on the south and from Shah Dheri on the west to Jaulian on the east. For the present, however, we are concerned only with the western half of this area, which comprises the three ancient cities-now represented by the Bhir mound, Sirkap and Sirsukh-the Dharmarājikā Stūpa, and other remains situated in their immediate vicinity ; accordingly, I am publishing in this report (Pls. I and II) only the two sheets of the survey which cover this part of the site ; the other two I shall reserve for a subsequent report when my explorations have been carried further eastward. The scale of this map is six inches to the mile, and it is large enough, therefore, to show clearly the relative positions of all the monuments unearthed. Its value, too, is enhanced by the contour lines which are equivalent to 25 feet in elevation, and by the means taken to indicate whether the ancient remains, all of which are delineated in red, have been excavated or not. That great care has been taken to ascertain the exact pronunciation of the place names and to transliterate them correctly, need hardly be said.

Since issuing my last report I have also been at some pains to bring together whatever references to Taxila and its history are available in Indian or other literature. Many such references are found in the Buddhist Jātaka stories and an exhaustive list of them is given in the index to Fausböll's edition of the Jātakas; many others, again (and these include some of the most valuable notices of all) occur in Greek and Chinese authorities, which for the most part, are also accessible to students. But besides these, there are quite a large number of notices, more or less interesting, that are scattered about in a variety of Buddhist, Brahmanical and Jaina works and that cannot so readily be referred to. For this reason I thought that a useful purpose might be served if I published a selected list of such passages as an appendix to this article. The list has been prepared by Dr. V. S. Sukthankar with the help of several of my friends, particularly of Mr. Vijayadharma Sūri of Udaipur, of

<sup>1</sup> A. S. R. 1912-13, Pt. II, p. 2.

References Taxila in F

Survey map

Dr. J. Ph. Vogel, Dr. F. W. Thomas, Pandit Haraprasad Śāstrī, C.I.E., Dr. Satīśchandra Vidyābhūshaņa and Mr. Bimalacharan Law; to all of whom I offer my thanks for the references with which they have generously supplied mc.

Unfortunately, the information contained in these passages is not such as materially to increase our knowledge of the ancient history of Taxila; nor does it enable me to amplify the sketch of that history which I wrote in my last report. Perhaps the most interesting of the extracts are those taken from Jaina works which refer to the 'Mlechchhas,' and 'Yavanas,' to the destruction of Taxila by the 'Turushkas', and to the burial of brass and stone images in underground cellars, just as many of the Buddhist images appear to have been buried when the Dharmarājikā and other stūpas were destroyed, as I believe, by the hordes of barbarian Huns in the 5th century of our era. From these and other passages in Jaina works it is manifest that Taxila must have been adorned with vast numbers of Jaina edifices, some of which were, no doubt, of considerable magnificence. Among these edifices I now incline to believe that we must reckon the small shrines in blocks F and G in Sirkap. These shrines I at first considered to be Buddhist ; but in view, on the one hand, of their resemblance to the Jaina stupas illustrated on reliefs at Mathura, and, on the other, of the marked differences between them and existing Buddhist stupas which I have since excavated at Taxila itself, I am now induced to regard them as Jaina rather than Buddhist, though I do not consider the evidence in favour of this view as yet by any means conclusive.

Inscription of the year 136.

One other matter on which I wish to remark before passing on to my description of the past season's operations, is the interpretation of the Kharoshthi inscription dated Sam. 136 which I discovered in 1913 in the Bodhisattva chapel at the Dharmarājikā Stūpa. This record was first published by me in the Journal of the Royal Asiatic Society,<sup>1</sup> and since then it has been discussed at considerable length by the distinguished French savant, M. A. M. Boyer, in the pages of the Journal Asiatique. M. Boyer, I need hardly say, contributes many valuable ideas regarding the grammatical and other points connected with the inscription, but it is gratifying to see that his transcription of it is almost identically the same as my own, and that his translation differs from mine in very few particulars. The two small points of difference in his transcription are that in line 2 he reads Jintafria instead of Lotafria, and in line 5 he reads nivanae for nianae. As regards the former I have already noticed that the akshara in question, though bent, resembled the first akshara of line 5 which is undoubtedly lo; and I can see no sufficient reason for preferring the reading Im. As regards the latter also, I must, after again examining the original, still adhere to my own reading of a instead of va. M. Boyer translates as follows :—

"L'an 136, le quinzième jour du mois āṣāḍha qui ouvre l'année, ce jour-là, ont été installées des reliques du Bhagavat par Bahalia, de l'Uraṣā, fils d'Imtafria ; lequel est domicilié dans la ville de Noacaa (ou Noacā). Il a installé ces reliques du Bhagavat à la dharmarājikā, a Takṣaṣilā, dans la chapelle du Bodhisattva dite 'le sacrifice du corps.' Que cette complète donation soit principalement : pour le don de la santé au grand roi, souverain roi des rois, le devaputra kouchan ; en l'honneur de tous

<sup>1</sup> J. R. A. S., October 1914, pp. 973-86 and April 1915, pp. 191-6.

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les buddhas; en l'honneur des pratyekabuddhas; en l'honneur des arhats; en l'honneur de tous les êtres; en l'honneur de ma mère et de mon père; en l'honneur de mes amis, des personnes de ma maison, de ma parenté, de mon sang; pour, quant à moi-même, le don de la santé et le nirvāṇa."

In this translation there are two points that call for notice. The first of these relates to the word Ayasa in the first line, which I took to be a genitive of the proper name Aya (Azcs). M. Boyer regards Aya as written for ayya and as representing the Sanskrit adya (initial), and in support of this view he quotes the analogy of dy becoming yy in the Māgadhī dialect. The second point concerns the word *tanuvae* in line 3. Of this M. Boyer says, "*tanuvaa* représente exactement le sanskrit *tanuvyaya*. Je regarde ce composé comme donnant le nom du bo[dhi]satvagaha. *Fyaya* s'emploie souvent pour signifier l'abandon, le sacrifice d'une chose po-sédée. La chapelle en question du bodhisattva était donc celle du 'sacrifice du corps." This interpretation of the word *tanuvaa*, which I took as the name of the District, is certainly ingenious, but can hardly be regarded as convincing.

#### Dharmarājikā Stupa.

At the Dharmarājikā Stūpa (Chir Tope) the past season was mainly devoted to the clearance of the group of remains on the west side of the Great Stūpa, besides a number of small stūpas and chapels in various parts of the site. In describing these remains I shall start, first, with the *pradakshiņā* around the Great Stūpa; then I shall proceed to the early circular stūpas and chapels encompassing the procession path; then to the Stūpa Q and the group of small stūpas  $J^2$ ,  $J^3$ ,  $J^4$ ,  $J^5$ ,  $J^6$ ; next to the two groups of stūpas N<sup>9</sup> N<sup>10</sup>, N<sup>11</sup>, N<sup>13</sup> and N<sup>5</sup>, N<sup>7</sup>, N<sup>8</sup>; and finally to the structures P<sup>7</sup>, P<sup>8</sup>, P<sup>9</sup> and P<sup>10</sup>.

In my last report I mentioned that about a century ago treasure-seekers had driven a great cleft through the middle of the Dharmarājikā Stūpa from its western side. The cutting of this cleft resulted, unfortunately, in the destruction of the entire facing of the stūpa above the raised terrace; but, on the other hand, the débris thrown out by the diggers has served to preserve more effectually than would otherwise have been the case the structures in the immediate vicinity; and, though the removal of this débris has proved a long and laborious task, it has been more than repaid by the discovery of several highly interesting structures buried beneath it.

From the plan on Pl. III it will be seen that the procession path around the Great Stūpa is not of uniform width, and that on the outside it is bounded for a considerable distance by irregular walls. In the plan not only these walls but some of the chapels behind them are indicated as belonging to the latest building period; but in reality the walls are considerably later than the chapels which are distinguished by the same colour, having apparently been erected as retaining walls when the chapels underwent certain transformations and repairs.

The original floor of the procession path is composed of line mixed with river sand and is adorned, in a curious fashion, with shell bangles imbedded in the plaster and arranged in various geometrical designs, some of the bangles being whole. others cut in halves or in quarters. Up to date this decorated floor has been The prc path,

в 2

exposed only in the north-west quadrant, but it will probably be found to extend over the whole of the procession path. Above the floor there is an accumulation of débris about three inches thick and over this, again, a *chunam* floor. In the stratum immediately above this latter floor were found many pieces of glass tiles, and fixed in the floor itself in the south-east quadrant, and apparently in its original position, was one complete specimen of a tile measuring  $10\frac{1}{4}$ " square. Probably, the whole of the procession path was at one time paved with these glass tiles, and later on, when the pavement had fallen into disrepair, a number of the tiles were removed from here to the chamber F', where they were found laid in a somewhat careless manner.<sup>1</sup>

From the description of it which I gave in my last report, the reader will remember that access to the raised terrace of this stup is afforded by four flights of steps disposed at the four cardinal points. Hidden amid the débris in which the western flight of steps lay buried I found a small  $ka\hat{n}j\bar{u}r$  block with broken edges, in one side of which a hole had been hollowed out; and in this hole I discovered a hoard of 355 coins together with a copper bangle, three copper rings and a shell bangle. The coins, of which one is lead and the remaining 354 copper, comprise specimens of Azes II, Soter Megas (Coin List, No. 32), Huvishka, Vāsudeva, and issues of Indo-Sasanian or Kushāno-Sasanian type (Coin List, No. 42).

Circular stupas around the main structure. Of the small round stūpas which are built in a circle round the main structure I discovered four more examples during the past season which on the plan are designated respectively  $B^6$ ,  $R^4$ ,  $D^3$  and  $B^{20}$ . In point alike of construction and of style they are precisely similar to the other structures of this class described in my previous report. Of the stūpa  $B^6$ , which lies to the north-west of the steps on the north side of the Great Stūpa very little remains. A wall in the large diaper style of masonry had been carried across its top and had to be cut through before a shaft could be sunk into the interior of the stūpa. The task of sinking such a shaft was by no means easy, since the walls around the structure afforded very little space for work of this kind. It was carried, however, to a depth of 13 feet from the top<sup>2</sup> of the stūpa, and at this depth I came upon a large block of lime-stone laid flat and covering a roughly made square chamber, three sides of which, constructed of small stones, had collapsed. In this chamber lay a casket of steatite, and a miniature stūpa of fine grey limestone.

The steatite casket (Pl. IV, 2), 4" high and well-turned on the lathe, is decorated with incised circles around the body and the lid, and is provided with a handle on the top. Inside this casket was a smaller casket of silvery bronze (Pl. IV, 3),  $1\frac{4}{3}$ " high, in the form of a stupa crowned with umbrellas; and in this miniature casket were some calcined bones and ashes and a few gold, agate, pearl and bone beads (Pl. IV, 4). The stupa of grey limestone (Pl. IV, 1) is  $3\frac{1}{2}$ " high and is provided with a small cavity underneath, in which were packed together a large assortment of interesting beads and gems of the following materials :—ruby, crystal, banded agate, jacinth, sard, garnet, amethyst, cornelian, aquamarine,

<sup>&</sup>lt;sup>1</sup> A. S. R. 1912-13, Pt. H. p. 18

The exterior base of this stupa could not be exposed owing to its being concealed by the masonry of later structure ; it was, therefore, impossible to determine the original ground level.

green jasper, onyx, mother-of-pearl, glass, topaz and bone (Pl. IV, 8-37). Some of these beads are in the shape of animals or birds, such as the lion, tortoise, frog and goose; others are in the form of a crescent or *triratna*; others are barrel-shaped, polygonal or amygdaloid. I surmise from its appearance that the little limestone stūpa formerly belonged to an older structure, and that it was transferred to the one

stupa formerly belonged to an older structure, and that it was transferred to the one in which I found it, when its original resting place had fallen into disrepair.
Whether the gems inside it were of the same date or not, is open to question.
The Stūpa R<sup>4</sup> occupies much the same position in relation to the steps on the west of the Great Stūpa as Stūpa B<sup>6</sup> does to the steps on the north. It is standing to a height of about four feet above the procession path of the main structure. Its

west on the Great Stupa as Stupa B<sup>\*</sup> does to the steps on the north. It is standing to a height of about four feet above the procession path of the main structure. Its are ae was, as we shall presently see, repaired and enlarged on several occasions. The relic casket, which was discovered at a depth of about nine feet from the top, was of steatite, 3" high (Pl. IV, 6) and turned on the lathe. It contained a small cylinder of gold,  $\frac{15}{16}$ " high (Pl. IV, 5), in which were some minute bones, ashes and a fragment of cornelian. By the side of the steatite casket was a square copper coin of Azes I of a rare type (Coin List No. 20). The Stupa D<sup>3</sup>, a little to the S. S. E. of R<sup>4</sup>, also stands on a square plinth, 3'  $7\frac{1}{2}$ " high, the southern side of which is faced with square blocks of  $kaij\bar{u}r$ decorated with a row of eight (?) pilasters, of which five are exposed to view. These pilasters stand on a torus and scotia base moulding, and are provided with moulded capitals surmounted by a cornice with a cavetto moulding of simple design (Pl. VIII b). This plinth appears to be of later construction than the original stūpa plinth, which was probably of rough rubble faced with lime plaster, as in the case of the next stūpa to the south. No relics were found inside this stūpa; if it possessed any, they may have been deposited in a chamber higher up the dome, which has now vanished. In the chapel adjoining it (D<sup>5</sup>) I discovered several broken pieces of umbrellas of  $kaij\bar{u}r$  stone which probably belonged to this stūpa. The fourth of the structures of this class which I brought to light was B<sup>20</sup>, lying S. S. E. of the eastern flight of steps. This structure stood on a square plinth of rough rubble faced with lime plaster; but little of it has survived and no relics were discovered inside it. Stūpa Da.

were discovered inside it.

were discovered inside it. Of the chapels encircling the Great Stūpa that have been laid bare during the past year only a few deserve particular mention. These are designated  $S^3$ ,  $R^1$  and  $B^{i7}$  on the plan. Chapel  $S^3$  is in the semi-ashlar style of masonry and the walls are standing to a height of 7'7". It is built over the ruins of an earlier structure— apparently a stūpa, one of the projections of which is in the small diaper style of masonry covered with lime plaster. At the entrance to this chapel and set in the middle of the threshold is the base of a pillar with a pilaster base corresponding to it on either side. These bases are not shown in the plan on Pl. III, as they had not yet been discovered when the plan was prepared. In the S. W. corner of the chapel are the remains of a raised platform, the purpose of which is not apparent, and buried in the mud of which the body of this platform is composed, I discovered a large number of clay sealings impressed with the Buddhist creed—ye dharmā hetu prabhavā, etc.—in characters of the Gupta age. The practice of imbedding such seals in stūpas and even in statues has been illustrated by many Buddhist monu-

Chapels.

Chapel S3.

Stúpa R\*.

ments both in India and in Burma. In this chapel I also found an iron arrowhead,  $2\frac{3}{4}$ " long (Pl. X, 13).

Chapel R .

The circular stupa  $\mathbf{R}^4$  was, as I have stated above, repaired and enlarged on several occasions. The first addition made to the original structure appears to have been the square base of neatly cut kanjur blocks adorned with slender pilasters of the Corinthian order and a simple dentil cornice. Then came the two small square pylons on the western face of this base (Pl. VIII a); and at the same time a shallow portico or chapel was formed against this western face by running out two short walls from the north-west and south-west corners of the stupa. Lastly, this portico or chapel was enlarged to about double its size by prolonging these walls further to the west, and at the back of it, and over the base of the ruined stupa R<sup>4</sup>, another square chapel was also constructed. I have described the sequence of these four building stages in some detail, because they have an intimate bearing on the date of some very interesting stucco reliefs which I found decorating the western face of the stupa base as well as the two pylons above referred to. These reliefs are later than the stupa base but contemporary with the two pylons, and, inasmuch as the latterare built in a type of masonry which intervened between the large-diaper and semiashlar types, they can be assigned with some degree of certainty to the second century of our era. That these sculptures belong to the Gandhāra School of Art, a glance at the illustrations in Plate V will suffice to show ; and we thus obtain hereanother useful link in the chain of evidence which determines the age when this school was flourishing. Of the two scenes illustrated in Plate V b and c neitheris sufficiently well preserved to admit of certain identification. On the other hand, there are two groups of these reliefs in the small recesses between the pylons and side walls which are relatively well preserved, but which are in so confined a space that they cannot, unfortunately, be photographed. One of these-on the south face of the south pylon-portrays the departure of the Buddha from Kapilavastu, accompanied, as usual in the Gandhara School, by the vajra-bearer. The other-on the northern face of the northern pylon-portrays the horse Kanthaka taking leaveof his master. The animal is kneeling to kiss the feet of Siddhartha, while Chhandaka and another figure on the one side, and the vajra-bearer on the other, look on.

Besides these sculptures I also recovered a large number of stucco and terracotta heads from the débris which had accumulated in and around this chapel. Of these the following are the more important :---

1. Stucco figure. Ht. 7". 2 6" b. s.<sup>1</sup> Seated in the Līlāsana attitude: holds in left hand alms-bowl containing uncertain object (? snake). R. hand in teaching (?) attitude (Pl. V1 b).

2. Stucco head. IIt. 4". 6 b. s. (Pl. VI d).

3. Ditto of Buddha figure. Ht. 6". 5' b. s. (Pl. VI e).

4. Ditto Ht. 31<sup>"</sup>. 4' b. s. Wears carrings. Hair bound with fillet and taken back in long curls over ears, in the manner of the youthful Dionysusor Ganymede type. Traces of red colour on cyclids and lips (Pl. VI f).

5. Stucco head of Buddha (?). Ht. 6". 3' 6" b. s. (Pl. VII b).

6. Stucco head of Buddha. Ht.  $5\frac{1}{2}$ ". 3' b. s. Flat at the back. Belonged to high relief (Pl. VII c). 7. Stucco head of Buddha. Ht. 6". 5' b. s. Traces of red colour on cyclids

and lips (Pl. VII d). 8. Terracotta head of female (?). Wears veil over top of head. Pupils of eyes indicated by incised lines. Small cavity in back of skull. Ht.  $7\frac{3}{4}$ ". 4'6" b.s.

(Pl. VII a).
9. Female statuette of Gandhāra stone. Without head or arms. In r.

9. Female statuette of Gandhara stone. Without head or arms. In r. shoulder is a dowel hole for attachment of r. arm. Left leg is bare up to thigh. Wears anklet on l. leg. Gandhāra stone covered with gold leaf, which is preserved under layer of *chunam*. Not worked at back. Ht. 1' 3". 3' b. s. (Pl. VI c).
10. Bowl of fine bronze containing large admixture of silver. It stands on three low solid legs of the "comma" pattern. In centre of the bottom is a raised circular projection (like the *omphalos* of Greek bowls) beaten out from beneath and adorned both above and below with two small concentric circles. Diam. 5<sup>1</sup>/<sub>2</sub>". Ground level (Pl. IV, 7).

Chapel B17.

adorned both above and below with two small concentric circles. Diam,  $5\frac{1}{2}^n$ , Ground level (Pl. IV, 7). The chapel B" is situated to the east of the Great Stūpa and is constructed in the late semi-ashlar type of masonry. Its walls are built over a foundation of débris which had accumulated to a height of about 3' 6" above the later floor of the procession path. The floor of the chapel itself is—or rather was—composed of slabs of dark grey stone which I at once suspected might be Gandhära veliefs turned upside down. This suspicion proved correct; but I was disappointed to find that the reliefs must have been already in a very damaged condition when they were used for paving the chapel, and the damp of the soil on which they were laid had caused the stone to flake away still further, so that few of the figures on them are now recognisable (Pl. IX b, o and d). The mediately in front of the chapel R' is the Stūpa Q', a square structure measuring 21 ft. along each side with traces of projecting steps on its north. All that is now left of this monument is the lower part of the plinth adorned with a torus and scotia mondding at its base and faced with neatly dressed square blocks of *kaŭjāv*. On each of its faces was a row of five plasters, but scarcely anything survives of these except the base of the one at the N. E. corner. The relies, which I recovered from the interior of this stūpa, were nothing more than ashes, and were contained in a small tiny round gold casket (Pl. X, 9)  $\frac{1}{2}^n$  high, which was placed, in turn, inside a plain stone bowl, measuring  $3\frac{1}{2}^n$  in diam. (Pl. X, 11). Besides the ashes there were also inside the gold casket the following — thoratalely, there were no coins or other articles in this deposit to indicate its date. The Stūpa J<sup>2</sup> (Pl. XI a) is situated a little to the east of the Stūpa J which J described in my last report. All that remains of it is a square plinth measuring 11'2" long each side with a projection, intended apparently for steps, on the west the core of the Stupn Q'.

Stūpa J<sup>a</sup>.

and scotia moulding. What is left of the torus appears to be slightly bevelled bu the bevelling is not clear.

The relic chamber of this stupa is at a height of 2' above the floor level and in It is 1' square and 6" deep, with a kanjur slab at thethe centre of the structure. bottom and lime-stone blocks for the side walls, of which the eastern is missing. Treasure-seekers of old had apparently destroyed part of the superstructure, but had fortunately stopped just short of the relic chamber. The casket which I found in this chamber is a flat *pyxis* of steatite,  $2\frac{1}{2}$  high, turned on the wheel and furnished with a detached boss on the top of the lid, which must have been fixed to it by means of cement. Inside this casket was a small box of silver,  $\frac{1}{2}$  high; and in this, again, a still smaller box of gold,  $\frac{5}{16}$  high (Pl. X, 1 and 2), which contained some minute fragments of bone. There were also a few beads (Pl. X, 3-6) in the The shape of the steatite steatite casket, but no coins with which to fix its date. casket closely resembles that of a casket which I discovered some years ago in Ghaz Dheri at Charsadda<sup>1</sup> and which was accompanied by a coin of Zeionises; but the mouldings and other decorative features of  $J^2$  bespeak for it a much later datethan that of Zeionises.

Close to this stūpa is another and somewhat larger one designated  $J^3$  in plan (Pl. XI *a*), which is also a square structure measuring 15' 4" along each side. It is standing to a height of 4' 6" above the foundations and is composed of rough rubble faced with  $ka\hat{n}j\hat{u}r$  and adorned, like the previous example, with four pilasters standing on a well-cut base moulding. The drum and dome of this stūpa have entirely vanished; but close beside the base, on the eastern side, I found the *harmikō* (or *hti*, as it is termed in Burma) together with one of the umbrellas and part of the shaft which supported it. All three members are of  $ka\hat{n}j\bar{u}r$  stone covered with lime stucco, which in the case of the *harmikā* is carved with scrolls and other patterns. The umbrella shaft is hollow and was no doubt strengthened with an iron bar inserted through the centre. A similar shaft has recently been found in the monastery at Morā dũ with traces of the iron rust still adhering to it.

Stupas J', J' and J'. The other small stupas  $(J^4, J^5 \text{ and } J^6)$  in this group are smaller structures which are too much damaged to deserve particular notice.  $J^2$  and  $J^3$  are apparently of about the same age.  $J^5$  and  $J^6$  are considerably later, and  $J^4$  is probably the latest of the group.

Stuppes N..... Corresponding with the group of stupes just described, but further round the Great Stupe in a northerly direction, is another group of similar edifices numbered  $N^{0.12}$  in the ground plan (Pl. XI b). All these structures are built in the semiashlar type of masonry, and all are square in plan and standing to a height of some three feet or less. In the centre of N<sup>II</sup> I found a large earthen gharā (Pl. XII, 13) of plain red earthenware, well burnt, 1'  $1\frac{2}{3}$ " high, containing fifteen copper coins of Shapur II (309-380 A. D.). Another earthenware vessel which I discovered in Stuppe N<sup>IC</sup> had been badly crushed, but the earth from it yielded 18 beads of coral, lapis lazuli, shell and glass. The Stupe N<sup>0</sup> yielded a few beads only.

Stupas Ni, Ni and Ni,

Stūpa J'

Of the next group of stupas on the north,  $N^4$  was described by me in my last

report. N<sup>5</sup>, which measures 20' 1" square, stands on a plinth of limestone blocks 5" high and with a projection of  $5\frac{3}{4}$ " beyond the face of the plinth. The core of the structure is rubble and earth, faced with neat  $ka\hat{n}j\bar{u}r$ . Round the base runs a strikingly well cut torus moulding with a bevelled course above, and above this is a series of stunted pilasters, five along each side, with debased Corinthian caps. The superstructure over the plinth was square at the base faced with  $ka\hat{n}j\bar{u}r$  and adorned with the projecting fore fronts of lions disposed at even intervals in a row around its four sides. The stupa is best preserved on the south side, where it rises to a height of 4' 6" above the foundations.

The Stūpa N<sup>7</sup>, which is built on the ruins of an older monument, is similar in  $5t\bar{u}pa N^7$ . construction to the one last described, but considerably smaller, measuring only 9' 5" along each side. It is' standing to a height of two feet above the earlier structure. In the relic chamber, which measures 7" square by 1' 11" deep, and is constructed of neat  $ka\tilde{n}j\tilde{u}r$  stones, I found the crystal lion (ht.  $1\frac{1}{4}$ ") illustrated in Pl. XII, 9; and, beneath it, the casket of Gandhāra stone (ht.  $3\frac{1}{16}$ ") illustrated in Pl. XII, 12. Inside the stone casket was a small box of silvery bronze with some minute bone relics within, accompanied by two small pearls and one bead of bright blue paste.

The remaining stupa in this group (N<sup>8</sup>) has not yet been entirely cleared of Stupa N<sup>\*</sup>. débris, and I shall therefore reserve a description of it to a future report.

Proceeding from this point a short distance towards the N.-W. we come to the three structures  $P^7$ ,  $P^8$  and  $P^{10}$ . In each of these edifices the late semi-ashlar type of masonry is used, and it is clear that all three belong to one and the same period; but  $P^7$  appears to have been constructed after  $P^{10}$ , and  $P^8$  after  $P^7$ . This is demonstrated by the fact that the N.-W. corner of  $P^8$  has been rounded off so as to allow space for perambulation, which would otherwise have been blocked by the plinth of  $P^7$ . The only architectural feature in this group that deserves notice, is the decoration of the north face of  $P^7$ , which consisted of seven plasters of a debased type with trefoil niches containing fragmentary Buddha images in two of the bays.

In Stūpa P<sup>10</sup>, near its N.-W. corner, I found a hollow  $ka \tilde{n} j \tilde{u} r$  block containing the steatite casket  $(3_{16}^3"$  high) illustrated in Pl. XII, 10. There was nothing inside the casket save some earth and a coral bead.

In the narrow space between  $P^{10}$  and  $P^{7}$  was a broken Gandhāra sculpture,  $9\frac{1}{4}^{\prime\prime}$  high, representing the offering of honcy by the monkey to the Buddha (Pl. XIII *a*). A little below this, again, was a small earthen pot containing five gold coins of the later Kushān period, one solid gold earring with pearls attached to it, a few gold beads plain and fluted, and a broken ornament of beaten gold with a granulated border (Pl. XII, 1-8). This deposit seems to have been placed here after the plinths of the adjacent buildings had been buried in débris.

The last monument remaining to be noticed is the rectangular tank immediately cast of the Stūpa K<sup>1</sup>, which is interesting as affording some supplementary evidence regarding the dates of the structures near it, and particularly of the Stūpa K<sup>3</sup>, in the relic chamber of which three coins of Kanishka were found. The tank measures 21' long by 10' 10" wide and 7'  $1\frac{1}{2}$ " deep, and its walls are built of small diaper masonry of a rough variety, the whole coated with lime plaster. On the north side is a flight of steps leading to the bottom of the tank. Now, the founda-

Stūpas P<sup>1</sup>, and P<sup>10</sup>.

Tank.

tions of the Stūpas  $K^2$  and  $K^3$  project well over the northern end of the steps, and the tank, therefore, must have fallen into disuse and been filled in before ever the stūpas in question were built. But, as the tank itself was not built until the latter part of the first century A. D., it follows that the stūpas can hardly be assigned to a date earlier than the latter half of the 2nd century, though they may be more modern than that.

# List of miscellaneous antiquities recovered from the site :--

1. Gandhāra stone pilaster with double flutings. Ht. 1'  $8\frac{1}{2}''$ . 3' b. s. (Pl. VI a).

2. Stucco head of Buddha. Ht.  $11\frac{1}{4}^{\prime\prime}$ . Back of head broken.  $B^{23}$ . 1' b. s. (Pl. IX a).

3. Fragment of Gandhāra relief; apparently from side of Buddha relief. It.  $3\frac{5}{5}^{"}$ . B<sup>18</sup>. (Pl. X, S).

4. Iron object, probably knife. 7" long (Pl. X, 12).

5. Iron object. 41/2 long. B27. 1'6' b. s. (Pl. X, 14).

6. Iron object. 3<sup>1"</sup> long. B<sup>23</sup> (Pl. X, 15).

7. Iron arrowhead.  $3\frac{7}{8}$  long. B<sup>18</sup>. 2' b. s. (Pl. X, 16).

8. Ditto. 3" long. B<sup>23</sup>. floor level (Pl. X, 17).

9. Fragment of Gandhāra relief. Ht. 5". Holds (?) flower in r. hand (Pl. X, 18).

10. Stucco head. Ht. 3<sup>1</sup>/<sub>2</sub>" (Pl. XII, 14).

11. Ditto. Ht.  $9\frac{1}{2}^{"}$  (Pl. XIII b).

12. Fragment of Gandhara relief (flute player). Ht.  $b_4^{\prime\prime}$  (Pl. XIII c).

13. Fragment of Gandhāra relief. Ht. 10" (Pl. XIII d).

14. Stuceo head of Buddha. Hi.  $10\frac{1}{2}''$  (Pl. XIII e).

15. Fragment of Gandhāra relief: female ascetic (?). Holds water-vessel in proper l. hand. Ht  $5\frac{3}{5}$ ". M<sup>o</sup>. 1'6" b. s. (Pl. XIII f).

## Stūpa of Kunāla.

At the time when Hiuen Thsang visited Taxila, the city of Sirkap had been deserted for more than five centuries and its ramparts and buildings must long have been in ruins The city in which the pilgrim himself sojourned is the city now known as Sirsukh, where numerous structures of the early mediæval period are still traceable. In the neighbourhood of this city there were four famous Buddhist monuments which the pilgrim described. One of these was the tank of Elāpatra, the Dragon King; another was a stūpa which marked the spot where, according to the Buddha's prediction, one of the four great Treasures will be revealed when Maitreya appears as Buddha'; a third was the stūpa of the 'sacrificed head', said to have been built by Asoka and situated at a distance of 12 or 13 li to the north of the capital; the fourth was a stūpa, also said to have been built by Asoka to commemorate the spot where his son Kunāla had had his eyes put out. The first and second of these monuments were, I believe, rightly identified by Gen. Cunningham—the one with the sacred tank now known as the Pañjá Såhib at Hasan

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<sup>1</sup> The four Great Treasures referred to are those of Eläpatra in Gandhara, Panduka in Mithila, Pingala in Kahlen, a d Satka in the KSSi (Denarcs) country. See T. Watters, op. cit., p. 243.

Abdal.' the other with a ruined stupa which crowns the ridge above Baoti Pind. As to the other two, Cunningham laboured under the false idea that the city which Hiuen Thsang visited was the city on the Bhir mound instead of in Sirsukh and he could not, therefore, but fail to identify the location of the two stupas. Now that we know that the earliest city of Taxila was on the Bhir mound and the latest in Sirsukh, it is clear that the stupa of the 'sacrificed head' is none other than the Bhallar stupa which occupies a commanding position on the extreme western spur of the Sarda hill and that the memorial of Kunāla's misfortune is a stūpa which occupies a hardly inferior position on the northern slopes of Hathial, commanding a splendid view of the lower city of Sirkap and of the whole of the Haro valley. Hiven Thsang describes this stupa as being above 100 feet high and situated to the south-east of the city of Takshasilā on the north side of the south hill. The blind, he says, came here to pray, and many had their prayers answered by the restoration of their sight<sup>1</sup>. He then proceeds to narrate the story of Kunala : of how his stepmother Tishyarakshā fell in love with him and induced Aśoka to send him as Vicerov to Takshaśilā; of how she then wrote a despatch in her husband's name and sealed it with the seal of his teeth while he slept, bringing accusations against Kunāla and ordering his eyes to be put out; of how the ministers shrunk from executing the order but the prince himself insisted on obedience to his father; of how he then wandered forth with his wife and begged his way to the far-off capital of his father; of how his father recognised him by his voice and the strains of his lute; and of how the cruel and vindictive queen was put to death and the prince's eye-sight restored at Bodh-Gayā through the help of the Buddhist Arhat Ghosha<sup>2</sup>.

The southern hill referred to by Hiuen Thsang can only be the hill of Hathial which bounds the Haro valley on the south; and the only stupa of large dimensions on its northern side is one on the northernmost ridge exected almost directly over the remains of the old wall of Sirkap. At the time when Cunningham saw this stupa in 1862, it appeared to be nothing more than a heap of debris, and was thought by him to be one of the old watch-towers of the wall; while the big monastery alongside, which was seemingly no better preserved, was taken for a guard house. Neither explanation, however, appeared to me satisfactory : nor, in view of the many massive blocks of limestone lying among the débris, could I agree with my predecessor in supposing that the two structures were contemporary with the city walls, which are constructed throughout of the small rubble masonry, usual in the Greek and Scythic periods. It was with no feeling of surprise, there-

<sup>2</sup> Cf. T. Watter, On Yuan Chwang, Vol. I, pp. 245 sg. <sup>2</sup> In its essence the story of Kunāla and Tishyarakshā is the same as that of Hippolytus and Phaedra, and it is not unlikely that it was derived from the classical legend. Such legends must have been familiar enough among the Eurasian Greeks in the North-West of India. Witness, for example, the drama of Antigone portrayed on a vase found at Peshāwar. Some versions of the story represent Afoka as sending his son to restore order in Takshasila on the advice of a Minister of State, not through the instrumentality of Tisnyaraksha, and in some versions the prince dies after his return home without any miracle transpiring to restore his eye sight. His real name was Dharmavivardhana and his father called him Kuzula because his eyes were small and beautiful, like those of the Himavat bird of that name. The blinding of the prince was the outcome of evil karma wrought in a previous existence According to one story, he had blinded 500 deer ; according to another, an arhat'; or according to the Avadana-kalpalata he had taken the eyes (relics) out of a chaitya. Ghosha, the name of the arhat who restored his eye-sight to Kunāla, was also the name of a famous oculist of this district. See T. Watters, *loc. cit*.

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fore, that, when I came to excavate the two structures, I found that they were a stupa and a monastery built in late semi-ashlar masonry and that, so far from being contemporary with the wall, they had been erected partly on its ruins some two centuries after the city of Sirkap had fallen to decay. The design of the stupa, so far as it has been preserved, will be clear to the reader from the drawings and photographs on Plates XIV and X.V. It rests on a lofty rectangular base which measures 63' 9" from east to west by 105' 1" from north to south and was provided with a stepped approach at its northern end. The foundations, which project 3' 9" beyond the face of the superstructure, are composed of limestone blocks The base itself has a rough rubble core faced partly with faced with square kanjur. limestone in the semi-ashlar style, partly with kanjur, the latter being used for mouldings and other ornaments. Over this facing was spread a thick coat of lime stucco, which, on the analogy of other buildings, may be assumed to have been relieved with colour and gilt. The base rises in three terraces, the lowermost of which is 3 4" high and is relieved by a series of stunted Cornithian pilasters resting on an claborated torus and scotia moulding and surmounted by a dentil cornice and copings, with Hindu brackets of the 'notched' variety intervening between the capitals and the cornice. The torus moulding at the base is bevelled in three facets. The middle terrace is 2' 31" high and quite plain, but covered with a coating of muddy plaster about  $\frac{5}{2}$  thick. The uppermost terrace is decorated in much the same way as the lowest one, but it was nearly three times as high; and the base mouldings and entablature were proportionately more massive and elaborate. Another point of difference, too, is to be found in the pilasters, which instead of being ranged at even intervals along the whole length of the terrace appear to have been disposed only at the salient and re-entering angles, though those at the salient angles have now disappeared.

Of the superstructure of this monument only a fragment of the core has survived *in situ*, but the form and construction of the terraced base coupled with the style of the decorative details leave no room for doubt that the Kunāla Stūpa is of the same age as the great Bhalar Stūpa on the opposite side of the valley; and to judge by the character of the many architectural members belonging to the upper part of the structure, which were lying in considerable numbers round its base, it seems fairly safe to conclude, that the elevation of the drum and dome resembled that of the Bhalar Stūpa; in other words, that the drum was circular and strikingly lofty in proportion to the size of the monument, and that it was divided into six or seven tiers, slightly receding one above the other, which were adorned with rows of pilasters, friezes and dentil cornices in much the same fashion as the terraces of the base. As in the Bhalar Stūpa, too, as well as in all other stūpas of this date the relic chamber was no doubt placed near the top of the edifice; for no trace of any chamber was found in or below the plinth of the building.

Among the fallen architectural members referred to above I noted in particular the following classes :--

a. dentil brackets of kañjūr of the usual design but of four different sizes,
viz: (1) 3<sup>t</sup>/<sub>2</sub> high × 2<sup>1</sup>/<sub>2</sub> wide; (2) 4<sup>3</sup>/<sub>2</sub> high × 4" wide; (3) 10<sup>3</sup>/<sub>4</sub> high × 7<sup>t</sup>/<sub>2</sub> wide; and (4) 1<sup>1</sup>/<sub>2</sub> high × 9" wide,

- b. balustrade pillars of kañjūr with bevelled edges of two sizes, viz: 4<sup>3</sup>/<sub>4</sub>" and 7" wide respectively.
  c. coping of balustrade, 8" wide × 6<sup>1</sup>/<sub>4</sub>" high.
  A remarkable feature of this monument which I observed as soon as it was

cleared, is the delicate concave curvature of the plinth. The western side of the cleared, is the delicate concave curvature of the plinth. The western side of the stūpa, for example, measured in a straight line from end to end, is  $7\pm'10''$  long; but the line thus drawn does not coincide with the actual line of the plinth, which recedes gradually inwards towards the centre, the greatest distance between the arc and the chord being three inches. It is well known, of course, that entasis of the columns and curvature of other lines both horizontal and perpendicular, was systematically employed in Greek architecture in order to correct the apparent defects caused by optical illusions; and it may be that the idea was introduced from Western Asia, along with the many other Hellenistic features which characterise the architecture of Taxila and the North-West. But, if this was so, it would appear that the optical principles which underlay the idea could not have been properly understood by the builders of the Kunāla Stūpa; for in this case the curvature is concave instead of convex, and it has the effect of exaggerating the illusion, instead of correcting it. of correcting it.

of correcting it. This stupa of the third, or possibly fourth, century A. D. was not the earliest monument to be erected on this interesting site. Buried in the core of the structure and towards its north-west corner, I uncovered another and very much smaller stupa (P1. XV d), which appears from its style to have been erected in the first century A. D., while the city wall alongside of it on the east was still standing intact. This older edifice is perched on a small rocky eminence and is standing to a height of 9' 8". It is constructed of rough blocks of limestone and consists of a square plinth with drum and dome above, the only feature that has disappeared being the crowning umbrella. The plinth is 4' 6" high, the drum 2' 2", and the dome **3**' 0". Originally the rough stone masonry was covered with lime plaster on which the mouldings and other decorative details were worked, but all this plaster has now fallen from the sides. fallen from the sides.

fallen from the sides. Immediately to the west of the Kunāla Stūpa and at a slightly higher level is a spacious and solidly built monastery in the semi-ashlar style which is manifestly contemporary with the later stūpa. It is standing to a height of between 13' and 14' and consists, apparently, of two courts—the larger to the north and the smaller to the south, the total length of the exterior wall opposite the stūpa being about 192 feet, and the width of the larger court about 155 feet. The larger court seems to be of the usual form with an open reciangle in the centre surrounded by a raised verandah and cells. Only the east side of it has yet been excavated and it is premature, therefore, to attempt a description of it. Monastery.

#### Sirkap.

Before proceeding into the lower city of Sirkap we shall halt for a moment at the fortifications on the eastern side of the city, a short length of which was excavated by my assistant Mr. V. Natesa Aiyar during the past winter. (Pl. XVI.) These fortifications are constructed of rubble masonry throughout, like other struc-City wall. tures of the Greek and Śaka-Pahlava epochs, and vary in thickness from 15' to  $21'6"_{\star}$ . They are strengthened by solid bastions at irregular intervals, which, so far as they have been examined, are rectangular in plan. In some cases these bastions arefurther supported by sloping buttresses, which were apparently added at a later date. The highest point up to which the fortification walls are now standing at this point is about eight feet above the ground level, and the foundations extend to a depth of about six feet below and are strengthened on the outside by three footings; while in the case of the bastions the foundations are carried down another 9' 6" and are protected by an extra footing. It is noteworthy that in contradistinction to the bastion in the later city of Sirsukh those at Sirkap are not furnished with guard rooms inside them.

Lower dty.

In the lower city of Sirkap the present season was devoted chiefly to the excavation of the remains on the west side of the Main Street, opposite to blocks C-F, and of the block P, which I take to have been a palace, and to the clearance of the High Street for a distance of about 300 yards from the Northern Gateway. The remains on the western side of the High Street comprise several distinct blocks separated from one another by side streets. For the sake of convenience and in order to facilitate reference the blocks have been designated on the plan C', D', E' and F', C' being situated directly opposite to C on the other side of the street, D' opposite to D, and so on. (Pl. XVII.)

The principle on which all these houses are built, is the same as that followed in the ancient houses which I excavated at Bhita near Allahabad, and the same also as that of the ancient monasteries of the Buddhists. The unit of their design, that is to say, is the open quadrangle surrounded by chambers; but in the houses at Taxila this unit is repeated two, three, four or more times according to the amount of accommodation required. In the case of C' two, and in the case of D' three, such courts have, up to the present, been exposed, but the limits of these houses have not been reached on their western side, and it is more than likely that other courts and chambers attached will be found in that direction In the two blocks in question, as well as in blocks E' and F', the walls of the upper-most stratum are constructed either of small diaper masonry with well-finished facings or of relatively rough rubble. The inner faces of the walls, and possibly the outer also, were covered with lime or mud plaster, to which traces of paint still adhere. Wood was used for the fittings, such as doors and windows, as well as for roof timbers, and in some cases, apparently, for panelling on the walls. The fact that no tiles have been found in any of these houses indicates that the roofs wereflat and covered with mud. A remarkable feature of these houses is that, although in some cases there are doors communicating between two or more rooms, there do not appear to be any doors giving direct access from these rooms to the interior court or to the streets outside-a fact which corroborates, what I pointed out last year, namely, that in most of the Sirkap houses the ground floor was in a nature of a basement, the rooms of which were entered by trap doors from above. Another noticeable feature of all the Sirkap houses is the amount of accommodation provided in them, which, even if we assume that there were not more than two storeys, was certainly greater than any single family would be likely to require. It may be that

-other houses exist in Sirkap which were planned on a smaller scale, and if this proves to be the case, the inference will no doubt be drawn that the larger houses were the abodes of the wealthier classes. But up to the time of writing, one and all of the dwellings in Sirkap—and not only in Sirkap, but in Sirsukh also—have been found to be planned on the same extensive scale with several courts and numerous -chambers; and it looks, therefore, as if they must have been occupied by several families, just like the 'insulæ' of ancient Rome or the blocks of tenements in many Italian cities of to-day.

The block  $\acute{\mathbf{O}}$  measures 113' from north to south and 87' from east to west, and, Block C. so far as it has been excavated, consists, as stated above, of two groups of chambers ranged round two courts, with rows of smaller rooms along the side street, and a smaller court at the S. E. corner. The northern half of the block is composed of a central courtyard, measuring 21'×18', surrounded by rooms of comparatively spacious dimensions. The stupa in the small court at the south-east corner faces on to the High Street. All that is left of it is the base, which is constructed of small diaper masonry with corners of dressed kañjur. It is square in plan and quite plain, forming a contrast in this particular with Shrines I and II which were excavated last year. The presence of a number of kañjūr pilasters and other fragments indicates that the plinth was protected by the usual railing. A shaft was sunk in the centre of the stupa, but the only object brought to light was a wall running east and west at a depth of 7' below the surface, and this wall appears to have belonged to an earlier and quite distinct building in a lower stratum. The foundations of the stupa itself descend to a depth of about 2' 8" below the ground level. The floor round it was made up of kankar, clay and lime with a small admixture of river sand, and was paved with well-baked bricks measuring  $10'' \times 7'' \times 2''$ , some of which are still preserved at the four corners of the enclosure. In front of the stupa is a raised terrace constructed of double walls with rubble filling between them, like the terrace in front of the apsidal temple on the other side of the street.

This terrace was ascended from the High Street by a double flight of steps, and originally there must have been another flight of steps descending to the courtyard on the inside. But the latter were subsequently removed and in their place a causeway of rough stone was inserted leading across from the top of the terrace to the plinth of the stūpa.

This block of buildings appears to have been reconstructed or repaired on several occasions; but the ruined state of the walls renders it exceedingly difficult to distinguish the different periods. At a lower level, that is at a depth of about 7' .below the surface, are several clearly defined walls belonging to a lower stratum, which still remain to be followed up.

The following is a list of the more interesting antiquities recovered from this building :--

#### Terracottas and Potteries.

In the list which follows all the vases, unless otherwise stated, are of plain red ware, well baked and without slip or paint. In cases where a slip is found, it takes the form merely of a thin wash, of clay water. Paint is used in only one 1. Incense-burner (dhūp dānī). Ht. 4". 45×76'; 6' 4" deep. (Pl. XX, 2).

2. Miniature jar. 3" high. 44×78'; 5' 8" deep. (Pl. XX, 4).

3. Ditto. 3" high, 42×77'; 3' deep. (Pl, XX, 6).

4. Solid cornucopia (?)  $8\frac{1}{2}''$  long; small handle at side; slightly broken.  $52 \times 76'$ ; 6' 1'' deep. (Pl. XX, 7).

5. Cup. 34" high ; 42×75' ; 6' deep. (Pl. XX, 10).

6. Miniature handā. 24" high, 52×74'; 7' deep. (Pl. XX, 12).

7. Miniature jar.  $2\frac{3}{4}^{"}$  high, rim broken.  $42 \times 73'$ ; 3' 10" deep. (Pl. XX, 22).

8. Bowl. 2<sup>7"</sup>/<sub>8</sub> high, 45×78'; 5' deep. (Pl. XX, 24).

9. Miniature bowl.  $1\frac{7}{8}$  high,  $41 \times 76'$ ; 6' deep. (Pl. XX, 31).

10. Goblet.  $5\frac{7}{8}$  high, base slightly damaged.  $46 \times 74$ ; 4' 8' deep. (Pl. XXI, 34).

11. Gharā. 5<sup>1</sup>/<sub>4</sub>" high, 48×79'; 3' 10" deep. (Pl. XXI, 35).

12. Pipe.  $6\frac{1}{8}''$  long; slightly damaged.  $45 \times 72'$ ; 6' 4" deep. (Pl. XXI, 36).

13.  $Handi. 4\frac{1}{4}$  high, broken at the rim.  $48 \times 79'$ ; 3' 10" deep. (Pl. XXI, 48).

14. Wine cooler (?) with single spout.  $1' 4'' \times 1' 1''$ ; wheel made; buff-red ware sprinkled with mica.  $48 \times 77'$ ; 6' 4'' deep. (Pl. XXII, 53).

# Stone objects.

1. Round marble disc, with circular grooves inside.  $5\frac{1}{4}$  diam; edge broken.  $45 \times 75'$ ; 5' 2" deep. (Pl. XXVII, 1).

2. Lid of a steatite casket.  $3\frac{5}{8}''$  diam; slightly damaged. 4580'; 2' 9" deep. (Pl. XXVII, 5).

3. Small slab, incised with floral design and perhaps meant for a mould.  $4\frac{1}{4}'' \times 1\frac{3}{3}''$ .  $51 \times 78'$ ; 2' 8'' deep. (Pl. XXVII, 6).

4. Soap stone dish with raised edge.  $4\frac{1}{6}''$  across mouth; slightly broken at the rim.  $42 \times 73'$ ; 3' 10" deep. (Pl. XXVII, 7).

5. Steatite casket.  $3\frac{7}{8}$ " diam. at base. In good condition. Contained minuterelic of bone and a few beads of bone and gold.  $45 \times 76'$ ; 2' deep. (Pl. XXVII, 9).

6. Chirāgh.  $7\frac{7''}{8}$  long; broken.  $51 \times 72'$ ; 3' deep.

# Bronze and copper objects.

The objects in the following list are of copper, unless otherwise stated. In some cases, where the metal is much corroded, it has not been possible to determine whether it is copper or bronze.

1. Bronze handle, terminating in dog's head with incuse depressions for gems.  $2^{\circ}$  long.  $42 \times 73'$ ; 7' 10" dcep. (Pl. XXIV, 10).

2. Pin head. <sup>3</sup>/<sub>4</sub> long. 42×72'; 4' 6" deep. (Pl. XXIV, 11).

3. Bronze pendant, 1<sup>3</sup>/<sub>8</sub>" long. 42×74'; 9'3" deep. (Pl. XXIV, 20).

4. Bronze stopper surmounted by figure of cock.  $1_{s}^{3'}$  high. 46 < 76'; 3' 6" deep. (Pl. XXIV, 22).

5. Antimony rod.  $6\frac{1}{6}$  long.  $43 \times 79'$ ; 4' deep. (Pl. XXIV, 33).

6. Bronze ear-pick.  $4\frac{1}{2}''$  long.  $51 \times 77'$ ; 4'8" deep. (Pl. XXIV, 34).

7. Hollow tube, 3" long. 51×74'; 6' 4" deep. (Pl. XXIV, 31).

8. Lid of casket with spiral device repoussé. 1" diam.  $51 \times 76'$ ; 5 7 "deep. (Pl. XXIV, 39).

9. Silver-bronze ring. 13" diam. 48×73'; 4' deep. (Pl. XXIV, 43).

10. Bronze bell with two holes inside for suspension of tongue.  $2\frac{1}{2}''$  high;  $45 \times 75'$ ; 7'9" deep. (Pl. XXIV, 47).

#### Iron objects.

1. Round-headed nail,  $6\frac{1''}{2}$  long.  $44 \times 74'$ ; 7' 2'' deep. (Pl. XXV, 3).

2. Piece of bridle, 8" long. 46 74'; 4' 8" deep. (Pl. XXV, 7).

3. Sickle, 63" long. 44×74'; 7' 2" deep. (Pl. XXV, 11).

4. Spear-head (?). 75" long. 45×78'; 3' 6" deep. (Pl. XXV, 12).

5. Square dish. 3<sup>2</sup>/<sub>4</sub>" square. 51×72'; 1'9" deep. (Pl. XXV, 14).

6. Boss of shield (?).  $6\frac{1}{4}''$  diam.  $48 \times 73'$ ; 8' 5'' deep. (Pl. XXV, 15).

7. Circular disc, probably a weight.  $2\frac{1}{2}''$  across,  $52 \times 77'$ ; 3' deep. (Pl. XXV, 31).

8. Hoe, 1' long. 44×74'; 7' 2" deep. (Pl. XXVI, 44).

9. Stand with three feet and five pairs of hooks at sides. Perhaps a candelabra. 1'9" high.  $45 \times 73'$ ; 4'6" deep. (Pl. XXVI, 47).

10. Two nails, 1' 4" and 1' 5<sup>1</sup>/<sub>2</sub>" long. 46×75'; 3' 9" deep. (Pl. XXVI, 51).

11. Leg of stand. 1' 5<sup>1</sup>/<sub>8</sub>" long. 45×78', 4' 3" deep. (Pl. XXVI, 52).

12. Circular disc, probably a weight.  $5\frac{1}{5}^{"}$  diam.  $52 \times 74'$ ; 7' deep. (Pl. XXVI. 55).

13. Six-sided ingot (?). 46×74'; 5'4" deep. (Pl. XXVI, 56).

14. Three bits of horse's bridle.  $4\frac{3}{4}$ ,  $4\frac{3}{4}$  and  $3\frac{1}{2}$  long. 46 74'; 5' 4'' deep. (Pl. XXVI, 57).

15. Shovel with two rings in front for attachment of rope.  $8\frac{1}{6}'' \times 6\frac{3}{5}''$ .  $45 \times 74'$ ; 3' deep. (Pl. XXVI, 61).

16. Leg of stand. 1' 3' long. 45×78'; 4' 3" deep. (Pl. XXVI, 63).

17. Leg of stand, broken. 1' 24" high, 44×77'; 1' 3" deep. (Pl. XXVI, 64).

18. Foot of folding chair pierced with a hole. 1'  $11\frac{1}{4}$ " long; 45 78'; 4' 3" deep. (Pl: XXVI, 65).

19. Blade of sword (?) 2' 34" long. 45×78'; 4' 3" deep. (Pl. XXVI, 66).

20. Circular disc, probably a weight. 2" diam. 48×73'; S' deep.

21. Rectangular plate. 7<sup>3</sup>/<sub>4</sub> ×4". 45×75'; 5' 2" deep.

### Bone objects, Beads, Gems, etc.

1. Bone die with Nos. 1-4 in concentric circles,  $3\frac{1}{2}''$  long.  $52 \times 75'$ ; 8' deep. (680).

2. Ditto.  $3\frac{1}{2}'' \log 42 \times 74'$ ; 6' 6'' deep. (100).

3. Bone stilus with fine point,  $4\frac{7}{8}$  long.  $41 \times 78'$ ; 5' deep. (543).

Ditto.  $3\frac{1}{2}''$  long.  $50 \times 79'$ ; 3' 2'' deep. (1556).

 4.
 Ditto.
  $3\frac{1}{2}$  long.  $50 \times 79$ ; 52 deep. (1000).

 5.
 Ditto.
  $2\frac{1}{2}$ " long.  $51 \times 79'$ ; 4' 8" deep. (1749).

6. Bone bridle piece with two holes and marks of wearing between them.  $3\frac{7}{5}$  long.  $45 \times 79'$ ; 3' 4" deep. (1555).

7. Sard pendant,  $\frac{1}{16}''$  long, forked at base.  $41 \times 77'$ ; 9' deep. (119).

8. Sard bead, <sup>7</sup>/<sub>16</sub>" diam. 49×73'; 3' 6" deep. (229).

9. Shell bead.  $\frac{1}{2}$  diam.  $42 \times 74'$ ; 6' 6'' deep. (101).

10. Crystal bead, diamond shaped with twenty-four facets.  $\frac{3}{5}''$  diam.  $48 \times 78'$ ; 3' 6'' deep. (227).

11. Cornelian gem, button-shaped and pierced.  $\frac{1}{4}''$  high.  $48 \times 77'$ ; 3' 6'' deep. (228).

12. Garnet ear-drop, pear shaped.  $\frac{1}{2}''$  long.  $42 \times 74'$ ; 9' 8'' deep. (2166).

Block D' is built mainly of rough rubble and measures 114' from north to south and 73' from east to west, but probably not more than half the block has yet been excavated. In the chamber outside the south-east corner of the courtyard is a well, the top of which is square and constructed of stone while the portion below is circular and faced with lime and river sand. The well has been excavated to a depth of about 9 feet beneath the square rim, but only broken potsherds were found inside it. On the south side of the northern court is a raised  $d\bar{u}w\bar{u}n$  or platform faced with limestone and  $ka\bar{n}j\bar{u}r$  masonry, similar to the  $d\bar{u}w\bar{u}n$  in the palace building P.

Remains of earlier buildings are coming to light at a depth of between 6 and 7 feet in the central courtyard.

The following is a list of the principal antiquities excavated from this block :---

# Terracottas and Potteries.<sup>1</sup>

1. Miniature châți. 2<sup>1</sup>/<sub>4</sub> high. 62×77'; 6' 10" deep. (Pl. XX, 11).

2. Miniature jar.  $2\frac{3''}{5}$  high.  $55 \times 71'$ ; 7' 8'' deep. (Pl. XX, 15).

3. Ditto, with broken rim.  $2\frac{7''}{5}$  high.  $57 \times 76'$ ; 3' 6" deep. (Pl. XX, 23).

4. Lamp (divā). 1<sup>1</sup>/<sub>8</sub>" high. 59×74'; 8' deep. (Pl. XXI, 42).

5. Seal with svastika symbol incised. 1" diam.  $63 \times 77$ ; 6' 2" deep. (498).

6. Bust of (?) female figurine.  $3\frac{1}{4}^{"}$  high. Coarse workmanship.  $65 \times 76'$ ; 7' 2" deep. (729).

# Stone objects.

1. Male figure, semi-nude and headless, holding an indistinct object in both hands.  $4\frac{5}{3}$  high.  $60 \times 77'$ ; 1'9" deep. (164).

2. Fragment of a sculptured slab.  $3\frac{3}{5}'' \times 1\frac{5}{5}''$ .  $56 \times 72'$ ; 7' 6'' deep. (338).

# Bronze and copper objects.<sup>2</sup>

1. Bronze stopper surmounted by peacock with flat tail.  $56 \times 72'$ ; 6' 5" deep (Pl. XXIV, 21).

Block D'.

<sup>&</sup>lt;sup>1</sup> Tide remarks on terracottas and potteries on p. 15 supra.

<sup>&</sup>lt;sup>2</sup> Fide remarks on bronze and copper objects on p. 16 supra.

2. Part of bronze buckle (?), 15" long. 56×75'; 4' deep. (Pl. XXIV, 25).

3. Silver-bronze ring with double bezel for two gems.  $\frac{7}{8}$  diam. 5671'; 8' 4" deep. (Pl. XXIV, 37).

4. Gilt bar (?) terminal guard of chain; 2" long.  $64 \times 73$ '; 6' 10" deep. (Pl. XXIV, 48).

Iron objects.

1. Nail. 2<sup>1</sup>/<sub>2</sub>" long. 54×71'; 7' 4" deep. (Pl. XXV, 19).

2. Foot of tripod or folding chair (?). 3'' long.  $54 \times 71'$ ; 7' 4'' deep. (Pl. XXV, 21).

3. Boss of shield.  $2\frac{7}{5}$  diam.  $64 \times 77'$ ; 5' 3" deep. (Pl. XXV, 32).

4. Head of pick.  $9_{3}^{3''}$  long.  $59 \times 74'$ ; 9' 10'' deep. (Pl. XXVI, 39).

5. Bent fork.  $4\frac{1}{2}$  long.  $59 \times 74'$ ; 8' deep. (1922).

### Bone objects, Beads, Gems, etc.

1. Bone pin.  $3\frac{3}{4}^{"}$  long.  $59 \times 73'$ ; 10' 10" deep (2186).

2. Carved white stone bead, drum-shaped.  $\frac{1}{2}''$  long. (370).

3. Cornelian round bead.  $\frac{3''}{8}$  diam. Apsidal temple ; 3' deep. (1853).

4. Glass (?) signet for ring engraved with figure of a lion.  $54 \times 71'$ ; 7' 7" deep. (610).

5. Burnt paste bead, black and white. From débris near apsidal temple. (2040) 6. Lapis-lazuli bead of pale colour, fourteen-sided.  $56 \times 75'$ ; 4' 8" deep. (385).

Block E' is built of rough rubble mingled with early diaper masonry and has a frontage of 131' 5" feet. It is entered from the High Street by a double flight of steps constructed of limestone blocks, of which the southern flight is in a relatively good state of preservation. The most noteworthy feature in this block is the stūpa at the south-east corner fronting on to the High Street, access to which is provided on the east side by a double flight of seven steps faced with squared  $ka\hat{n}j\bar{u}r$  masonry (P1. XVIII b). The plinth of this stūpa measures 40'×36' and rises to a height of 5' 6" above the level of the street. It is built partly of rubble and partly of early diaper masonry and is stucceed over on the outside. The core is composed of thick cross walls of stone 3' 2" thick with the inter-spaces between them filled with débris. A pit sunk in the centre of this core revealed a square chamber lying at a depth of between seven and eight feet below the surface; but, unfortunately, the chamber had been broken into and rifled in days long gone by. Immediately on the west of the stūpa is a pakkā floor composed of lime mortar and stones.

The following are the important antiquities unearthed from this building :--

Terracottas and Potteries.<sup>1</sup>

Potter's dabber (thapuā). 3¼"×2¾". 74×66'; S' 6" deep. (Pl. XX. 9).
 Bowl. 2¼" high. 77×66'; 11' 9" deep. (Pl. XX, 28).

Block E'.

<sup>&</sup>lt;sup>1</sup> Vide remarks on terracottas and potteries on p. 15 supra.

3. Bowl. 2<sup>1</sup>/<sub>8</sub> high, rim broken. 77×71'; 7' 9" deep. (Pl. XX, 30).

4. Lamp  $(d\bar{\imath}v\bar{a})$ .  $1\frac{1}{2}$  across.  $75 \times 73'$ ; 6' 5" deep. (Pl. XX, 33).

5. Water pot with handle and spout. 5" high.  $75 \times 74'$ ; 6' 8" deep (Pl. XXI, 37).

6. Handā. 5" high. 75×73'; 6' 5" deep. (Pl. XXI, 38).

7. Circular kangri. Three triangular holes at the sides and round hole at bottom; three attachments on rim broken off.  $4\frac{1}{2}''$  across mouth.  $73 \times 74'$ ; 6' 8'' deep. (Pl. XXI, 44).

8. Head of small terracotta figurine.  $\frac{5}{5}$  high.  $69 \times 65'$ ; 5' deep.

9. Gharā with spout.  $1\frac{1}{2}$  high.  $77 \times 71'$ ; 7' 9" deep. (Pl. XXII, 50).

10. Narrow-mouthed gharā.  $4\frac{1}{2}''$  high.  $73 \times 75'$ ; 5' 3'' deep. (1824).

# Stone object.

1. Touchstone with gold streaks.  $8\frac{1}{6}'' \times 1\frac{1}{6}'' \times \frac{3}{4}''$ . 73×75'; 6' deep. (1553).

# Bronze and copper objects.<sup>1</sup>

1. Bronze goblet of thin metal.  $6\frac{3}{4}''$  high; broken at rim.  $74 \times 76'$ ; 4' 3'' deep. This and the following No. are of very elegant shape, but the base is unduly small. (Pl. XXIII, 1).

2. Ditto. 7" high, broken. 74×76'; 4' deep. (Pl. XXIII, 2).

3. Bronze casket. 6" high. 74×76'; 4' 3" deep. (Pl. XXIII, 3).

4. Bronze lamp with handle and chain for suspension.  $2\frac{1}{5}''$  high.  $74 \times 76'$ ; 4' 3'' deep. (Pl. XXIII, 4).

5. Bronze lamp with wire handle. The inner bowl is attached by means of bronze pins. In centre of this bowl was a short tube, now broken, for the wick. 3" diam.  $75 \times 65'$ ; 10' 6" deep. (Pl. XXIII, 5).

6. Casket in shape of stupa with lid attached by chain. Base broken.  $3\frac{1}{4}^{\prime} \times 2\frac{5}{3}^{\prime\prime}$ . 75×65'; 10' 6" deep. (Pl. XXIII, 6).

7. Bronze Bactrian camel seated. Incuse 'dot and comma' depressions for paste inlay.  $2\frac{1}{2}'' \times 2\frac{1}{2}''$ . 77×66'; 11' deep. (Pl. XXIII, 9).

S. Nail head. 1/4 high. 73×73'; 8' 2" deep. (Pl. XXIV, 16).

9. Bronze handle (?). 24" long. 75×72'; 8'9" deep. (Pl. XXIV, 17).

10. Stopper surmounted by peacock.  $\frac{15''}{16}$  inch.  $74 \times 70'$ ; 7' 5'' deep. (Pl-XXIV, 19).

11. Forceps (?). 3<sup>3</sup>/<sub>10</sub> long. 76×67'; 4' deep. (Pl. XXIV, 29).

12. Finger-ring of wire.  $\frac{7}{5}$ " across. 76×55'; 4' 9" deep. Pl. XXIV, 35).

13. Bell handle. 14" high. 79×70'; 4' deep. (1307).

Iron objects.

1. Rod. 55" long. 65×71'; 1' deep. (Pl. XXV, 4).

2. Spear head (?). 7<sup>1</sup>/<sub>2</sub>" long. 72×67'; 9' 7" deep. (Pl. XXV, 10).

3. Key.  $4\frac{3}{4}''$  long.  $67 \times 75'$ ; 4' deep. (Pl. XXV, 17).

4. Tripod for  $ch\bar{u}lh\bar{a}$  (Indian stove).  $7\frac{1}{4}$  high.  $73 \times 74'$ ; 6' deep. (Pl. XXV, 24).

5. Three circular weights (?)  $2\frac{7}{3}$ ,  $2\frac{3}{5}$ , and  $2\frac{3}{5}$  diam., respectively.  $73 \times 65$ ; 6' 9" deep.

6. Upright rod with tripod base. 3' 34" long. 74×74'; 7' deep. (Pl. XXVI, 50).

7. Circular plate.  $4\frac{3''}{4}$  diam. 77 × 49'; 2' 8" deep. (Pl. XXVI, 54).

8. Nail,  $1'5\frac{1}{8}''$  long.  $74 \times 74'$ ; 7' deep. (Pl. XXVI, 62).

Beads, Gems, etc.

1. Bone drop pendant. 66×74'; 3' deep. (585).

2. Cornelian head.  $66 \times 74'$ ; 3' deep. (566).

3. Two bone pins or *stili*. 3" and  $2\frac{5}{5}$ " long respectively. 76×68'; S' S" deep. (1457).

4. Square shell bead pierced.  $75 \times 71'$ ; 4' deep. (1063).

5. Green jasper bead, sixteen sided,  $65 \times 73'$ ; 4'2' deep. (1783).

In the present very incomplete state of the digging it would be premature to Block F'. say anything more regarding the plan of Block F' than that it seems to have been designed on rather more spacious lines than usual. The following is a list of the principal antiquities excavated from this block :---

#### Terracottas and Potteries.

1. Bowl.  $4\frac{1}{4}$  high. 85.74'; 6' deep. (Pl. XXI, 39).

### Copper object.

1. Pair of crescent-shaped ear-rings, broken.  $\frac{1}{2}$  across— $82 \times 72'$  and  $84 \times 72'$ ; 5' 6" and 7' 4" deep, respectively. (Pl. XXIV, 36 and 42).

#### Iron objects.

1. Side piece of bridle with two holes for straps.  $6\frac{3}{4}$ " long.  $82 \times 72'$ ; 5' 6" deep (Pl. XXV, 2).

2. Blade.  $9_4^{3''}$  long.  $87 \times 72'$ ; 7' 6'' deep. (Pl. XXV, 5).

3. Plate.  $3\frac{7''}{8}$  across.  $81 \times 71'$ ; 6'-6" deep. Pl. (XXV, 16).

4. Adze. 6" long. S3×72'; 6' 3" deep. (Pl. XXVI, 46).

5. Chisel. 5" long. 81×76'; 5' 6" deep. (Pl. XXV, 29).

6. Small disc, probably a weight, 2'' diam.  $81 \times 63'$ ; 5' deep. (Pl. XXV, 30).

Bent hook. 2<sup>3</sup>/<sub>4</sub> long. S1×63'; 5' deep. (Pl. XXV, 36).

8. Adze.  $5\frac{1}{2}''$  long.  $81 \times 71'$ ; 6' 6'' deep. (Pl. XXVI, 41).

9. Short hoe. 7<sup>3</sup>/<sub>4</sub> long. 82×73'; 3' 10" deep. (Pl. XXVI, 43).

10. Solid mass of iron from crucible. 4" high. 85×71'; 7' 5" deep. (Pl. XXVI, 48).

Bone objects, Beads, Genns, etc.

1. Ivory die with Nos. 1-4 marked in concentric circles.  $3\frac{7}{8}''$  long. 88 × 53'; 11' deep. (1268).

2. Ivory bangle, in five pieces.  $2\frac{1}{4}$ " diam.  $86 \times 72$ '; 8' 9" deep. (1177).

3. Carved bone handle (perhaps of mirror) decorated with incised lines turned on lathe.  $3'' \log . 86 \times 72'$ ; 8' 9'' deep. (1178).

4. Amber glass fragment with ridges on surface.  $1\frac{7}{8}$ " across.  $82 \times 53'$ ; 5' deep. (1387).

Building P.

In the building P (Pl. XIX), which I take to have been a palace, my operations were directed to clearing the western boundary wall and to widening my previous excavations, so as to expose the northern and eastern extensions of the main block. On the western side, which faces the High Street, the building now proves to have a frontage of 352 feet. In the northern and eastern extensions the object of my diggings was, in the first place, to ascertain their plan, and no attempt was made to penetrate to any great depth in this part of the site. So far as they have been exposed to view, these extensions consist, as usual, of courtyards surrounded by rooms; but they are distinguished by considerable irregularity in their lay-out. Parts of this palace appear to be later additions, particularly parts of the Zenana apartments on the north, but it is impossible to distinguish these additions with any degree of precision, since the dividing lines have often been obliterated by subsequent repairs, and the difficulty is further enhanced by the difference in the levels of the original chambers. In  $174-175 \times 47'$  there came to light a square tank with drains leading away towards the north and south. This, probably, was another bath similar to the one discovered in the previous year. In clearing the room in square  $161 \times 45'$  in the north-east corner of the block, I discovered a deposit of 61 copper coins belonging to Azes I, Azes II and Aspavarma, Gondophares, Hermaios and Kadphises I, at a depth of 1' 6" below the surface. Among the other antiquities obtained from this building during the year under review the following deserve mention :---

# Terracottas and Potteries.<sup>1</sup>

1. Goblet, 3<sup>1"</sup> high. 167×49'; 3' deep. (Pl. XX, 1).

2. Incense-burner,  $2_4^{3''}$  high.  $166 \times 52'$ ; 2' deep. (Pl. XX,  $\beta$ ).

3. Miniature handi, 15" high. 181×61'; 6' deep. (Pl. XX, 13).

4. Miniature jar, narrow-mouthed,  $1\frac{5}{8}$  high.  $172 \times 55'$ ; 3' 6" deep. (Pl. XX, 14).

5. Miniature jar.  $2\frac{1}{2}$  high, damaged at the rim.  $162 \times 49'$ ; 3' deep. (Pl. XX, 16).

6. Miniature handi. 12" high. 173×55'; 1' deep. (Pl. XX, 17).

7. Miniature jar. 3<sup>1</sup>/<sub>2</sub> high. 7' deep. (Pl. XX, 18).

8. Miniature jar.  $3_3^{"}$  high. Incised lines around middle.  $172 \times 55$ ; 3'6'' deep. (Pl. XX, 19).

9. Miniature gharā. 2<sup>1"</sup> high. 151×69'; 3' deep. (Pl. XX, 21).

10. Miniature jar.  $2\frac{5}{5}''$  high. Rim slightly broken.  $182 \times 60'$ ; 6' deep. (Pl. XX, 25).

11. Ditto.  $3\frac{3''}{4}$  high.  $172 \times 55'$ ; 3' 6" deep. (Pl. XX, 26).

12. Ditto. 21" high. Rim broken. 167×49'; 5' deep. (Pl. XX, 27).

13. Narrow-necked flask.  $2\frac{1}{2}^{"}$  high.  $165 \times 55'$ ; 6' deep. (Pl. XX, 32).

14. Handi. 7" high. 174×68'; 5' deep. (Pl. XXI, 40).

15. Part of toy tank.  $4'' \times 2\frac{1}{2}'' \times 1\frac{5''}{5}$ . 161 × 46'; 2' deep. (Pl. XXI, 41).

16. Circular lid of jar.  $8_4^{3''}$  diam. Fine red clay with red slip and designs in grey-black paint. Handle broken.  $165 \times 34'$ ; 6' deep. (Pl. XXI, 43),

17. Bowl.  $3_4^{3''}$  high.  $164 \times 55'$ ; 6' deep. (Pl. XXI, 45).

18. Cup  $(piy\bar{a}l\bar{a})$  1<sup>1</sup>/<sub>5</sub>" high. 165 × 55'; 6' deep. (Pl. XXI, 46).

19. Sancer. 4" diam. 163×55'; 2' 6" deep. (Pl. XXI, 47).

20. Handi. 4" high. 167 × 48'; 3' deep. (Pl. XXI, 49).

21. Water-pot with handle and spout. 8" high.  $160 \times 45'$ ; 2' 6" deep. (Pl. XXII, 51).

22. Double handled-jar.  $4\frac{3''}{4}$  high. 161 × 46'; 2' deep. (Pl. XXII, 52).

23. Drain pipe (?). 1'  $3\frac{1}{2}''$  long. 183 × 42'; 3' deep. (Pl. XXII, 54).

24. Stand for gharā. 5" high. 167 × 49'; 5' feet. (Pl. XXII, 55).

25. Toy tank.  $2\frac{7}{5}$  high by  $9\frac{1}{2}$  square, with lamps at three corners, and traces of other objects. 160  $\times$  45'; 2' 6'' deep. (Pl. XXII, 56).

26. Round water bottle. 5'  $5\frac{1}{2}$ ". Broken on one side.  $166 \times 57'$ ; 4' 6" deep.

27. Forepart of toy horse pierced with hole through forelegs. 4" long. 164  $\times$  .55'; 9' deep. (261).

### Stone objects.

1. Lid of a steatite casket with cross-hatched decoration on outer rim.  $1\frac{1}{3}''$  high.  $160 \times 51'$ ; 2' 6'' deep. (Pl. XXVII, 2).

2. Soapstone casket without lid.  $1\frac{1}{4}$  high.  $164 \times 48$ ; 1' deep. (Pl. XXVII, 3).

3. Steatite casket decorated with cross-hatchings. 4" diam.  $158 \times 51'$ ; 2' 6" deep. (Pl. XXVII, 8).

#### Bronze and Copper antiquities.<sup>1</sup>

1. Bronze handle of vessel terminating in boar's head.  $3\frac{1}{4}^{"}$  long. 163 × 66'; 3' deep. (Pl. XXIII, 8).

2. Broken finger ring (?), 1" long, made of two pieces of spiral wire terminating in bezel inlaid with rock crystal.  $153 \times 54'$ ; 3' deep. (Pl. XXIV, 13).

3. Nail  $\frac{7}{6}''$  long. 154 × 60'; 3' deep. (Pl. XXIV, 14).

4. Bronze stopper, surmounted by figure of cock.  $153 \times 50'$ ; 3' deep.

5. Ring and staple.  $1\frac{1}{8}$  diam. 161  $\times$  46'; 2' deep. (Pl. XXIV, 23).

6. Antimony rod.  $4\frac{3}{4}$  long.  $177 \times 45'$ ; 8' deep. (Pl. XXIV, 26).

7. Bronze rod  $5\frac{1}{4}$ " long.  $163 \times 67'$ ; 3' deep. (Pl. XXIV, 27).

S. Ear-pick.  $4\frac{7}{5}$  long,  $183 \times 57$ ; 4' 6'' deep. (Pl. XXIV, 28).

<sup>1</sup> Vide 1 emarks on bronze and copper objects on p. 16 supra,

9. Handle, broken. 167 × 55'; 3' deep. (Pl. XXIV, 30).

10. Ear-pick. 5" long. 162 × 68'; 3' deep. (Pl. XXIV, 32).

11. Lid of casket. §" diam. 160 × 51'; 4' deep. (Pl. XXIV, 38).

12. Bronze finger ring with svastika symbol.  $\frac{7}{8}''$  across.  $161 \times 43'$ : 3' deep. (Pl. XXIV, 41).

13. Inscribed seal.  $\frac{1''}{2}$  square. Defaced. 161 × 46'; 2' deep. (Pl. XXIV, 44).

14. Lid of a vessel.  $1\frac{3}{4}$  diam.  $149 \times 68'$ ; 5' deep (284).

15. Portion of bronze die.  $\frac{9}{16}$ "  $\times \frac{3}{5}$ ". From spoil earth. (Pl. XXIV, 46).

Iron objects.

1. Arrow-head. 3" long. 154 × 47'; 5' deep. (Pl. XXV, 18).

2. Staple and ring.  $2\frac{1}{6}$  diam. 171 × 69'; 3' deep. (Pl. XXV, 20).

3. Spear head. 3<sup>1</sup>/<sub>3</sub> long. 159 × 57'; 3' deep. (Pl. XXV, 22).

4. Key with prongs.  $4\frac{1}{2}$  long.  $154 \times 60'$ ; 2' 6" deep. (Pl. XXV, 23).

5. Plate.  $3\frac{1}{8}$  diam. 167 × 48'; 3' deep. (Pl. XXV, 33).

6. Blade of knife or razor.  $4\frac{1}{8}''$  long. 159  $\times$  61'; 3' deep. (Pl. XXV, 37).

7. Hoe.  $6\frac{5}{8}$  long. 183 × 63'; 3' deep. (Pl. XXVI, 42).

8. Bell.  $2\frac{5''}{5}$  high. 161 × 46'; 3' deep. (Pl. XXVI, 49).

9. Plate.  $4\frac{3}{4}$  diam.  $162 \times 68'$ ; 3' deep. (Pl. XXVI, 53.)

Bone objects, Beads, Gems, etc.

1. Carved bone handle (? of mirror).  $3\frac{1}{4}^{\nu}$  long, decorated with incised lines turned on lathe.  $1.72 \times 55'$ ; 3' 6" deep. (219).

2. Carved bone disc.  $1\frac{1}{2}$  diam. with hole in middle and three rosettes and three circles on outside. 163  $\times$  45'; 5' deep. (321).

3. Bone bridle piece pieced with two boles.  $6_4^{1''}$  long.  $167 \times 49'$ ; 3' deep. (134).

4. Four-sided cornelian fragment.  $1\frac{1}{2}''$  long.  $165 \times 55'$ ; 6' deep. (241).

5. Piece of rock crystal.  $1_8^{1''}$  diam. 167 × 48'; 3' deep. (144).

6. Glass ring with plain bezel.  $\frac{7''}{5}$  diam. 163  $\times$  52'; 2' 6" deep. (193).

7. Banded agate bead.  $\frac{3''}{4}$  long. 4' deep. (333).

S. Limestone bead, twelve-sided.  $\frac{3''}{5}$  diam. 163×45'; 5' deep. (320).

Other items of excavation and conservation carried out at Sirkap during the past year were as follows :----

1. The clearance of the débris round the Apsidal Temple and repair to the outer wall of same. In the course of removing the débris numerous iron clamps, nails, hinges, etc., belonging to the roof, doors and fittings were found.

2. The clearance of the High Street from the northern gateway as far as the south side of block F, and the construction of drains in this street and in the side streets leading into it, and in the houses alongside.

3. Repair of the house walls on the east side of the High Street, also of the Apsidal Temple and of the steps of the stupa in block E'.

4. Clearance of the rooms in block F round about Shrine 1. In the course of



Fig. 1

this work a discovery of considerable value was made in the shape of an Aramaic inscription carved on what appears to have been an octagonal pillar of white marble, of which, unfortunately, only the piece reproduced in fig. 1 has been recovered. This piece was found built into the wall between the chambers  $a^1$  and  $a^2$  in the north west corner of the block, and inasmuch as these chambers date approximately from the reign of Azes I, it must have been buried in its present worn and broken condition before the beginning of the Christian era. Transcriptions of the record together with many illuminating notes have already been published by Dr. L. D. Barnet and Prof. A. Cowley in the journal of the Royal Asiatic Society<sup>1</sup>, and to their articles the reader who wishes for fuller particulars must be referred. Here I need repeat only the following general observations made by these two distinguished authorities. "The letters as well as the language," writes Dr. Barnet, are Aramaic and of a type' which may be assigned, with due reserve, to the early part of the fourth century B. C. They suggest a somewhat later date than the Carpentras Stele (C. I. S., Inscr. Aram., No. 141 = pl. 13), and have considerable affinity with certain papyri of the fifth and fourth centuries published ibid., Nos. 144 and 146, as well as with some of the Assuan papyri in Sachau's Aram. Papyrus und Ostraka."

Dr. Cowley also ascribes the record to the fourth century B. C. "We shall probably," he says, "not be far wrong in ascribing the inscription to about the middle of the fourth century.

Whether Aramaic would have continued in use in India after the expedition of Alexander we cannot say. There are no Greek inscriptions in India, and Greek influence seems to have come much later.

"The discovery of this inscription throws an interesting light on the origin of the Kharosthi alphabet. Taxila, where it was found, was the chief city of the Kharosthi district, and as Bühler says (*Vienna Or. Journ.*, 1895, p. 45) 'it is here, of course, that the Kharosthi alphabet must have originated'. The view that Aramaic was officially used by the Achæmenians (first suggested by Clermont Ganneau), that after their conquest of Northern India about 500 B. C. it became current there,

<sup>&</sup>lt;sup>1</sup> J. R. A. S. 1915; pp. 340-7.

Aramaic inscription.

and that Kharosthi was derived from it in this way, is thus being gradually confirmed. The papyri have shown that the language was officially used by the Persian Government, and no doubt when (if ever) excavation is possible on suitable sites in Persia itself, further evidence will be found. As a matter of fact, however, Aramaic as a lingua franca was not introduced by the Persian Empire. It was used in much carlier times, not for monumental or literary purposes so far east, but as a trade language side by side with the impossible cuneiform system, as is shown by the 'dockets' on Babylonian tablets. Under Assurbanipal (from 668 B. C.) an Aramaean copyist (A-BA = dupšar mát armáa) was officially employed as well as an Assyrian (Hommel, Geogr., i. p. 191). By the Persians this was further extended, whether or not we believe with Hommel (ibid., p. 202) that the O. P. cunciform is derived from some form of ' Phœnician-Aramaic' alphabet. The use of cunciform for writing Persian did not last long, and after the fall of the empire when we next meet with written Persian it is in various forms of the Aramaic character. It is not difficult to see how the alphabet would eventually reach India. This inscription is the first proof that it did get there. Its date is nearly that of the first specimens of Kharosthi, and it thus forms a sound basis for comparing the two systems of writing. See Bühler's table in VOJ. (1895, after p. 66) or in his Indische Paläographie, p. 22".

### Coins<sup>1</sup>.

Punch-marked.

Of the punch-marked coins found at Sirkap, the most interesting is the one in the form of a bent bar of silver, bearing solar symbols on the concave side. The other side is blank. These bent bars are described and discussed by Mr. Vincent Smith on pp. 134 and 136 of the First Volume of the *Indian Museum Coin Catalogue*.

The coins of Taxila include some single-die pieces of new types. Double-die coins Nos. 8 to 10 are of some interest and rarity. A reference is invited to Cunningham's *Coins of Ancient India*, pp. 62 and 63.

No Bactrian coins were found, and Indo-Greek issues were few in number. This paucity is explained by the fact that in only a few places have my excavations reached down to the Greek strata. The year's finds include issues of Eucratides, Antialeidas, Archebius, Apollodotus, Strato I, Menander, Zoilus, Philoxenus, Hippotratus, Strato II (lead) and Hermaeus. Coins Nos. 12 and 13 are good specimens of scarce Greek issues. The semi-barbarous small copper coins of Hermaeus with a Nike design on the reverse are now frequently found, and will repay further study. They form a link between the coins of the Indo-Greeks and those of the Indo-Seythians (Sakas). P.M. Cat, p. 85.

Coins of Hermaeus and Kadphises I are common. The busts of Hermaeus depict a man at various stages of life from youth to old age, and it is evident from his coins that this king must have had a long reign, first as an independent prince, then as the colleague of Kadphises I, and lastly, perhaps, as the vassal of the Kushān Conqueror.

Local Taxilan.

Indo-Greek.

<sup>&</sup>lt;sup>1</sup> Fer valuable help in revising this list of rare and unique coins I am indebted to my friend Mr. R. B. Wh televal, I.C.S., the distinguished munismatist, whose Catalogue of Coins in the Panjab Museum at Lakore is the rat variable of up-to-date work of its kind.

The issues of Maues, the first of the Indo-Scythians, are comparatively quite scarce, though the types are fairly numerous. In point of execution his coins are equal to those of the later Indo-Greeks. Silver issues of Maues, with the exception of one type, are extremely scarce; and at Taxila no silver coins at all, either of Maues or of any other Indo-Scythian prince, have yet turned up.

The majority of the coins of the Indo-Scythian period were struck by Azes I and Azes II. Of the coins of Maues, we have seven varieties, of which coin No. 18 is a new variety of a known type, as the horse stands to the left. It was on this type that Von Sallet based his contention that Maues was an Arsacid (Parthian) rather than an Indo-Scythian. See P. M. Cat., p. 95. Of the coins of Azes I there are 219 coins belonging to 14 types. None are worthy of remark. Of the coins of Azilises, eight copper types in all were found. With the exception of a common silver type, all coins of Azilises are hard to get, and the scarcer types in silver and copper are of a high degree of rarity. Special attention is invited to coins Nos. 23 and 26. Of Azes II some 282 coins turned up at Sirkap alone. Two of the Indo-Scythian coins (Nos. 28 and 29) are of doubtful attribution. The first may possibly be an issue of Aspavarma ; the second of Idhara.

Of the coins of Gondophares six types, and of Abdagases two types, were found.

From different parts of Sirkap 46 coins of Ranjubula or Rajūvula were dis-Raluvula. covered, the find-spots of which confirm my view that this satrap was ruling about the beginning of the Christian era.

Of the coins of Soter Megas, No. 34, from the Dharmarājikā Stūpa is a Soter Megas. specimen of a rare type.

The coins of Kadphises I are numerous, as I have already stated in connexion Kushans. with the issues of Hermaeus. Though coins Nos. 38 and 39 have been placed under the name of Kadphises I, it is by no means certain that they ought not more properly to be attributed to a separate king Kadaphes.

Most of the coins classed as of uncertain types were found at the Dharmarājikā Uncertain. The workmanship of these coins is barbarous and their shapes are irregu-Stūpa. lar. They appear to be issues of Indo-Sasanian or Kushano-Sasanian type and were probably current about 500-600 A. D. They were found associated with those of Azes II, Soter Megas, Huvishka, Vasudeva and certain Sasanian and White Hun kings.

# LIST OF RARE OR UNIQUE COINS.

The monogram references are to the plate of Monograms and Marks in Mr. Whitehead's first volume of the Punjab Museum Coin Catalogue (1914). It is necessary to differentiate between Bactrian, Indo Scythian and other monograms.

No.	Metal and size.	Obverse.	Reverse.	Find-spot.	Remarks.
1	Base silver 1.8× .85	Two solar symbols on con- cave side.	Punch-marked. Convex, blank	Sirkap ; 154 × 51′ ; 3′ 6″ deep.	Cf. I. M. Cat. p. 136, No. 5.
					в 2

Indoand Indo-Perthians.

# ARCHÆOLOGICAL REPORT, 1914-15.

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No.	Metal and size.	Ohver-e.	Reverse.	Find-spot.	RFVARES.
			Local Taxilan.		
			Circular : single die.		
2	Æ •65	Humped bull to 1., 'taurine' symbol above and below, in incuse.	Blank	Sirkap ; spoil earth.	Not represented in the Indian collections.
3	Æ •5	Svastika in incuse cirole .	Blauk	Sirkap ; 58 × 74' ; 7' 8" deep.	Ditto.
4	Æ •55	Svastika in incuse circle with a 'taurine' symbol between each arm.	Blank	Sirkap ; 67 × 70' ; 5' 10" deep.	Ditto.
ā	Æ •‡	'Solar' symbol in incuse .	Blank	Kunāla stūpa.	Ditto.
			Circular : double die.		
45	Æ •55ו	In centre, tree in railing ; to l., seated figure facing tree; above, three-archec <i>chaitya</i> surmounted by crescent and 'taurine symbol; to r., standing figure with hands raised above, <i>svaslika</i> .	mounted by crescent.	Ditto.	Ditto.
	1		Rectangular.		
	7 Æ	15 Three-arched <i>chaitya</i> sur mounted by crescent; i l. field, uncertain object below, wastika.	n mounted by crescent; in ]	Sirkap ; 1. 81 × 70' ; 5' deep.	Not represente in the India collections.
	5 A 7 ×			$11   78 \times 53'$ :	C.A.I., Pl. II 6.
	9 6×		. Ditto	. Sirkap; 77 × 68' 10' 5" deep.	Ditto.
		E Elephant, full face; in field, three-arched chain and square cross; in field, tree within raili (7).	T. 1	ve, Sirkap ; spoil earth.	Rare. Cf., Cu ningham <i>C.</i> <i>I.</i> , Pl. 111, 3
		E Lion (?) to 1. in inci indistinct object in from startil 2 above	ise, Lion to 1., in incuse.	Sirkap ; 58 × 73' S' deep.	; Not represent in the Indi collections.

#### EXUAVATIONS AT TAXILA.

No.	Metal and size.	Obverse,	Reverse.	Find-spot.	REMARKS.
12	Æ 1 <sup>.</sup>	Nike I., holding wreath and palm. Greek legend ΒΑΣΙΛΕΩΣ ΔΙΚΑΙΟΥ Ν[ΙΚΗΦΟΡΟΥ]; below, APXEBIOT.	Archebius. Owl r.; in r. field, M. 42. Kh. legend: [Maha] raja [sa dhramikasa] jaya- dharasa; below, Arkhebi- yasa.	Sirkap ; 55 × 71'; 7' 8" deep.	Very rare. Cf. B. M. Cat. Pl. IX, 6.
			Apollodotus.		
13	Æ '9×'6	Apollo seated to r. on throne holding out bow. Gk. legend : $BA\Sigma I \Lambda E \Omega \Sigma$ ; [ $\Sigma \Omega T H P O \Sigma$ ]; $\Lambda \Pi O \Lambda \Lambda O \Delta O T O T$ .	Tripod-lebes in frame. In r. field, Mon. 🕁; in l. field, Kh. sa. Kh. legend : maharaja[sa tratarasa A]- paladatasa.	Sirkap; 40 × 73'; 9' 8" deep.	Very rare. Cf. Cunningham <i>C. A. I.</i> , P. IX, 12.
34	Æ ∙8×∙8	Apollo standing r., holding out an arrow in both hands. Gk. legend : $B\Lambda\Sigma I\Lambda E[\Omega\Sigma$ $\Sigma\Omega THPO\Sigma]$ AHOAAOAO[TOT].	Tripod-lebes in dotted square. In r. field M. 29 (I. S.). Kh. legend: maharajasa trata[rasa Apalada]tasa.	$74 \times 65';$	Cf., P. M. Cat. p. 47, 339.
			Hermaeus.		
15	Æ •65	Diademed bust of king to r. Gk. legend : THP	Winged Nike to l., holding wreath in extended r. hand and palm in l. In r. field, M. 94. Kh. legend: mahara; below, Herama[ya].	Sirkap ; 52 × 77' ; 3' 10″ deep.	Rare. Cf., P .H. Cat., Pl IX, 682.
			Maues.		
.16	Æ •65 × •55	<ul> <li>Apollo standing to front with arrow in r. hand and bow in l. Mon. to l.</li> <li>H. Gk. legend, on three sides : ΒΑΣΙΛΕΩΣ ΜΑΤΟΥ.</li> </ul>	on three sides; maha-	Sirkap ; 57 × 73'; 10' 10" deep.	Rare. Cf., B J. Cat., Pl XVII, 7, and P. M. Cat Pl. X, 18.
17	Æ •95ו9	Poseidon standing to front; r. foot on shoulder of river god; r. hand on knee; trident in l. hand; Gk. legend : BAΣΙΛΕΩΣ BAΣΙΛΕΩΝ MEΓΑΛΟΥ MATOT.	Bacchante (?) standing to front among vines holding their boughs. In 1. field M 4. Kh. legend : Rajatirajasa mahatasa Moasa.	Sirkap; 77×68'; 10'6" dcep.	Rare. Cf., <i>I</i> <i>M. Cal.</i> , P XVII. 1.

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No.	Metal and size.	Obverse.	Reverse.	Find-spot.	RFMARKS.
18	Æ ·8×·75	110130 00 31 0	Maues—contd. Design defaced. Probably bow in case. Kh. legend defaced. To r., M. 2.	Sirkap ; 75 × 72' ; S' 1" deep.	Unique variety. Cf. Cunning- ham. Coins of the Indo- Scythians and Sakas. Pl. II.
					15, and P. M Cat., Pl. X, 35. This coin differs from known speci- mens because the horse is facing 1. in- stead of r. Similarly, the monogram on the reverse is to r. instead of to 1.
19	Æ •65× •65	Horse to r. Gk. legend de- faced.	Bow in case. In l. field. M. 2. Kh. legend : maharajasa Moa[sa].		Rare. Cf <i>P</i> . <i>M. Cat</i> , Pl. X, 35.
			Azes I.		
2(	) Æ 1·15 1·15		Humped bull to r. In upper field, M. 3. and Kh. a. Kh. legend: rajatasa Ayasa.		Poor specimen: Rare. Cf. B. M. Cat., Pl. XIX, 9.
2	1 Æ		r among vines holding thei boughs. In r. field M	r 46 × 72′ 6′ 9″ - deep.	; Cf. B. M. Cat. Pl. XIX, 10.
	1		Azes II.		
	22 J +6	E   Maneless lion walking to 5 In upper field, Kh. mo Gk. legend defaced.	r. Demeter with cornucop n. standing to l. To r., K sar: Kh. legend deface	$h_{1} = 21 \times 68'$	Not represented ; in the I. M. cabinet. Cf. <i>P. M. Cat.</i> , Pl. XII, 222.

### EXCAVATIONS AT TAXILA.

No.	Metal and size.	Obverse.	Reverse.	Find-spot.	Remarks.
-23	Æ 1·×·85	Herakles, facing, crowning himself; holds in 1. hand club and lion's skin. Mon. defaced. Gk. legend : BAΣIΛΕΩΣ [BAΣIΛΕΩΝ MEΓΑΛΟΤ] AZIΛΙΣΟΥ.	Azilises and Azes. Horse standing to r. Above, Kh. mt. In r. field Kh. legend : maharajasa rajatirajasa mahatasa Ayasa.	Sirkap ; 74 × 66' ; 6' 2" deep.	A good speci- men of the scarce joint type in copper of Azes and Azilises. This type was pub- lished in J. A. S. B. 1910.
-24	Æ •65 × •5	Māyā or Lakshmi standing between elephants. Ordi- nary Greek legend of Azilises.	Azilises. Turreted goddess standing to l., holding in r. hand object resembling brazier, in l. hand, palms. In l. field Kh. mon. Kh. legend: [maharajasa rajatira]jasa mahatasa Ayulr[shasa].		A large coin of this interest- ing type was first published in the <i>White</i> <i>King Sale</i> <i>Catalogue</i> . This and another small coin, which was sold at
25	Æ 1·05 × ·85	Elephant to r. Gk. legend incomplete and poor.	Humped bull to r. In r. field, mon. Kh. legend : maharajasa rajatirajasa mahatasa Ayilishasa.	Sirkap; 78 × 69'; 4' deep.	Sotheby's in 1912, are the only other known speci- mens. Rare. Not represented in the I. M. Cabinet. Cf. <i>P. M. Cat.</i> , Pl. XIV, 363. Probably double struck. The Greek
26	Æ 1·15 × ·Sd	Goddess with turneted crown enthroned to r. Gk. legend: BASIAEΩS [BASIAEΩN MEFAAOT] AZIAISOT.	Deity standing to front carrying Nike on r. hand and club over 1. shoulder. Kh. mons. to r. and 1. Kh. legend: maharajasa ra- Ayilishasa.	Sirkap; 83×76'; 6'6" deep.	legend on this type is usu- ally poor. A good speci- men of an extremely rars coin. Cf. Cunningham's <i>Coius of the</i> <i>Sakas</i> , Pl. VIII, 6.

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# ARCHÆOLOGICAL REPORT, 1914-15.

No.	Metal and size.	Obverse.	Rever-e.	Find-spot.	Remarks.
27	Æ 1·1 × ·95	King fully armed with helmet, shield, spear, and palm to r. In r. field, M. 36 Gk. legend : ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ ΑΖΙΛΙΣΟΥ.	Azilises—contd. Deity standing to r. with flowing veil, holding dia- dem. In l. field, Kh. mi. Kh. legend: maharaja [sa rajatira]jasa [mahata]- sa Ayilishasa.	Sirkap ; spoil earth.	Rare. Cf. P. M. Cat., Pl. XIV, 366.
			Doubtful (Indo-Scythian).		
28	Æ •5	King on horseback to r. In r. field, Kh. ya. Mar- ginal legend defaced.	Pallas standing r. In r. field, Kh. pri, Kh. legend : Ispava below Aya.	Sirkap ; 166 × 69' ; 3' deep.	(See footnote.)
			Idharasa (?).		-
29	Æ •5	King on horseback to r.; traces of Gk. legend.	Pallas to r.; r. hand exten- ded. In r. field, indistinct mon. Kh. legend : sasa ava	Sirkap ; 59 × 71' S' 6" deep.	Cf. A. S. R 1912-18, p 49.
			Gondophares.		
80	Æ -85	King on horseback to r.; arm extended; in front Gondophares' symbol and Kh. ga. Traces of Gk. legend.	Zeus standing to r.; r. arm extended; in l., long sceptre. In r. field M. 2, and Kh <i>the</i> . In l. field M. 5, Kh. <i>pa</i> , and two other characters. Kh. legend: <i>maharajasa</i>	73 × 66' ; 4' 6" deep.	Gondophares and Sasa type. P. M. Cat., Pl. XV 19.
3	1 Æ 9	Bust of king to r., diademed and bearded. Traces of Gk. legend.			
			Soter Megas.		
C	2 A T	Within dotted border eree nude figure with lon sceptre in r. hand an drapery over l. arm. I l. field, symbol of Sote Megas.	d 1. field M. 2.	d Dharma- rájiká Stúpa ; from a hollow block of <i>kaňjūr</i> on steps west of the main	Very rare. C <i>P. M. Can</i> Pl. XVI, N 113, and 163.

The manual sector is now, but cannot be attributed with certainty to Afgavarian. On no one of the known of the two the two light start of Afga. Again the letters following Ispava ....., though incomplete, are not such as w light is "y flat as either of the known forms Afgavariana or Aspabhatapatrasa.

#### EXCAVATIONS AT TAXILA.

<ul> <li><sup>65</sup> Above, mon. indistinct. Marginal Gk. legend defaced.</li> <li><sup>34</sup> Lead <sup>6</sup> Ditto.</li> <li><sup>7</sup> Bust of Hermaeus to r. <sup>6</sup> S</li> <li><sup>7</sup> Bust of Hermaeus to r. <sup>6</sup> GK. legend: <sup>6</sup> GK. legend: <sup>6</sup> GK. legend: <sup>6</sup> GK. legend corrupt.</li> <li><sup>7</sup> Bust of Hermaeus to r. <sup>6</sup> GK. legend: <sup>6</sup> GK. legend: <sup>6</sup> GK. legend: <sup>6</sup> GK. legend corrupt.</li> <li><sup>7</sup> Bust of Hermaeus to r. <sup>6</sup> GK. legend: <sup>6</sup> GK. legend: <sup>6</sup> GK. legend corrupt.</li> <li><sup>7</sup> Bust of Hermaeus to r. <sup>6</sup> GK. legend: <sup>6</sup> GK. legend: <sup>6</sup> GK. legend corrupt.</li> <li><sup>7</sup> Bust of Hermaeus to r. <sup>6</sup> GK. legend: <sup>6</sup> GK. legend corrupt.</li> <li><sup>7</sup> GK. legend corrupt.</li> <li><sup>8</sup> GK. legend corrupt.</li> <li><sup>8</sup> Buddha seated cross-legged <sup>7</sup> With r. hand uplified.</li> <li><sup>8</sup> ZE Buddha seated cross-legged <sup>7</sup> With r. hand uplified.</li> <li><sup>9</sup> Sirkap; <sup>7</sup> deep.</li> <li><sup>9</sup> Sirkap; <sup>7</sup> deep.</li> <li><sup>9</sup> Sirkap; <sup>8</sup> Margina corrupt.</li> <li><sup>9</sup> Sirkap; <sup>8</sup> Margina corrupt.</li> <li><sup>9</sup> Sirkap; <sup>8</sup> Sirkap;</li></ul>	REMARKS.		Find-spot.	Reverse.	Obverse.	Metal and size.	No.
<ul> <li>4 100 100 100 100 100 100 100 100 100 10</li></ul>				Rajūvula.			
<ul> <li><sup>6</sup></li> <li><sup>6</sup></li> <li><sup>7</sup></li> <li><sup>7</sup></li> <li><sup>8</sup></li> <li><sup>8</sup></li> <li><sup>8</sup></li> <li><sup>8</sup></li> <li><sup>8</sup></li> <li><sup>8</sup></li> <li><sup>8</sup></li> <li><sup>8</sup></li> <li><sup>9</sup></li> <li><sup>9</sup></li></ul>	Р. <u>М</u> . Cat., 166, No. 3.	; p.	$154 \times 44';$	In 1. field indistinct symbol. Kh. legend Rajalasa apra-	Above, mon. indistinct. Marginal Gk. legend		33
<ul> <li>35 Æ Bust of Hermaens with youthful face. Gk. legend corrupt.</li> <li>36 Æ Bust of Hermaeus to r. Gk. legend : [BAΣIEΩΣ ΣTH] POΣΣT EPMAIOT</li> <li>37 Æ Bust of Hermaeus to r., Gk. legend corrupt.</li> <li>38 Æ Bust of Hermaeus to r., Gk. legend corrupt.</li> <li>38 Æ Buddha seated cross-legged with r. hand uplifted. In 1. field, mon. defaced. Kh. legend : kujnla field, Kh. kn.</li> <li>38 Æ Buddha seated cross-legged with r. hand uplifted. In 1. field, mon. defaced. Kh. legend : kujnla</li> <li>39 Æ Buddha seated cross-legged with r. hand uplifted. In 1. field, mon. defaced. Kh. legend : kujnla</li> <li>39 Æ Buddha seated cross-legged with r. hand uplifted. In 1. field, mon. defaced. Kh. legend : kujnla</li> <li>30 Æ Buddha seated cross-legged with r. hand uplifted. In 1. field, mon. defaced. Kh. legend : kujnla</li> <li>31 Me Buddha seated cross-legged with r. hand uplifted. Kh. kn.</li> </ul>	Ditto.		$153 \times 59';$	in 1. hand and r. arm extended. In r. field, Kh. <i>sa</i> ; in 1. field, Kh. <i>da</i> and <i>svastika</i> . Legend	Ditto		34
<ul> <li>9 youthful face. Gk. legend corrupt.</li> <li>8 E Bust of Hermaeus to r. Gk. legend : [BAΣIEΩΣ] EPMAIOT</li> <li>8 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>8 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>8 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>8 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>8 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>8 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>9 Bust of Hermaeus to r.; Field, Kh. ku.</li> </ul>				Kadphises I.			
<ul> <li>S5 Gk. legend: [BAΣIEΩΣ] ΣTH] POΣΣΥ EPMAIOΥ</li> <li>37 Æ Bust of Hermaeus to r.; Gk. legend corrupt.</li> <li>38 Æ Buddha seated cross-legged '6 with r. hand uplifted. In 1. field, mon. defaced. Kh. legend a son previous coin.</li> <li>hand club resting on ground; in 1., lion's skin. Kh. legend as on previous coin.</li> <li>band club resting on ground; in 1., lion's skin. Kh. legend apparently corrupt: shasarathi  In r. field mon. pa.</li> <li>Sirkap; spoil earth. Kh. legend is corrupt.</li> <li>Sirkap; spoil earth. Sirkap; Rare. orrupt: shasarathi  In r. field mon. pa.</li> </ul>	B. M. Cat., XXVI, and P. M. t., p. 178.	;   Pl   3,	45 × 72'; 6' 4"	r. hand club resting on ground; in l., lion's skin. Kh. legend: dhamathidasa Kujula kasasa [Kushana yavu-	youthful face. Gk. legend		35
·8       Gk. legend corrupt.       r. hand club, resting on ground; in 1., lion's skin.       spoil earth.         38       Æ       Buddha seated cross-legged       Zeus standing r., lance in sirkap;       Sirkap;         38       Æ       Buddha seated cross-legged       Zeus standing r., lance in Sirkap;       Rare.          In 1. field, mon. defaced.       probably corrupt.       In 1.       76 × 66';       M.         Kh. legend :       kujula       field, Kh. ku.       pp.       Yeight despender.       Yeight despender.	P. M. Cat., . XVII, 1.		45 × 72'; 6' 4"	hand club resting on ground; in l., lion's skin. Kh. legend as on previous	Gk. legend : [ΒΑΣΙΕΩΣ ΣΤΗ] ΡΟΣΣΥ		36
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			spoil	r. hand club, resting on ground; in 1., lion's skin. Kh. legend apparently corrupt: shasarathi			37
	C. Cat., Pl. VII, 29, and 181 and	; M X pp	76×66';	extended r. hand. Legend probably corrupt. In l.	with r. hand uplifted. In l. field, mon. defaced.		38
	В. М. Cat., . XXV, 5.	;   Pl	83 × 73' ; 6' deep.	chair; his r. hand exten- ded; in l. field M. 3, and in r. field Kh. <i>tra</i> . Kh. legend: <i>Kushana yavuasa</i> <i>kujula kaphsasa</i> sa[cha]	resembling that of Augustus. Gk. legend		39

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### ARCHÆOLOGICAL REPORT, 1914-15.

No.	Metal and size.	Obverse.	Revei-e.	Find spot.	RFMARES.
40	Æ •95	Humped bull, standing r. ; above, M. 2. In r. field, Kh. letter. Gk. legend illegible.		45 × 76'; 6' 2"	Cf. Cunningham Coins of the Kushans, Pl. XIV, 9, and P. M. Cat., p. 180.
41	Æ •45	Crude standing figure copied from the Kusban design.	Uncertain. Four thick lines	Sirkap ; 58 × 73' ; 8' deep.	Cf. A. S. R., 1912-13, Pl. XL, 10. Coins Nos. 41 to 46 are probably all of debased
42	Æ 55 x	Ditto	Square within circle of dots.		Indo-Sasanian types. Cf. Cunningham's Coins of Me- diaval India, pp. 46 to 52.
	•35			rājikā Stūpa; from a hollow block of <i>kaūjūr</i> on steps west of the main stūpa.	
43	.T: 5 × ·+5	Ditto	Ditto	Ditto .	
11		Dirto.	Ditto	Ditto .	
12	A: •35 x •15	Brihmi character within dotted border.	Brāhmī monogram bal within dotted horder.	Ditto .	
41	.1) Sixt	Crude human figure in berder of dots.	Ditto .	Ditto .	
57	.E.	Bust of Ling to r. very	Symbol or monogram, re- sembling the Gondophares' symbol.	Sirkap; 66 × 70'; 7' 5" dcep.	

.

No.	Metal and sizo.	Obverse.	Reverse.	Find-spot.	Remarks.
			Sasanian.		
48	Æ ·85	Bust of king r.; short beard, crown of characte- ristic shape; plume at back of head dress. Legend in front, possibly intended to be shaona- noshao	Fire altar with broad base and top ; symbol on shaft.	Dharma- rājikā Stūpa; from a relic vase in stūpa N. 11.	A double struck coin.
49	Æ ·S	Bust of king r., beard short with pendant; crown three pointed. Plume at back of head dress. Legend as on previous coin.	Altar with broad base and top symbol.	Ditto.	

### LIST OF SEALS.

1. Copper seal with the figure of Śiva in the centre holding trident in left hand and club in r. In r. field, Kh. legend :—Śivarachhitasa and 'Nandipada 'symbol. In l. field, Brāhmī legend :—Śivarachhitasa. Two rings at back. Size,  $1.35 \times 1.35$ . Early Kushān. Sirkap ;  $48 \times 78'$ ; 2' 6" deep. (Pl. XXIV, 51).

2. One bronze seal. In the centre, Herakles trampling down a bull-shaped dragon. *Kh.* legend :--*Tidusa Vibhumitrasa* (?). Two rings at back, of which one is missing. Oval size.  $\cdot 7 \times \cdot 6$ . (Pl. XXIV, 50).

JOHN MARSHALL.

## APPENDIX.

# A SELECTION OF LITERARY REFERENCES TO TAXILA. gleaned from Indian sources.

By Dr. V. S. Sukthankar, Ph.D.

### A. Brahmanical.

Pāņini (IV. iii. 93) mentions *Takshaśilā* along with Sindhu (name of a country) in connexion with certain suffixes which follow these words. Example: *Tākshaśila*, 'a person whose ancestors have lived at Takshaśilā.'

Takshaśilā is mentioned in the gana Varanādi (to Sūtra IV. ii. 82) and in the gana Madhvādi (to Sūtra IV. ii. 86) also in connexion with certain suffixes which follow them. It may be, however, noted that all the words in these lists called the ganas do not go back to the time of Pānini himself.

### (2) Mahabhārata. Àdiparva,<sup>1</sup> III, 20:

स<sup>2</sup> तथा स्वातृन्संदिग्ध तच्च शिलां प्रत्यभिप्रतस्थे। तं च देशं वश्चे स्थापयामास ।

Ibid., III, vv. 171 and 172:

स हास्तिनपुरं प्राप्य नचिरादिप्रसत्तम: । समागच्छत राजानमुत्तद्धो जनमेजयम् ॥ पुरा तर्च्याप्तासंख्यं निवृत्तमपराजितम् । सम्यग्विजयिनं दृष्टा समन्तानानित्वसिर्वंतम् ॥

(3) Ramayana. Ramayana,<sup>3</sup> VII, 101. vv. 10-16:

हतेषु तेषु सर्वेषु भरतः कैकयीसुतः । निवेग्रयामास तदा सम्रुढे दे पुरोत्तमे ॥ तत्तं तच्चण्रिलायां तु पुष्कलं पुष्कलावति । गन्धर्वदेशे रुचिरे गान्धारविषये च सः ॥ धनरतौघसंकीर्थे काननैरुपशोभिते । ग्रन्योन्यसंघर्षकते स्पर्धया गुर्खावस्तरैः ॥ उभे सुरुचिरप्रस्थे व्यवहारैरकिाल्लिष्ठेः । उद्यानयानसंपूर्थे सुविभक्तान्तरापणे ॥ उमे पुरवरे रग्ये विस्तरैरुपशोभिते । ग्रह्मुखैः सुरुचिरैविंमानममवर्णिभिः ॥ श्रीभित्ते शोभनीर्यंय देवायतनविस्तरैः । तालैस्तमालैस्तिलकैर्वकुलैरुपशोभिते ॥ निवेष्य पञ्चभिवेर्धभरतो राधवानुजः । पुनरायान्महावाहुरयोध्यां कैकयीमृतः ॥

(1) Panini.

Kutabakan im Edition (Nirn iya-agar Piess, Bombay), 1906. Seil. Jan imojiya

Bombay Edition published by the Nirnayaeagar Press (1905).

37 Raghuvamśa,1 XV, v. 89: (4) Raghuyamsa of Kalldasa. स<sup>2</sup> तच्तपम्बली <sup>3</sup> पत्री राजधान्योस्तदाखयो: । अभिषिचाभिषेकार्डों रामान्तिकमगालुनः 11 Brihatsamhitā,4 X, vv. 7 and 8 : (5) Brihatsamhitā of Varahamihira, सार्पे जलरुइसर्पाः पिचे बाह्वीकचीनगान्धाराः 1 श्चलिकपारतवैश्वाः कोष्ठागाराणि वणिजञ्च ॥ भाग्ये रसविक्रयिगः पग्यस्तीकन्यकामचाराष्ट्राः 1 आर्थमणे न्यग्डलवण्भित्तकाम्बुनि⁵ तत्त्रशिला в Ibid., XVI, v. 26: तच्त्रिलमात्तिकावतबद्धगिरिगान्धारपुष्कलावतका: । प्रस्वजमाजवनैकयदाशाणींशीनरा: शिवय: ॥<sup>6</sup> (6) Kathasarit-Rathāsaritsāgara,7 LXIX, vv. 77 and 781: sägara of Somadeva. e. ÷ त्रासीत्तचपिलापुर्यां भट्राचो नाम भूपतिः ॥ म पत्रकामः पद्मानां श्रतेनाष्ट्रसिरेव च सितानां पुजयामास खड़ी लच्मीं दिने दिने ॥ B. Buddhist.<sup>8</sup> Mahāvagga,º VIII, l. 5-6: (7) Vinayapitaka. .... तेन खो पन समयेन तकसिलायं दिसापामोक्खो वेज्जो पटिवसति त्रनापच्छा ग्रंघ खो जीवकी कोमारभची ગ્રમર્ય राजकुमारं येन तकसिला तेग पक्कामि । अनुपुब्बेन येन तकसिला येन सो वेच्चो तेनुपसंवमि । उपसंकमित्वा तं वेज्जं एतट्वोच इच्छामहं ग्राचरिय सिप्पं सिक्लितुन्ति । Divyāvadāna,10 XXVI, p. 371-2: (8) Divyavadana. अध राज्ञो बिन्दुसारस्य तच्चणिला नाम नगरं विरुडम् । तत्र राज्ञा बिन्दुसारे-गच्छ कुमार तच्चशिलानगरं मंनामय 11 । चतुरङ्गं विमर्जितः 1 णाशीको बलकायं यानं प्रहरणं च प्रतिषिदम् । दत्त <sup>1</sup> Bombay Sanskrit Series, No. VIII. <sup>2</sup> Scil. Bharata. <sup>2</sup> According to Mallinātha the names of the capitals were Takshaśilā and Pushkalāvatī. 4 Ed. Kern, Bibliotheca Indica (1861-5). <sup>6</sup> How Salwin's motion affects these is described in the Brihatsamhitā. 6 These are presided over by Venus. 7 Nirnayasagar Press, Bombay. \* For references to Taxila in the Buddhist Jātakas see the Index volume of Fausboll's edition s. v. Takkasila 9 Oldenberg's Edition (1879). 10 Cowell's Edition (1886). 11 Ed. samnähaya

\* \* \* \* \* \* \* \* \* Zावत्कुमारखतुरद्गेन बल-कायेन तच्चग्रिलां गत: । युत्वा तच्चग्रिलानिवासिन: पौरा: । अर्धतृतीयानि योजनानि मार्गे ग्रीभां कत्वा पूर्णंघटमादाय प्रखुद्गता: प्रखुद्गम्य च कययन्ति । न वयं कुमा-रस्ण विरुद्धा: । नापि राज्ञो बिन्दुसारस्य । अपि तु दुष्टामात्या अस्माकं परिभवं कुर्वन्ति । महता च सत्कारेण तच्चग्रिलां प्रवेश्वित एवं विस्तरेणाश्रोक: स्वराज्यं प्रवेश्वित: ॥<sup>1</sup>

Ibid., XXVII, p. 407-18:

\* \* \* \* \* राज्ञोऽघोकस्योत्तरापर्धे तच्चिण्लानगरं विरुडम् । त्रुत्वा च राजा स्वयमेवाभिप्रस्थित: । ततोऽमात्यैरभिहित: । देव कुमार: प्रेप्यतां । स संनामयिष्यति । त्रथ राजा कुनालमाह्रय कथयति । वत्स कुनाल गमिष्यसि तच्च-ण्रिलानगरं संनामयितम् । कुनाल उवाच । परं देव गमिष्यामि ।

\* \*\* 25 蒜 ÷ \*\* ::: <u>.</u> तच्चग्रिलामनुप्राप्त: । युला च तच्चग्रिलापीरा अर्धविकानि योजनानि मार्गुग्रोमां ञ्रनुपूर्वेग् पूर्णकुमौ: नगरशोभां च न्नला प्रत्युन्नताः I

-\* 23 23 25 23 \*\* \* 쌺 23 :: प्रखुद्गम्य क्वताञ्चलिरुवाच । न वयं कुमारस्य विरुद्धा न राज्ञोऽश्रोकस्यापि तु दुष्टा-क्ववैन्ति त्मानोऽमात्या **आगत्यास्माकमपमानं** 1 यावत्क्षनालो महता सन्मानेन নন্ধ-যিতো দুৰীয়িন:

2% 22 24 2% \*: 2'2 24 ď. 0 5 2 \*\* \*\* \*\* 蒜 1 \* ş. s'e 4 \*

इदानीं मयास्य कुनालस्य वैरं निर्थातितव्यम् । तया ै कपटलेखो लिखितस्तचभिल-कानां पौराणां कुनालस्य नयनं विनाग्रयितव्यमिति ।

-\* \$ s%. 2 15 ţ: \* 4 22 \* 怂 ÷., \* 45 :: 13 12 北 1 212 2% 22 ततः कुनालो भार्थया सह तच्त्रिलाया निष्कासित:

\* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* यावद्राज्ञाऽशोकेन तिष्यरचिता श्रमर्थितेन <sup>३</sup>जतुग्टहं प्रवेशयित्वा दग्धा तच्चशिलाच पौरा: प्रघातिता: ॥

(9) Dipavamsa. Dipavamsa.<sup>4</sup> p. 28:

तेसं पच्छिमको राजा दीपंकरो नाम खत्तियो ॥

- पुत्ता पपुत्तका तस्र दादस राजखत्तिया।
- मद्वारच्चं कारयिंसु तक्कसिलापुरुत्तमे ॥

- <sup>3</sup> Ed. Jantugriham.
- \* Oldenberg's Edition (1879).

<sup>&</sup>lt;sup>1</sup> At p. 381 of the *Diryāvadāna* (Cowell's edition) there is another legend narrated about Aśola in which also-Taxila figures. <sup>2</sup> Seil. by Tishvarakshitä.

Dhammapadatthakathā,1 Vol. I, p. 250: (10) Dhammapa-datthakatha. त्रतीते वारानसीनगरवासी एको माणवो तक्कसिलं गन्ला सिम्पं उगहण्याय दिसापामोक्वस ग्राचरियस धमान्तेवासिको **इ**त्वा पचर्न मार्णवकसतानं ग्रन्तरे স্মনি-विय आचरियस उपकारको ग्रहोसि źż <u>م</u>ريد æ., 26 绦 缕 Ibid :2 द्रसे ਨਹੀ टिसापामोक्खसा आचरियसा सिष्मुगइण्याय तकसिलं सन्तिके रानवा बन्निगरे सालाय समागता 1 12 2 Avadānakalpalatā,<sup>3</sup> LIX, vv. 59, 60 and 61: (II) Ayadánakalpalata of ततः पुरीं तत्त्रशिलाभिधानां Kshemendra. महीपतेः कुछ्तरकर्णनामः । सेनारज:प्र**ख**विनिर्जिताक्षेम जेतं कुमारं विससर्ज राजा 5 स तां पुरीं प्राप्य गजान्धकार-ग्रस्ताखिलाग्र: परिवार्थ्य तस्वी । च्चाव्धिधीरैभेटकुञ्जराणाम दिधेव कुव्वं**न् भुवनं निना**दैः 11 ततः प्रसाद्य प्रणिपत्य सुन्नाः नृपालमजं तत्त्वश्विचाधिनाधः । गजाश्वरत्नैरभिपूञ्च धीमान् खराजधानी खंयमानिनाय 6 ॥ C. JAINA. Päumachariya," p. 16, vv. 38, 40 and 41: (12) Päumacharlya of Vimala तक्खसिलाए मचपा बाहुबली तस्त निचपडिकलो 1 Suri. भरहनरिन्दस्त कया न क्षणद् आणापणामं सो :: 2 يا ت 4 26 2 25 32 पत्तो तक्खसिलपुरे जयसद्ग्धुष्ठकलयलारावो जुज्मसा कारणसं सन्नडो तनखणं भरञ्चो बाइबली वि भरइनरिन्दं समागयं सीउं। संहष्पा भडचडवलेन<sup>8</sup> महया तक्खसिलाओ विणिज्ञाश्रो Commentary on the Āvasyakaniryukti,<sup>9</sup> leaf No. 150: (13)Avasyakaniryukti of Haribha-dra Suri, ग्रचान्तरे भगवतस्तत्त्विश्विणगमनं नगरप्रवृत्तिनियुक्तपुरुपैर्वाहुवलिनिवेटनं बभव ı क्रतमित्यचरगमनिका 1 एवमन्यासामपि संग्रहगाथानां खबुद्धा गमनिका कार्यति गायार्थः । इटानीं कथानकारीषम---

बाहुबलिना चिंतियं कन्ने संबडि्ए वंदिस्नामि त्ति निगग्त्रो पभाए । सामी गन्नो विइरमाणो । त्रदिहं च धितिं काऊणं जहिं भगवं वुत्यो तत्य धम्प्रचढ़-चिंघं कारियं । तं च सब्बरयण्मयं जीयण्परिमंडलं पंचजीयण्सियदंडं ॥

<sup>&</sup>lt;sup>1</sup> Pāli Text Series.

<sup>&</sup>lt;sup>2</sup> Excerpted in Fausboll's edition of the Dhammapada, p. 211.

<sup>&</sup>lt;sup>3</sup> Bibliotheca Indica Series.

<sup>\*</sup> Scil. Kunāla.

<sup>&</sup>lt;sup>4</sup> Scil. Asoka.

<sup>This is the Kunāla legend over again.
Published by the Jaina Dharma Prasaraka Sabha of Bhāvanagar.</sup> 

<sup>&</sup>lt;sup>6</sup> Bhadachada is the Puckrit form of bhajachaja; cf. the chājabhaja of inscriptions.

<sup>&</sup>lt;sup>9</sup> Ms. in possession of Vijaya Dharma Sūri,

(14) Trishashti- salakapurusha- charitra of Hemachandra Suri.	Trishashthisa°, <sup>1</sup> I, vv. 335, 380 and 381 : स्वामी संप्राप सायाङ्गे निकुष्डमिव कुष्डर: । बहलोमण्डले वाहुबलेस्तच्चशिलापुरीम् ॥ * * * * * * * पदान्चेतानि मा स्पातिक्रामत्कोऽपीति वुद्धित: । धर्मंचक्रं रतमर्य तत्र वाहुबलिर्व्यधात् ॥ ग्रष्टयोजनविस्तारं चतुर्योजनमुच्छ्रितम् । सहस्रारं वभौ बिस्वं सहस्रांशोरिवाण्डिलम् ॥
(15) Vidhipaksha- gachchhiya-Pañ- chapratikramana of Mahendrapra- bha Suri.	Vidhipaksha°,' p. 254, vv. 56, 57 and 5S: तक्खसिलाए उसभो वियालि ग्रागमा पडिम उज्जाणो । जा बाहुवली पभाए एई ता विद्वरिग्रो भयवं ॥ तो तद्दियं सो कारेद्र जिणपयठाणंमि रयणमयपोढं । तदुवरि जोयणमाणं मणिरयणविणिम्मियं दंडं ॥ तस्तोवरि रयणमयं जोयणपरिमंडलं पवरचकं । तं धम्मचक्कतित्थं भवजलनिह्तिपवरवोह्तित्यं ॥
(16) Prabhavaka- charitra of Pra- bhachandra Sūri,	Prabhāvakacharitra, <sup>5</sup> pp. 192-195 : ग्रय तच्चग्रिलापुर्या चैत्यपच्चग्रतीस्टति । धर्मचेचे तदा जज्ञे गरिष्ठमग्रिवं जने ॥२७ ०००० ०००० ०००० ०००० चैत्यानां च सहसाणि दृश्यन्तेऽच वहिःचितौ । ०००० ०००० ००० चैत्यानां च सहसाणि दृश्यन्तेऽच वहिःचितौ । ०००० ०००० ००० चैत्यानां च सहसाणि दृश्यन्तेऽच वहिःचितौ । ०००० ०००० गतः परं टतीयेऽच वर्षे भङ्गो भविष्यति । तुरुष्वैर्विह्तितः सम्यग् ज्ञात्वा कत्व्यं यथोचितम् ॥३८ ०००० ०००० परं टतीयेऽच वर्षे भङ्गो भविष्यति । तुरुष्वैर्विह्तितः सम्यग् ज्ञात्वा कत्व्यं यथोचितम् ॥३८ ०००० ०००० स्र ०००० ०००० स्र ०००० ०००० प्रास्तच्चग्रिलाख्यायाः ग्रासनज्ञोपदेश्वतः ॥६२ ०००० ०००० ६२२ ०००० ०००० ६२२ ००००

<sup>&</sup>lt;sup>1</sup> Published by the Jaina Dharma Prasaraka Sabha of Bhūvanagar.

<sup>\*</sup> Bahalimandala is probably the kingdom of Balkh.

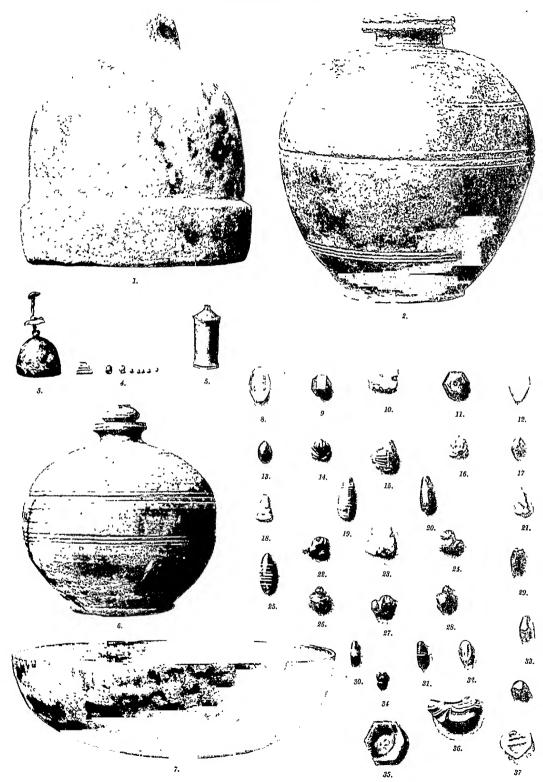
Takshaśilā is also mentioned at leaf No. 125, v. 25; leaf No. 126, v. 53; and leaf No. 130, v 161 of thesame work.

<sup>\*</sup> Nirnayasagar Press, Borrbay.

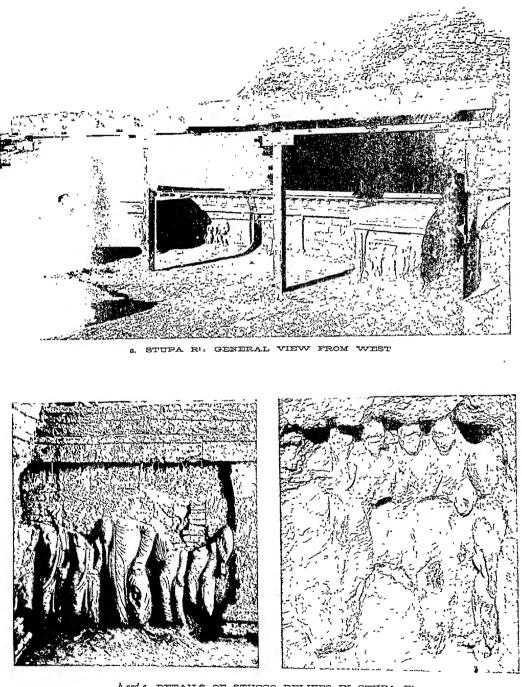
<sup>\*</sup> Pandit Hirananda's Edition, printed at the Nirnayasagar Press, Bombay. \* Read prajuhāra for projighāya

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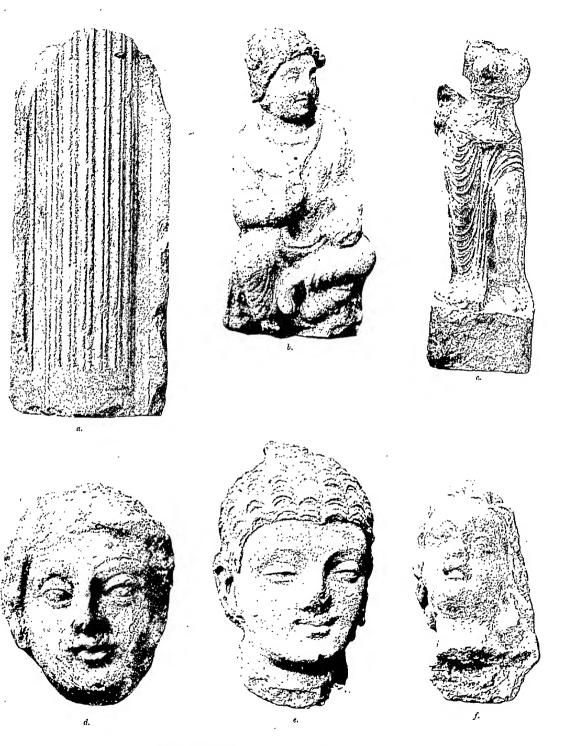
DHARMARAJIKA STUPA. Figs 1 to \$7.



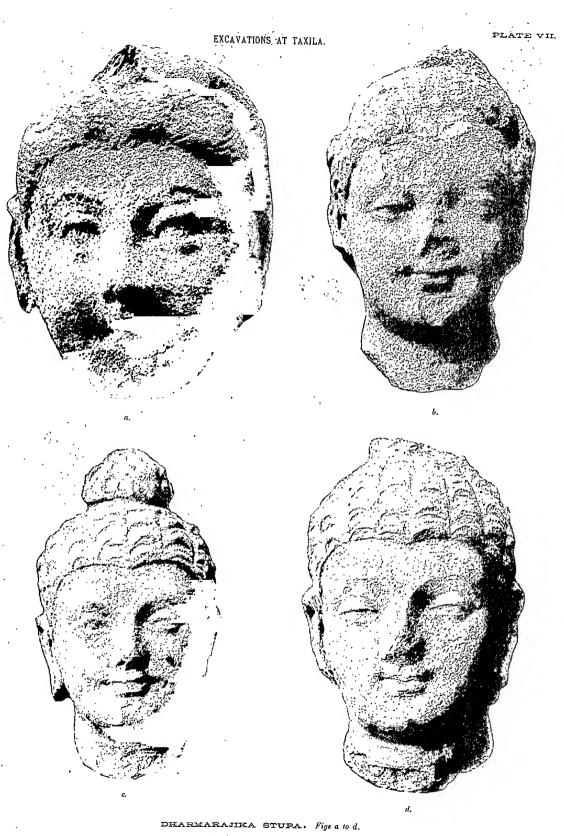
b and c. DETAILS OF STUCCO RELIEFS IN STUPA RJ.

DHARMARAJIKA STUPA.

# EXCAVATIONS AT TAXILA.



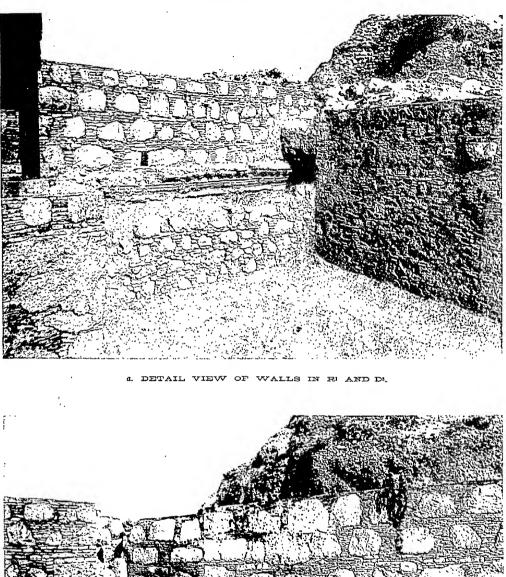
DHARMARAJIKA STUPA . Figs a lo f.



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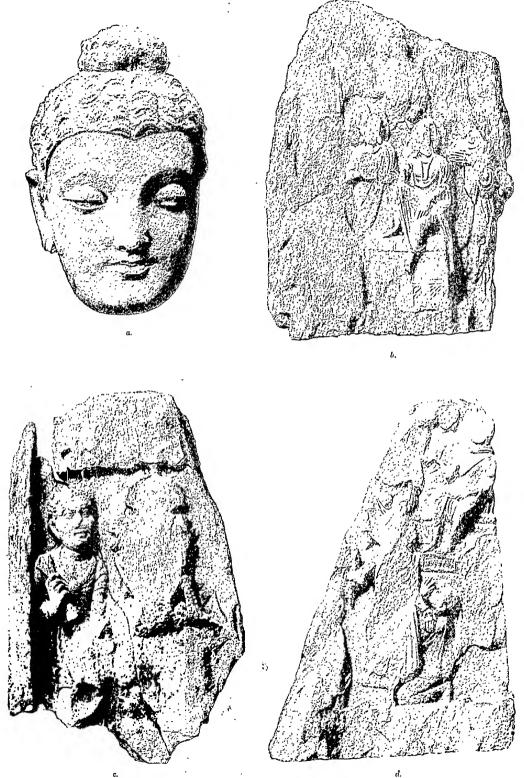
EXCAVATIONS AT TAXILA.





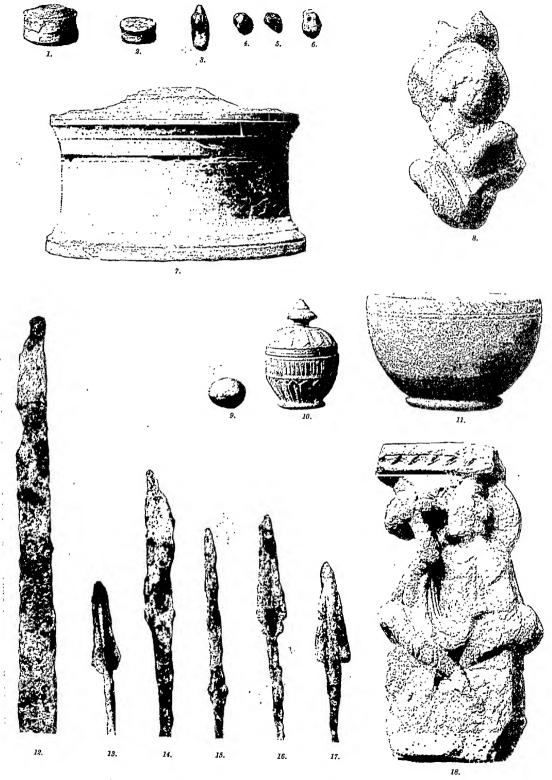
b. DETAIL VIEW OF WALLS IN D' AND D'.

DHARMARAJIKA STUPA.

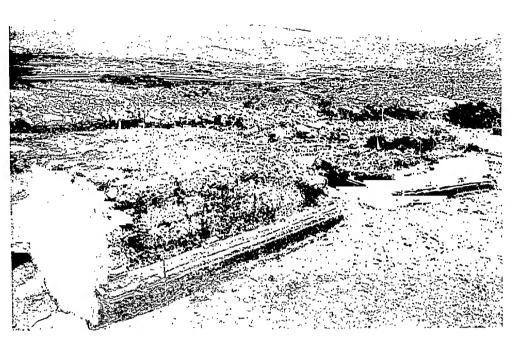


DHARMARAJIKA STUPA. Figs a lo d.

EXCAVATIONS AT TAXILA.



DHARMARAJIKA STUPA. Figs 1 to 18.

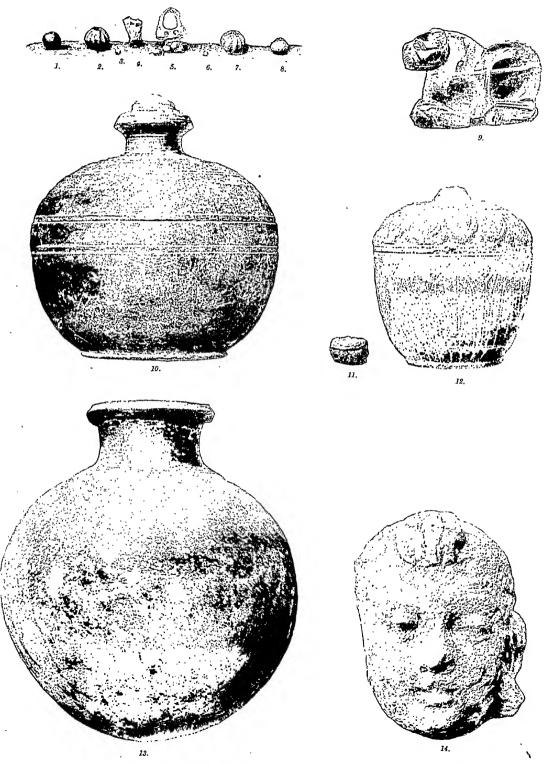


a STUPAS J' AND J', GENERAL VIEW FROM NORTH.



b. STUPAS Nº, Nº, Nº, Nº, AND Nº FROM NORTH-WEST.

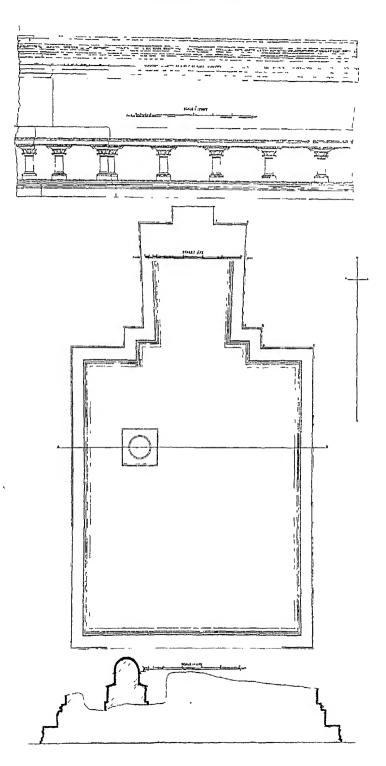
DHARMARAJIKA STUPA.



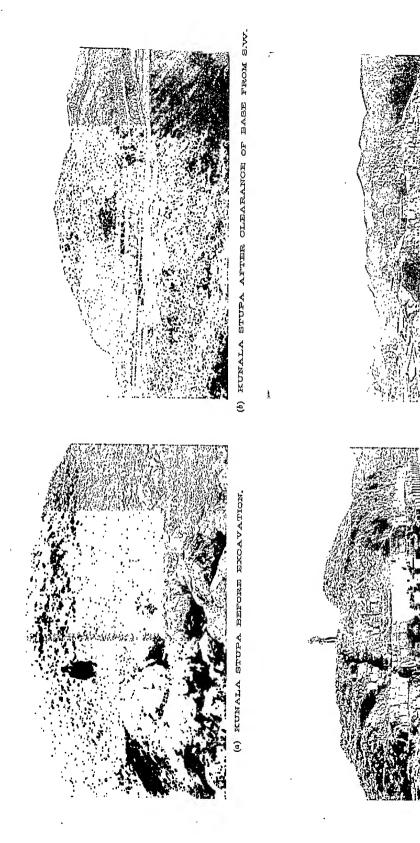
DHARMARAJIKA STUPA. Figs 1 to 14.



DHARMARAJIKA STUPA. Figs a lo f.



KUNALA STUPA, PLAN, ELEVATION AND SECTION.

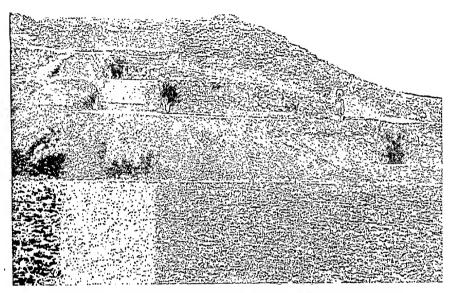


CAVATION FROM N.W.

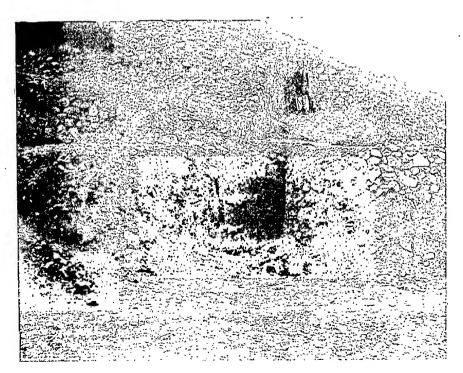
SIRKAP.

(6) KUNALA STUFA, DETAILS OF BASE MOULDINGS FROM N.W. 4. KUNALA STUFA AFTER COMFLETE EXCAVATION FROM N.W.

PLATE XV.



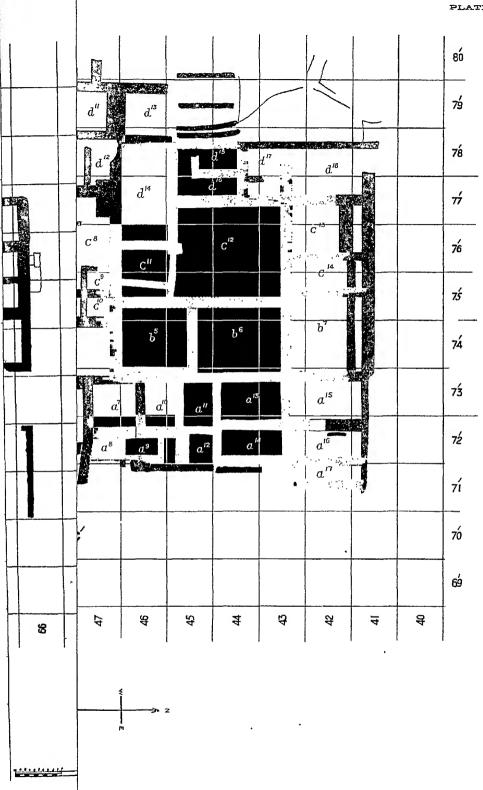
SIRKAP. (d) A STRETCH OF THE CITY WALL FROM EAST.



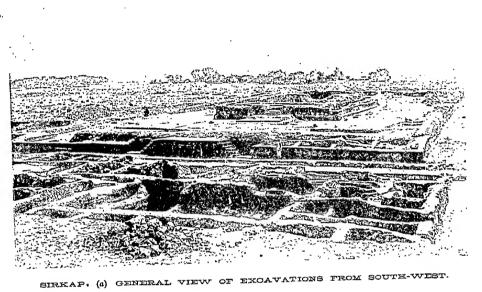
(b) BASTION OF CITY WALL WITH FOUNDATIONS EXPOSED.

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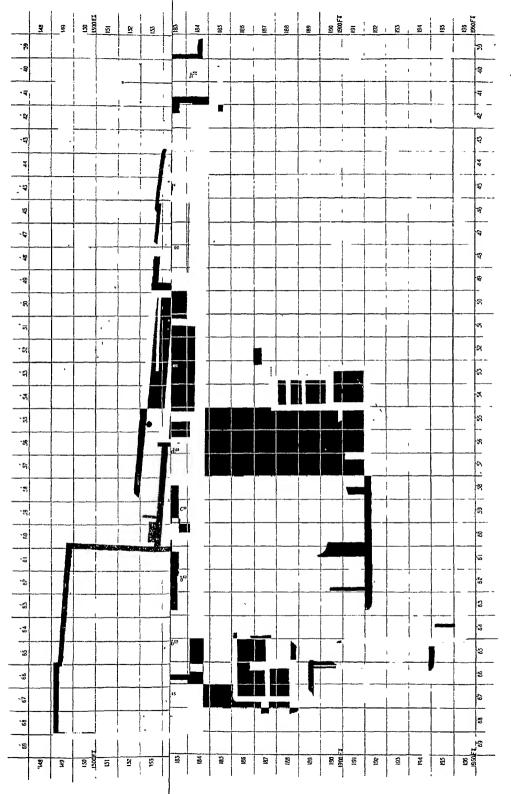
BIRKAP.



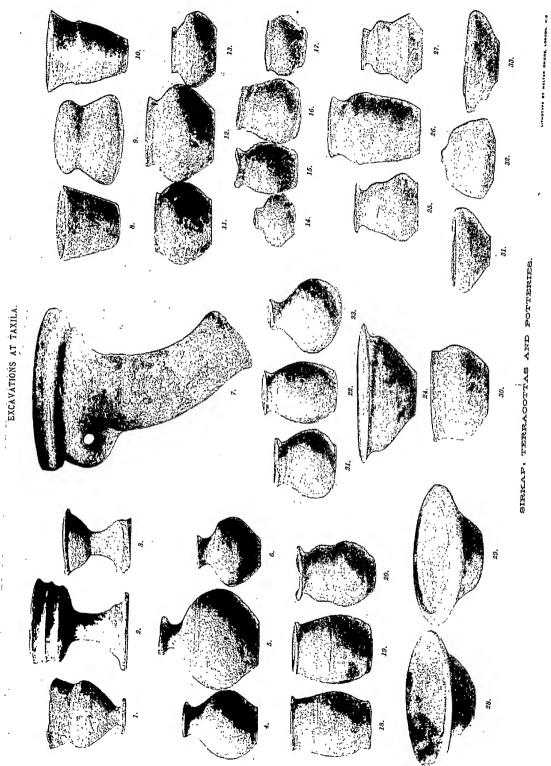
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(b) CROSS-WALLED STUPA IN BLOCK E', FROM SOUTH-EAST.

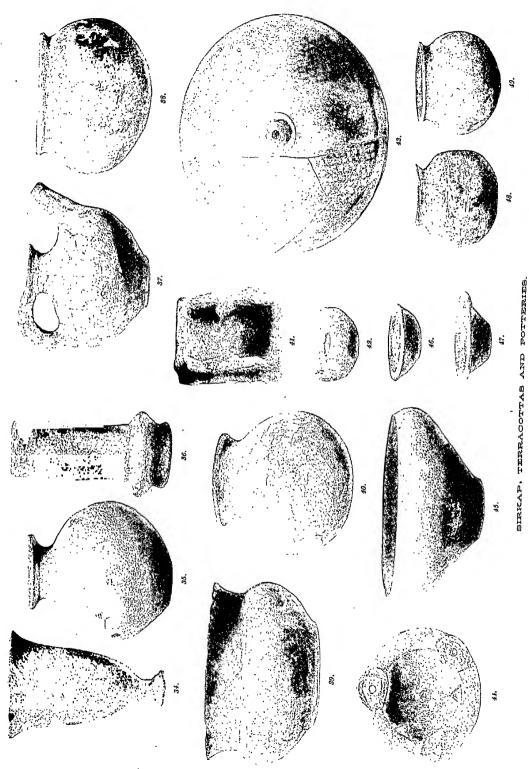






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LITATTER BY WALTER GRIDDS, LOUDIN, W.E.

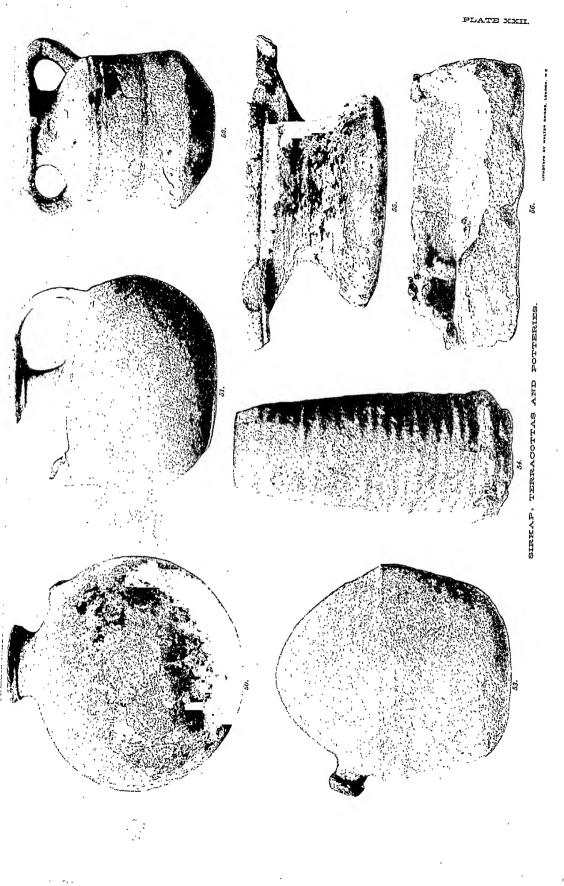


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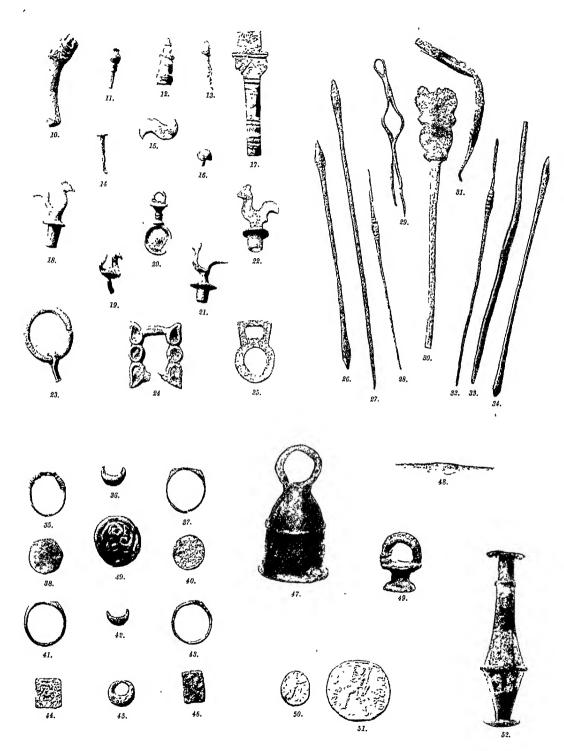
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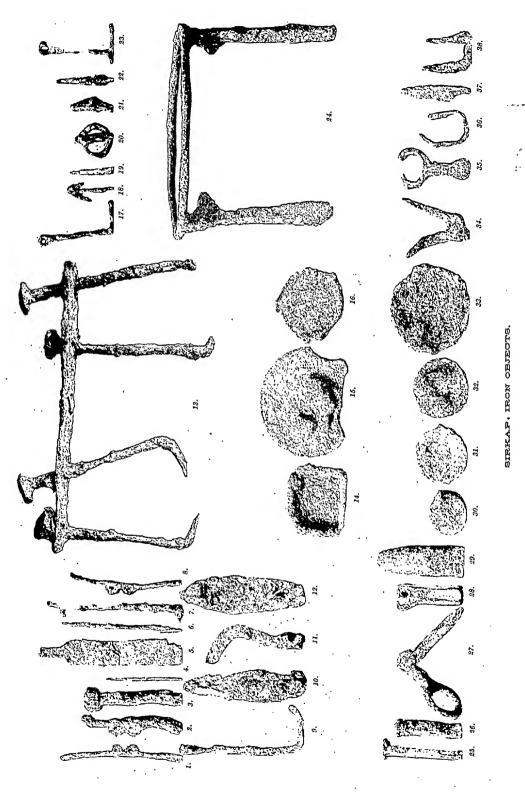


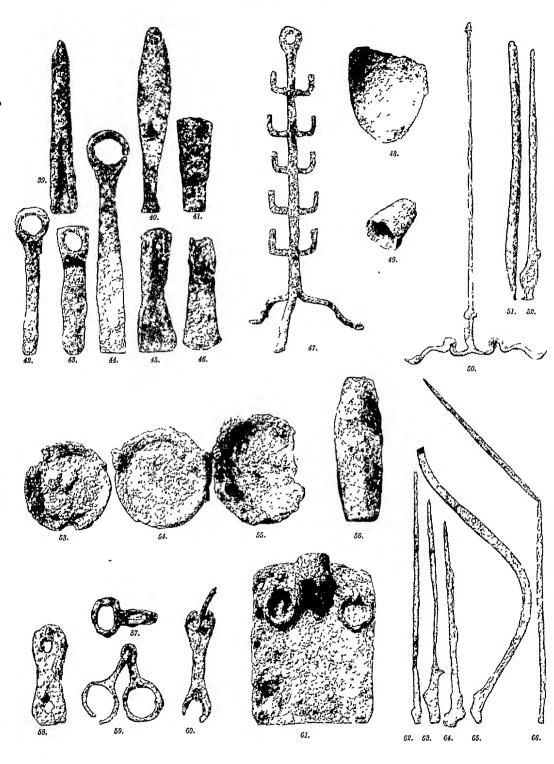
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SIRKAP, BRONZE AND COPPER OBJECTS.

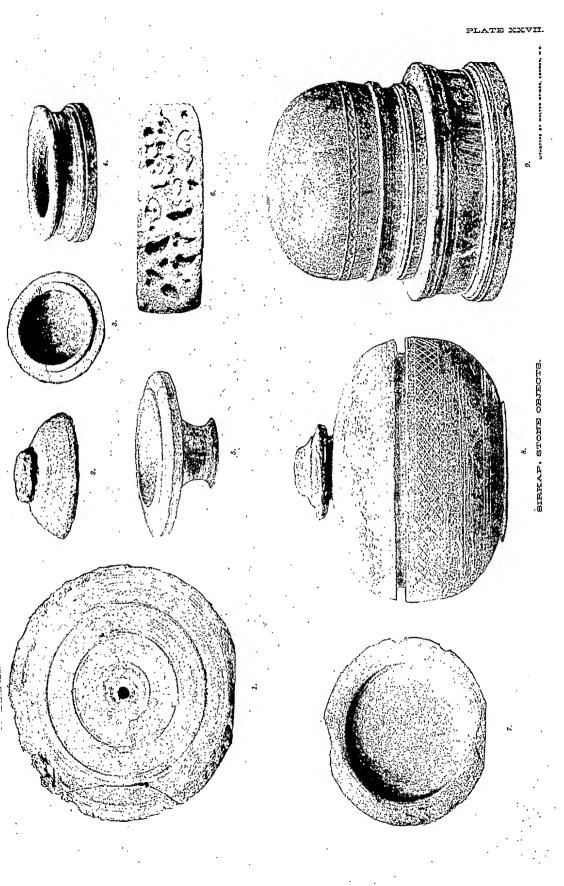
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SIRKAP, IRON OBJECTS.

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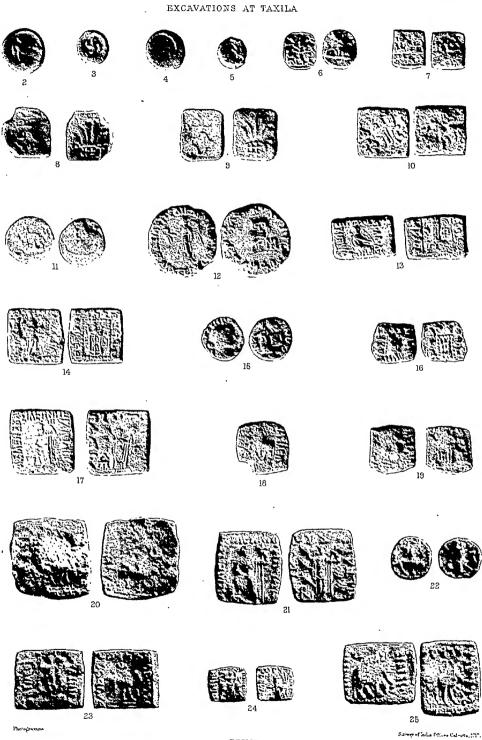
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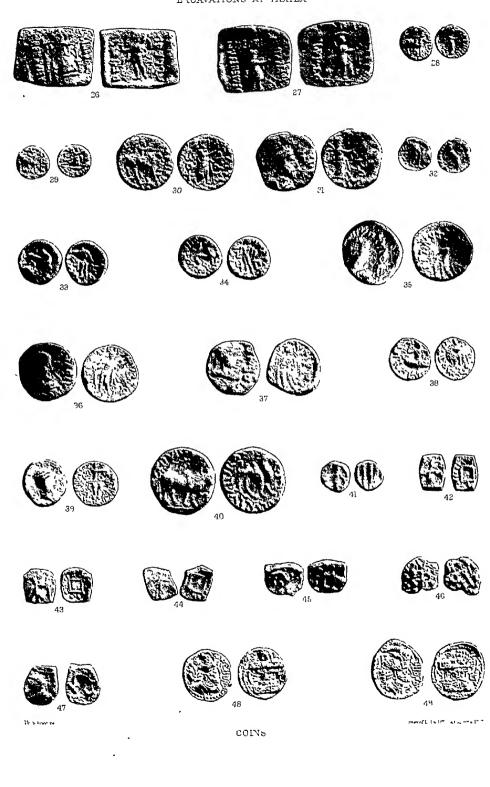
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PL ATE YAN



\*\*\* कोऽपि कुत्रापि चायात: प्रगम्य जनसध्यत: । गते वर्षत्रये भग्ना तुरुष्कै: सा महापुरी ॥७६ अय्यापि तत्र विस्वानि पित्तलाइससयानि च । तङ्रुग्टहेषु सन्तीति ख्याता ढढजनञ्चुति: ॥७७

Darśanaratnaratnākara,<sup>1</sup> leaf Nos. 197-8:

ग्रय च क्रमेण चोणिपीठे विद्तरन् भगवान् वह्त्तीमण्डलमण्डनतत्त्त्रिलानगर्यां

ससवासार्धीत । 恐 ű. ť. इति सचिवोक्तिभिवौधितः चौमद्यगादिपरमेखरचर-स वसमतोयवतीदयितस्तानि प्राणितवत प्रणतिगोचरीचकार गारविन्टप्रतिरूपाणि प्रियाणि 뭉 भक्तिप्राग्भारपुरस्नरं सान्त:प्ररादिपरिच्छद: । ग्रमिवन्द्य च मदितमानसः स चिन्तयामासेति चितिपतिर्यंदति-क्रममेतत्क्रमप्रतिविग्वविषयं मा कोऽपि विदधाल्विति विचिन्त्य तदपरि वससंख्ययोजन-विस्तारमेकयोजनोत्सेघं धमैचक्रं मण्डिसयं विधापयांवभव स भवल्लभः ॥

Hîrasaubhâgya,² pp 163-4 :

अधित्स्वयं संतिष्ठासुताया दुष्टयवनप्रकरें: प्रणुत्रनिक्तष्टनिर्भरत्तजनमार्युपज्ञवो-पट्रुतेन तच्त्रिसानगरीसंघेन क्वतकायोसर्गंप्रभावादागताया ै नङ्ग्लपुर्रास्वतत्र्यीमानदेवसूरयो यद्यवायाग्ति तदा श्रान्तिभैवेत् । परमव स्त्रेच्छा त्रागत्य स्त्रास्थन्ति । ततः संघेन चिव-र्षोमध्येऽन्यव क्ववापि गत्वा स्थातव्यमिति जिनशासनदेव्या गिरा त्रोमानदेवसूर्याकारणार्थं तस्तमय एव स्वजनमरकोपद्रवप्रश्नमनोत्सुकोभूततत्तंघेन प्रेषितः ।

Śatrumjayamahātmya,4 pp. 815-6, vv. 81-6 :

याहि तचशिलाद्रङ्गं जगसन्नं च तयसुम् । संभाष्य धर्मचक्राये बिन्वमाईंतसीचसे ॥ जिनोदितो भवान्माग्यभासुरो मव्यसादतः । विधास्यति सहातीर्योंखारं सारं सुधर्मिणाम् ॥ त्राक्षर्ण्धं कर्ण्णपोयूषनिभमेतद्वचः स द्राक् । चल्तिष्यति चोपतच्चशिलां देवीं स्मरन्द्ददि ॥ प्राभृतैर्वद्वसिर्मूपं संतोष्य प्रतिमां विसोः । देव्योपदिष्टां स त्रेष्ठी प्रोतिमान्प्रार्थविष्यति ॥ लब्धा प्रसादं भूपालाडर्मचक्रसुपेत्य च । भक्त्या प्रदत्तिणीक्रत्याचैयिष्यति समाहितः ॥ कियत्यपि गते काले च्योत्ज्ञाक्तमिव निर्मलम् । ऋषभस्कामिनो विम्वं पुर्ण्डरोकद्वयान्वितम् ॥

<sup>1</sup> Ms. in the library of the Decenn College, Poona.

<sup>2</sup> Nirnayasagar Press, Bombay.

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\* Naddulapma is the modern Nadol in the Jodhpur State of Rajputana.

\* Ed. by Paulit Hiralal Hansaraj of Jämnagar (Käthiawär).

(17) Darsanaratnaratnākara.

(18) Hírasaubhagya of Devavimalagani.

(19) Śatruṁjayamahatmya os Dhanesvara Suri.

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## THE ROCK-CUT TEMPLES OF POWUN-DAUNG.

THE Powun-daung is a short range of rocky hills rising abruptly from the surrounding plain, in the Lower Chindwin, some twelve miles north of Salingyi, a small and ancient town on the Chindwin river about sixteen miles south of the bigger and better known town of Mon-ywā; it stands, rugged and solitary, in the middle of a vast plain covered with jungle shrubs and trees. The range consists of two distinct parts: the higher hills, running east and west more or less in the form of a long-bow, barely a mile-and-a-half in length; and, separated from it by a very narrow valley and about three quarters of a mile long, a lower rocky hill, which runs north-west and south-east, and resembles the chord of the long-bow, to which it is joined some half a mile from its western extremity. It is in the rocks of this lower range that the cave-temples, so little known up to the present, have been excavated; and it is this part of the range that is properly called 'Powun-daung'.

Its height is not much more than 300 feet, and at about 230 or 240 feet it forms an irregular plateau, on which some cataclysm has strewn huge blocks of sandstone rocks, which lie promiscuously scattered about, giving the hill-top a rugged and wild appearance. It is among these rocks that the caves have been excavated.

The Powun-daung, though far from any important town or even village, is not, as might at first be supposed, quite deserted. Its very loneliness was bound to attract a few among the earnest disciples of the Buddha, and thus it is, that five or six *Hpongyies* (bhikkhus) and about thirty *Mēthilas* or Buddhist nuns, reside there, far from the distractions of the world. The latter live in wretched little thatched bamboo huts. The order of nuns, like the sangha, has long since disappeared from India, but is still flourishing in Burma; and the nuns at Powun-daung, owing to their strict adherence to ancient rules and their hermit life, are much revered.

These caves are not the only ones to be found in Burma, but their interest lies in the fact that they differ from the others in several particulars. The *Dhammatha*, *Phagat*, *Kogun*, and other caves found round about Moulmein, in Lower Burma, are natural caves in large limestone rocks excavated by the action of the sea at, it is thought, no very remote geological period<sup>1</sup>; their walls and recesses were decorated with figures of the Buddha and other images brought from without, and they seem at least most of them-to have been used both as residences for monks and as temples at the same time. At Pagan, too, there are numerous caves, the excavation of which extended over a long period. The Kyaukku-önhmin, supposed to be the oldest, is ascribed to a period when Southern Buddhism did not as yet exist in Pagan-at least as the officially recognized form of the religion-that is, to about the 9th or 10th century A.D.<sup>2</sup>; the others range from the end of the 12th to the end of the 15th century, even somewhat later, according to the inscriptions found at Pagan. These caves are artificial and have been dug on the slopes of hills in soft saudstone rocks, or under ground in the friable soil. In the latter case, they generally assume the form of long narrow galleries, parallel and intersecting. All these caves are monasterics and were from the first intended as residences for Buddhist monks. In the case of the former, all the carvings except the mouldings and panels of simple floral design, are detached, having been made elsewhere and carried into the caves.

The caves at Powun-daung are essentially places of worship, and were never intended to serve as residences. Their very conception and dimensions preclude such a purpose. They divide themselves roughly into the three following categories :--(i) The vast majority have been dug merely a few feet in the face of the rock. The smallest of these, to which access is obtained by a single entrance, are either square or nearly round, and from seven to twelve or thirteen feet in height, and 5' or 6' in depth; at the back, facing the door, sometimes running round three sides, is an altar on which are standing or seated images, and this altar takes up about two-thirds of the total room. Plate XXXI a, shows the entrance to such a cave, the altar in which can be seen behind the Buddhist monk; and Plate XXXIII b, shows three others in close proximity to one other. These small temples, or rather niches, are comparatively few. (ii) The caves in the second category consist of a narrow gallery, measuring from 15 to 70 feet in length and from 10 to 25 feet in height: but their depth is only between 6 and 15 feet, and the altar again, which runs along at the back usually occupies two-thirds and in some cases as much as threefourths of the space. Entrance into these long image galleries is obtained by several doors often of unequal dimensions and varied ornamentation. Plate XXXII, a and b give a good idea of their external appearance; Plate XXXIII a is part of another long cave. (iii) In the third and most interesting category are those of much larger dimensions, excavated deep in the heart of the rocks. These caves, which are few in number, are more pretentious in every way than the caves of the two former series, and are temples in the true sense of the word. A description of one of the finest among them will be given later on. An interesting feature of all these niches and temples at Powun-daung is that each and every detail in them, whether altars, pillars, Buddha images, animals or other figures, is part and parcel of the excavation, having in every case been chiselled out of the living rock. This is the

\* Forchhammer's " Report on the Kyaukku Temple at Pagan."

<sup>1</sup> Fide " Notes on Antiquities in Ramannadesa ", Indian Antiquary, XIII, 320.

principal feature in which they differ from the other cave temples of Burma, and in which they resemble most of the rockcut temples in India.

The monuments in Burma the age or founder of which is not known are comparatively few. Kings, queens, ministers and others, were always very careful to record on stone their foundation of, or additions and dedication of slaves and lands to, religious edifices. This was especially the case in Central and in Upper Burma, and hence the immense number of lithic inscriptions recording such foundations. In some cases the inscriptions disappeared but not, fortunately, before they had been copied either *verbatim* or in substance on palm-leaves to serve for the compilation of local histories. It is thus that we come to know of many lost epigraphs, and the dates of the monuments to which they refer. Powun-daung is one of the few about which nothing whatsoever is known. The most diligent search has failed to bring to light the least scrap of reliable information concerning it, and the date of its several caves can only be approximately determined by the characteristics of the doors, of the carvings of the architraves, the dress of the figures, and other such details.

The only document known about Powun-daung is a manuscript on palm-leaves, written in 1799 A.D., which records that, two years earlier, some devout villagers excavated a cave there, bearing the expenses in common. Incidentally it mentions the cave which is reputed to be the oldest, palicizing the Burmese names of the images therein ; but that is all. The monk who wrote this record was as ignorant of the history of these rocky hills as everyone else was, and it could not but be so, seeing that no information on the subject was available. In the "History of Halingyi "-a tissue of extraordinary fables about this ancient city in Upper Burma-Powun-daung also comes in for passing mention. It is there related that Halingyi, the several names of which are given as : Hamsavati, Pachchhimanagara, Hamsanagara, Kāmavatī, Hallana and Hanlin, was founded by a certain king Karabaw, a son of the fabulous Mahāsammatta, after whom reigned 798 kings. Then, a certain Prūbandhava came to the throne, whose brother and Uparājā was Pronman; this Prūbandhava is said to have become king 103 years before the Buddha's birth, and it was during his lifetime, we are told, that the oldest caves in the Powundaung were excavated. Then follows a wild legend, still current locally, which would make Baron Münchausen pale with envy<sup>1</sup>. It is clear nothing can be built on such data. This History of Halingyi, as well as the local legend, are redolent of the Pyu people, as indicated by the names  $Pr\bar{u}$  (= $Py\bar{u}$ )-bandhava and  $Pr\bar{o}n$ , which latter data. seems to have an ethnographical value; the two terms are generally used as a couplet, and Prūman-Pronman refers to a period and a state of things of which nothing is known or remembered; the Pyus were known to the Chinese up to about the 13th century A. D., as P'iao, and seem to have occupied all that territory stretching from beyond Halingyi in Upper Burma, through the Chindwin Valley, down to below Prome, anciently known as Śrikshetra. Inscriptions in Pyu script were found at these two cities, which Mr. H. Krishna Sastri, Epigraphist to the Government of India, sets down as belonging to the IVth or Vth century A. D., thus establishing a certain proof of their antiquity. Unfortunately, absolutely nothing is yet

<sup>&</sup>lt;sup>1</sup> It has been recorded, in a slightly different version, in the Upper Burma Gazetteer, Vol. 11, pp. 92-5.

\*known of the history of these people, who have long since disappeared, beyond the fact that they had their capital at Prome and that they were still numerically and politically important at Pagan at the end of the 12th century. There is evidence that, during the thirteenth century they were still very numerous in Pagan and the surrounding districts; for according to an inscription dated A. D. 1298<sup>1</sup>, there appears to have been a very large contingent of Pyus in the Burmese army. Although, after the date of the inscription just mentioned, nothing more is heard of the Pyus, owing probably to the rapid process of amalgamation with the Burmese, it is plausible to suppose that they lingered on for one or two centuries longer, before completely losing their own nationality and language, and, as a consequence of their being merged into a more hardy race, all political and social importance.

To the Pyus is attributed the foundation of the oldest caves of the Powundaung: but this rests on tradition only, unsupported by documentary evidence of any kind; and to build a theory on the slender evidence of verbal tradition is beset with dangerous pitfalls. The tradition, however, cannot be altogether rejected, on the sole ground that it is a tradition, overgrown with extravagant fables; for it must have had a starting-point doubtless founded on fact; and, if we cannot accept, as a matter of course, the fables, still we cannot ignore the persistent assertion that the Pyus first cut the caves in the rocks of Powundaung. In the absence therefore of any testimony to the contrary, the fact that the Pyus were the first to excavate in those hills may be accepted. The very geograpical situation of these hills is in favour of this presumption. They are situated in the Lower Chindwin Valley; and, as already mentioned above, the Pvu nation, from the first centuries of the Christian era, and probably before it, stretched from beyond Halingyi, some ten miles south-west of Shwebo in Upper Burma, down to Prome in the Delta of the Irrawaddy. This long -stretch of country to the west of the great river, and including the greater part of the Chindwin Valley is still redolent with traditions concerning the Pyus; and numerous small brick mounds scattered over the face of the country are still designated 'Pyu' tombs. This undoubted fact, to which sufficient regard has not hitherto been paid will necessitate the recasting of the generally accepted theories about the ancient history of this country, especially in so far as the Burmese themselves are concerned. But interesting as this question is its discussion cannot be pursued in this article. Another point which seems to militate in favour of the Pyus being the earliest excavators of these caves is this. As already stated, with extremely few exceptions, all the religious foundations in Upper Burma, have been carefully recorded on stones, sometimes on votive tablets. Now it is not to be doubted that, had any Burman, of whatever rank, been the excavator of any of these rock-temples, he would certainly have recorded the fact, according to custom, on stone-the more so, as this material is plentiful at Powun-daung-and probably on the very rocks themselves. But nothing in the nature of an inscription, except in the case of some very recent caves, has been found; and no allusion whatever to any such excavation has been discovered in the numerous epigraphs that exist in Upper

" Fide "Burmese Inscription at Bodh-Gaya " in "Burmese Sketches," p. 92, Taw Sein Ko, 1913.

Burma. This fact, though not perhaps decisive, is yet very significant, and this. absence of any Burmese record not only tends to corroborate the tradition, but is a step towards fixing approximately the age of the oldest temples, since Burmese epigraphy does not begin before the middle of the eleventh century A. D. Inversely, the total absence of even the shortest epigraph in Pyu is equally significant, when it is borne in mind that the Pyus were acquainted with writing from the first centuries of our era, and appear to have left extensive epigraphical records, of which a few only have as yet been recovered. This complete lack of lithic inscriptions in the country of Further India, in which these documents were probably the most numerous, and at a place so unique as Powun-daung constitutesalmost a problem by itself; but the bare fact remains, and obliges us to fall back on less precise, though not less interesting data, in order to try and fix approximately at least, the age of these caves.

One of the features which strikes the casual visitor to these rocks, is the trapezoidal form of a large number of the entrance arches (Pls. XXXI a and XXXIII b) which is found nowhere else in Burma. The discovery, in India,. of rock-cut caves with trapezoidal doors would stamp them as being of great antiquity; this is also the first impression conveyed by them at Powun-daung. But closer examination of these entrances and above all of the sculptures of their architraves shows that no such high antiquity can be ascribed to them. Thisparticular form of entrance, which is frequently found in old rock temples in India but occurs nowhere else in Burma, may result from one of two causes ; either from the desire, by making the jambs slant towards the top of the arches, to support the lateral pressure and thus strengthen the structure; or merely from imitation. The fact that hundreds of other entrances are perfectly perpendicular or very nearly so (Pls. XXXIIIa and XXXIIa & b) is proof enough that such an engineering device was not a necessity : nor, on the other hand, can it be ascribed in Burma to the imitation of wooden constructions, as it is ascribed in India. Burmese houses, monasteries and palaces, which were and are still built rigidly according to secular rules and custom, have their doors perpendicular. The conclusion is that, in this, as in many other things, Indian models have been followed and that the trapezoidal cave-entrances of Powun-daung, have been imitated from India, the models perhaps being the Barabar caves, somewhat to the north of Gayā in Bihar, in which the doors have the jambs sloping inwards<sup>1</sup>. Much evidence has, of late years, accumulated, to show that, from an early date, there was a good deal of intercourse between Central and Eastern India and Burma<sup>2</sup>. Thus there was an overland route through the Chindwin Valley across Manipur and Assam, and the country about Powun-daung is redolent with reminiscences of active intercourse with Eastern and Central India, as is still indicated by some place-names, such as Razagyo (Rājagriha) and Mweyin or Moranga, probably the Mareura of Ptolemy, which reminds us of Bihar and the great Maurya dynasty. At which period of the long intercourse between these two countries these caves were excavated, it is, in the absence of all written

<sup>&#</sup>x27; Cf. fig. 55, p. 101 of Fergusson's History of Indian Architecture, or fig. 3, p. 9 of his "Cave L'emples." See the Reports of the Superintendent, Archaelogical Survey. Burma, for the past five years.

records, difficult to determine with precision, but from the style of the sculpture around the doors, of which those of a trapezoidal form may be taken in some cases as the earliest, the oldest caves may be assigned to the 9th or 10th century A. D.; others, to judge by the dress and ornaments of the devatas, yakshinis and other figures belong to the period between the end of the XIVth and the XVIIIth century; and others again, to the XIXth and XXth centuries. For a fine example of one of the last mentioned see Pl. XXXV, b.

The cave which, according to tradition, is the oldest, is situated in about the centre of the Powun-daung. It is called the Nat-taung or "Spirit-Cave," from a small stone sculpture representing the female guardian spirit of these hills (Pl. XXXIII d). It is called in Burmese "the Mistress of Powun-daung." She is riding sideways on an animal which is supposed to be a tiger, but which might as well be a bear. This sculpture does not reveal much artistic skill. This nat or spirit is much feared all over the country-side and visitors to the hills are careful to propitiate her with many offerings. The rock is some 70 feet long and about 40 in height; long 'image galleries' have been dug in the face of it on all sides except the north, where it abuts against another huge block. These caves like the greater number of the others in this hill, are in the form of long narrow corridors, without access at either end. Their age varies from the IXth up to the XVIth or XVIIth century, as is indicated, in some cases, by the statues of devas, carved in the rock outside the entrances, and garbed in the traditional costume of such deities which became common in Burma after the XIVth or XVth century. A typical example of such devas is reproduced in Pl. XXXII a. The dress of deva-figures of earlier centuries resembles that of the mediæval devas in India, of which, as a matter of fact, they are merely servile copies. The oldest caves face west: and are six in number, ranged in a row, access being obtained to each by one door. They are all of about the same size; that is, from eight to ten feet long, from ten to twelve feet in height, and six to eight feet in depth. The back is occupied by the altars, some four to six feet broad, on which are the famous Buddhas ascribed to the king Baradaw spoken of above. Everything is in one piece, the statues and altars having all been cut out of the living rock. The Buddhas are sitting in the bhumisparsa attitude, their features being not Indian, but frankly Mongolian, with high cheek-boncs and somewhat flat noses. No photograph could, unhappily, be taken of these caves; as owing to their traditional high antiquity they are revered and visited above all the others, and the result has been, as is too often the case in Burma, that a great rest-house serving at the same time the purpose of a prayer-hall, has been crected just against this face of the rock. effectually screening off the entrances. The latter are trapezoidal and in the form of a semicircular arch; the carvings of the architraves are much, simpler than those at most of the other entrances; and there is no trace above the arches. of those elaborate scrolls surmounted by a stylized naga which seem to be characteristic of later caves. Instead of this naga, the pinions here represent a banian leaf, as in Pl. XXXI a, or a stylized lotus-flower, as in fig. b of the same plate. In these two figures also, the scrolls, as they may be seen in Pls. XXXI c & d and XXXIII a & b, are missing. These photographs give a good

idea of the appearance of the entrances to these old caves. It is remarkable that the few really old caves are distinguished by the relative simplicity of their doorways, their simple carvings, the absence of scrolls immediately over the arch and of the stylized  $n\bar{a}ga$  surmounting the whole. But this last criterion does not in every case hold good; see, for instance, fig.  $\alpha$ , Pl. XXXII, in which they are lacking. In this case, however, the figures between the doors are sufficient to stamp them as being much later. These doorways, which closely resemble one another, are extremely numerous--a fact which will be better understood when it is stated that the Nattaung rock just described, numbers eighty of them, giving access to 9 or 10 caves, and this rock, though large is by no means among the largest. To describe one of them will suffice for our purpose.

We shall take the middle one shewn on Pl. XXXIII b which is typical of the rest. It is not earlier than the XIVth or XVth century. The jambs receding towards the top are not here an index of its antiquity; for this trapezoidal shape has been copied from the earliest entrances. In some groups, the two kinds of doors, perpendicular and receding, are promiscuously employed, as a glance at Pl. XXXII b will shew.

The general appearance of these doorways faintly recalls those of the temples at Pagan, more particularly of the Gawdapalin temple; but they differ in some details; as, for example, in the scrolls, which are not found at Pagan. Imitation is so obvious at Powun-daung, that it might be surmised that these ornamentations were copied from the capital; but there are caves on this hill older than the first of the terraced square buildings in that city, where something similar appears. The probability is that the resemblance is to be traced to the same Inso of the terrated square buildings in that Civy, where someaning similar appears. The probability is that the resemblance is to be traced to the same source, that is, to the ornamentation of porticos and doors of wooden buildings, monasteries and above all of palaces which, in Central Burma, long antedated brick monuments on a large scale. All these architraves recall strikingly those of the wooden Palace at Mandalay which, though late in construction, since it was completed only in 1859, goes back to a very old model, since according to Burmese documents themselves, it was built, in all its details, rigidly according to plans, models and rules of a great antiquity. The similarity of any one of the doorways on Pl. XXXIII b to those in the Palace is so striking that, setting aside the difference in material, it might be thought to have been brought over from Mandalay, or vice versá. Its design is very simple. Two pilasters, without bases or capitals, ornamented with plain symmetrical designs (with slight variations in different caves and sometimes a string of beads enclosing them) are flanked by simple mouldings terminated by a stylized leaf at the upper extremity (Pl. XXXI a), in which they are much elaborated. Immediately above the pilasters rests the arch, which is formed of two sections of secoils and is prolonged upwards in the form of two horns. These two horns are interesting. The Burmese, who have long forgotten their origin and significance, regard them as copies of real horns, the horns of the wild bull (Bos Sondaicus). But as a fact they are only a stylization of the multi-headed  $n\ddot{a}ga$ , so well known in India, which became a favorite motive of ornamentation in Indo-China and which is frequently seen in the menuments of Cambodia. The stylization is that of the  $n\ddot{a}ga$  as seen, not. in front, but in profile; the heads below the hood, of which three or four can be seen when looked at from the side, have gradually disappeared, leaving what is, in Burma, styled "a kind of horn-ornament." This schematization will be made very clear by examining pl. 95 of L. Fournereau's "Les Ruines Khmères," where such a naga is given in front view and in profile; the connexion is unmistakable. It is not suggested that the naga was adopted in Burma from Cambodia: it was introduced independently into both countries from India; but the origin and form was preserved longer in the latter country, in which stone and brick temples were built much earlier than at Pagan. That there was much interchange of ideas at an early date between Burma and Cambodia is beyond doubt: and it had in fact, been observed, at a time when Cambodia, and for the matter of that, Burma also were yet but little known to the archeeologist or orientalist<sup>1</sup>; to what extent this reciprocal influence took place is not yet known, but materials are not lacking, and would make the subject of a very interesting study. The origin of this so-called horn can again be casily traced in Fournereau's "Les Ruines d'Angkor," on the plate (not numbered) bearing the legend "Bapuon, tour milieu du 2<sup>me</sup> étage-face sur cour;" here the nagas occupy exactly the same position as in Pl. XXXIII b, that is, resting on the abacus of the pillars, where rearing upwards their multi-headed hoods they carry up a foiled arch over the entrance, enclosing, as in our photograph, a flamboyant ornament. The resemblance between these Bapuon arches and those of Burma is very striking. The figure forming the finial immediately above the scrolls and between the two rows of flamboyants, is another stylization of the naga; the Burmese take it to be a peacock, perhaps from a fancied resemblance to that bird. Here the naga is seen in face-view; the hood is quite characteristic and cannot be mistaken. With this may again be compared the seven-headed nāga shewn en face in pl. 95 of the same author's "Les Ruines Khmères." The most elaborated doorways, with profuse carvings over all the parts of the architraves are to be seen in Pl. XXXI c; they are near the Nat-taung rock, which contains the oldest caves, described above. The photograph had to be taken sideways, owing to a rest-house erected in front, and does not do full justice to the really splendid effect produced by the diversity and richness of the carvings.

Plate XXX. This rock is situated to the north-west of the hill and faces east. It is the only one of its kind, both in design and form. It is known locally as  $Myinm\bar{o}daung$ , that is, the "Mount Meru Rock," for it is supposed to represent this fabulous mountain. Mount Meru itself is shewn in the centre between the two rows of pillars. From the ground to the top of the quatrefoil ornaments above, it measures 26' 10" and the breadth at the bottom is 9' 9". The triangular archway, unique in Powun-daung, is 8 feet in breadth and 7 feet from the ground to the apex. The cave itself is quite small, the principal figure in it being a Baddha which does not form part of the rock as in other caves. A few feet above the arch are two superposed panels. The smaller one contains four niches each formed by, on each side, two entertwined roots, the foliage and fruits developing over the niches, canopy-like, into a very conventional tree. In each niche is a small figure, about 16 inches in height; their features are those of dwarfs or goblins, not unlike the illustrations of our fairy tales, and they are seated in the European fashion, with the legs apart; the front part of the dress falls between the legs, but in such a way as to leave them bare from the knee downwards; the arms rest on the knees, the right hand resting on the palm of the left one; their head is covered with a kind of Phrygian cap. This form of cap seems to be very old in Burma; it is mentioned in Chinese documents as being worn already in the early part of the 9th century A. D.; but that is no index to the age of these figures, for this kind of headgear, or something very similar to it, was still worn up to a few decades ago, before the British annexation, by certain classes of officials. The four niches in the panel above are similar, but all the figures have disappeared. These figures may perhaps represent Asuras. On each side of Mount Meru are seven pillars, which represent the seven kulāchalas, the seven concentric rocks surrounding the mountain with the seven seas between them. The tallest pillar is 22' 10", the others diminishing in height by 1' 5". The floral design with which these pillars are ornamented, and which is found again in the upper panel above the entrance arch and in the schematic tree over the niches, is interesting in that, though found everywhere in Powundaung, it is not to be seen anywhere else in Burma. It is reproduced on a larger scale in Pl. XXXIII e, and is very like a custard-apple; but it is unlikely to be that, seeing that the custard-apple is never, I believe, a motive of ornamentation in Indo-china. In *fig.* e just referred to, the bunches resemble bunches of grapes, but the leaves are not vine leaves.<sup>1</sup> Above the central portion, behind the four quatrefoils, on a ledge receding about a yard from the face of the rock are two other smaller caves. The door of the one on the right is framed by two tree trunks, whose branches entertwine above the arch, the whole assuming the shape of a banyan leaf. This is the pārichchhataka, the coral tree in Sakra's heaven. Close by it, on the left, we have *Sudarśana*, Sakra's celestial city. This is the most interesting part of the whole rock. It represents a high tower consisting of nine superposed receding terraces, a prāsāda, and has been copied, not from a brick building, but from a wooden one; the highest temples in Pagan have only five terraces. There is evidence that these high wooden pyathats (prasada), as the Burmese call them, were already common in this country long before the 11th century; for they are, with five, seven, nine or thirteen tiers already depicted in the stone carvings of the Ananda temple (1,090) at Pagan. These graceful structures were known very early in north-eastern India, particularly in Nepal and it is the palaces and pagodas of this latter country, that have served as models to the Tibetans and Chinese; and it is from there doubtless, that these towers, which are still now-a-days to be met with all over Burma, have been indirectly derived. The whole structure is supported by two nagas, which formed, along with the garudas, the kumbhāndas and the yakshas, the four guardians of Indra's abode. On each side of the terraces may be seen three birds with long flowing

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tails and long beaks, which it is difficult to identify. The two small *chaityas*, one below and the other on a ledge of the rock, are quite modern.

Plate XXXI d. To the south of the Myinmo-daung just described, and immediately adjoining it, at the entrance of a very narrow cleft, is a high niche, to which access is gained by twelve high stone steps. The highest step is 8 feet from the ground, the doorway is 13'9" in height, with a breadth of 3 feet. The niche is just large enough to contain two Buddhas in the round chiselled out of the rock. They are standing, one facing east, the other, whose left hand and the lower portion of his dress can be seen in the photograph, facing north. They are 16 feet in height. The right arm falls limply at the side, while the left hand, the fingers stiffly pressed together, rests on the stomach. The sculptures round the entrance are not found in any other cave. The "horn" ornaments alluded to above and the general shape of which may again be compared with that of the dragons below, are supported by two pilasters each ornamented with three paterae. On the side of these pilasters and seemingly issuing from behind them are five dragons, a coil of the nethermost forming the base of the pilasters. They rear their crested heads upwards in homage to the two Buddhas within. This position of nagas and dragons does not appear to have become common in Burma before the XIVth or XVth century; and in Pagan they are practically non-existent, the only example there being one which was found this year in a recess of the Indapachchayā temple. Tt. is a wooden frame, with eight dragons on each side, their heads reared up as in this photograph. According to an inscription found near this temple, the Indapachchayā was built by an official of the same name in 1292 A.D., some eight years after the Mongol expedition sent to Pagan by Kublai Khan. Strikingly similar dragons are to be seen at Angkor-vat, and are reproduced on plate 83 of Fournereau's Les Ruines Khmères. Above the arch is a Yali head, badly damaged. The flamboyants above the scrolls and between the horns are replaced by a very fine floral design, which is repeated in the spaces between the dragons. The age of this cave may be placed in the XIVth or XVth century.

Plate XXXII a. This cave adjoins the Nat-taung, spoken of on p. 47. on the north. Measuring from the last figure at each extremity, this cave is 46', and 9' in height outside; within it is 43' in length, and in breadth, measured above the altar, 11'9". Access into the interior is obtained by six doorways with two or three steps each, the entrances having average dimensions of  $6' \times 2'$  6". The altar runs all along the back of the cave and is 7' broad. On it, carved out of the same rock, is a recumbent Buddha, 34' 8" from head to feet. The distinctive features of this temple are, the simplicity of the carvings round the arches as compared with most of the others, and the eight statues carved in the round between the entrances. The simplicity of the carvings is attributable to the relative lowness of the rock which did not leave room for the elaborate arches; and consequently the latter are replaced by a cornice or band of paterae with a guilloche all along the lower edge. Of the eight statues, the first six on the left are those of devas; the first from the left, is in an attitude of exhortation ; the second holds heads and a vase in which are offerings ; the third beads and a water-jug; the next two, on each side of the principal entrance, hold a flower in one hand, the other being in the abhava-mudrā ; the sixth

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holding a book, is probably Mātali. Of the last two figures, the first is that of a goddess, devadhātā. She holds a vase in the left hand and a flower in the right. The last is a rākshasī or ogress; the two hands are broken and the face badly damaged, but one of the two tusks can still be distinguished; beads hang down her breast, showing she has been converted to Buddhism. A pleasant feature of these figures, barring the ogress, is their happy and smiling faces. The dress, as already pointed out (p. 47), shews the cave to be a late one, and to belong to some period between the XVIth and XVIIIth centuries. It is difficult however to be precise; for this costume of the gods which seems to have become more and more common in statuary from about the XVth century, has persisted up to the present time. It became also the gala dress of the kings of Burma and is still to be seen on the stage. the stage.

Plate XXXIII b. These three caves are at the southern extremity of Powun-daung, and face due south. They are amongst the smallest of the caves, and are in fact, little more than niches, for their average dimensions are not more than 5 feet in depth and breadth and 10 feet in height. The altar at the back occupies about two-thirds of the space, which makes them appear longer than they are. They are typical of the great majority of the doorways and illustrate the very simple method of varying the ornamentation.

Plate XXXII b. These caves are excavated in the southernmost rock of the hill, close to the three shewn in Pl. XXXIII b, but facing west. The whole rock, as well as that on the north separated from it by a narrow cleft, is literally honey-combed on all sides, except the south, with long image-galleries, to each of which entrance is afforded by some five to sixteen doors and each of which is full of

combed on all sides, except the south, with long image-galieries, to each of which entrance is afforded by some five to sixteen doors and each of which is full of Buddhas of all sizes and in all attitudes. This plate gives an excellent idea of the general appearance of all the other rocks. At the southern extremity of this rock is the largest of the few caves which can properly be called temples, and the best of them. The small white *chaitya* on the summit is quite modern and stands immediately at the back of the temple, not over it. This temple is called Kau-zi. *daing*, and is described in the next paragraphs. The Kun-zi-daing temple. The rock in which this temple has been hewn is about sixty feet in height. It is at the southernmost extremity of the range and overlooks the plain below. The temple faces south. On this side, some fifteen or twenty feet of the rock have been hewn off to provide a level space before the cave, at once secure and of easy access. The plinth, the upper surface of which forms the floor of the tample, rises 4' 6" from this level space. Access into the cave was originally obtained by one flight of nine steps below each of the two entrances at the extremities of the façade. But a few years ago a prayer-hall was erceted abutting against the temple and screening the whole of it so effectually, that it was found impossible to take a photograph of it. The wooden floor is raised three feet from the ground and covers most of the steps; the temple is now entered from this hall. There are five doorways, all square arches, separated by four pillars. The doors are 3' wide and 11' 6" high; the pillars are of the same height by 6'3" in thickness and 4'4" in width. There are no carvings, The whole of the façade has been carefully smoothed down. In front of each of the pillars is a dvārapāla,

in a sitting posture, holding a club in one hand. One of these may be seen in Pl. XXXIV a, the only remarkable feature of this ugly personage is his face, which seems to be the only one of its kind among Burmese dvārapālas.

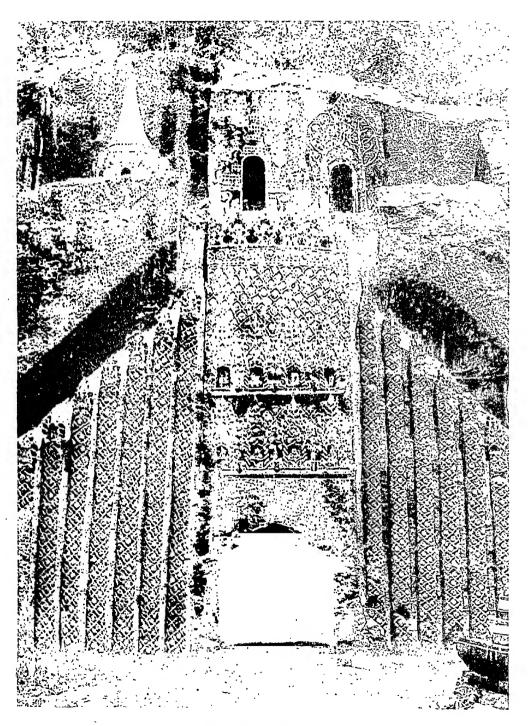
The temple itself is a rectangle  $36' \times 25'$  and 18' in height, the cnormous weight of the rock above being supported by two large columns hewn out of the rock, besides the four pillars between the entrances. The columns are octagonal on plan, as many Buddhist columns in India, and without any base. They taper from the floor up to the capitals, a height of 15' 8". Each face of the octagon measures 4' at the bottom, 3' 2" in the middle and 2' 2" just below the capital, after which it gradually widens again to 4' at the roof. The columns are painted red up to a height of 6' and above that are decorated with simple floral designs in gold on a red and blue ground, similar to those seen in the Palace at Mandalay. The back of the cave is occupied along its whole length by a huge altar, 6' 8" high and 6' 5" broad, on which are seated three Buddhas. The middle one, the largest, is 18'; as this height, added to that of the altar, is greater than that of the roof, a hole has been scooped out in the latter which suffices for the whole of the head. The wall of the cave at the back of the altar is covered with frescoes the style of which shews them to be about 100 or 150 years old, and the front of the altar is covered with glass mosaic. In each side wall, east and west, three feet from the floor, is a row of six small niches,  $2'7' \times 1'8''$ , with seated Buddhas. Ten inches above these runs a frieze all along the wall, 5' 5" in height, the lower part of which is occupied by eleven miniature niches and the upper part, above the latter is sculpted in a series of stylized trees of much the same design as those described in connexion with the Myinmö-daung, p. 49. Fide Pl. XXXIII e.

Plate XXXIV c. This gryphon is at the eastern extremity of the Kun-zī-daing cave's façade, of which, in fact, it forms a part; for it was hewn out of a block left for the purpose when part of the rock was cut away to obtain a proper frontage and a level space before it. A similar, though smaller, piece of rock has been left standing on the opposite side without being sculpted; the original idea having been to have a gryphon on each side of the cave. This figure measures 13' 4" from the top of the ear down to the foot; the length from tail to breast is S' 9". The highly schematized mane of the beast shows its Assyrian origin; Fig. a, in pl. XXXIII, gives the front view of a series of four very similar lions. This huge gryphon gives us the only date to be found in all Powun-daung. On its left breast is inscribed: *śakkarāj 660*, that is 1298 A. D. This gives us the date of the Kun-zī-daing temple.

Plate XXXV a shews two parallel flights of steps cut in the rock on the eastern face of the Kun-zī-daing cave. The one nearer the rock turns abruptly into a narrow fissure full of small caves; the other leads on to another huge rock honeycombed with niches and caves, which call for no particular description. It is in one of the caves, which can be seen on the top of the flight of steps, that the frescoes, a portion of which is shewn in plate XXXIII c, have been painted. It is not the only cave with paintings, but in this particular instance, they have not faded or deteriorated so much as in others. In technique and finish, they do not come up to the oldest frescoes found near Pagan, which appear to derive their origin

from Ajaṇṭā, and also from Nepal and Varendra. Nor are they examples of the best work of the period to which they belong, that is of the early years of the 18th century. They represent the twenty-eight Buddhas under their respective Bodhi trees, with their principal disciples and under each is given the name of the Buddha and of his tree. The colours of these paintings, on a black background, are, red, yellow, green, white and a very light yellow straw colour. Leaving this cave and proceeding north-east along the rock, the visitor, near its northern extremity, comes across the huge rākshasi shewn in plate XXXIV b. It measures six feet in height. She is in the *lalitākshepa* attitude, if this graceful pose can be attributed to such a massive, awkward, outrageously fat monster. The right leg hangs down and the left leg is ungracefully bent inwards; her loincloth falls in folds between the two legs; the two hands sustain the heavy breasts in the act of offering, not her milk, but as will presently be seen, the lustral water. She has the usual heavy ornaments in the lobes of the ears; a necklace and thick bracelets are her sole articles of dress from the navel upwards. She is leaning She has the usual heavy ornaments in the lobes of the ears; a necklace and thick bracelets are her sole articles of dress from the navel upwards. She is leaning against a reservoir, into which, during the rains, flows the water from the precipitous rocks above. On each side is a figure of Brahmā, 3' 4" high, holding a conch. The water from the reservoir flows through the nipples of the  $r\bar{a}kshas\bar{i}s$  breasts and from the bottom of the Brahmā's conches. In the month of May, when the annual festival of the ablution of the Buddha's statues takes place, all the small figures in Powun-daung which can easily be carried are brought here and water being poured in the reservoir, they are washed with the water spurting from the breasts and the conches.

pollfed in the reservoir, they are washed with the water spinting from the oreasts and the conches. It puts one straightway in mind of the quaint figures with which Michelin illus-trates the advertisements of his famous tyres. It was found a 'few yards away to the north of Myinmō-daung (p. 49 and XXX) before another cave, and in company with another similar but headless personage, part of which can be seen on the right of the photograph. It is four feet high. The face has the high and prominent checkbones which are a feature of all the figures seen in these rock temples, except the Buddhas and devas (cf. Pl. XXXIVa and b). The teeth are long and large, with two tusks protruding downwards at the corners of the mouth. The monster has two horns rising from the temples. Behind the head and rising above it is a stone bowl which was probably used for offerings to the Buddha in the cave behind. Round the neck is a collar or 'frill. The long hair, in a plait, falls over the left shoulder, across the breast and down over the right knee to the ground; the two hands are holding this plait in exactly the same manner as the figures of the goddess *Fasun-dharā* (Mother Earth) which are so frequently seen in Burma near the statues of the Buddha in the bhūmisparśa or "earth-touching" attitude. It is said that, for the last century and a half, Vasundharā has changed hor sex in Burma and is now mesculine: but the statue before us is much more than 150 years old; so it cannot represent Mother Earth bearing witness to the Buddha's solemn asseveration under the bodhi tree. The ribbed garment seems to be peculiar to this figure; it is not known in any other part of Burma, and I do not remember to have seen anything like it in India or Indo-China. There is no doubt this figure is foreign to Hindu



THE MOUNT MERU CAVE.

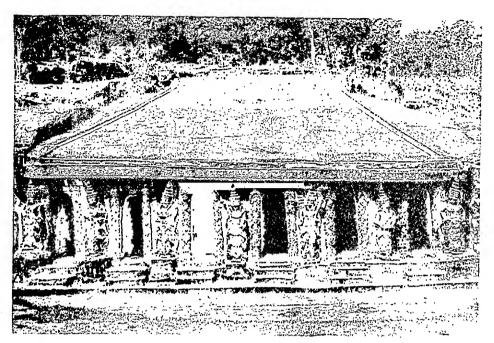
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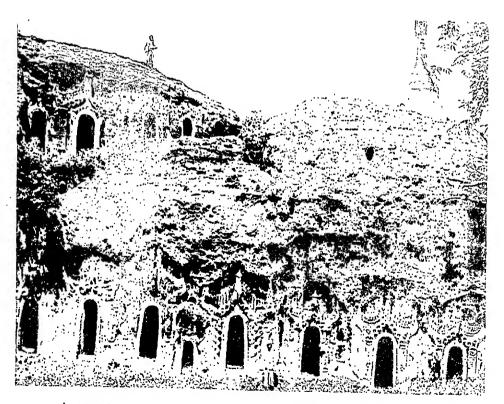
. SOME ELABORATELY CARVED DOORWAYS.

d. THE DRAGON CAVE.

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. THE DEVA OAVE.



b. CAVES IN THE WESTERN FACE OF THE SOUTHERNMOST ROCK.

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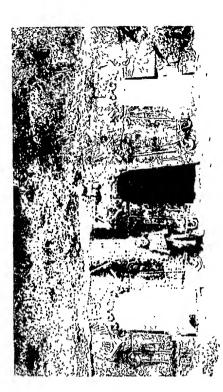
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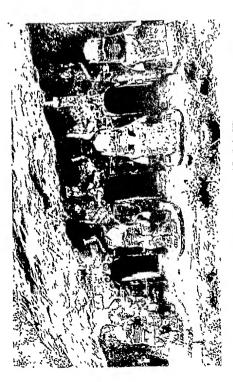
"MIBTRESS OF THE HILLS.

A POWUN-DAUNG CAVE FRESCOES IN J,





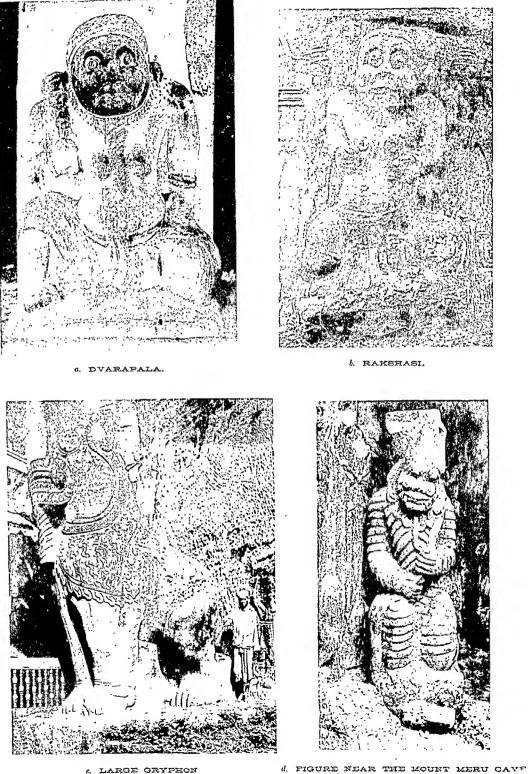
). THREE OF THE SMALLEST CAVES OF FOWUN-DAUNG.





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C. LARGE GRYPHON NEAR'THE KUN-ZI-DAING TEMPLE.

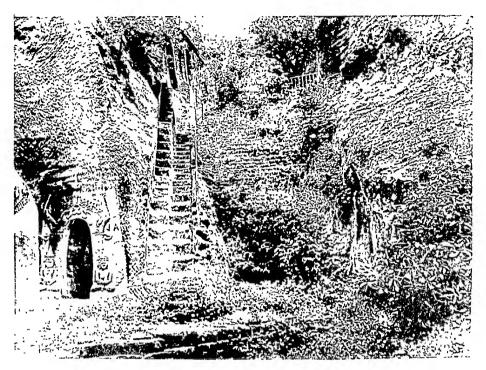
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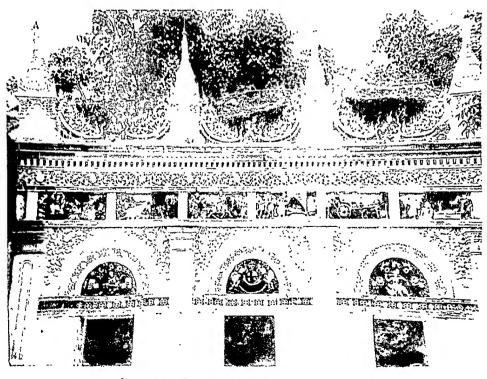
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a. THE EASTERN FACE OF THE KUN-ZI-DAING ROCK.



b. FRONT OF A XXTH CENTURY CAVE-TEMPLE.

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mythology, and the only plausible hypothesis is that it belongs to Tibeto-Burman mythology and represents a *Nat* or indigenous evil spirit, who has been converted to the tenets of Buddhism. But which *nat* has not yet been ascertained. Perhaps it is not a Burmese, but a Pyu one.

It has already been said that, from the evidence of the arches, the sculptures and the style of dresses, the Powun-daung rock-cut temples extend over a period of about a thousand years, from the 9th or 10th to the 20th century. Excavations of about a thousand years, from the 9th of 10th to the 20th century. Excavations are still going on; but the style of the caves made during the last and this century are quite different, in all particulars, from the earlier ones. The finest specimen of the modern caves is seen in Plate XXXVb. It was built ten years ago by a wealthy Burmese lady of Rangoon. It is situated near the northern extremity of the rocky range, and faces south. An enormous block of sandstone was chosen, steep and abrupt on every side; the southern half was hewn out to provide a suitable front for the temple, the level space thus obtained and hemmed in on both sides by the perpendicular walls of the rock forming roughly a square of 35'. The cave is a rectangle  $31'8'' \times 20'$ , with a height of 28 feet. On the altar at the back is a scated Buddha 13' high; in front, worshipping him, are the pañchavaggiyā, the five brahmans who accompanied him when first he embraced asceticism, and the four Lokapālas. On the extreme left, in a posture of adoration, is the likeness, in natural size, of the founder herself. All the figures and flowers above and below the cornice have been chiselled in the rock itself; the spandrels and the frieze as well as the flowers in the tympana are splendidly executed and perfectly finished, every detail is true to nature. The scenes depicted in the six panels above the arches are full of life and the figures finely proportioned. The effect of this beautiful example of modern Burmese finely proportioned. The effect of this beautiful example of modern Burmese art has been heightened by painting the personages in appropriate colours. The scenes are to be followed from right to left, the whole depicting the Bodhisattva's departure into the wilderness. The first represents the four omens which he saw while on his way to his pleasaunce. In the next, Chhandaka is answering his master's questions about the old man, the sick man, the dead man and the monk. In the third panel, the Buddha comes to look upon his little son in his wife's chamber just before his departure. The next shews us Mara trying to dissuade him from his momentous undertaking. The fifth scene represents the death of the faithful horse Kanthaka, the adieux of Chhandaka and the latter's return to Kapilavastu; in the last panel, the Bodhisattva is cutting off his hair. A quaint feature of these sculptures is that the personages are clad in the modern court fashion, which has now disappeared since the annexation of Upper Burma but which still survives in dramatical representations.

## THE SANGYAUNG MONASTERIES OF AMARAPURA.

BURMESE civil and religious architecture, together with Buddhism, was imported from India, though there may have been converging influences from China and elsewhere. The decline of art in the north of India began in the 8th century, and in the south in the 10th century. During the intervening two centuries great events Sankarāchārya, the founder of the Saivaite cult, and an uncomhad taken place. promising opponent of Buddhism, had accomplished his great mission at the beginning of the 9th century, and Rajaraja the Great, a king of the Chola dynasty (985-1018 A.D.) and a powerful supporter of Saivaism, had conquered Ceylon and become the suzerain of nearly the whole of Southern India.<sup>1</sup> As the outburst of architectural energy at Pagan occurred in the middle of the 11th century, it may safely be surmised that the Indian and Sinhalese architects and artisans, as well as the philosophers and scholars professing the Buddhist religion, found a hospitable asylum in Burma, and that they gave a strong impetus to the establishment and practice of Buddhist art in the country of their adoption, especially when, under Rājendra-Choladeva I, the son and successor of Rājarāja the Great, Pegu had been temporarily annexed to the Chola empire.<sup>2</sup> It may also be safely asserted that, in this province, where Buddhism is still a living force, the Buddhist tradition in architecture, especially in wooden architecture, which has all but disappeared in hoth Northern and Southern India, has been conserved in its main outlines, and that the magnificence and splendour of the days of the Mauryas and Guptas may be recalled by an examination of the architecture of the Buddhist monasteries of Burma, which correspond to the vihāras or sanghārāmas of India. Indeed, Barnett says : "With the stupas were often associated viharas or sangharamas, monasteries, of which the normal scheme was a courtyard surrounded by cells for the monks. Naturally the rihāras varied immensely in details. In the early period they were often cut in the rocks, especially in the West, while elsewhere they were usually built of timber on brick foundations. As the monastic organization developed,

<sup>&</sup>lt;sup>1</sup> Fide pp. 203, 212, 213-14, Havell's Ancient and Mediaval Architecture of India.

<sup>\*</sup> Fide p. 120, Vincent Smith's Larly History of India, 2nd edition.

the *vihāras* became elaborate structures of many members, especially in the North-West, and their buildings sometimes assumed forms similar to those of the *Rathas* of the South ".<sup>1</sup>

Fergusson says that, before Asoka's time, the "Indians employed wood and that only, in the construction of their ornamental buildings", and deplores the absence of specimens of  $Vih\bar{a}ras$  built of wood. He, however, believes that the Dharmaraja *Rath* at Mamallapuram probably correctly represents the form of a great many ancient  $vih\bar{a}ras$  in India,<sup>2</sup> and refers to Hiuen Thsang's description of the great Nalanda monastery of the 7th century A.D. as follows:

"After his (Nāgārjuna's) time, six successive kings had built as many vikāras on this spot, when one of them surrounded the whole with a high wall, which can still be traced, measuring 1,600 feet north and south, by 400 feet, and enclosing eight separate courts. Externally to this enclosure were numerous stupas or towerlike vihāras, ten or twelve of which are easily recognised and have been identified, with more or less certainty by General Cunningham, from the Pilgrim's description. The general appearance of the place may be gathered from the following: In the different courts the houses of the monks were each four storeys in height. The navilions had pillars ornamented with dragons, and had beams resplendent with all the colours of the rainbow-rafters richly carved-columns ornamented with jade, painted red and richly chiselled, and balustrades of carved open work. The lintels of the doors were decorated with elegance and the roofs covered with glazed tiles of brilliant colours, which multiplied themselves by reflection, and varied the effect at every moment in a thousand manners'. Or, as he enthusiastically sums up: 'The Sanghārāmas of India are counted by thousands, but there are none equal to this in majesty or richness, or the height of their construction.'

"From what we know of the effects of Burmese monasteries at the present day, this is probably no exaggeration; and with its groves of mango-trees, and its immense tanks, which still remain, it must have been, as he says, 'an enchanting abode'. Here, there resided in his time—within and without the walls—10,000 priests and neophytes, and religion and philosphy were taught from a hundred chairs, and here consequently our Pilgrim sojourned for five years, imbibing the doctrines of the Law of Buddha. What Cluny and Clairvaux were to France in the middle Ages,  $N\bar{a}landa$  was to Central India, the depository of all true learning, and the foundation from which it spread over all the other Buddhist lands; but still, as in all instances connected with that strange parallelism, which existed between the two religions, the Buddhists kept five centuries in advance of the Roman Church in the invention and use of all the ceremonies and forms common to both religions.

"It would, indeed, be satisfactory if the architecture of this celebrated monastery could be restored and its arrangement made clear."<sup>4</sup>

My object in writing this article is to describe the architecture and plan of a

<sup>1</sup> Fide p. 233, Barnett's Antiquities of India.

<sup>&</sup>lt;sup>2</sup> History of Indian and Eastern Architecture, Vol. 1, p. 52.

<sup>3</sup> Ibid, pp. 170-171.

<sup>·</sup> Ibid, pp. 173-174.

typical Burmese sanghārāma, which had, no doubt, for its prototype, one of the celebrated monasteries of India. I have been rather fortunate in my selection, because it was partially examined by Yule, in 1855, and is described by him at pages 162-165 of his "*Mission to the Court of Ava*", and because it was rediscovered by Sir John Marshall in 1904. The Sangyaung monasteries called "*Maha Toolut Boungyo*" and "*Maha Oomiye-peima*" by Yule, were built by the Queen Consort and her daughter, the Princess Royal, during the reign of Shwebomin (1837-1846). When the capital of Burma was transferred from Amarapura to Mandalay in 1857, they were bodily removed thither and re-erected, and were burnt down during the troublous years that followed the British annexation of Upper Burma in 1886. There are, however, two smaller monasteries called the "Mèdaw *Kyaung*"=" Royal mother's monastery" (Plate XXXVIa) and "Thamidaw *Kyaung*"=" Royal daughter's monastery" (Plate XXXVIb), which were constructed by the same personages during the reign of Pagan Min (1846-1853), and were dedicated as the residence of U Nyeya, the Thathanabaing or Buddhist Archbishop in the reign of Shwebomin, who was superseded at the accession of Pagan Min, but who was restored to his former dignity, when Mindon Min became king. In this article, an attempt will be made to describe these two smaller buildings. Yule says: "But it is on a smaller building at the north-cast angle of this central *Kyoung*, and only a few yards distant from it, that in each of the two groups the luxury of Burmese art has been so freely expended.

"In the Maha Toolut Boungyo, this smaller building (Mèdaw Kyaung) was also on the usual monastic plan, having a detached hall at the west end, and three shrines with tapering spires abreast of one another at the west end, but all rising out of the same platform at the level of the first floor. The building was carved like an ivory toy, and was a blaze of gold and other sparkling ornament. Even the posts of the basement storey were gilt, which is seldom the case, and so were the brick staircases and parapets ascending to the platform, which I have never seen elsewhere.

"The brackets or corbels from the outer posts, which support the projecting eaves of the platform above, were griffins or dragons with the head downwards, the feet grasping the post, and the tail rising in alternate flexures, which seemed almost to writhe and undulate as we looked. No art could be better of its kind. The outer range of posts rose as usual through the platform, forming massive props or stanchions for the balustrade above. The tops of these posts were gorgeously carved and hollowed into the semblance of an imperial crown, with various figures under its arches. The successive roofs were sheeted with zine, that glanced in the sun like silver, and the panelled walls, which rose in diminishing area from roof to roof, were set round with half columns diapered with a mosaic of mirror, which looked like silver covered with a network of gold. Even the ladders that leant against the walls, to give access from roof to roof in case of repair being needed, were covered with gilding and inlaid with mirror-work.

"In the basement storey were some curious works of art in another style. On the plastered reverse of the gilded staircases were paintings representing different nations, such as Burmese, Chinamen, Shans, and Englishmen. These were drawn with a good deal of character. The Chinese were done with much truth and spirit and the Englishman, with his dog and gun, was most laughably recognisable, and far better in resemblance, as well as in spirit, than any of the common Hindoo attempts to represent us.

"Two paved and slightly raised platforms in the interior of the basement were set around with small flags of sandstone about a foot square, carved in a sort of bas-relief, or compound between bas-relief and incised outline. One set consisted entirely of representations of *bilus* or demon monkeys, in all sorts of quaint action and attitude, catching different animals, fighting with them, or tormenting them, riding on goats, crabs, elephants, tortoises, and what not. The other set mainly represented animals of all kinds in different attitudes, elephants, buffaloes, deer, represented animals of all kinds in different attitudes, elephants, buffaloes, deer, oxen, hares, etc., some of them apparently engaged in Æsopean dialogues. Nearly all these, though very rudely drawn and exceuted, had the humour and spirit of true genius. One figure for instance, of a *bilu* catching a goat by the hind leg with one hand and diligently punching him with the other, was capital. Another, of a hare crouched on his hams, in earnest conversation with a second of the same species standing on his hind legs in an admonitory attitude, spontaneously recalled to two of the party the spirit of Grandville's celebrated illustrations to La Fontaine. I have already noticed the special gift of the Burmese in representing elephants. Here we had them in all sorts of positions, sometimes represented as fore-shortened with their backs to the speciatory which I conceive is rather an achievement in here with their backs to the spectator, which I conceive is rather an achievement in basrelief.

which which is backet to the operation, which is consistent of a matrix in the backet to the preceding building, but it even exceeds it in gorgeousness of adornment. So the Burmese told us before we had seen it, and whilst we were admiring the Toolut Boungyo. We were not inclined to believe them, but they were justified by the facts, as we found on passing into the adjacent enclosure.
"In this second building, the three spires remain ungilt, the work having been interrupted by the civil commotions of 1852. The contrast thus arising between the mellow colour of the teak and the brilliant mass of gold is no detriment to the effect. The posts of the basement, instead of being wholly gilt are covered with searlet lacquer banded with gilded carving. From post to post run cusped arches in open filagree-work of gilding, very delicate and beautiful. The corbels bearing the balcony are more fantastic and less artistic than at the Toolut Boungyo. Instead of dragons, they here consist of human figures in rich dresses, with the scallop wings of the Burman military costume, and wearing the heads of various animals, elephants, bulls, etc. These figures are all in different dancing attitudes, and all jewelled and embellished in sparkling mosaic of mirror and gilding.
"The balcony balustrade is quite unique. Instead of the usual turned rails, or solid carved panels, it is a brilliant open work of interlacing scrolls, the nuclei of the compartments into which the scrolls arrange themselves, being fanciful, farry-like figures in complete relief, somewhat awkward in drawing but spirited in action.

Below this balcony is an exquisite drooping eaves-board, in shield-like tracery, with interlacing scrolls cut through the wood like lace-work. "The staircase parapets (gilt masonry) are formed in scrolls of snakes scaled with green looking-glass, and each discharging from its mouth a wreath of flowers in white mirror mosaic. The posts are crowned with tapering *htees*, inferior in effect to the imperial crowns of the other monastery. The panels of the walls in the upper storeys are exquisitely diapered and flowered in mosaic of looking-glass, whilst the eaves-crests and ridge-crest (the latter *most* delicate and brilliant) are of open carving in lattice-work and flame-points tipped with sparkling mirror. The indispensable religious pinnacles or finials, with their peculiar wooden vanes or flags, are of unusually fanciful and delicate carving, each crowned with its miniature golden *htee* and hells *htee* and bells.

"It is impossible to look at these Kyoungs without a feeling of wonder how a people so deficient in all domestic appliances should be capable of designing and executing such exquisite workmanship."

I have given the above long extracts from Yule's work, which is still the highest authority on Burmese architecture, so as to place them in juxtaposition with Hiuen Thsang's description of the Nālanda monastery. Splendour, magnificence, and the gorgeousness of colour are common to both *Sanghārāmas*, and neither time, money, nor labour was stinted in their construction. The religious impulse was strong, and

nor labour was stinted in their construction. The religious impulse was strong, and the enthusiasm and zeal of the architect and artisan were equally matched by the fervour and ardour of the Founders. It is, however, a great pity that, with all his extraordinary gifts of observation and description, Yule's examination of these interesting buildings was not complete. He says: "My own visits to the interior of these buildings were, I confess, almost entirely barred by strong disinclination to undergo what was supposed to be the necessary ceremony of unshoeing."<sup>2</sup> Phayre's mission to the Court of Amarapura in 1855, if it failed to achieve any political success, succeeded in having recorded, by the graceful and facile pen of Yule, a faithful picture of Burmese art before it was affected by foreign influences. Amarapura had been the capital of Burmese civilization. There were congregated not only the wealth, fashion, and beauty of the country, but also learning and scholarship. It constituted an Oriental University, recalling the splendour, magni-ficence, and enthusiasm of Taxila, Benares, and Nālanda of ancient days. Metaphy-sics and religion were taught, but scarcely any mathematics, medicine, or astronomy. History and poetry were studied, and sculpture, painting, music and the drama were cultivated under Royal patronage. Sanskrit was studied under Brahman Professors from Benares, as a language subsidiary to Pâli, the sacred medium of the Burmese cultivated under Royal paironage. Sanskrit was studied under Brahman Processors from Benares, as a language subsidiary to Pali, the sacred medium of the Burmese or Hinayāna School of Buddhism. In the domain of art, wooden architecture had reached its zenith in the reign of Pagan Min (1846-1853). The carvings in the monasteries were noted for their sentiment for beauty, refinement of detail, and a remarkable sense of just proportions, which could not be reproduced in later times.

<sup>1</sup> Yule's Mirrion to the Court of Ara, pp. 163-165.

<sup>3</sup> Ilid, pp. 254-6.

In the succeeding reign of Mindon Min (1853-1878), the loss of Pegu, with its ample revenues, necessitated a disturbance in the polity of the Kingdom. the Royal finances, and the economic condition of the people Leisure, liberality, refinement, and concentration of the mind ceased to be factors, and æsthetics became subordinated to utility. It was then that the hurry and bustle of Western civilization began to knock at the gates of Burmese exclusiveness, and to clamour loudly for admission; it was then also that the spirit of commercialism, which connotes aggressive selfishness, began to affect the characteristics of a nation, which had been mainly nurtured and developed by asceticism and monasticism, with their ideals of isolation, solitude, and abnegation. It is clear that the changed political and social condition of the people reacted adversely on the development of their art. The sites of sacred buildings were determined by Brahman astrologers and

The sites of sacred buildings were determined by Brahman astrologers and learned Buddhist monks, who drew their inspiration from the Tripiţaka and from the scenes in the life of Gautama Buddha The Buddha attained his Enlightenment to the North-east of the Bodhi Tree, and ever since then that particular intermediate point of the compass has been regarded by the Buddhist world as specially auspicious. In the present case, it is befitting that a Sanghārāma dedicated to the Thathanabaing or Buddhist Archbishop, who was the Vicegerent of the Buddha himself, should be situated outside the North-east corner of the city wall of Amarapura, and that the vihāra specifically intended for the residence of His Eminence should also be located at the North-east corner of each courtyard called the Mahā-Tu-lut-Bôngyaw and the Mahā-aung-mye-biman.

Should also be located at the North-cast corner of each contryard cance the MahaTu-lut-Bôngyaw and the Mahā-aung-mye-biman.
Symbolism is innate in Oriental art. When one faces the East, the South
lies on his right, and the North on his left. The right being the side of honour, the
Mahā-Tu-lut-Bôngyaw, together with its annexe, the Mèdaw Kyaung, built by the
Queen Consort of Shwebomin, is situated to the south of the Mahā-aung-mye-biman,
together with its annexe, the Thamidaw Kyaung. built by her daughter (Plate XXXVII).

XXXVII). Mahā-Tu-lut-Bôngyaw, corresponding to the Master's Lodge at Oxford or Cambridge, is the name of the central monastery in the Southern Quadrangle, which was a self-contained Abbey or College, to which, according to the inscription near the outer circuit wall, the name of "Mahā-abhayārāma, or the Great College of Freedom" was applied. It is surrounded by two brick circuit walls, each of which is pierced by four gate-ways. Outside the outer wall was a wooden fencing which has now disappeared. The space between the wouden fencing and the outer brick wall was intended for the camping of pilgrims, the land inside the brick walls being regarded as consecrated ground. That between the outer and inner brick walls was assigned to the location of monasteries constructed by the dependants of the Builder of the Central Monastery for the occupation of junior monks, the land within the inner enclosure being allotted for the residence of the immediate entourage of the Abbot or Master. The inner brick wall and a part of the outer one still remain. Plate XXXVIII a § b shows the five-tiered turces of their porches, which were each surmounted by a *śikhara* and a *ti*. Each wall is S feet in height and stands on a plinth. The dado of each is ornamented with mouldings.

The Quadrangle of the Mahā-aung-mye-biman Monastery, to which the name-of "Mahā-vijitārāma, or the Great College of Triumph" was given, and which adjoins the Southern Quadrangle on the north, is similar in design, and requires no further detailed description.

The two Quadrangles constitute an entity or a single Sanghārāma. It is rectangular in plan, trending from north to south and measuring 800 feet by 410 feet. It contains 3 wells and 5 tanks, and is ornamented by shady groves of trees. The buildings being of wood, all vestiges of them and of the entire Sanghārāma are likely to disappear during the next few decades, as they have done in India. On the eastern face of the outer wall are a walled tank and a Simā, a necessary adjunct of a Sanghārāma, where Buddhist monks were ordained and made their confessions on Uposatha days.

on Uposatha days. The plan and design of this Saighārāma, which is situated a little to the South of the Myohaung Railway Station, and which is popularly known in the neighbour-hood as the "Sangyaung Daik," apparently approximate very closely to the conception conveyed by Hiuen Thsang's description of the Nālanda Vihāra. A photograph of a Burmese modern monastery built in the orthodox style, namely, King Thibaw's monastery, is given in Plate XX, page 100, of the Annual Archaeological Report, Part II, for 1902-03. On account of circumscribed space, it faces north. It consists of the following four divisions : (i) The Pyatthat Saung with the seven-roofed spire, or the chapel, where images of the Buddha are kept; (ii) The Saun Zauna, or the Master's quarters where the Sauadam or

- (ii) The Sanu Zaung, or the Master's quarters where the Sayadaw or presiding Abbot, lives;
- (iii) The Saungmagyi with triple roofs, or the Hall, where lectures are given, ceremonies are held, and junior monks are provided with apartments;

apartments; (iv) The Bawgazaung, or the dormitory of junior monks. The plan of the Mèdaw Kyaung (Plate XXXIX) is somewhat different from that of King Thibaw's monastery. It has five large staircases, which are one of the two pieces of brickwork in the whole structure (Plate XXXVIII c). The building faces east, and its distinguishing feature is the rectangular Chankram, or the Promenade Hall for the monks, measuring 99 feet 4 inches by 15 feet 6 inches, which takes the place of the Pyatthat Saung or Chapel of King Thibaw's monastery. Here the Sanu Zaung is a mere connecting passage between the Chankram and the Saungmagyi or Main Compartment, which measures 17 feet 9 inches by 4 feet 6 inches. An open verandah, measuring 7 feet 6 inches in breadth, runs around the Saungmagyi. To the west of this is the Bawgazaung or Compartment for junior monks, which measures 36 feet 6 inches by 24 feet 3 inches. The first thing that strikes a visitor to this rihāra is the exquisite workmanship devoted to the wooden pillars resting on lotus-shaped masonry pedestals. In the hanguage of Yule: "The brackets or corbels from the outer posts, which support the projecting eaves of the platform above, were griffins or dragons with the head downwards, the feet grasping the post, and the tail rising in alternate flexures, which seemed almost to writhe and undulate as we looked. No art could be better

of its kind. \* \* \* The tops of these posts were gorgeously carved and hollowed into the semblance of an imperial crown, with various figures under its arches." A different treatment is accorded to the inner pillars. They are gilt and decorated with bands of glass mosaic in scroll design, and to either side of them is attached a piece of carved wood-work supported by a dragon, with the head upwards.

Proceeding to the upper storey of the monastery, the encircling verandah is found to be provided with a railing, the predominant feature of whose carving appears to be the undulating folds of a writhing dragon on a ground of scroll design (Plate XL a). The outer side of the wall of the Saungmagyi or Main Compartment is decorated with glass panels and carved patera bearing figures of birds. In Plate XLI *b*, is depicted one of the windows of the Main Compartment. The dancing figures below the architrave are full of spirit and animation, for which Burmese art is particularly noted. Each of the two figures of a *deca* on the door stands on a lotus, which is supported by a seated flying figure holding two The general appearance of the carved jambs and architraves, with lotus buds. their flamboyant projections, may be compared with that of the Lion Throne of the Burmese King (Plate XIX p. 98, Archaelogical Report, Part II, for 1902-03). The Main Compartment is transversely divided into two sections, the eastern portion being used as a Chapel, and the western as the dormitory of the monks. A carved railing surrounds the dais of the Chapel. Plate XL b shows scenes from the Rāmāyana, which is very popular among the Burmese. It depicts Rāvana holding his Court, and the next figure, which is not reproduced here, depicts Rāma recovering his wife, Sītā, with the help of Lakshmaņa, and the horde of monkeys under Hanumān, who is to be identified with the figure dancing, out of sheer joy, with both hands up holding cymbals, and his tail down. It is to be noted that Rāma with both hands up holding cymbals, and his tail down. It is to be noted that Rāma sits on a chair called by the Burmese *Thinzāli*,<sup>2</sup> and that Sītā, in a dejected condi-tion, is seated immediately below it, holding her husband's right hand and seeking comfort and protection from it. In Plate XLV *b*, an image of the Buddha is placed on a throne, which, in its general features, is like the Lion Throne of the Burmese king referred to above. The Throne rests on two equilateral triangles placed apex to apex, which have a definite significance in Hindu symbolism. According to Havell, "The equilateral triangle standing on its apex is a geometric Vishņu symbol; the reverse is a Siva symbol." 3

Stepping across into the Northern Quadrangle, we proceed to the Thamidaw *Kyaung* (Plate XLII), whose plan is very similar to that of the Mèdaw *Kyaung* (Plate XXXIX). A sectional drawing of the building is shown in Plate XLII. Here, instead of five brick staircases, there are only four, one being absent at the northern end of the *Chankram* or Promenade Hall. Being constructed by the Princess Royal, the sumptuary laws of the country required that it should be less resplendent and less magnificent than her mother's *vihāra*. The outer pillars on

<sup>&#</sup>x27;Yule's Mission to the Court of Ara, p. 164.

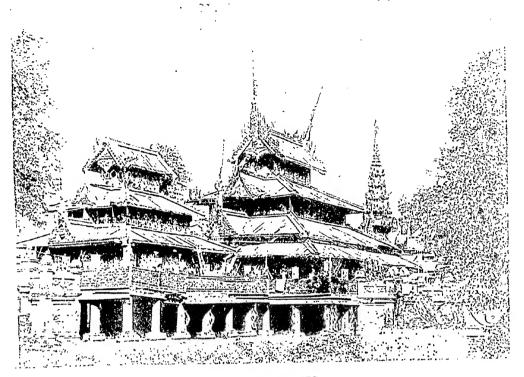
<sup>&</sup>lt;sup>2</sup> It is generally supposed that the chair, as an article of domestic furniture, was introduced into Burma after the Anglo-Burmese Wars. As evidenced by this carving, the supposition appears to be incorrect.

<sup>\*</sup> Footnote on page 122. Ancient and Medieval Architecture of India : A study of Indo-Aryan Civilization.

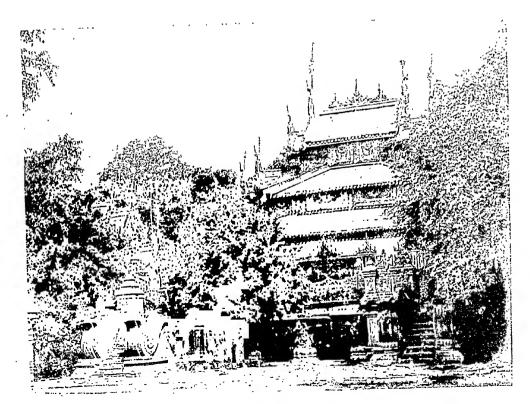
the ground floor are decorated with various kinds of figures (Plate XLIII). Figure a is an elephant-headed monster holding a dagger in its right hand and wearing Indian shoes, which recalls Ganeşa; figure b is a pleasant-featured warrior holding a dagger in its right hand; figure c is a Burmese prince, which has weathered much; and figure d is an ogre or  $r\bar{a}kshasa$  holding up both hands. Plate XLI a depicts an inner pillar encrusted with glass mosaic. The *Chankram* or Hall of Promenade, which takes the place of the *Pyatthat saung*, is surmounted by a five tiered turret. The carvings on the verandah are of a variegated type: those on its inner side around the *Chankram* are in bold floral design (Plate XL c), while those on its outer side around the *Chankram* are divided into three longitudinal panels, each containing a series of human figures in various attitudes (Plate

here a tarret. The carrings on the vertication deviat a foral designed to be a basis of the state of the classifier of the labor of th

## SANGYAUNG MONASTERIES, AMARAPURA.

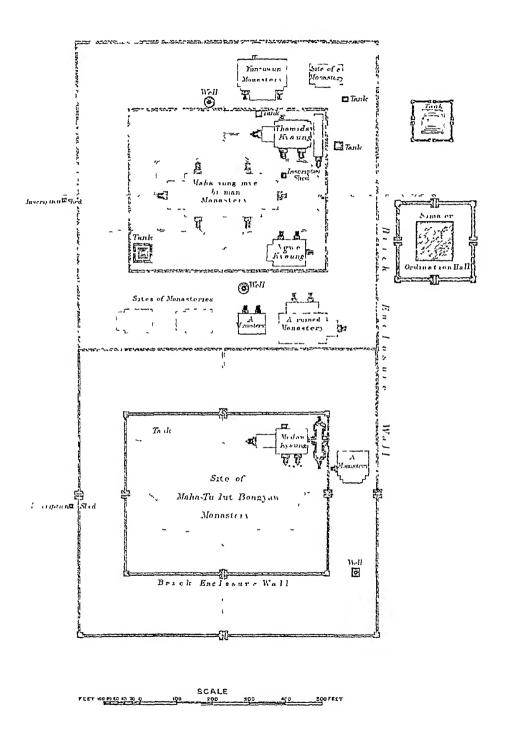


a. MEDAW KYAUNG.

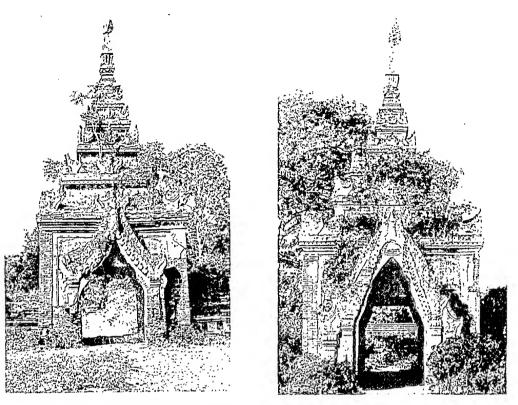


b. THAMIDAW KYAUNG.

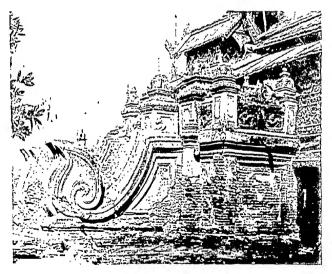
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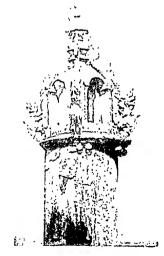
SANGYAUNG MONASTERIES, AMARAPURA: MÈDAW KYAUNG.



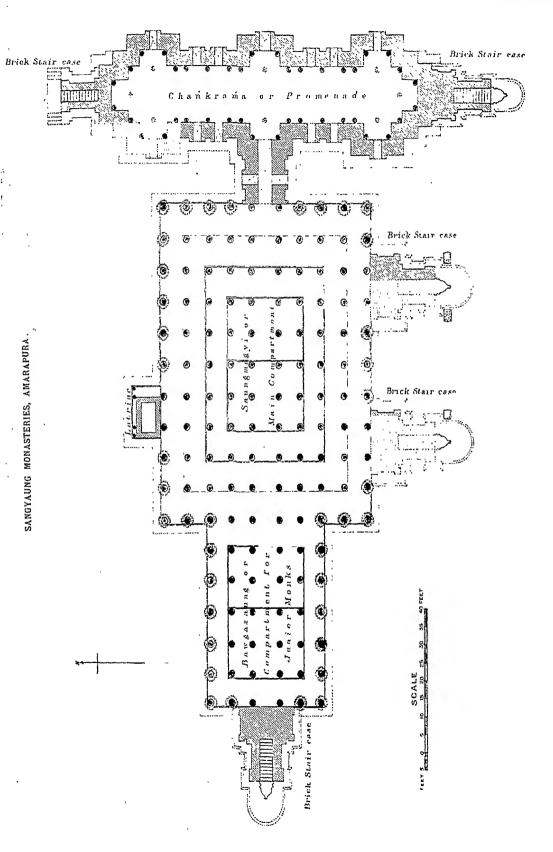
. PORCH OF THE OUTER ENCLOSURE WALL. & PORCE OF THE INNER ENCLOSURE WALL.



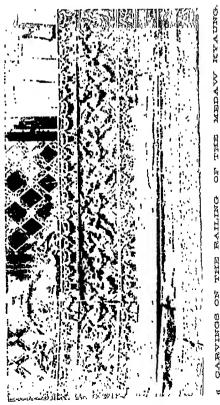
C. ONE OF THE BRICK STAIRCASES.



d. A WOODEN CAP OVER ONE OF THE OUTER PILLARS AROUND THE VERANDAH.



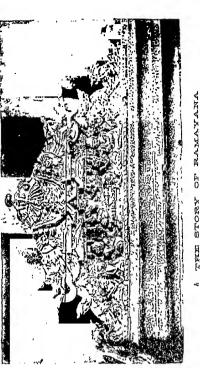
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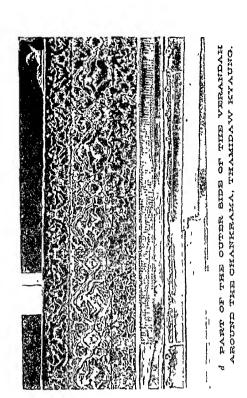
OF THE CARVINGS ON THE RAILING £



a part of the inver side of the verandan AROUND THE CHANKRAMA, THAMIDAW HYAUNO. 3



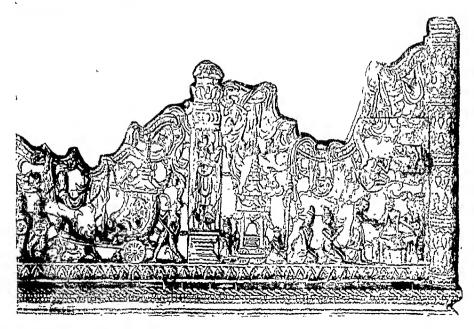
COMPARTMENT, MEDAW RYAUNG. WITHIN THE MAIN



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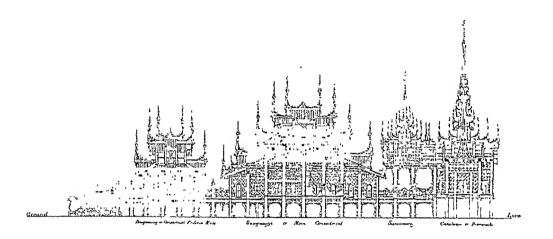


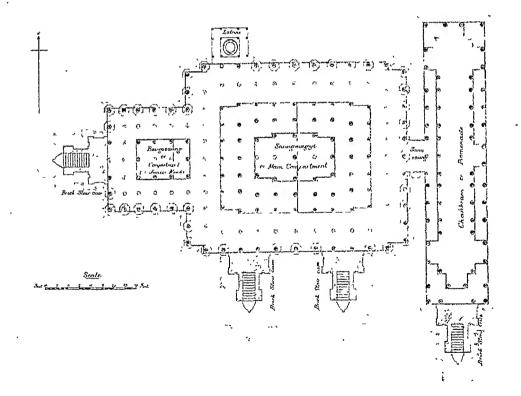
a. INNER PILLAR, THAMIDAW KYAUNG



( RAILING AROUND THE RAISED PLATFORM OF THE OHAPEL OF THE THAKIDAVY KYAUNG, REPRESENTING SOENES FROM THE MAHAJANAKA JATAKA.

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PLAN AND SECTION.

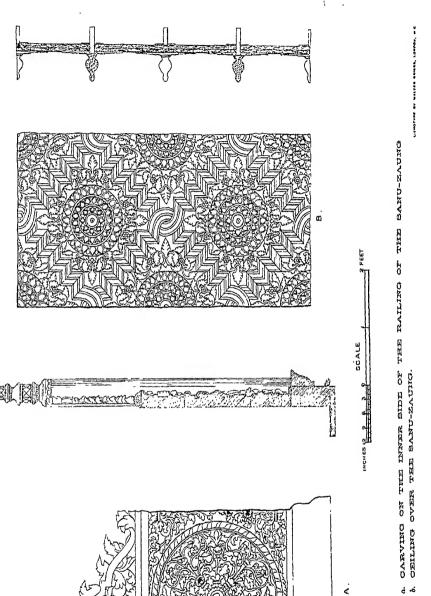
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4-4. HUMAN AND MYTHICAL FIGURES STANDING ON BRICK LOTUS-SHAPED PLINTES OF THE OUTER PILLARS.

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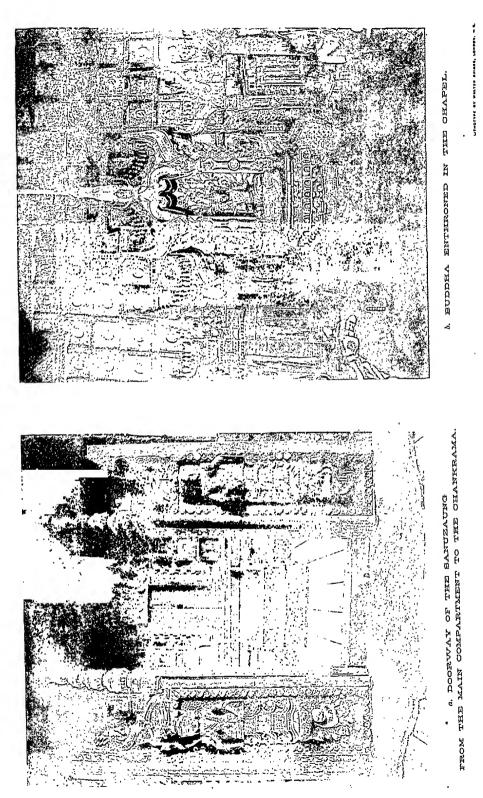


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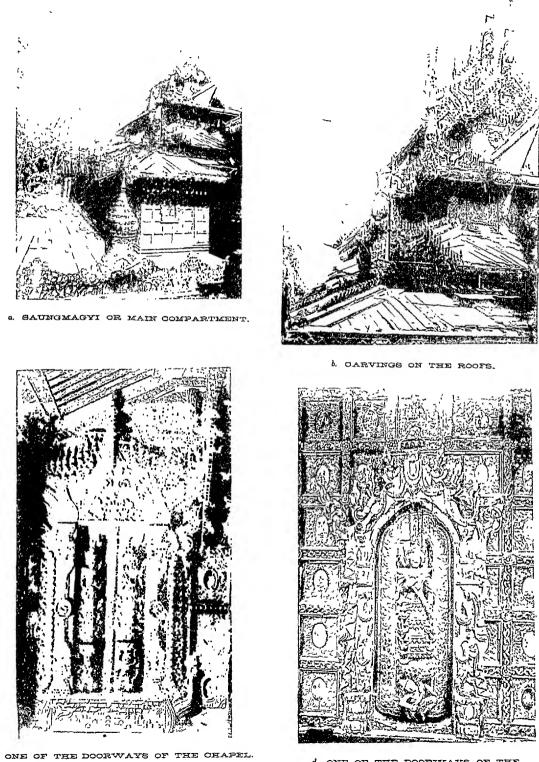
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SANGYAUNG MONASTERIES, AMARAPURA.

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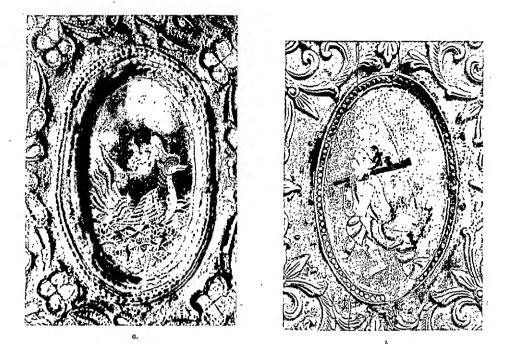


d. ONE OF THE DOORWAYS OF THE SAUNGMAGYI OF. MAIN COMPARTMENT.

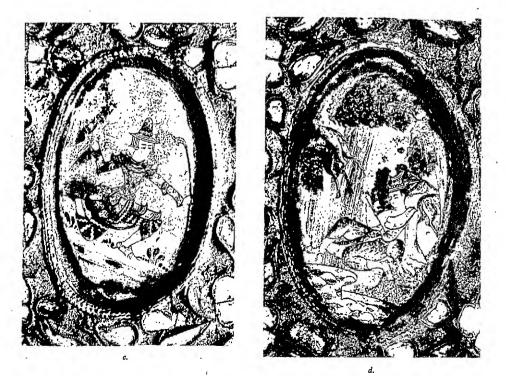
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a. and b. GLASS PANELS ILLUSTRATING THE HAMSA-JATAKA ON THE WALL OF THE MAIN COMPARTMENT.



c. and d. GLASS PANELS ILLUSTRATING THE SUVANNASAMA JATAKA ON THE WALL OF THE MAIN COMPARTMENT.

roofs, eaves-crests, ridge-crest, and gables of the buildings are shown in Plate XLVI b. The carved doorways are shown in Plate XLVI c-d.

The panelled walls of the Saungmagyi or Main Compartment are decorated with painted figures protected by panes of glass, and each window is ornamented with a pair of outstretched dragons, with the head downwards (Plate XLI b). The painted figures in the panels depict scenes from the Jātakas (Plate XLVIIa-d). Figure a shows the Hamsa bird, who is an embryo Buddha, caught in a snare; and b the huntsman, employed by Khemā, Qucen of Benares, hurrying at the top of his speed, and carrying a noose and stick on his shoulder, to seize the bird. Figure c depicts King Piliyakkha, having mistaken Suvaņņasāma for a deer, shooting at him with an arrow; and figure d Suvaņņasāma falling wounded and into a dying condition, as he is hit by the arrow on the stomach, and the deer, which he has employed to carry water for his aged parents, fleeing away in all directions, a water pitcher being upset near the dying man. The figures are quite spirited and easily recognisable.

TAW SEIN KO.

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## EXCAVATIONS AT BESNAGAR.

IN last year's Annual I gave a detailed account of the excavations conducted by me in 1913-14 at Besnagar near Bhilsā in the Gwālior State. As these excavations were incomplete, J had to resume them in the year following and I was again encamped at Besnagar for two months, from about the middle of December 1914 to about the middle of February 1915. The operations of this year also were liberally financed by His Highness the Mahārājā Scindia, and the work accomplished was as interesting and valuable as that of the previous year. The present article is devoted to a detailed account of these excavations, a summary of which has already been published in the *Progress Report of the Western Circle* for 1914-15. But, in order that it may be clearly and connectedly understood, it is necessary to recapitulate, though very briefly, the results achieved in the first season.

Nearly six years ago an inscription was discovered on a pillar locally called Khām Bābā near the village of Besnagar or Beś, ancient Vidišā. It recorded the erection of this pillar as a Garuda-dhvaja in honour of the god Vāsudeva by Heliodorus, son of Dion, a Greek ambassador from the Indo-Bactrian king Antialkidas of Taxila to the court of the local prince Bhāgabhadra. The epigraph thus pointed to the existence, in the immediate neighbourhood of the column, of a temple of Vasudeva, which was as old as at least the middle of the second century B. C., to which time Antialkidas has been assigned by numismatists. Several trenches were sunk on the site on which the pillar stood, and important structural remains were Close beside Khām Bābā were exposed three retaining walls of an old exhumed. platform on which no doubt the old shrine of Vāsudeva was erected, facing the east and also the column. It was not, however, possible to trace the remaining wall, as this would have involved the dismantling of the front portion of the dwelling of Bābājī, pujārī of Kbām Bābā. A trench was cut in the courtyard inside his house, but no traces of Vāsudeva's shrine were found. The complete demolition of the dwelling might perhaps bring some vestiges to light, but it is possible that the greater portion of its original structure was, as appears to be the case with many sites in old Bes, pilfered and removed to build the town of Bhilsa, which came into existence about the 8th century A. D. Not far from the shrine platform and towards its

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south were exhumed the foundations of an old dwelling as evidenced by the fragments of tiles, pottery, nails, tanks and a domestic mortar. This was, in all likelihood, the house occupied by the family of the worshippers who were in charge of Vasudeva's temple. Both this house and the shrine platform were found enclosed by what may be called the solid railing, which was a railing of a unique type, not previously found anywhere else in India. The north and south sides of it were each at its eastern end met by another railing, but this was of the ordinary type, such as that represented by the one round the Main Stupa at Sanchi, but of a much plainer kind. From these junctions branched off two subsidiary railings whose existence was attested only by their foundation stones. One of these ran southward and the other northward so as to meet an entrance in front of the shrine. All these structural remains no doubt pertained to the temple of Vasudeva referred to in Heliodorus's inscription, but remains of a still earlier period were also here unearthed. A trench was cut near the north-west corner of the solid railing, and, after digging down to about 3 feet below the foundations of this railing, I lighted upon a line of bricks, which, on further excavation, was found to be the top of a brick wall nearly 31 feet high. Only 66 feet of this wall I was able to trace during the season of 1913-14. The work of tracing it further had to be abandoned as the season was far advanced, and, owing to the advent of the Holi festival, most of our labourers descried us. This had, therefore, to be reserved for the next cold season, and the trench which exposed this wall was refilled with earth. The work of re-opening the trench, re-exposing the wall, and clearing it wholly was resumed this season about the middle of December 1914, when we started at the north-west corner of the solid railing as had been done previously. As we were working here at a depth of from 10 to 12 feet from the surface of the ground above, it was necessary to cut this trench wider than was done last season, to enable the work to progress easily and briskly. We had hardly broadened it to 10 feet when we lighted upon another brick wall exactly similar to this one and running parallel to it. We were thus now engaged upon extricating not one, but two, brick walls from the debris which concealed them. The first of these, i.e., the south wall, was re-traced as far as 66 feet as was done last season, and we had cleared it scarcely a couple of feet further when two courses of stones were laid bare, extending over a length of S' 9" and rising one above the other as in the case of a flight of steps (Plate XLVIII). Each one of the stones of the lower course was from 1' 8" to 1' 9" in width, of which 10" were exposed and formed the step, and the remainder covered by the stones of the upper course coming upon it. Each stair rested on rubble foundations. At each end of these courses were found traces of side retaining walls of brick gradually rising upwards to at least a height of six feet. It is not at all unreasonable to conclude that there was originally a flight of steps here. We dug the trench about 6 feet farther, and the south brick wall was found to cross the foundation line of the solid railing above at an angle of 3°.

In my account of last season's operations I had expressed myself confident of being able to trace the south wall up to 160 feet at least, because in the trench cut in front of the Khām Bābā column to examine its foundations were detected three courses of bricks precisely similar to those of this wall, and, so far as the eye could

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judge, lying in the same line with it. This confidence was fully justified, and the wall was easily cleared right up to the front of the pillar. The new or the north wall, which was discovered this season, was also similarly traced as far as the column, and was found running parallel to the south wall. Both the walls were thus laid bare without much difficulty up to a length of 181', but here the work was impeded by the tombs of Bābājee's forefathers, which came in the way of an extension of the trench. As these could not be destroyed, I decided upon continuing the trench to the other side of the tombs leaving them untouched in the middle. This was accordingly done, but without any success. Not a single vestige of these walls was detected, though the trench on the other side had been pushed to a sufficiently long distance. Naturally, therefore, I thought that somewhere at this point they turned either towards the north or the south. Two trenches were, therefore, cut obliquely on each side of the tombs, *i.e.*, on the north and south, but these also proved abortive. There was thus no recourse left but to push forward the original trench from below the tombs. My object was simply to follow the walls as far as they could be traced, and this object I now intended carrying out by cutting tunnels one in front of each. This work was painfully slow, because as the earth below the tombs was of a black and soft variety, it was essential for their safety that the tunnels be just sufficiently high and wide to enable only the alignment of the walls to be followed. The work of cutting out each tunnel had consequently to be assigned to a single workman. This method proved most satisfactory, and the two walls were found, not turning either towards the north or the south, but joined almost exactly below the tombs by a cross wall 10' 4" long (Plate XLVIII).

Both the walls were thus traced in the eastern direction, and their castern ends determined. The western end of the south wall had been discovered last year, and in my account of that year's excavations I have stated that at this end it was joined by another, *i.e.*, the east wall, running north to south. This wall, however, was traceable as far as 13 feet only, from where it was found broken off. I, therefore, conjectured that the north wall must also have been met by another. The trench which exposed the north and south walls was, therefore, pushed a little farther to the west. This not only laid bare the whole of the north wall, but showed that at its west extremity it was joined by another, *i.e.*, the west wall, running north to south, as had been surmised. Both the north and west walls have been broken off a little at the point of their junction (Plate XLVIII and Plate XLIX a). Only 19 feet of the west wall could be traced. This wall, like the east one, which runs parallel to it, thus seems to have broken off at very nearly the same distance from the junctions. There can, however, be little doubt that originally they continued as far at least as 92 feet, for which distance a trench had been dug on this side. Bricks of exactly the same colour and texture as those of which the walls are constructed were found in the trench at the same level, though perhaps not in such large quantities as I expected. There is also another and much stronger reason for supposing that the walls were originally running over at least the whole length of this trench. These, like the north and the south walls, stand on yellow soil, which rises in undulations behind them, but is of one level between, over the space of seven feet which separates thom. Even from where the walls have broken off, the yellow soil, in the trench, while it maintained a uniform level over an area approximately equal in width to the space between the walls, and in alignment with them, undulated immediately beyond at the sides, showing clearly that this level area was flanked by walls which have now been destroyed, but which originally were the same as the east and west walls continuing here.

The south wall is 182' 3" long. The least number of courses preserved is three, and the largest twenty, the uppermost two of which are very much damaged, their face being destroyed. The topmost course is only 9" below the foundation slabs of the solid railing, and gives 5' 6" as the maximum height of the wall, as it stands at present. The face of the wall batters towards the top, but the batter is not spread uniformly over the courses. The present topmost course inclines inwards at least 1' 2" from the bottom. The length of the north wall is 185' 4". The least height preserved of this wall is 1' 4", made of five courses. The greatest height is 2' 9<sup>1</sup>/<sub>2</sub>" formed by ten courses, and has 7" batter. The maximum height of the east wall is 2' 2", with eight courses and  $3^{1}_{4}$ " batter; and that of the west wall, 2' 111<sup>1</sup>/<sub>2</sub>" with ten courses and  $6^{3}_{4}$ " batter.

Last year when only the south wall and the east wall which met it were exhumed I surmised that both formed retaining walls of a long platform. But this surmise is now shown untenable by the discovery, this season, of the north and the west walls which run parallel to them, and are like them, joined to each other (Plate XLIX a). This fact coupled with the uncarthing of a cross wall connecting the north and south walls at their eastern ends points to the most plausible inference that we have here the remnants of a nahr or irrigation canal. It is worthy of note that I sunk several extensive trenches on all sides of these walls to ascertain whether there were any structural remains with which they could possibly he connected. Not only no such remains, but not even vestiges of human habitation such as pottery, tiles, ashes and the like, were exposed. Similarly, when these walls were cleared, nothing but alluvial earth was found between them, with no indications of human habitation whatever. This clearly shows in my opinion that the walls were connected with a structure which fulfilled its purpose on a soil not occupied by human dwellings. The only hypothesis that will explain this circumstance is that here we have the remains of an ancient irrigation canal. This hypothesis is strengthened, in the first place, by the traces of a flight of steps, which were found about the middle of the south wall and to which reference has already been made. Secondly, as mentioned above, a slight slope seems to have been deliberately given to all these walls, and this is perfectly intelligible in the case of canal, where a batter is needed to counteract the pressure of water. Thirdly, in my last year's account I have mentioned that it was from one of these walls that I scraped out a quantity of lime mortar, which on analysis was found to rival that of the Romans. The use of lime mortar of such superior quality is not only appropriate but highly essential in the case of canal walls where the percolation of water has to be prevented and the permanency of the structure secured. Fourthly, how else can we explain the infilling of these walls with pure alluvial earth? Evidently this earth was here brought in by the floods of the river Bes, with which it must have been connected.

For the reasons stated above I am strongly inclined to the view that the four walls exhumed indicate the existence of an irrigation canal here. What its age was, it is impossible to determine with any accuracy, but an approximate guess can be made. In my article on the first year's excavations, I have adduced grounds for assigning the temple of Vāsudeva alluded to in Heliodoros's inscription to *circa* 165 B. C. The canal walls, being unearthed at a lower level, must obviously be anterior to this date. Again, we must assume some time to have elapsed between the destruction of the canal and the erection of the temple. Secondly, we have also to assume that the canal of such solid construction was in use for a pretty long time before it fell into ruins. And we shall not be far from right, I think, if we ascribe it to the Maurya, or possibly pre-Maurya, period.

The discovery of an ancient canal at Besnagar need not at all surprise us. India has from very remote times been famous for irrigation works. The Amarakośa,<sup>1</sup> a work composed in the fourth century A. D., distinguishes between provinces watered by the rains (deva-mātrika) and those irrigated by rivers (nadi-matrika); and these expressions are frequently met with in Sanskrit literature. The inscription of the Mahākshatrapa Rudradāman (A. D. 150)<sup>2</sup>, engraved on the celebrated rock near Junagadh, speaks of a lake formed by raising a dam across a gorge in the old Girnar hills. Owing to a terrific downpour of rain the greater portion of the dam seems to have been washed away, but was soon rebuilt in accordance with the orders of the Mahakshatrapa. The lake seems to have been in existence till the reign of the Gupta sovereign Skandagupta, when its embankment had again burst in consequence of excessive rain, but was restored in A. D. 457. The lake itself, as Rudradāman's inscription informs us, was constructed in the reign of the Maurya ruler Chandragupta and was furnished with pranalis, i.e., sluices and canals. Such a spacious lake could scarcely have been built for the mere purpose of supplying drinking water to a provincial town, such as Girinagara or Girnar undoubtedly was. The sluices and canals, again, clearly show that the main object of this work was to irrigate the neighbouring regions. Again, in a Pali work called Dhammapada a stanza' speaks of nettikas forcing water to go where it would not go by itself; and the commentary explains the term by "builders of canals and aqueducts." It thus appears that irrigation canals and aqueducts were not unknown in India even in the pre-Maurya period when the Dhammapada must have been composed.

The masonry canal uncarthed at Besnagar is 7' broad, the distance which separates the north and south, and the east and west walls, from one another. The height of the canal could not have been less than 5' 6", which is the maximum present height of one of its walls. One limb of the canal, represented by the north and south walls, was 185' 4" long, but it is impossible to determine the original length of the other limb represented by the east and west walls, as both of these have broken off at very nearly the same point. Most probably it must have extended as

<sup>&</sup>lt;sup>1</sup> II. 1, 12.

<sup>&</sup>lt;sup>2</sup> Ep. Ind., Vol. VIII, pp. 45-9.

<sup>\*</sup> Stanzas 80 and 145, which are really one stanza occurring twice.

far as the Beś river, which is hardly two furlongs from the site and which alone could have supplied water to this canal. This river is, like the Betwa (the other river of Besnagar), noted for its deep pools of water, and not being of a very wide span, lends itself readily to the construction of a dam across it, especially at the ford where the passers-by at present cross it. This ford, again, is scarcely two furlongs from the Khām Bābā column. It seems, therefore, highly probable that the river Beś was originally dammed at this ford and its water carried on the west to irrigate fields, the east or right bank being occupied by the ancient town of Vidišā. Quite an intricate network of canals must have been here constructed, of which that found on the Khām Bābā site is but one. This last, as it stands at present, seems to have been a storage canal as indicated by the cross wall joining the north and south walls, and, by suitable lifting appliances its water must have been raised up to irrigate the surrounding area.

When the canal walls were being cleared, they were, as mentioned above, found filled with nothing but pure alluvial earth without any trace of pottery, tiles, and so forth, and this alluvial earth must doubtless have been brought in by floods from the river. Now, if anybody examines the map of Bhilsa, Besnagar and its environs, he will find that the river Bes has an exceedingly meandering course, and that one of its windings which is more sharply curved than any other is only five furlongs from Kham Baba. It is quite probable that at some time when torrential rains fell and a vast sheet of water accumulated, the masonry dam constructed near the ford being solid enough to prevent its exit, the water must have overflowed this curved hend and been carried onwards in an overwhelming flood. If this supposition is accepted (and it appears to me to be a most plausible one), it is intelligible why the west limb of the canal should have been an almost total wreck, whereas its east limb was much better preserved. The current of water that pushed forward from the river bend must have run in an easterly direction and dashed itself against the west limit of the canal, which ran north to south, and naturally played havoc with it. But the other limit which ran east to west was in the same line as this current, and it was quite natural that the greater portion of it should have been preserved.

The following is a list of the minor antiquities that were brought to light while the canal walls were being cleared. All except No. 3 were found either on or above the level of the foundations of the solid railing. No. 3, which appears to be a copper amulet, was found at the bottom level of the north and south walls. Doubtless it must have been dropped there when the canal was in working order, and it must, therefore, be of a much carlier period than any one of the other antiquities. No. 4, which represents a couchant lion in profile, is the most artistic piece of the whole lot. The most interesting specimen, however, is No. 6, which is a brass signet-ring with the name *Golakasa* engraved in reverse form in characters of the first century B. C.

## Minor Antiquities.

1. Torso of terracotta figure,  $3\frac{1}{2}^{n'} \times 2\frac{1}{2}^{n'}$ , standing, with left hand on waist. Portion below the knee lost. Buff red clay.

2. Torso of female terracotta figure,  $2\frac{7}{8}'' \times 1\frac{5}{8}''$ , without legs. Buff red clay.

3. Cylindrical copper tube, length  $1_{16}^{3}$ ; diam.  $\frac{7}{16}$ ; perhaps used as an amulet. Broken at both ends.

4. Flat-bottomed solid copper figurine, length  $\frac{2}{6}$ ; representing lion couchant, in profile, with open jaws. Mane represented by three rows round neck.

5. Miniature copper bell, ht.  $\frac{1}{5}$ , diam.  $\frac{3}{5}$ . The surface is decorated with a *Svastika* and two other symbols. The bell is beaten and not cast.

6. Circular brass signet-ring, diam.  $\frac{15''}{6}$ ; average breadth  $\frac{1}{2}''$ . The area containing the device in reverse, diam.  $\frac{5''}{8}$ , consists of a Nandipada above, and a Svastika below, and the letters Golakasa in the first century B. C. characters in the centre.

7. Stone bead, length  $_{16}^{9}$  "; cut irregularly into facets. Carnelian.

S. Circular bead, flattened at sides; diam.  $15^{5}$ ". Light red carnelian with different shades.

Simultaneously with the digging round about the Khām Bābā column, excavations had been started at another place, in the heart of the ruins of old Vidišā. Last year also along with the Khām Bābā site I was excavating at another place which was also in the heart of these ruins. This last was behind the temple of Ganeša, and, unfortunately, the operations were not here successful and had to be stopped soon after they were commenced. This year, however, the site selected left little to be desired. It was a small mound lying in the close vicinity of the pathway leading from Udayagiri to Khām Bābā. At the foot of this mound I found a rail bar of an old stāpa imbedded in the ground surface, and I thought that the mound probably contained the remains of this stāpa. Though these expectations were not realised the diggings carried out nevertheless proved exceedingly interesting.

The first thing to be exhumed almost at the top of the mound was a brick platform. None of its sides is wholly preserved, but the platform appears to have been 20' 10" long and 16'  $2\frac{1}{2}$ " broad. The bricks measured  $1'\frac{3}{4}"\times 7\frac{1}{2}"\times 2\frac{1}{2}"$ , and the largest number of courses preserved was three. The cementing material here used seems to have been pure mud, which was found in between the courses wherever they were detached. As the platform was of no particular importance and as it was very necessary to dig deeper here, it was dismantled; and this led to the discovery of a half *āmalaka* piece, such as is found at the top of a niche in the outside wall of a temple of the mediæval period. The platform evidently is not of an earlier period.

Trenches were cut on this mound both at the top and on the sides. We had gone hardly  $3\frac{1}{2}$  feet below after demolishing the north side of the platform when a brick structure with four sides, emerged from the débris. The space enclosed by the structure was cleared, and its sides, we found, sloped upwards and were formed by offsets. We had scarcely exhumed it, when another brick structure of the same type was brought to light in another trench in the north side of the mound about 20 feet from it. This structure also had sloping sides constructed of offsets, but whereas this was a square, the first was an oblong (Plate XLIX *b* and Plate L *a* and *b*). The top brick layers of the north structure were surrounded with rubble stones up to a width of 1' 5", intended no doubt to ensure its stability. Similar rubble stones were found running round the top of the south structure, but were not here so well preserved.

The following table gives the measurements of the two structures as they stand at present :---

		Batter.	Height (inclined) of sloping sides.	- Height (vertical).	Length,	
	Courses.				Тор.	Bottom.
E	17	1' 9"	4' 111"	4' 4"	6' 1 <i>†</i> "	2'
			¥ 11g			
N	15	2' 2"	4' 11"	4' 1 5"	6' ‡"	2' 1"

## North Structure.

South Structure. .

	Courses,	Batter.	Height (inclined) of sloping sides.	Height (vertical).	LENGTH.	
					Тор.	Length.
E	28	2'	7' 5}"	6' 114″	0, 0}.	4' 6"
N	26 .	2' 3"	7'14"	6' 11"	6' 11"	1' 11″

Now, what is the meaning and purpose of these structures? At first sight, they appear to have been used as cisterns. But it is exceedingly doubtful whether a cistern could be effective for its purpose, if built, as these are, of brick in mud. On the other hand, if we consider the form of these structures, it will be seen that they bear an exact resemblance to modern kundas in which the Brahmans have to offer a daily sacrifice to Viśvedcvas. The resemblance is observable not only in respect of the sloping sides but also in respect of the offsets which distinguish them. These offsets are a peculiar feature of kundas, and are technically called mekhalā. So the presumption that naturally arises is that the structures in question are the remains of some old yajñakundas or sacrificial pits. The literature on this subject recognises various forms of kundas, but the most important of them are sama-chaturasra or square and *āyata-chaturasra* or oblong. This suits here excellently, because one of the structures unearthed is a square and the other an oblong. Further, in regard to a square kunda, it is laid down that the top sides should be four times as long as the bottom sides. Now, the table of measurements given above indicates that in the case of the square structure the length of its side at the bottom is approximately 2 whereas that at the top is 6'  $1\frac{1}{2}''$ . It has, however, to be noted that the present top length by no means correctly represents what it was originally, and that there are cogent reasons to suppose, as will be shown further on, that its original length was somewhere between 8' and 8'  $2\frac{1}{2}''$ . This shows that originally the top side of this *kunda* was four times as long as the bottom side—a fact, which is in close agreement with the specification laid down. No reasonable doubt need, therefore, be entertained as to these structures representing *kundas* of some ancient period. If any doubt does remain, it will, I am sure, be completely expelled by the following consideration. When I first arrived at this conclusion, I thought that the best and most scientific way to its confirmation would be to get hold of one or two bricks from these *kundas* and send them for analysis with a view to determine whether they consisted of fire-clay. Accordingly I sent one of these to Dr. H. H. Mann, Principal of the Agricultural College, Poona, who was kind enough to favour me with the following results of his analysis:

"The point here was to determine whether fire-clay had been used for lining the pit. The following figures, placed parallel with typical analyses of true fire clay, show that the brick nearly approaches fire clay in composition.

	Brick.	Typical fire clay.	Stourbridge.
Siliceous matter .	. 69·1	65 to 68	65.1
Oxide of Iron Fe <sub>2</sub> O <sub>3</sub> ,	. 14.1		, ( 1.9
Alumina	. 7.5	- 28 to 29	{ 22·2
Lime (CaO)	. 4.8	up to 2	•14
Magnesia	. 2.4	up to 1	·18
Alkalis (K <sub>2</sub> O and Na <sub>2</sub> O)	. 0.5	up to 2	·18

The brick does not fuse at all easily on heating strongly in a gas blowpipe."

It is not for a moment to be supposed that the fire-clay used for bricks in these old structures can be as perfect and effective for its purpose as that known to the science of the present day. Nevertheless, as will be perceived from a comparison of the figures quoted in the different columns and also from the remarks made by Dr. Mann, the brick in question was doubtless intended to be a fire brick and made purposely of such clay as would enable it to sustain intense heat without fusion. This is a most convincing piece of evidence, I think, in favour of the conclusion that the brick structures were some ancient sacrificial pits, where fire-bricks were not only desirable but necessary.

Besides these two pits a third was exposed after dismantling the south side of the platform alluded to above, and found to be on almost the same level but not in the same plane as the other two. Its form bears such a close resemblance to the *pindi* or *yoni* into which Siva's *linga* is invariably fixed, that I have no doubt that it represents a *yoni-kunda*, which, again, is one of the well-recognised types of kundas. It is formed by brick bats with top courses of rubble stone. Its greatest length and breadth are 3' 1" and 1' 11" respectively, and it is 2' 10" deep.

The age of these kundas is practically fixed by the find, on a slightly lower level, of a silver coin of the Mahākshatrapa Iśvaradatta, who has been assigned by Professor Rapson to A.D. 236-9, but whom I would place half a century earlier. Again, in the level on which the kundas were exhumed were discovered six Nāga coins, one of which belongs to Bhīma Nāga and three to Ganendra or Ganapati Nāga (vide p. SS infra). The Nāga dynasty is supposed by epigraphists and numismatists to have immediately preceded the Guptas in Mālwā. And we shall not be wide of the mark, if we assign these structures to the beginning of the 4th century A.D. or possibly to the middle of the third century. No sacrificial pits, so far as my knowledge goes, havo so far been excavated anywhere in India; this and the fact that these kundas are of such an early period as the beginning of the 4th century A.D. invests this discovery with exceptional interest.

The ground surrounding the kundas was no doubt originally covered with a brick pavement, many traces of which were here brought to light. The top of this pavement is nearly two feet higher than that at present preserved on the north kunda. If we refer to the table of measurements, we find that 26:25 represents the proportion which the altitude of this structure bears to the increase in its length. As the top of this kunda must, when constructed, have coincided with that of the brick pavement, its original top length thus very slightly exceeds 8 feet. Not far from the north and south kundas were found two nalis or drains, on a somewhat lower level, as might be expected, than that of the brick pavement. About 15' 6" to the south of the square kunda were discovered the remnants of one drain running north to south over a distance of 13' 5". The drain consists of a stone bottom with brick sides, and it is 5" in width. Its northern end could not be determined, but at its southern end it joined another which ran from west to east and over a distance of nearly S' 2". This drain also had a stone bottom, but its sides are, in some places, of stone and in some, of bricks, its width varying from 41" to 51" in the former, and 6" to 7" in the latter, case. The water of both the drains seems to have been carried eastwards, and from their junction the joint drain could be traced only up to 10' 3" in an easterly direction. As these drains were unearthed on very nearly the same level as the brick pavement or the original tops of the kundas, no reasonable doubt can be entertained as to their being connected with the sacrificial pits. The important part water plays in a sacrifice in ceremonial and other washings it is unnecessary to dwell upon here.

The fact that three kundas were exhumed at first tempts one to surmise that they held the three sacrificial fires of some Agnihotrin of the early Gupta period. But a little reflection makes this surmise untenable. Because, first, these fires are placed close beside one another, whereas the kundas uncarthed are very wide apart. Thus the Yoni is 8 feet, and the square 20 feet 4 inches, distant from the oblong kunda, which is in the middle. Secondly, of the three fires Dakshināgni is invariably situated on the south, and Ahavanīya on the east, of Gārhapatya. If the Yonikunda being the southernmost sacrificial pit, is presumed to have held Dakshināgni, we have to suppose that the oblong kunda, being in the middle, contained Gārhapatya.

ь2

But the remaining, viz. the square, kunda, which has thus to be assigned to  $\overline{A}havaniya$ , is, as a matter of fact, on the north, and not on the east, as it ought to be, of the oblong. For these reasons the kundas do not seem to have pertained to any Agnihotrin, but to have been constructed for some special sacrifice.

On the level of the kundas and the brick pavement were discovered walls of two structures, which also seem to be connected with them. Of these one is on the south, and the other, on the east, of the pits. The walls of the former are indicated by the letters  $b \cdot b_5$  and  $c \cdot c_1$  in the map (Plate LI). That represented by  $b \cdot b_5$  is a composite wall, the lower portion consisting of stone, and the upper of brick, courses. The greatest number of stone courses is nine, *viz.*, at the east end, covering the maximum greatest number of stone courses is nine, viz., at the east end, covering the maximum height of 3' 8". Of the superstructure the greatest number of brick layers preserved is five occupying the height of  $1' 4\frac{1}{2}"$ . The whole of this wall is preserved except for the gaps between  $b_1$  and  $b_2$ , and  $b_3$  and  $b_4$ , and originally was 117 feet long. The gap between b and  $b_1$  is 6' 9" long, and (represents the width of a door that was originally put up here. The wall indicated by  $c \cdot c_1$  is separated from the first wall only by 2' 6" and was traced over a length of 28' only. How far it originally extended it is impossible to say, but it appears in all likelihood to have formed a verandah wall to this building whatever it was. With this structure is also connected a brick  $n\bar{a}l\bar{i}$  or drain indicated in the plan by the letters  $a - a_1$ . It runs west to east over a length of at least 100' 6", its western end being indicated by  $a_1$ . It has a brick bottom, and its sides also are formed of bricks laid lengthwise west to east. Its width is  $1' 4\frac{1}{2}$ " at the west and 1' 1" at the east end, and its depth 2" and east. Its which is 1  $4\frac{1}{2}$  at the west and 1 1 at the east end, and its depth 2 and 4' at these ends respectively. To make room for this [drain, the cross walls  $d \cdot d_3$  and  $e \cdot e_2$ , which are of an earlier period, seem to have been dismantled. The breadth of this structure I was able to trace only up to 27' 6", and it could not be fully traced as the season had far advanced. With regard to the other structure, *viz.*, that on the east of the *kundas*, its length shown  $l \cdot l_2$  was found to be 61' 3". Its breadth  $(l_2 \cdot l_3)$ was traced only up to 30' 6", and, like that of the first structure and for the same reason, it could not be completely exposed.

reason, it could not be completely exposed. What was the original purpose of these two structures ? It is worthy of note that one of them is 117' and the other 61' 3" long, while their breadths, as exposed, were 27' 6" and 30' 6" respectively. These last most probably are much less than what they were originally. It is also worthy of note that the walls shown in the map as crossing them were found either on a higher or lower level, and cannot thus be of the same period as these. Evidently, therefore, the structure in question contained no rooms so far as the portions laid bare go, and does not seem to be built for dwelling purposes. The only inference permissible is that they were intended to be spacious halls constructed for accommodating a large number of people who must have gathered for the sacrifice for which the *kundas* were laid in the ground. It is a well-known fact that the sacrifices instituted by Hindu kings or wealthy *yajamānas* of the ancient times lasted for months, and some for years, and that for its adequate performance halls of a permanent structure were as much a necessity as the *kundas* themselves. A sacrificial site was always a meeting place of Rishis, Yājñikas and distinguished guests of the sacrificer. These required to be feasted, and a dining hall spacious enough to accommodate them was one of the indispensable adjuncts of sacrifice. The hall excavated on the south of the kundas probably served this purpose, first because it is provided with a drain, which is a necessity in a dining but not in an assembly hall, and secondly because at its north-west corner fragments of pottery were found of such diversity and in such masses that at first I could not comprehend why such a vast quantity was concentrated at that particular spot. Then, again, when there was a temporary hull in the sacrificial activity, the crudite and mentally restless Brahmans and Kshatriyas were fond of holding discussions and hearing recitations. The Brahmanas, Upanishadas, and Puranas bristle with references to them. The philosophical discussions upon Brahma, which constitute the most interesting and valuable feature of the Brihadāranyakopanishad, all took place during the sacrifice instituted by king Janaka. The Vâyu, which is the earliest Purana now extant, was recited by a suita called Lomaharshana to the Rishis who were celebrating a sacrifice of long duration in Kurukshetra on the river Drishadvati. Again, from Canto IV of the Raghuvamsa we learn that when Raghu performed the Visvajit sacrifice, all his tributaries attended and joined. When the sacrificer is not a ruler, he must be at least a moneyed and influential personage, for no sacrifice requiring the erection of kundas and halls of a more or less permanent character is possible to a man of ordinary circumstances. A sacrificer, wealthy as he must always be, must be expected to invite numerous guests. There is thus a necessity for another huge and extensive hall where the sages and officiating priests can carry on philosophical debates and hear recitations, and where the innumerable and illustrious guests of the sacrificer can be received according to their dignity and rank. The other hall, viz., that on the cast of the kundas, probably fulfilled this object.

Another interesting find made during the excavations on this site consisted of twenty-six pieces of clay, bearing impressions of seals. They were all found in or near these halls. All of them except one have marks of strings or of wooden tablets, or both, on their backs, showing that they were affixed to documents which came from outside to the yajñaśālā or sacrificial halls. The exception is a sealing <sup>1</sup> which bears no such mark at all on the reverse and is rounded at the bottom, and which must consequently be looked upon as a token or passport admitting persons to the sacrificial ground. It appears that one of these persons who was furnished with a passport dropped it unawares and that it has remained there through all ages to this day. The contents of the legend, though they are not of a perfectly lucid import, are, however, sufficiently clear to confirm the inference that the sealing in question was connected with the sacrificial site. The legend runs as follows :—

> L. 1 Timitra-dātrisya[sa]-ho[tā]-L. 2 p[o]tā-mamtra-sajana [? i].

The meaning of this legend, as just remarked, is not quite clear, but the words hota, pota and maintra, which are technical to sacrificial literature, indicate that the scaling is really connected with the  $yaj\tilde{n}as\bar{a}l\bar{a}$ . And the import of the legend appears to be: "Of the donor Timitra, accompanied by the Hota, Pota, hymn-

<sup>&</sup>lt;sup>1</sup> Vide No. 18, p. 88 infra.

kinsmen' and ....". Timitra doubtless is the name of an individual, and seems to. be the Sanskritised form of the Greek Demetrius. And it appears that this Greek personage called Demetrius was the dātā or yajamāna who instituted the sacrifice. The performance of a Brahmanic sacrifice by a Greek is not a thing that need surprise us, because we know that many Greeks like other foreign people, such as Śakas and Palhavas, became Buddhists and Hindus. Nay, at Vidiśā itself, as is evident from an inscription incised on the Khām Bābā pillar, we have an instance of a Greek ambassador named Heliodora (Heliodoros) calling himself a Bhāgavata or devotee of Vāsudeva. Other indications of Greek influence on this site are not wanting. Here was found during excavations a mould of steatite stone for casting a medal (Plate LV, Nos. 34 and 34a). One side of this mould bears the reverse of a face such as we find on the obverse of Indo-Bactrian coins only, and the other side contains the engraving of a caduceus, the serpent-entwined wand of Hermes. Another piece of steatite stone, also, was found. This on one side has the effigy of a dragon reversed and on the other the name Huvilasya engraved (Plate LV, Nos. 35 and 35a). The representation of the dragon appears to my mind to be entirely un-Indian, and the name Huvila too has not yet been traced in Sanskrit literature.

The walls indicated d- $d_3$ , e- $e_3$ , f, g and  $h_1$ - $h_2$  are on a lower level than the walls  $b-b_5$  and  $c-c_1$  of the sacrificial dining hall, and consequently are of an earlier period (Plate LI). Of the same period are the walls  $i - i_1$  and  $j - j_1$ , which belong to tworooms. They are all of the Kshatrapa period. Below  $d_3$  is a stone wall which is of a still earlier period. This was traceable north to south over a distance of 9'6", but nothing of it was found on the other, *i.e.*, south, side of  $c \cdot c_1$  wall. The foundations of this wall consisted of two layers, the upper of old débris and the lower of black earth and stone concrete. They were 2'  $9\frac{1}{2}$ " high and extended west to east over a length of 12 feet, on one extremity of which stands the wall K. These two belong to the Andhra period, and are the earliest stone walls discovered on this site. Of a slightly earlier, probably of the Sunga, period is a portion of a brick wall found below  $b_4$ - $b_5$  and running east to west. On removing some of its bricks I found to my surprise the traces of a lime mortar, which no doubt was used to cement them. To convince myself on this point, I sent a quantity of it to Dr. Mann for examination. And the following is a statement of its ingredients : "The analysis of this came as follows :---0/

Organic matter and c	ombin	ed wa	ater	•	•			•	≫ 5•55
Oxide of Iron (Fe <sub>2</sub> O <sub>3</sub>	).	•			•		•		11.20
Alumina $(A1_2O_3)$		•		•		•			4.80
Total Siliceous matte	er.	•	•	•	•				39.80
	•	•	•	•	•		•		22.00
Total Magnesia .	•	•	•		•				2.16
Combined Carbon O	xide		•					•	12.99
(equal to Calcium Ca	arbona	te)	•		•	•		•	29.5
Soluble salts .	•	•	•	•	•	•			0.20

<sup>1</sup> The word which I have translated by "hymn-kinsmen" is mamtra-sajana. But sajana of this phrase may possibly be a survival of some such word as sajaniya, a technical name for the Rigveda hymn II. 12 owing to the refrain sajanāsa Indrah occurring at the end of every one of its verses. This gives the idea of a fairly well-made mortar, but one containing more lime than is necessary. In this it agrees with many of the ancient mortars, previous to the Roman mortars".

This mortar no doubt does not come to the standard reached by the mortar which I discovered last year in the brick walls of the irrigation canal on the Khām Bābā site, but the point to be noted about it is that it is a *lime* mortar. Lime mortar had so long been supposed by archæologists to be unknown in India in pre-Muhammadan times, and this is the second instance of such a mortar being used by the ancient Indians. I have no doubt that more instances will come to light as we excavate at more sites.

Now, in regard to the walls of different periods laid bare along with those (*viz.*,  $l \cdot l_3$ ) of the sacrificial assembly hall, the walls  $m \cdot m_1$ ,  $n \cdot n_1$ ,  $o \cdot o_1$ ,  $p \cdot p_1$ ,  $q \cdot q_1$  and  $r \cdot r_1$ , are on a lower level than  $l \cdot l_3$ , and, therefore, of an carlier period than the sacrificial hall. They are all, most probably, of the Kshatrapa period like the walls  $d \cdot d_3$ ,  $c \cdot c_3$  and so forth.

- On the west side of the yoni and oblong kundas we dug very deep and did not stop till yellow earth was reached. Human habitation seems to have begun on this site about 4' 4" from above the yellow earth. This is indicated by a stratum consisting of charcoal at the bottom, ashes in the middle, and tile pieces at the top. This stratum was noticeable over the whole length of the trench here sunk, viz., over 27' 8", and is conspicuous by the entire absence of any bricks. There can be no doubt that the ashes and charcoal have been caused by the burning of wooden dwellings that originally stood here, and, as this stratum is below the levels of the stone and brick walls just described, the houses in question must be assigned to the Maurya period. No remnants of walls of any period were discovered in the trench, and the only structures here exposed were four or five wells constructed of burnt earthenware rings such as were found by Sir John Marshall at Sarnath and by Mr. Cousens at Brahmanabad. Two or three wells were found at other places also on this site, but they were not well preserved, as they had to be destroyed for making room for some of the wallings referred to above. These were in much better condition and their tops came very nearly to that of the north kunda. It is not unlikely that the wells exhumed in this trench were connected with the sacrificial place. I have no doubt, however, that they were intended as drinking wells. To this day we find wells of this type, e.g., in the Belgaum district of the Bombay Presidency. A narrow deep pit is bored till subsoil water is reached and then the whole shaft so bored is lined with earthenware rings fitted into one another. What is more, kitchen rooms are sometimes found furnished with such wells.

I have stated at the outset of this description that it was a rail bar belonging to an old  $st\bar{u}pa$  that led me to the selection and excavation of this site. Curiously enough, at the place marked 1 in the map (Plate LI) I lighted upon a piece of flat stone with *bhikhuniyā* (=" by the nun") incised on it in characters of the Maurya or Śunga age. At places marked 2 and 3 I found two antiquities of the same period. One of these is almost exactly like the relic casket exhumed by Sir Alexander Cunningham from Tope No. 1 at Sonārī near Sāňchī. The other was a vase with a very narrow mouth and rounded bottom precisely similar in shape to those found by Mr. Cousens beside the relic casket in two corners of the relic chamber of the Mirpur Khās  $st \bar{u}pa$  opened by him. It looks as if a  $st \bar{u}pa$  of the Maurya or Śunga period was originally standing here before the site was occupied for dwelling purposes. This is, however, merely a possible inference.

# Sealings.

These were found in or near the sacrificial halls referred to above. They number 31 in all, of which 5 are too obliterated to be distinguishable. The remain-ing ones present 17 varieties and 8 duplicate copies. One is a token or passport (No. 18). This is clear from the fact that its back is rounded and bears no string or other marks which the reverse of the other seals show.

(No. 18). This is clear from the fact that its back is rounded and bears no string or other marks which the reverse of the other seals show. Quite a number of interesting conclusions can be deduced from a study of the backs of these sealings in regard to their use and mode of attachment and also the nature of the material employed for writing the documents to which they were affixed. In the first place, they are all of unbaked clay of either red or black colour. Secondly, in the case of all the specimens except two, the seal seems to have been applied to the edges of two tablets placed flat one upon the other and forming a pair. This is evident from their meeting joint, which is well-defined and can be seen running longitudinally in about the centre.<sup>1</sup> In one or two cases one of the tablets can be clearly observed even to have slipped slightly out of the alignment. Again, the longitudinal grain of their edges, which is distinct and characteristic, leaves no doubt as to the tablets being cut of wood. It thus appears that, as in Khotan in Central Asia, wooden boards were employed in Central India also for writing messages upon and that their inner sides must have consequently been used for writing purposes as was actually the case with the wooden tablets of Khotan. The reverse of seal No. 4, however, shows that the tablets to which it was attached were not in immediate contact but separated by a space of at least  $\frac{1}{2}^{\prime}$ (Plate LII, 21). The most likely supposition is that another wooden board of this thickness was inserted in between to contain the long message that was to be conveyed, the insides of the two tablets being insufficient for that purpose. Each pair of tablets, it seems, was bound together with a kind of untwisted string of fibre corresponding to the modern *san*, the ends of which, after it was once passed round them, were, as a rule, drawn out from between the string and the tablets, and the seal was afterwards placed so as to cover these ends (*e.g.*, P. LII, 24). In one or two instances,

because, as the seal was invariably stuck on their edges, there was no fear of the tablets being opened even though the string was loosened as this attempt would cause the destruction, or at any rate the falling off, of the seal which was affixed for authentication.

As the scals were applied to the tablet edges, the horizontal bands, which are seen in the plasticine moulds in Plate LII, represent the full thicknesses, though not the full lengths, of the tablets. It will be further perceived that tablets of many pairs are not of uniform thickness. The maximum thickness that has been found is  $\frac{5}{4}$ , and the minimum  $\frac{1}{16}$ .

Two of the seals call for a few remarks. One of these is No. 3. The longitudinal sides of the tablets were, it must be assumed, straight and not curved. The present curved effect to be seen in the mould (Pl. LII, 20) is simply due to the shape of the seal on the reverse, which results from the method of impressing the seal, the die being first depressed upon the one side of the clay and then brought gradually across to the other edge in a lateral direction, so that the die may "bite" the better and thus ensure a clearor impression of the seal.<sup>4</sup> The second seal which needs individual mention is No. 6. It seems to have been attached not to the edges of the tablets as in the case of all other seals but to the top of the single tablet seen in the mould, the slight recessed fillet being assumedly the edge of a thinner upper tablet which has slightly slipped forward and the top surface of which is seemingly curved in a convex shape (Plate LII, 24). The grain of the wood and the fibres of the string are strangely lacking here, and it is not unlikely that the document had somehow come in contact with either cowdung or wet clay before the seal was attached.

In the list appended hereto the sealings have been classified under four heads, viz., (1) rulers, (2) officials, (3) private individuals and (4) passport. Only two seals of the first class were found. One of these supplies Viśvāmitra as the name of a ruler not so far known from any epigraphic or literary source. Of the three sealings of the second class, two belong to two different dandanayakas or police officers and one to an officer in charge of elephants and horses. The sealing of this last officer bears his badge the elephant, of which the engraving in the original die seems to have been of high artistic merit. The sealings of private individuals call for no remarks. The importance of the last sealing which is a passport has already been shown on p. 77 above.

#### List of Sealings.

#### a. Sealings of rulers.

x

<sup>&</sup>lt;sup>1</sup> For a diagram see Pl. LII, 23.

2. Slightly oval,  $l_4^{1''} \times l_8^{1''}$ . Above, traces of humped bull recumbent to l. Below, legend in two lines, almost illegible.

L. 1 ....ra[jño]......pasa L. 2 [Yajñaśr](i) [hotri].[tri]..[ni]-

b. Sealings of Officials.

3. Nearly oval,  $1\frac{5}{5}^{"} \times 1\frac{1}{4}^{"}$ . Above, elephant standing 1. and holding in its trunk a twig with a flower and leaves. Below, separated by a double line, legend : Hay-hasty-adhikār (i) "(Of the officer) in charge of horses and elephants". 4. Circular, 1" diam. Legend in two lines :

L. 1 . . pa-ranugu-

L. 2 . .dandanāyaka-Vila...

"(Of) the police officer, Vila .....".

5. Circular,  $\frac{1}{8}$  dia. Black clay. Legend in two lines :

L. 1 Chetagirikaputra

L. 2 (da) y(d) anāyaka-śrī-Sena

"The police officer, Śrī-Sena, son of Chetagirika." Another specimen from the same matrix also came to light.

c. Sealings of private individuals.

Part of border line preserved. Above, symbol; 6. Oval,  $1'' \times \frac{7''}{8}$ . below, legend in two lines :

L. 1 Sūryyabhartrivara-pu=

L. 2 (tra)sya Vishn[u]guptasya

" Of Vishnugupta, son of Suryvabhartrivara."

Three more specimens obviously from the same matrix were found on this site. 7. Circular,  $\frac{3''}{4}$  dia. Legend in two lines:

L. 1 (S)kandagh(o)shaput[ra]-

L. 2 sya Bhavaghoshasya

Two more specimens from the same matrix were discovered.

8. Circular,  $\frac{3}{4}''$  dia. Black clay. Legend, in two lines, separated by a straight line in the middle :

L. 1 Śrī-Vijaya.

L. 2  $[na?]shth\bar{a}(na)re$ 

Two more specimens with this inscription but from different dies and of different sizes were found.

9. Roughly rectangular,  $\frac{3''}{4} \times \frac{1}{2}''$ . Legend, in marginal line : (Ku)[mara]varmmasya, ' Of Kumāravarmman.'

10. Circular,  $\frac{3''}{4}$  diam. Above, symbol; below, legend *Vishnupipa* (?) .....

11. Nearly circular, 3" diam. Above, deer running to 1. and a wavy line beneath. Below, legend in two lines :

L. 1 Pulisri-Nandhriputrasya sa=

L. 2 . . . . . homi . . .

12. Fragment of a scaling, originally perhaps circular,  $\frac{3}{4}''$  diam. Legend : . .

. nkaputrasya.

13. Nearly circular, 1" diam. Above, two vertical posts. Below, legend: (?) i [ia] yana . . . .

14. Circular, 1" diam.; but partially broken off. Legend in high relief: Bu[dha](sya).

15. Circular, 3" diam. Legend in shallow relief and of irregular-shaped letters, in two lines :

L. 1 Sārisa=

L. 2 [ta]sa

16. Fragment of scaling, originally circular,  $\frac{7}{3}$  diam. Letters [vi]ja[ya] only can be traced.

17. Nearly circular,  $\frac{7}{5}$ " diam. Letters 'ji . . ' of the legend can alone be read.

d. Passport.

18. Token. Circular, 1" diam. Above, recumbent bull to left. In front of him, traces of the symbol. Below, separated by a line, legend in two lines :

L. 1  $\underline{Timitra}$ -dātrisya [sa]-ho $(t\bar{a}) =$ 

L. 2 p(o)tā-mamtra-sajana[? i]

The reverse does not show any string or board marks but simply impressions of the fingers which held the clay in the process of stamping.

#### Minor Antiquities.

These have been divided into five sections, viz., (1) terracottas, (2) pottery, (3) stone, and (4) metallic, objects, and (5) beads and amulets. No objects of any one of these classes call for any special remarks except two. These are items Nos. 34 and 35. Item No. 34 is an interesting specimen of a mould incised in a kind of slatestone, its purpose being apparently for the production of cast metal medallions ornamented with a head in relief, and provided with a means of attachment engraved with the disc in one piece. This piece of stone is but one half of the complete mould, the missing half of which contained, presumably, the reverse face of the medallion.

Apparently the method of casting the medallion was as follows :—The two halves of the stone-mould having been placed face to face and secured by means of pins inserted through the holes near the top edge, the mould was inverted and the molten metal poured down the funnel-shaped aperture at the bottom. To obtain the necessary hole through the projecting knob attachment it would seem that a mandril was inserted through the horizontal groove running right across the mould stone, and the molten metal running round the mandril at the wider, deeper, portion in its centre thus formed the necessary knob, holed complete. Upon detaching the two halves of the stone-mould the mandril pin was withdrawn, while the metal remaining in the funnel-shaped inlet at the base was simply snapped off to leave the actual medallion free, complete with its holed attachment at the top.

Upon the other face of this mould another die-form is incised and intended to be used in the same way. It represents the snake-entwined wand of Hermes. Just as this piece of stone contains the obverse of one medallion and the reverse of another, so there must have been a second piece, now missing, which bore the reverse of the former and the obverse of the latter. The significance of this find in regard to the site excavated has already been explained above, on p. 78.

regard to the site excavated has already been explained above, on p. 10.
Item No. 35 would appear to be a fragment broken from the encircling lip of a stone jar, about 6" in diameter. On the outer edge of the lip appears a short inscription *Havilasya* = " of Huvila," and in the inner edge is cut a fabulous animal, tion  $\mu uvuasya = 0$  in the value, and in the inner edge is cut a fabilitous animal, presumably a dragon, with horns, claw, feet and a bushy tail ending in the bare spiked appendage traditionally attributed to the occupants of the nether regions. The bushy part of the tail apparently consists of the head of a human being, bare but bearded. While rather crude in execution the treatment of the beast in design and posture is not without some artistic merit, and one notices how the bushy part of the tail lends equipoise to the massive head of the creature and gives a fitting balance to the composition.

## Terracottas.

Toy bird, perhaps swan, 2<sup>1</sup>/<sub>2</sub>"×2", with wings outspread, as in the act of flying. Light red clay with yellow paint of which only a few slight indications remain.
 Toy bullock, length 2", coarsely executed and unfinished. Slightly baked clay.
 Toy animal, perhaps lamb, roughly executed. Ears, forefeet and tail broken.

Light red clay without slip or paint.

4. Decorative tile, oblong in shape 4<sup>1</sup>/<sub>4</sub>"×2", with foliage designs, in low relief.
Slightly broken. Light red clay with dark red slip.
5. Rectangular tablet, 3"×2<sup>1</sup>/<sub>2</sub>", roughened with small incisions all over the surface with bigger holes at intervals on the top and bottom sides. Used for Light red clay. cleaning the feet.

6. Circular tablet, diam.  $1\frac{3}{4}$ , with a groove in its thickness, as in a pulley wheel; and flowers incised on the surface of both sides. Buff clay, with thin wash.

6a. Fragment of similar tablet, diam.  $1\frac{3}{4}$ , but with flower and foliage designs carved on both sides. Buff clay.

7. Toy wheel, diam. 2", thick in the centre and thin at the rim. Buff clay. 8. Head of figure, breadth  $1\frac{1}{2}$ ". Portion above eyes gone. Half burnt white clay. Kushān.

## Pottery.

9. Fragment of ornamental pottery, 5" long  $\times$ 4", with three bands, the upper and lower occupied with ornamental tracery. The central consists of an undulating lotus stem with buds and expanded flowers. Buff red clay with darker red slip.

10. Broken circular mould, diam.  $4\frac{1}{2}$ ", ht. 2", with handle for printing cloth or pottery. Flower in the centre, with design of leaves around. Flower with 8 petals, in relief on the handle. Buff red clay with darker slip.

11. Gargoyle length  $2\frac{1}{4}$ , crocodile shaped. Red clay, with slip and glaze. 12. Roof tile,  $14\frac{1}{2}$  ×  $8\frac{1}{4}$ . It has a channelled key moulded upon the lower part of the top side and two holes in the upper, and is lap-jointed at one edge on the under side. The channel consists of four grooves no doubt intended to drain off water; and the tile itself was fixed on the roof wood-frame by means of pegs which passed through its holes. Light red clay.

Jar, ht.  $7\frac{3}{4}$ ", diam.  $4\frac{1}{2}$ ", with rounded bottom and broad mouth. Light red clay with darker red slip.

14. Another jar of different shape, ht.  $5\frac{1}{2}$ ", diam.  $3\frac{1}{2}$ " with a broader, but with partly broken mouth. Buff clay with thin wash.

15. Jar, with spout, ht. 4", diam.  $2\frac{1}{4}$ ". Round the centre is carved a band consisting of oblique lines with incisions in between ; mouth and spout broken off. Buff red clay with darker red slip and glaze.

16. Small jar, ht. 3", with flat bottom and bulging out in the centre. Pale red clay without slip or paint.

17. A composite piece of pottery, ht. 4'', diam. at top  $6\frac{5}{4}''$ , consisting of a lid containing a vase. Light red clay without slip.

18. Another lid, ht.  $7\frac{6}{7}$ , diam. at top  $5\frac{1}{2}$ , with knob, round and countersunk in the middle. Light red clay mixed with mica, and whole upper surface coated with red paint.

19. Goldsmith's crucible, ht.  $1\frac{1}{4}$ ", diam. 3". Coarse black clay without slip or wash.

20. Similar, but of different shape and size, diam.  $1\frac{5''}{4}$ . Coarse grey clay.

21. Similar, but in the form of a cup, dia.  $\frac{7''}{6}$ , and with rounded bottom. Coarse grey clay.

22. Similar, but in the form of a spouted vase, ht.  $1\frac{1}{5}$ ". Spout and neck partly broken. Coarse dark clay.

23. Similar, but in the form of a miniature jar, ht. 1". Mouth partly broken. Coarse grey clay.

24. Hollow cylindrical pipe, diam. 12", ht. 23", perhaps used as drain pipe.

25. Uncertain object, ht. 2", length  $3\frac{1}{4}$ "; decorated with two cable lines along the top with a taurine symbol at each end. Buff clay with red slip. Sunga.

26. Miniature vase, ht.  $3\frac{5}{5}$ , with a very narrow mouth and rounded bottom. Buff clay, with red paint of which traces only remain. Maurya.

#### Stone objects.

27. Top of casket lid, diam.  $1\frac{3}{4}$ , with a finial in two tiers. Bluish grey soap-stone.

28. Casket lid, diam.  $1\frac{5}{9}$ ", but only one shallow projection at top. Bluish grey soap-stone.

29. Fragment of cylindrical vessel neck, ht. 21,". Bluish grey steatite.

30. Casket, ht.  $2\frac{1}{2}$ ", with lid (perhaps for keeping relics) crowned by a finial at the top. Part of bottom and top broken. Grey brown scap-stone. Sunga.

31. Similar, ht.  $1_5^{3''}$ , without lid. Part of bottom broken. Grey soap-stone. Śunga.

32. Lid of casket, ht.  $1\frac{1}{6}$ ", diam.  $1\frac{1}{6}$ ", with a finial in three tires. Bottom partly broken. Grey brown soap-stone. Sunga.

33. Another lid, diam.  $2\frac{5}{5}$ ", without any finial but carved with a symbol representing a combination of four *triratnas*. Dark slate-stone. Sunga.

34. Rectangular die  $1\frac{7}{5}$ "×1" for casting medals. On the obverse is the bust of a king to r. with fillet on head and enclosed in two circles, the inner consisting of

dots and the outer  $\frac{11''}{16}$  in diameter. The reverse consists of a caduceus with twoloops. At the top on both sides are two holes, one at each end, and a rectangular chase below for casting the knob attachment. At the bottom is a funnel-shaped depression in the centre for letting in molten metal. Broken off at one corner. Grey slate-stone.

35. Trapezium shaped piece of slate-stone,  $1\frac{3}{5}'' \times 1\frac{1}{5}''$  perhaps part of some vessel. On the convex obverse, in an oblong space formed by incised lines, with *Huvilasya* inscribed in characters of the 4th century A. D. On the concave reverse, is a die, carved in low relief, with the reverse figure of a fabulous monster, apparently a dragon, shown as looking behind.

## Metallic objects.

36. Copper bell, ht.  $2\frac{3}{4}$ " and diam. 2". One side much broken.

37. Similar, but more conical in shape. Ht.  $1\frac{3''}{3}$  and diam.  $\frac{3''}{4}$ .

38. Copper utensil for offering worship to gods (arghya). Length 3', diam.  $3\frac{3}{3}''$ . Partly broken.

39. Lid of copper casket with a domical top, ht.  $1\frac{3}{8}''$ , diam.  $2\frac{3}{4}''$ . The finial at the top and part of the body, broken.

40. Copper bangle,  $1\frac{3}{4}$ " diam.,  $\frac{3}{3}$ " broad,  $\frac{1}{6}$ " thick. Three concentric circles incised on the top and underside. In good preservation.

41. Copper Triratna piece,  $J_8^{\pm''}$  long, with a perforation at the other end for hanging from the neck. Partly broken.

42. Solid piece of copper, cut into 14 facets, perhaps used as a weight.

43. Silver stick, length  $3\frac{7}{8}$  with one end used as an ear cleaner and the other as a tooth pick. Now bent in the middle and partly broken at the ends.

## Beads and amulets.

44. Terracotta bead, ht.  $\frac{15}{16}$ , diam.  $1\frac{5}{16}$ . Shaped like an *āmalaka*. Red clay. 45. Terracotta bead, diam.  $\frac{13}{16}$ , with circular convex halves and ribbed. projecting knob at one end. Buff clay.

46. Terracotta bead length  $1_4^{1''}$ , double-cone shaped. Grey clay.

47. Cornelian bead. Cut into facets.

48. Cornelian bead, length  $\frac{5}{6}$ ", double truncated cone-shaped. Cut into faccts. Broken at one end.

49. Globular agate bead, diam.  $\frac{1}{2}$ ". Light orange colour.

50. Cylindrical jasper bead, ht.  $\frac{1}{4}''$ ; diam.  $\frac{5}{16}''$ . Perforated vertically. Bluish green colour.

51. Crystal bead, ht. 1", ground in irregular facets, but flat-bottomed.

52. Flat round crystal bead, diam.  $T_6''$ , perforated crosswise, but the holes from either side do not meet at the centre.

53. Tiny glass bead, diam.  $r_6^{7}$ , orange-shaped ; dark blue colour.

54. Glass bead, ht.  $p_0''$ . Chimney-shaped and perforated through the height. Blue colour.

55. Terracotta amulet, length 1", of uneven thickness. Perforated through the sides at the thicker end and bi-partite at the thinner. Buff grey clay.

56. Small terracotta square amulet,  $\frac{5}{2}$  square, with a circle embossed on top. Two perforations cross-wise. Dull brown clay.

57. Cylindrical terracotta amulet, height  $\frac{7}{5}$ " and diam.  $\frac{7}{5}$ " with two perforations right through near the edge. Buff clay.

58. Terracotta amulet, ht.  $1_{16}^{s}$ , shaped like a truncated cone, with a perforation cross-wise near the top. Dark clay.

#### Coins.

In all, 66 coins were found during my excavations on both the sites. Of these  $\tilde{b}6$  are  $k\bar{a}rsh\bar{a}panas$ . In my account of last year's excavations I have shown that coins of this type can easily be divided into five distinct classes. Adopting this classification, the following table indicates to what different classes the 56  $k\bar{a}rsh\bar{a}panas$  found this season belong :---

Class.	Khām Bābā.	Besnagar.	- Тотаl,	
1	7	12	]8	
II	õ	2	7	
IV	1	+	5	
v	9	12	2Ì	
Miscellaneous	2	2	4	
Total .	24	32	56	

The following statement gives details of the miscellaneous kārshāpaņas and coins of the other types :---

No.	Netal and size.	Obv erve.	Rever-e,	Find-place.	Rimarks,
			Karshapanas.	1 (	
1	Æ. •\$	Svastika, caduceus. six-arched <i>Chaitya</i> wheel, etc.	Fish of different types.	Besnagar .	Circular, punch- marked.
2	Æ •6	Elephant I	Square cross and branch of free.	Ditto .	Circular, cast.
3-1	Æ •5	Three-arched chaitya with crescent.	Elephant l	Khām Bābā	Do. do.
5	Æ •6	Elephant, standing l.	Trec in railing	Ditto .	Do., broken.

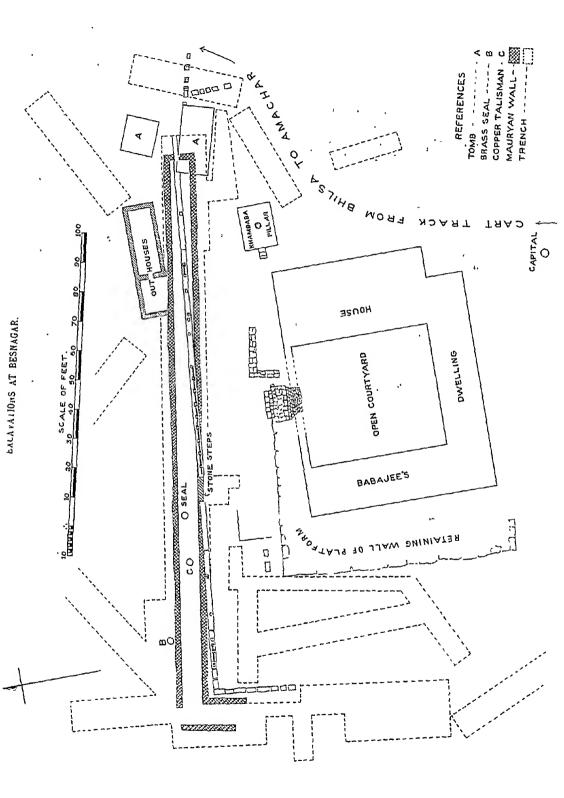
## ARCHÆOLOGICAL REPORT, 1914-15

No.	Metal and size.	Obverse.	Reverse.	Find-place.	REMARKS.
6	Æ •6	Head of Kshatrapa to r. Corrupt Greek legend around border.	Western Kshatrapa. Three-arched Chaitya with crescent; wavy line below. Along dotted border, legend: (Rājño Mahāk) shatra(pasa) Isvaradatta- sa varshe p(rathame).		Coin of the first. year of the Mahākshatra- pa Iśvara- datta.
7	Æ •35 Wt. 7½	Within dots, humped bull l.	Nāga. Legend : rāja(sri)- Ga(ņendra)	Khām Bābā	Gaņendra Nāga.
8	Æ •32 Wt. 7	Traces of humped bull standing to l.	Legend : Gan	Besnagar .	Possibly of Gaṇendra Nāga.
9	Æ •38	Bull standing to 1	Legend : sāja srī-Bhī (ma- deva)	Ditto.	
10	Æ ·4 Wt. 91	Bull standing to l. within dotted circle.	Legend : ndra	Ditto .	Rectangular
11	Æ ·32 Wt. 7	Ditto	?	Ditto.	
12	Æ •38 Wt. 13	Ditto	?	Ditto.	
			Miscellaneous,		
13	Æ -28	Animal, perhaps peacock.	Blank	Khām Bāb <b>ā</b> .	May be a Māla- va coin.
14	Æ •45	Standing	Ma-ta-ya	Ditto	

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D. R. BHANDARKAR.

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## ARCHÆOLOGICAL REPORT, 1914-15

No.	Metal and size.	Obverse.	Reverse.	Find-place.	REMARKS.
6	Æ •6	Head of Kshatrapa to r. Corrupt Greek legend around border.	Western Kshatraps. Three-arched Chaitya with crescent; wavy line below. Along dotted border, legend: (Rājño Mahāk) shatra(pasa) Isvaradatta- sa varshe p(rathame).	Besnagar .	Coin of the first; year of the Mahākshatra- pa Iśvara- datta.
7	Æ •35 Wt. 7½	Within dots, humped bull l.	Nāga. Legend : rāja(sri)- Ga(ņendra)	Khām Bābā	Gaņendra Nága.
s	Æ •32 Wt. 7	Traces of humped bull standing to l.	Legend : Gan	Besnagar .	Possibly of Gaṇendra Nāga.
9	Æ •38	Bull standing to 1	Legend : rāja srī-Bhī (ma- deva)	Ditto.	
10	Æ •4 Wt. 91	Bull standing to l. within dotted circle.	Legend : ndra	Ditto .	Rectangular
11	Æ -32 Wt. 7	Ditto	ŝ	Ditto.	
12	Æ •35 Wt. 13	Ditto	?	Ditto.	
			Miscellaneous,		
13	Æ -25	Animal, perhaps peacock.	Blank	Khām Bābā.	May be a Māla- va coin.
14	Æ •45	Standing	Ma-ta-na	Ditto	

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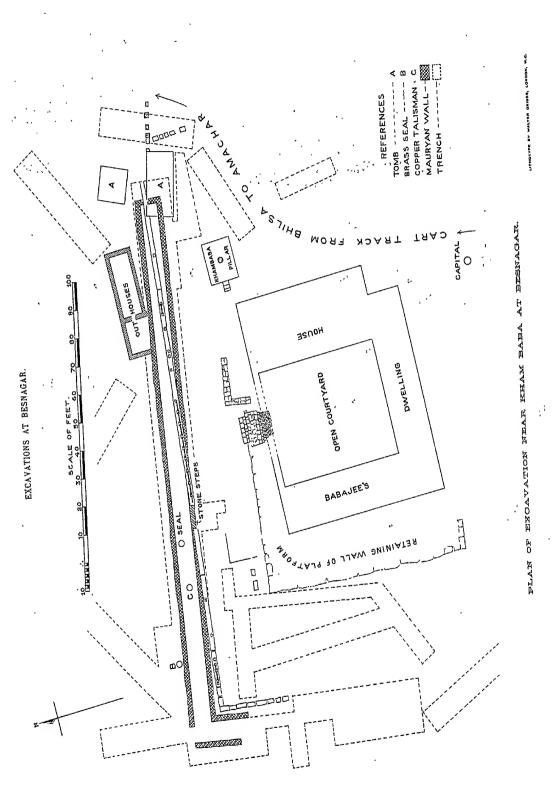


PLATE XLVIII.

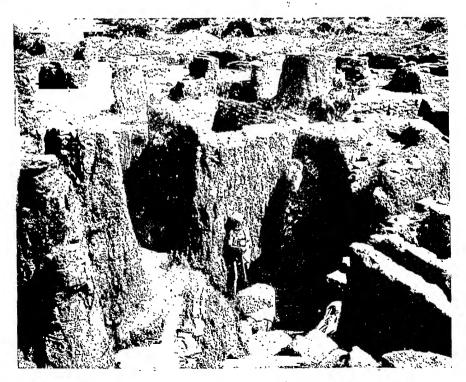
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#### EXCAVATIONS AT BESNAGAR.



a. WALLS OF IRRIGATION CANAL, KHAM BABA SITE.

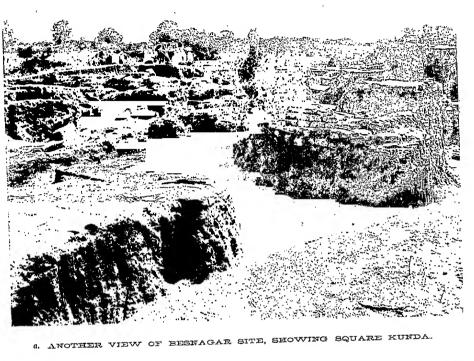


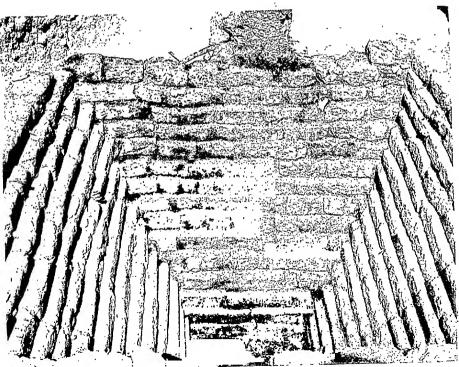
h. GENERAL VIEW OF BESNAGAR SITE, SHOWING OBLONG KUNDA.

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b. Interior of square kunda, showing sloping sides with offsets.

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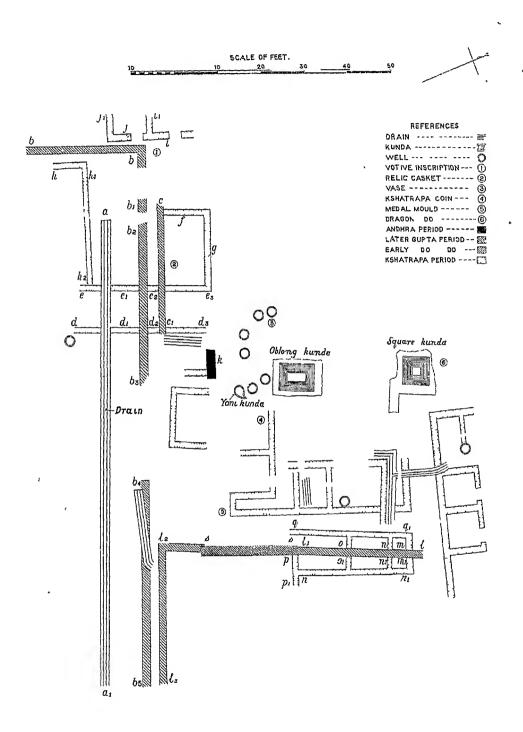
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#### EXCAVATIONS AT BESNAGAR

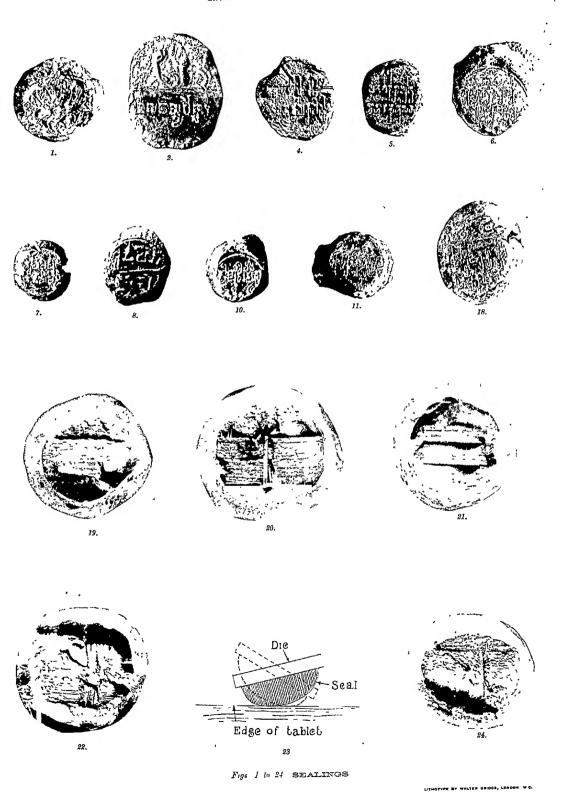


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# EXCAVATIONS AT BESNAGAR.



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PLATE LIII.



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# EXCAVATIONS AT BESNAGAR.



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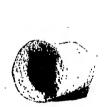


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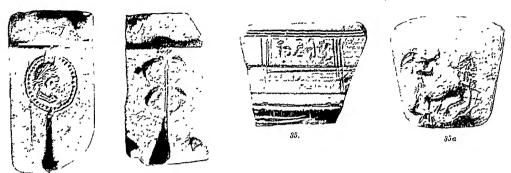


POTTERY AND STONEWARE.

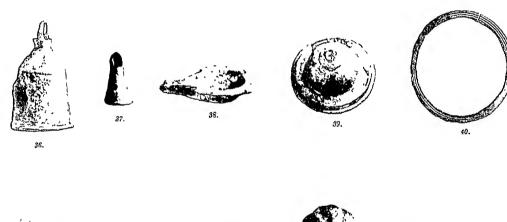
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#### EXCAVATIONS AT BESNAGAR.

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STONE AND METALLIC OBJECTS, ETC.

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# BUDDHIST STŪPA AT SAIDPUR IN SIND.

THE mound, of which the excavation is described in this article, is about six miles north by west of Tändo-Mahammad-Khān in the Hyderābād district, Sind. It is situated within the limits of the village of Saidpur, close beside the railway line running from Hyderābād to Bādin and not far from the Gājā mouth of the Fuleli Canals. It is locally called *Sudheran-jo dhado*.

The mound was first inspected by Mr. H. Cousens in 1910, and two years later Mr. Cousens very much wanted to open the mound himself, but as he by myself. retired from service soon after, it was not possible for him to carry out his At his express desire, supported by the Director-General of Archæology, intention. I undertook to excavate here, and went to the place early in March, 1915, soon after finishing off my work at Besnagar. The mound of Sudheran was superstitiously believed,-and the belief was shared by all local people, Muhammadans as well as Hindus-to be the dwelling-place of a cobra so fearful that its hiss emitted fire and so long that from the mound it could stretch to the Gaja branch of the Fuleli Canals to drink water when it felt thirsty! And the story was again in the mouth of the people that once upon a time a band of bairagis came there with the express object of charming the cobra and snatching away the treasure which it jealously guarded. They had brought with them cart-loads of cow-dung cakes to counteract the fires And then they played upon flutes to lure it away from its hiding from its hisses. The cobra came out, and on beholding the bairagis was so wrath that lo ! place. with but one hiss he burnt them to ashes along with the cow-dung cakes they had The slag pieces, with which the site here as far as one mile is profusely brought. strewn, are pointed out by the people as evidence of the cobra's fury. It was, therefore, a very difficult matter to obtain coolies to work here, imbued as they were with this superstitious belief. And if it had not been for the help and support which Mr. C. O. Lowsley, Executive Engineer, Fuleli Canals, most cordially gave, it would not have been possible for me to bring the excavations here to a speedy As it was, the whole work was brought to an end in three weeks. termination.

The following is a tradition associated with the Sudheran mound. There was once a Hindu king named Neru who was reigning at Hyderābād; he had a nephew called Sudheran who was noted for his exceptionally handsome features; and the latter once happened to enter his uncle's zenana not knowing that the queen was

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there. The queen saw him, fell in love, and made advances to him which he steadfastly refused. She went in anger to the king, and poisoned his mind, so that he issued orders to arrest his nephew but the latter ran for his life till he came to this place. Being tired of running away, he prayed to Mother Earth to grant him refuge in her boson. The earth was suddenly rent, and he was swallowed up. The people raised a tumulus over this place, which thus became reputed as *Sudheran* -jo dhado. When the queen died, they also burnt her body here, and the mound on the south-west of Sudheran's is said to contain her mortal remains. Sudheran's on the south-west of Sudheran's is said to contain her mortal remains. Sudheran's mound is worshipped by the Hindus who come from villages as far as 60 kos distant. It is a place of worship in particular among the *baniā* castes, Utrādi and Lādāi. The local Hindus also come and dance on the 22nd day of *Śrāvaua*, when the fair is held. Half of the offerings are claimed by a Fakīr who lives close by, and the remaining half by a Brahman of Tōndo. The worship here is never believed to be complete until the worshipper selects seven or eight small clods of earth from the bigger or Sudheran's mound and pelts them on the smaller or queen's mound uttering the words: "May these pieces strike you hard as punishment for the persecution practised by you." persecution practised by you."

The Sudheran mound, before it was excavated, was a medium-sized tumulus, nearly round in form up to a height of 20' 5", with a diameter of about 137'. From about the centre emerged a tower more or less circular with a diameter of 18' at the top and 23' at the bottom. The outer ornamental carved face of burnt bricks had long since been destroyed, exposing the inner sun-dried brick core. No walls were visible anywhere, nor were there any surface indications pointing to the position of these walls. Curiously enough, not even a fragment of a carved brick was noticeable anywhere on the surface of the mound. Behind the mound on the south-west lay undulating ground stretching over a mile in length and strewn with brickbats, potsherds and slag pieces.

brickbats, potsherds and slag pieces. On the very first day soon after the digging operations were started I was lucky enough to light upon two of the platform walls of the  $st\bar{u}pa$ , and once the alignment of the walls was obtained, it was a comparatively easy matter to trace them all round. The walls, when completely laid bare, were found to form four sides of an oblong, the longer, *i.e.*, the east and west, being nearly 98' 6", and the shorter, *i.e.*, the north and south, 76' 9" long. On the north side of the platform, which was unlike the other three, traces of a low dais serving a stepped approach, were found along the front. From this it is clear that the  $st\bar{u}pa$  originally faced the north. The maximum height of the present walls is 10' 3", which seems to be about two-thirds of their original height. In 1910, when Mr. Cousens visited this mound, he thought the  $st\bar{u}pa$  to be "considerably smaller" than that at Mirpur Khās, and I myself was of the same opinion when I inspected it in 1912. But, whereas the I myself was of the same opinion when I inspected it in 1912. But, whereas the latter is only 53' 6" square, ours is, as we have seen, 98'  $6" \times 76'$  9". It is thus in reality about three times as large as the Mirpur Khās example. The east, west and south walls, so far as their preserved portions go, are of one style. A careful examination of these three walls shows that they had a later

addition. Four different courses are traceable in the original walls (Plate LVII b and c). The lowermost was 1' high and 2' wide, and consisted of four layers of

bricks, of which the lower two were below the ground level. . Upon it came the second course, 2' 9" high, with a chamfer moulding at the top and an offset, 10" high and 14" wide, at the bottom. The third, which surmounted it, was 2' 6" high, and was adorned with two mouldings, both at the top, the lower being chamfered like that of the middle course and the upper bearing a concave chase. The fourth course must originally have been decorated with the pilaster design, without, however, any traces of niches as in the case of the Mirpur Khās This course, however, is now preserved only up to a height of 4' stūpa walls. including some bases of pilasters. Then came the later addition. Leaving a rebate of 3" from the edge of the first course they constructed a wall upon it which perhaps reached to the top of the third course (Plate LVI and Plate LVII b). This new wall is still to be found on the east side, reaching as high as the top of the second course; and as the face of the third course has been restored in places near the bottom with stray carved fragments which certainly could not have been meant to be exposed to view, I surmise that this new wall may have originally been raised to the height of the third course. That this wall was a new erection is clear from the following considerations. In the first place, there are unmistakable indications still left of the white plaster with which the courses of the original walls were coated, but no trace of this plaster is noticeable on the new wall. Secondly, the bricks used in Thirdly, the width of the new wall is the latter are of inferior texture and gloss. formed by two lines of bricks contiguous with each other, and while the first two layers of the inner line, which touches the original wall, consisted of burnt bricks. the lower ones were frequently found to be composed of sun-dried bricks.

The north wall of the platform, I have stated above, is unlike the other wall. The lower portion of this side too seems to have been rebuilt. Here also the original parts including the step approach had been covered with plaster, which is, however, not traceable on the rebuilt portion. An idea of the mouldings of the original north or front wall and of later additions may be had from Plates LVI, LVII a, b and c.

After exposing the basement walls, my attention was directed to the exhuming of the relic casket, supposing that the stupa, as it stood, contained any. But, as the basement was an oblong, it was not clear whether its location coincided with the intersecting point of the diagonals of the oblong or of a square formed with the south or back wall as one of its sides. Accordingly, a circular shaft was sunk from the top of the basement to expose the first of these centres, but proved abortive. An arched tunnel was then cut from the bottom of this shaft proceeding southwards so as to expose the other central point. This too turned out to be unsuccessful, but it convinced me that the casket had once been laid at this second place but had subsequently There were unmistakable indications to that offect. been removed. The whole of the space enclosed by the platform walls was, like the nner core of the tower, filled with sun-dried bricks. In sinking the shaft just mentioned we found nothing but these bricks. The same kind of bricks were also noticed in cutting the arched tunnel southwards until we came near the centre, where the bricks suddenly disappeared, and big lumps of dried mud obtruded themselves upon our attention Evidently a fairly large hole had been cut here with the express object of removing the x 2

relics, and it was afterwards filled with wet earth. The formation of the hole clearly showed that it was bored from the south. The motive in carrying away these relics cannot be plunder, for a plunderer certainly would not have cared to close the hole with wet earth. But as this gap is purposely filled with big lumps of clay, it is not unreasonable to infer that their owners may have been anxious for the safety of the relics and removed them to a more secure resting place. It is well-known that Sind was exposed to the inroads of the Arabs about the commencement of the 8th century A. D., and it is possible that the Buddhist monks residing near the  $st \bar{u} p a$  carried away these relics originally enshrined between the platform walls.

I have said above that the tower was devoid of its outer carved casing, the inner core of dried bricks alone being exposed. It must have originally stood on the platform in such a position that its centre coincided with the point where the relics were buried. As the platform is an oblong, the space in front of the tower must have been much wider than that left at the sides for circumambulatory passage. As a matter of fact, much more space is needed at the front than at the sides. For, everywhere in Hindu or Jaina temples, the practice is for the devotees to assemble in front of the object of worship, repeat their prayers, and then go round it for the *pradakshinā*.

Near the bottom of the tower was, curiously enough, a demarcating line of sand 2" high and running all round. This line I noticed on the very first day that the exacavations were started, and it puzzled me greatly. Suspecting that it was purposely laid there to serve as an indication to something concealed inside, an arched tunnel was opened in the face of the tower with this line in the middle. We had hardly finished the work of a day on it when the base of a small  $st \tilde{u} p a$  exposed itself to our view (Plate LVIII a). The whole of the next day we were occupied with clearing it, as this work had to be performed with great care in order to avoid damage to the structure. The stupa, when it was fully open to view, was found to be 6' 9" high. The dome was 3'  $2\frac{1}{4}$ " in height with a maximum width of 4' 3". The base which was round was 3'  $6\frac{3}{4}$ " high. Its sides sloped downwards, and ended in a moulding 5'  $8\frac{1}{2}$ " long and 3" high. Immediately above it the diameter of the base was 4'  $7\frac{1}{2}$ " and at the upper edge 4' 3". The top of the base was not flat, but had a gradual incline upwards rising to a height of 1" The stupa was composed of sun-dried bricks covered with plaster,  $1\frac{1}{2}$  thick, only. consisting of clay mixed with hay. The exterior surface was painted red upon a white ground, the base alone showing traces of yellow painting. Through the centre of the domed top ran a round shaft reaching down to the base and containing traces of wood powder indicating that it held a wooden staff probably surmounted by a tee and umbrella. The shaft could be easily traced nearly 2' above the dome, and I suspect that it went at least one more foot upwards. Thinking that the stupa might possibly contain some relics, I opened a slit in the whole height sufficiently wide to expose its central core, but nothing was found. No doubt, this stapa once stood alone on the platform and as its sanctity and fame increased, it was encased in a lorger structure. Instances of such enlargements are common enough, and might be cited from almost every Buddhist site of importance that has been excavated in India

or beyond its northern frontiers. The walls of the tower were from the top to the bottom constructed of sun-dried bricks well-laid and arranged in regular courses and with due regard to the rules of bonding except for about four feet immediately above the small  $st \bar{u} pa$  which were loosely built. This is explained by the fact that immediately above the small  $st \bar{u} pa$  came the wooden tee and umbrella and that in erecting the new superstructure they had to build more or less loosely immediately round them to prevent their being damaged.

It is worthy of note that in stupas of the earliest style the dome is twice or three times as high as the base, but in those of a much later period we find the base much exceeding the dome in height. The proportion in fact of the height of the base to that of the dome may be taken as a rough criterion of the age of a stapa. Now, the dome of our small stupa is almost as high as its base. This characteristic is also shared by the stupa of Cave IX at Ajanta.1 Both these stupas appear to have some striking points in common ; for not only do their domes and bases bear the same proportion to each other but their bases are almost exactly alike. They are both round. with sides sloping downwards and with an almost identical moulding at the bottom. It is true that the shapes of their domes vary. But this may be a local peculiarity. Thus the domes of the stupas found in Maharashtra, though they are of one type, are of different shape to those of the same period existing at Ajanta. The difference in shape noticeable in the domes of the Saidpur and Ajanțā Cave IX stūpas is, therefore, not of much consequence. The Ajanțā Cave has been ascribed by Dr. Burgess to the pre-Christian period, and making allowance for the fact that he assigns unduly early dates to most of the Caves of the earlier style, it will not be unreasonable to suppose that this Ajanta Cave belongs to about the beginning of the first century A. D., and on the strength of a find of coins, as we shall presently see. the Saidpur monument must be attributed to the same period.

The platform on which the stupa stood appears to have been, originally, 15' 31" high but the maximum height at present preserved is 10' 3", of which four feet are occupied by the uppermost course of the pilaster design. In the débris removed to clear the platform walls many sculptured pieces were brought to light, which are of almost identical types with those found by Mr. Cousens at Mirpur Khās. Some of these are no doubt fragments of the decorative borders of the wall niches, which must have existed in the top course of the platform walls, though no traces of them now remain in its preserved portions. One fragment represents part of the ornamental arch over the niche (Plate LIX  $\alpha$ , 1). Others are very similar to the decorative tiles found in the string course near the bottom of the Mirpur Khās stūpa basement (Plate LVIII c). But the basement of the Saidpur stapa, which is wellpreserved, has no such string course running around it, and it is possible that it may have decorated, not the bottom, but the top, of the platform. Many oblong tiles of two or three different sizes but bearing the image of Kubera were discovered. Of these two (Plate LVIII b, S-9) are figured almost exactly as on the medallions found by Mr. Cousens (A. S. R., 1909-10, Plate XXXV a). A few pieces were recovered also of the pilasters which were disposed in helts around the dome. Fragments were obtained of other ornamental courses too numerous to mention.

Arch. Surv. West. Ind, 701. IV. PI. XVII.

Votive tablets also were found (Plate LVIIIb). As might be expected they were all picked up from the débris in front of the  $st\bar{u}pa$ . Unfortunately none of these is whole and entire, and they comprise fragments of only six tablets. In five of them the Buddha is seated cross-legged, in the  $dhy\bar{a}na-mudr\bar{a}$  or meditative posture, with both hands in the lap, one upon the other, and with the palms turned upwards. He is represented as seated on a cushion with a back rest behind. In the sixth tablet he is portrayed cross-legged on a lotus, with the left hand in the lap and the right pointing downwards in the  $bh\bar{u}misparśa-mudr\bar{a}$ . Below is an inscription containing the well-known Buddhist formula Ye dharmā &c. On both sides of the Buddha are represented rather elongated miniature  $st\bar{u}pas$ .

Nearly thirty coins were recovered from the débris, most of which were, like the tablets, found in front of the  $st\bar{a}pa$ . All appear to have been deposited as offerings. Many of the coins were cleaned, but proved to be too corroded to be of any value. A description of those which could be identified is appended below. It will be seen from this description that one is of Kanishka, one of the Kshatrapa Rudrasena II, and two of a new Indo-Scythian prince, whose name has at present been tentatively read as Sapedana. Coins of this last were found also at Taxila by Sir John Marshall. It is clear that the original  $st\bar{a}pa$  cannot be posterior to Kanishka (*circa* 100 A. D.) and we shall not be far wrong if we assign it to the beginning of the Christian era.

Hiuen-Thsang, the celebrated Chinese traveller of the 7th century, tells us that in Sind all the Buddhist monuments he found belonged to the Hīnayāna School. "There are several hundred Saṅghārāmas," says he, "occupied by about 10,000 priests. They study the Little Vehicle according to the Sammativa School." The Saidpur  $st \bar{u} pa$  is undoubtedly of this school. Beyond a few tablets, no images of Buddha or Bodhisattvas or sculptures portraying the different incidents of their lives were discovered. The tablets had no doubt an image of Buddha on them, but they are a feature of Buddhism which is common to both Hinayanism and Mahayanism. Such was, however, not the case with the Mirpur Khās stāpa, which Mr. Cousens excavated. The images and sculptures of Buddha were exhumed here in such profusion that they left no doubt as to the site having originally pertained to Mahāyānism. Mr. Cousens was, therefore, no doubt somewhat puzzled as to how a Mahāyāna  $st \tilde{u} pa$  came to be erected in Sind contrary to the testimony of Hiuen-Thsang. The district of Thar and Parkar, wherein Mirpur Khās is situated, is on the confines of Sind and Marwar, and is so allied in many respects to the latter province that it is possible that originally it may have been included, not in the Sindhu-Deśa, but in the Maru-bhūmi, of Sanskrit works.

I have stated above that behind the  $st\bar{u}pa$  on the south-west the ground was studded up to nearly a mile with a number of tiny mounds covered with brick bats, potsherds and slag pieces. The biggest of these, which is immediately behind the  $st\bar{u}pa$ , is the one which is believed by the people to contain the remains of the queen of Neru. This mound was also opened by me, but nothing of importance was found. Layers upon layers of ashes interspersed with fragments of pottery were the only objects that were brought to light here. Evidently this site was occupied with the dwellings of the monks who worshipped the  $st\bar{u}pa$ . .

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## COINS.

No.	Metal and size.	Obverse.	Reverse.	Reference.	Remarks.
			Indo-Parthian.		
1	<b>А</b> Ъ 10	Bust of king, bearded, to L., wearing tiara as in late Indo-Parthian times. Traces of $\succeq$ to 1. (Cf. Bust of Sanabares in B. M. Cat., Pl. XXIII, 12.)	Traces of Nike standing to 1., holding wreath in right hand; to R. Kh: bhu. traces of legend in Kh: Maha[Sapedanasa].	coins found by Sir John	débris to the north of the
			Kushān.		
2	Æ •7	King standing to 1., hold- ing long spear in 1. hand, and sacrificing at altar to 1. Legend as usual, but not well-pre- served.	Moon-god, radiate, with crescent behind should- ers; name of god lost.	I. M. Cat., p. 72, coins No. 34 and ff.	Kanishka.
ર	Æ •9	King standing near altar l.	?		May belong to Kanishka or one of the later princes.
			Kshatrapa.		
4.	Æ ∙65	Bust of king to r. Date lost.	Three arches one upon the other two, &c. Traces of legend: Rājāah Kshatra- pasa Fīradāmaputrasa Rājāo Mahakshatrapasa Rudra[senasa].		This is the only copper coin of Mahāksha- trapa Rudra- sena II known.
			Muhammadan.		
ā	Æ •6	سلطان <sup>م</sup> حمر <sup>ن</sup> شاه	دارالمل <b>ڭ د</b> هلي	I. M. Cat., II, p. 74, No. 518.	Mahmūd <u>Sh</u> āh II Tughluq; mint Delhi; date A. H. Sl(x).
6	Æ •4	Traces of some letter; Below $OA = [x]08$ .	Within dots, square.		
7-S	Æ ∙75	Similar	Dots only.		
				1	

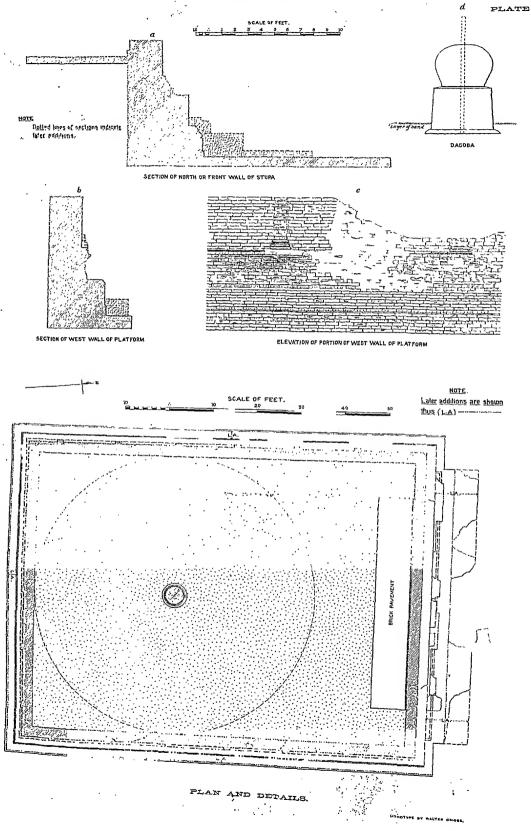
### ARCHÆOLOGICAL REPORT, 1914-15.

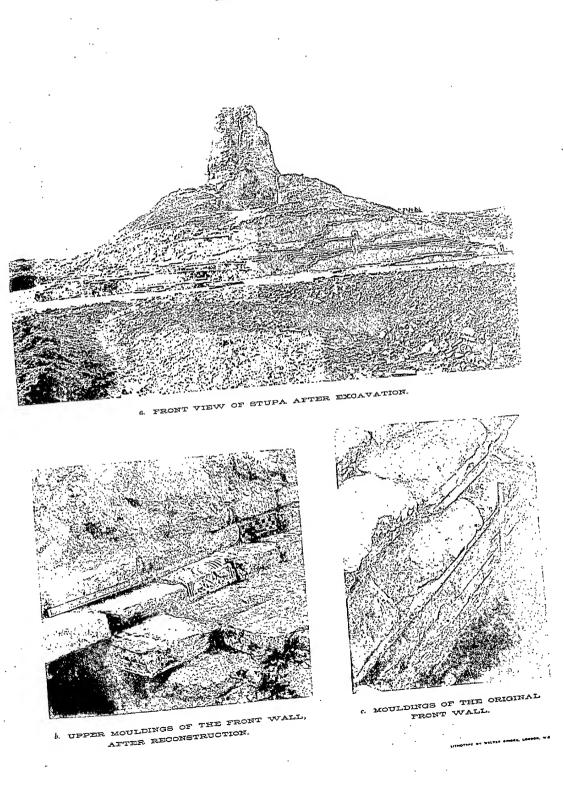
No.	Metal and sizo.	Obserse.	Reverse.	Reference.	Remarks.
9	Æ ・75	Traces of seated figure .	Miscellaneous. Standing figure.		Highly corrod- ed; may be- long to an Indo-Scythian prince.

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D. R. BHANDARKAR.





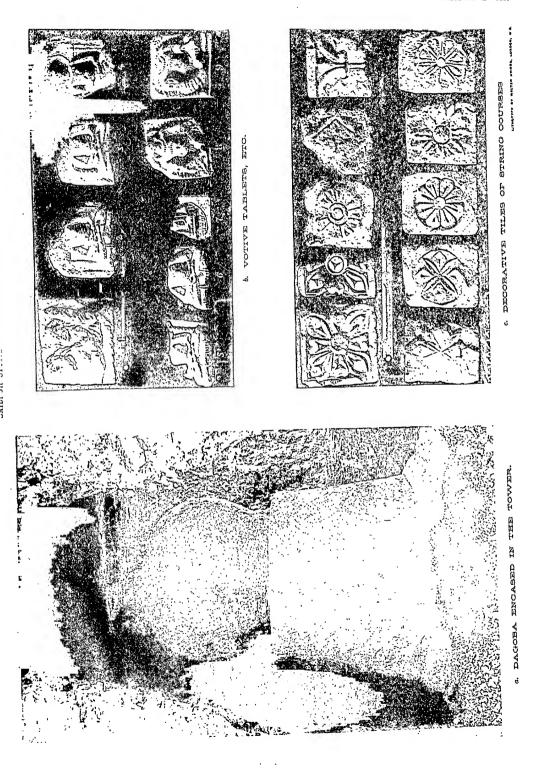
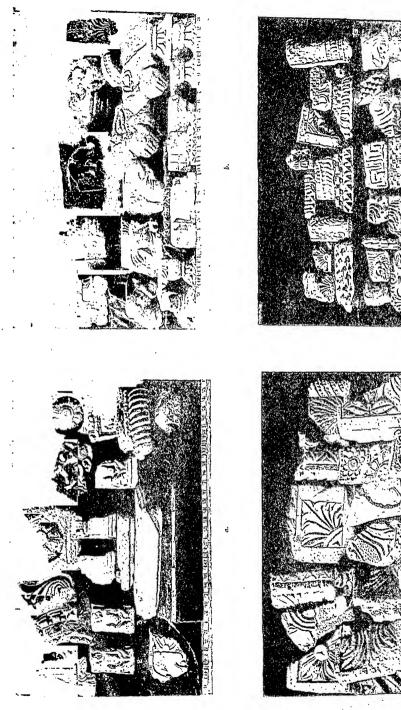


PLATE LVIII.

LOKOON, W E

od sourftured ericks from the walls.





# EXCAVATIONS AT SARNATH.

EXPLORATION of this site having continued at irregular intervals for some one hundred and twenty years, beginning with the destructive activity of Diwan Jagat Singh in 1794 A.D. and having in recent years been so successfully carried out as almost to fill with the recovered antiquities the imposing museum which has been built close by, it might well have been imagined that its treasures had been exhausted. The recent excavations have, however, proved that so far from this being the case there is every indication that equally valuable finds even yet await recovery.

The operations here described were begun in November 1914 and continued to January 1915. For some two months I had the assistance of Mr. Y. R. Gupte, -Assistant Surveyor, and for one month that of Pandit Hirananda Shastri, Curator of the Provincial Museum, Lucknow, to whom, in no small measure, is due the success of the work.

Special attention was devoted to three portions of the site namely to the east. north, and west of the Main Shrine, but the interior of the Main Shrine itself and portions of the outer casing of the Jagat Singh stūpa were also examined.

### EAST OF THE MAIN SHRINE.

Search was made on the east, west and south sides of the courtyard which lies to the east of the Main Shrine for any existing continuation of the Maurya railing recovered in 1906-07,<sup>1</sup> but neither pillars nor cross bars were recovered, though spaces in the walls indicate its former existence on the south and west. An area 28' wide, parallel to and north of the Approach Way to the Main Shrine, was cleared to the level of the pavement and disclosed a mass of small stupas, ruined shrines, pedestals of statues, sculptures and inscriptions, but none earlier than the Gupta period (Pl. LXIa). Now, as the Approach Way was certainly built with reference to the Main Shrine, which, in its present form, can hardly be earlier than the eleventh century A.D., it is obvious that the many remains of the Gupta period recovered there do not occupy their original positions but have again been used after the decay of the structures they had originally adorned. One of the most

<sup>1</sup> A. S. R. 1906-07. Pl. XXI (c).

interesting of these Gupta relics is the inscribed pedestal of a Buddha image of which only the feel now remain, the whole still in the position it occupied when last erected.<sup>1</sup>

Now, it is noticeable that this inscribed pedestal, which on palæographic grounds may be assigned to the 6th century 'A.D., does not occupy even the lowest level north of the Approach Way, but, as may be seen (Pl. LXIa), stands on the ruins of a mediæval stūpa and must have been one of the very latest erections north of this pavement. Nor are the existing stūpas and shrines at one level or of one date; for in some cases the remains of older structures are still traceable below.

There is, moreover, a well marked rise of level as the distance from the Approach Way increases, evidence of the fairly long existence of this pavement which, remaining in constant use, has been kept clear while the structures to the north and south decayed and were rebuilt on the remains of earlier structures and without reference to the pavement.

On the south of the Approach Way an area 60 feet by 41 feet was cleared to a greater depth, in most parts four feet below the level of the pavement (Pl. LXI*a*), again revealing small ruined structures, bases of shrines, architectural fragments and a wealth of sculptures of which the most striking were a number of excellently preserved Buddha images of the Gupta period (Pl. LXIII).

These latter were not recovered, as might have been expected, in the lower strata, but at a level two feet above that of the pavement and near its southern edge. Two were found lying side by side, carefully laid on a bed of lime plaster, and, although broken at the ankles, were rejoined without difficulty. The pedestal of one of them (Pl. LXIIIb), is inscribed and dated in the year G. E. 154 =473-4  $\Lambda$ .D. At the same level and a little to the south-west and similarly carefully placed in a horizontal position, three other fine Buddha images (Pl. LXIIIa, c and d) were discovered. Two of these (Pl. LXIIIa and c) are dated in the G. E. 157 = 476-7 A.D. Not the least interesting point is the fact that these two inscribed images, as well as the one mentioned above, are the gift of the same bhikshu, Abhayamitra. Whether these images found in such an extraordinary position were so placed to hide them from possible enemies or deposited in stupas or shrines the superstructures of which have entirely disappeared, it is impossible to state with certainty, but I am inclined to favour the latter suggestion, as it is known that the earlier spoilers of this site, while ever ready to remove all useful building material, had some compunction in the matter of the removal of But, whatever the cause, their recovery in almost perfect condition is images.<sup>2</sup> certainly a matter for congratulation.

The few structural remains in this area afford no chronological data; for they are, in general, built of the remains of earlier structures. Thus, the square base of one small structure is composed entirely of beautifully carved pilasters, columns and other architectural fragments of Gupta workmanship.

A narrow cutting, 19 feet wide, was also carried to the east for 75 feet parallel to and level with the Approach Way, but here only the merest traces of buildings were

<sup>&</sup>lt;sup>1</sup> Inscription No. XIX.

<sup>&</sup>lt;sup>2</sup> Cunningham, A. S. R. Vol. I, p. 122.

recovered, though the pavement appears still to continue to the east. In this area were recovered the numerous mediæval sculptures and other minor antiquities dealt with below, including terra-cotta votive stūpas and sealings, some of the latter being of a type not previously recovered at this site.

At the extreme eastern end of the Approach Way the strata give evidence that excavation at some earlier date had been carried down almost to the level of the pavement, which accounts for the almost total disappearance of structural remains at this spot.

# Selected antiquities from east of Main Shrine, Buddha images.

1. Statue, 6' 2" high. Standing Buddha in *abhaya-mudrā* (Pl. LXIII b). Inscribed base and feet found separate but now refixed. Only portion of halo remains. Left hand, a neatly fitted separate fragment, now securely attached. On pedestal, inscription dated G. E. 154, in the reign of Kumāragupta, stating that the image was the gift of a *bhikshu*, Abhayamitra<sup>1</sup>. 3' S" below surface on south of Approach Way.

2. Statue,  $4' \ 10\frac{1}{2}''$  high. Standing Buddha, with both hands and greater portion of halo missing. Pedestal and feet found separate but now refixed. Nose and drapery on right show iron dowels and mortice holes, evidence of ancient repairs. Gupta. Found along with No. 1 on south of Approach Way, 3' 8' below surface.

3. Statue, 6'  $0\frac{1}{3}''$  high. Standing Buddha in *abhaya-mudrā*. Almost perfect save for loss of the left hand and fragments of drapery on left. Small iron dowels in nose and on left indicate ancient repairs. (Pl. LXIII c). Gupta. 3' 8" below surface on south of Approach Way along with Nos. 4, 5.

4. Statue, 6' 4" high. Headless standing Buddha figure. Oval back-slab with scallop and bead and reel ornament. The Buddha standing on a lotus, now damaged, which springs from a mass of well carved foliage. On either side, on similar but smaller lotus blossoms springing from the same foliage, an attendant figure with chauri. On right of pedestal, a kneeling adoring monk, presumably the donor. Fect, right arm and left forearm of principal figure now lost. The two latter were originally separate pieces. A flying celestial on either side of now lost head. On pedestal, inscription dated G. E. 157 in the reign of Budhagupta, the donor a monk Abhayamitra,<sup>2</sup> and apparently the kneeling figure described above. Right half of inscription, which from a mortice hole still visible appears to have been on a separate fragment of stone, not recovered. (Pl. LXIII d). 3' S" below surface along with Nos. 3, 5.

5. Statue, 6'  $4\frac{1}{2}''$  high. Standing Buddha figure with oval back-slab. In general a replica of No. 4 supra. Head intact but right arm and left hand missing. The two attendant *chauri*-bearing figures, Bodhisattvas (?) show a slight variation from No. 4. The one to proper right holds a  $m\bar{a}l\bar{a}$  in the left hand, his counterpart to left a lotus with long stalk. On pedestal two kneeling figures, the one to left a monk, the one to right in similar attitude holding a censer (?) (Pl. LXIII a). On pedestal, inscription similar to that on No. 4 but not so well preserved.<sup>3</sup> Right

<sup>&</sup>lt;sup>1</sup> Inscription No. XV.

<sup>&</sup>lt;sup>2</sup> Inscription No. XVI.

<sup>&</sup>lt;sup>3</sup> Inscription No. XVII.

corner on a separate fragment, a portion of the halo of a more ancient image, has been fixed at some later period; for, though bearing a natural continuation of the existing portion of the original epigraph, the characters appear to have been engraved by a different hand. Found on south of pavement, 3'S" below surface together with Nos. 3, 4.

6. Image, 6'  $3\frac{1}{2}''$  high. Standing Buddha figure. Front of pedestal with portions of feet, both forearms and greater portion of halo missing. Nose and edge of drapery damaged. Gupta. 5' 7" below surface south of Approach Way.

7. Statuette, 1' 5" high. Standing Buddha. Oval back slab with scallop and head border. Head, right arm and feet missing. Late Gupta. 7' 4" below surface, south of No. 6.

8. Fragment, S" high. Lower portion of statuette of seated Buddha in the  $bh\bar{u}misparsa-mudr\bar{a}$ . Much defaced. Pedestal represents rocky ground. Must have resembled, in general form, B (b) 175 Sārnāth Museum Catalogue. 5' 5" below surface. north of pavement of Approach Way.

9. Statuette, 2'  $2_4^{a''}$  high. Standing Buddha figure in *varada-mudrā*. Headless and unfinished; toes not indicated. Late Gupta. North of Approach Way, 5' 8" below surface, along with Nos. 10, 11.

10. Statuette,  $3' 11\frac{1}{3}''$  high. Standing Buddha figure in *abhaya-mudrā*. Right of halo lost, nose slightly damaged. Ankles and feet missing. Usual decorated halo. Gupta. Found with Nos. 9, 11, to north of Approach Way. 5' 8'' below surface.

11. Statuette, 2' 11'' high. Standing Buddha figure in the gift-bestowing attitude, *varada-mudrā*. Oval back slab with scallop and bead border. Part of left arm lost. Defaced donor kneeling on proper left of pedestal. Late Gupta. Found with Nos. 9-10 to north of Approach Way, 5' 8'' below surface.

12. Statuette,  $1' 5\frac{1}{2}''$  high. Headless Buddha figure, with lotus halo, standing on lotus and canopied by umbrella. On back-slab, on either side, level with the shoulders, a small stūpa. Replica of the principal figure on smaller lotus on either side, the hands clasped on the breast in unusual fashion. Beneath these, on lower edge of pedestal and on either side, a kneeling headless donor. Edge of back-slab ornamented with conventional design. Behind the Buddha, indications of a throne. Principal figure disproportionately long. Mediæval. South of Approach Way, 5' 6'' below surface.

13. Statuette, 1' 1" high. Buddha seated in preaching attitude, dharmachakra-mudrā. Figure complete but part of back-slab missing. Pedestal defaced. Early mediæval. East of Main Shrine. 6' 6" below surface.

14. Fragment, 6" high, in two pieces, of lower portion of relief depicting the First Sermon. All above the waist of the Buddha figure lost. On front of pedestal in sunk panel the two deer and wheel. Late mediæval. East of Main Shrine, on pavement.

15. Statuette, 1'  $7\frac{1}{2}$ " high. Standing Buddha figure, both hands and feet lost. Oval back-slab. Late Gupta. 5' 1" below surface, east of Main Shrine.

16. Statuette,  $G_2^{*'}$  high. Headless image of Buddha in the preaching attitude, *dharmachakra-mudrā*. The figure wears a *necklace*, or edge of robe is carved

to simulate this. Cf. Sārnāth Museum Catalogue B (c) 9. Wheel and two deer on pedestal. On either side attendant standing Buddha (?) figure with oval backslab, the one to right in *abhaya-mudrā*, the one to left in *varada-mudrā*. On proper right edge, fragmentary inscription of Buddhist creed of about 9th Century. Of blackish stone and apparently from Magadha. 9' 6" below surface, cast of Main Shrine.

17. Statuette, 5" high. Lower portion with pedestal of standing Buddha image with headless worshipper to proper right. Only fect and fragment of drapery of principal figure preserved. On pedestal, inscription in characters of 5-6th Century indicating this to be the gift of a Buddhist nun.<sup>1</sup> East of Main Shrine, 5' 6" below surface.

18. Statuette,  $2^{\circ} 2^{"}$  high. Headless standing Buddha in the gift-bestowing attitude, *varada-mudrā*. Both hands and feet lost. Oval back-slab with bead and scallop ornament. Late Gupta. East of Main Shrine, 6' 3" below surface.

### BODHISATTVAS, GODS AND GODDESSES.

19. Statuette, 1' S" high. In three pieces now refixed. Bodhisattva (Maitreya?) scated in *lalitāsana*. Hands on breast as though expounding the law. Long-stalked lotus bud near left shoulder. Elaborate conical headdress with small stūpa in front. On pedestal to right, kneeling female donor. Late mediæval. South of Approach Way, 3' 8" below surface. (Pl. LXV e.)

20. Statuette, 10" high. Fragment, in two pieces, of a male figure, Bodhisattva (?), with halo and pointed headdress. Large circular ear-rings. Left forearm and whole right arm below waist missing. Fragmentary inscription of the Buddhist creed in characters of about 5th Century. South of Approach Way 5' 0" below surface.

21. Statuette, 7" high. In three pieces now rejoined. Seated Bodhisattva in *lalitāsana*. Left hand holds lotus with long stalk, right hand in *varada-mudrā*. Small stūpa on left of back-slab. Donor on left of pedestal and seated monk (?) to right. Mediæval. East of Main Shrine about level of the pavement.

22. Statuette, 10" high. Headless defaced image of four-armed figure, seated in *-lalitasana*. Much defaced. Only one right arm preserved. In lower left hand a flask, in upper left lotus. On back, fragmentary inscription of Buddhist creed in characters of about 9th Century. East of Main Shrine, 3' 0" below surface.

23. Head,  $5\frac{1}{2}''$  high, of female, possibly Tārā. High coilfure bound with jewelled fillet. Above the forehead, another band of jewels. Features unevenly modelled as though face was not intended to be seen from the front. Possibly part of a large relief. Mediaval. 5' 2" below surface, south of Approach Way.

24. Statuette,  $5\frac{3}{4}$ " high. Seated female (Tarā?). Right hand on knee; left, now lost, apparently held a flower. Breast and face damaged, right foot lost. Mediaval. 3' 9" below surface, cast of Main Shrine.

25. Statuetle, 6" high. Female figure seated in *lalitāsana*. Left hand holds a long-stalked flower, right rests on knee. In front of throne, an indefinable object

<sup>&#</sup>x27; Inscription No. XIV.

which may be an inverted vase. On back, Buddhist creed in characters of about 10th Century A.D. East of Main Shrine, 3' 6" below surface.

26. Statuette,  $1' 9\frac{1}{2}''$  high. Tārā seated in easy attitude, *lalitāsana*, on lotus throne. Right hand in *varada-mudrā*, left holding a long-stalked lotus. Left foot rests on lion. Breasts, nose and lips damaged. To proper right of pedestal garland-bearing female, probably donor. On back-slab to proper right a Dhyāni-Buddha seated on lotus in attitude of meditation (*dhyāna-mudrā*). On outer upper edge of back-slab, inscription, Buddhist creed in characters of 9th Century A.D. On pedestal, traces of inscription, probably naming the donor. 5' 6" below surface to north of Approach Way. (Pl. LXIVb.)

27. Statuette, 1' 2" high. Headless female, Tārā, seated in *lalitāsana* on lotus throne. Right hand lost, left hand on breast holding the stalk of a lotus. Figure bejewelled and adorned with snake-like ornaments. On either side on back-slab, small kneeling attendant figure on lotus, the one to proper right a female, the one to left a male with dagger in right hand. Principal figure in parts in full relief. Late mediæval. 3' 9" below surface, east of Main Shrine.

28. Statuette, 1' 10" high. In five fragments now rejoined (Pl. LXVa). Standing figure of Tārā. Face entirely destroyed. Right hand in varada-mudrā, in left hand stalk of blue lotus ( $n\bar{\imath}l\bar{\imath}tpala$ ). Upper part of body bare save for jewels. On back-slab to upper left small figure of the Dhyāni-Buddha Akshobhya in the earth-touching attitude,  $bh\bar{\imath}misparśa-mudr\bar{a}$ .

To right a female, possibly repetition of Tārā, standing with the right hand resting on the handle of a battle axe, the left holding a flower with long stalk. To left a smaller figure, a four-armed corpulent female upholding an elephant with two hands. On left lower edge adoring donor. On edge of back-slab, Buddhist creed in characters of c. 9th Century, and on back, fragmentary inscription of about same date. 6' 2" below surface, on north of Approach Way.

29. Fragment,  $9\frac{1}{4}$  high, of upper portion of Tara image. Right hand and all below waist lost. Lotus halo on back-slab. In left hand, blue lotus. Mediæval. S' 9" below surface, south of Approach Way.

30. Bust, 1'1'' high, of Tārā (?) image (Pl. LXVd). Both forearms lost. Elaborate coiffure. Nose damaged. Early mediæval. East of Main Shrine to south of pavement, 8'0' below surface.

# TERRACOTTAS.

31. Seventcen conical-shaped terracottas, 1'' to  $1\frac{1}{2}''$  in height. On outer face spiral ornament. Majority fine red colour, remainder grey. With one exception, all found east of Main Shrine and all at depth of 5'10'' to 6'3'' below surface. Purpose unknown.

32. Hemispherical vessel, diam. 1<sup>1</sup>/<sub>2</sub>". Reddish brown. Two small projections on base. Two holes in bottom. Possibly crucible. 5' 0" below surface, east of Main Shrine.

33. Ten miniature stūpas. Fine red colour,  $2\frac{1}{4}$  high. Flat circular bottom. Bowl-like base, cylindrical drum and plain cylindrical finial (*hti*). Seemingly impressed deeply in the bottom, an inscription, probably Buddhist creed, in five lines of very minute characters of c. 9th Century A.D. This inscription may be on a separate tablet inserted in the *ex-voto*. (Cf. Sārnāth Museum Catalogue F (d) 9), in which case the stupa would be one of those designated *dharma-śarīra*. Found in four spots east of Main Shrine 4' 4" to 5' 6" below surface.

34. Three earthen *chirā ghs*, diam.  $2\frac{7}{3}$ ," without lip. Thick coarse pottery. 4' 5" below surface, east of Main Shrine.

35. Shallow dish, diam.  $2\frac{1}{4}$ ". Fine clay, good r d colour. 5' 6" below surface, east of Main Shrine.

36. Brick,  $7\frac{3}{4}''$  high 3" thick, carved on three sides to resemble small *śikhara*like shrine. Gupta. 2' 5" below surface, east of Main Shrine.

37. Fragment,  $4\frac{1}{8}^{"}$  high. Brick capital of pilaster with well carved foliage. Gupta. 7' 6" below surface, east of Main Shrine.

. 38. Ornamented brick, 1'  $1\frac{1}{2}^{"}$  high  $3\frac{1}{5}^{"}$  thick. Beaded moulding. Apparently part of *chaitya* window ornament. Gupta. 5' 6" below surface, north of Approach Way.

39. Fragment, S" high, from proper left of terracotta plaque, showing traces of left shoulder, arm and halo of Buddha (?) figure. Headless figure near halo. Late Gupta. 2' 0" below surface, south of Approach Way.

40. Brick,  $7\frac{1}{4}$ " high, wedge-shaped with elliptical projection. Probably part of a frieze. 3' 0" below surface, east of Main Shrine.

41. Sealing, with raised rim  $\frac{1}{4}$ " high. Inscribed oval surface within,  $1\frac{1}{2}$ " ×  $1\frac{1}{4}$ ", with 18 lines of writing in minute characters of about 9th Century A.D. In centre, between 10th and 11th lines, a small  $st\bar{u}pa$ . Inscription contains salutations to the Buddha, and the Buddhist creed as well as certain mantras.<sup>1</sup> Six sealings recovered, all east of Main Shrine from 3' 2" to 7' 3" below surface. Cf. Sārnāth Museum Catalogue F (d) 22.

42. Oval tablet with raised edge,  $\frac{1}{4}$ " high, with Buddha figure seated on a lotus, the hands in the attitude of meditation,  $dhy\bar{a}na$ -mudr $\bar{a}$ . Well baked elay and very elean impression. Oval halo. Between oval halo and raised edge, Buddhist creed in minute characters of c. 9th Century A.D. Inner oval  $1\frac{1}{2}$ " ×  $1\frac{3}{5}$ ". Five found in all, two slightly damaged. A new type not previously recovered at Sārnāth. 4' 6" below surface, cast of Main Shrine.

43. Sealing, diam. 1". Greyish black with inscription in five lines of Buddhist creed. About 9th Century A.D. 4' 4" below surface, east of Main Shrine.

44. Sealing with defaced wheel and deer symbol. 4' 6'' below surface, east of Main Shrine.

45. Sealing, diam.  $\xi''$ , with six-lined inscription of Buddhist creed of about 9th Century A.D. 5' 0" below surface, east of Main Shrine.

46. Figurine,  $2\frac{3}{4}$ , of horse; one foreleg and both hind legs missing. Buff coloured with reddish brown slip and ornamented with incised points. 2 11" below surface, east of Main Shrine.

47. Figurine,  $2\frac{1}{2}$  high. Head of horse. 1' 0" below surface, east of Main Shrine.

48. Ear-ornament,  $\frac{1}{2}$ ", of greyish black terracotta. Resembles in shape a *rahli*... Incised lines on top and bottom. 5' 2" below surface, east of Main Shrine.

# Architectural Fragments.

49. Two square capitals, 1' 1<sup>4</sup>/<sub>4</sub>"×6" (Pl. LXV b). Grey Chunar stone.
Projecting faces ornamented with foliage in characteristic Gupta style. Cf. Sārnāth Museum Catalogue D (g) 10. South of Approach Way, 2' S" below surface.
50. Fragment, 3' 4<sup>7</sup>/<sub>5</sub>" long, 9<sup>1</sup>/<sub>2</sub>" high. Apparently face of small square structure. Above two mouldings three chaitya window ornaments with parrots between. Two mortice holes on under side, and holes for iron cramps above. Late Gupta. 7' 0" below surface, east of Main Shrine.
51. Frieze, 6' 3<sup>1</sup>/<sub>2</sub>" long, S" high (Pl. LXIV d). Makaras, naked erotes and figures with human busts and foliage tails. Fine specimen of Gupta workmanship..
Broken into two pieces and found built into a foundation on south of boundary wall of courtward east of Main Shrine.

wall of courtyard east of Main Shrine.

wall of courtyard east of Main Shrine. 52. Fragment, height 3'  $9\frac{1}{2}$ ", width 2' 10" (Pl. LXIV a). Probably from left of a doorway. On right edge, pilaster, the half of an octagonal pillar, with usual Gupta ornament. To left, three vertical bands of ornament, viz. four superposed panels separated by narrower oblong panels each with three dwarfish corpulent atlantes, seven superposed panels each with a corpulent figure in various attitudes, and, on extreme left, beautiful floral ornament with two youthful figures among the foliage. Scenes in principal panels probably from a jūtaka. Traces of red colour-ing. Gupta. 7' 4" below surface, east of Main Shrine. 53. Two bases, 1' 6" high, of a pilaster or door jamb. Seemingly from same monument. On inner edge of each a standing haloed figure, one a Bodhisattva, the other Kubera with his money bag, damaged. East of Main Shrine, 6' 4" and 7' 3" below surface, respectively.

below surface, respectively.

below surface, respectively.
54. Fragment, 1' 2<sup>3''</sup>/<sub>4</sub> high. From corner of a monument. On lower edge, square dwarf pilasters; on projecting upper edge, in front and on end, a *chaitya* window with human head and head of lion, respectively. The former is openmouthed, with short curly beard and having a skull between two open hands in the centre of the headdress, Siva (?). 5' 2" below surface, south of Approach Way. 55. Fragment, 2' 0" high, of door jamb with typical Gupta ornament of foliage. Red colouring. 7' 3" below surface, south of Approach Way. 56. Fragment, 1' 2<sup>4''</sup>/<sub>4</sub> high, with dwarf pilasters and false window of alternately incised squares. Typical Gupta workmanship with rosettes. 7' 3" below surface east of Main Shrine

surface, east of Main Shrine.

surface, east of Main Shrine.
57. Fragment, 1' 3<sup>1</sup>/<sub>4</sub>" high, with *chaitya* window containing seated Bodhisattva figure. Gupta. 3' 0" below surface, east of Main Shrine.
58. Two pilasters, 5' 11<sup>1</sup>/<sub>2</sub>" high, square below, then octagonal and finally sixteen-sided. Three quarter lotus on base. Pot and foliage capital and band of ornament on octagonal portion. Gupta. 5' 1" below surface, east of Main Shrine.
59. Four slabs, 6<sup>3</sup>/<sub>4</sub>" to 8<sup>3</sup>/<sub>4</sub>" high, with rows of minute Buddha figures. Apparently from face of small shrine or stūpa. Cf. Sārnāth Museum Cotalogue-C(b) 1S. Late mediaeval. 5' 6" below surface, east of Main Shrine on pavement.

#### MISCELLANEOUS.

60. Votive stūpa,  $1' 6\frac{1}{2}''$  high. Finial lost. Eight faces show shrines each with legendary scene (1) Buddha, (2) Bodhisattva, (3) *Mahāparinirvāņa*, (4) First Sermon, (5) Subjugation of the elephant, (6) Enlightenment, (7) Descent from the Trayastrinśa Heaven (?), (8) Bodhisattva in *dharmachakra-mudrā*. 4' 2" below surface north of Approach Way.

61. Pedestal, including tenon, 1'  $2\frac{1}{2}''$  high, with feet of standing Buddha figure. Front inscribed in characters of 5th-6th Century with name of donor—Inscription XVIII. 6' 10" below surface south of Approach Way.

62. Pedestal, omitting tenon, 9" high, with feet of standing Buddha and inscription in two lines. Found *in situ* to north of Approach Way and higher than the pavement, but 5' 9" below surface of ground. Traces of red colouring. Inscription XIX.

63. Fragment, including tenon,  $1' 2\frac{1}{2}''$ , of pedestal of standing Buddha figure, part of left foot alone remaining. Face of tenon,  $7\frac{7}{3}''$  long, inscribed with Buddhist creed in characters of 5th Century. Red colouring on pedestal. 4' 1" below surface, east of Main Shrine.

64. Hand, 1" in length. Right hand of copper statuette in *abhaya-mudrā*. Save for loss of top of thumb, in perfect condition. Well modelled and of Gupta date, judging from the lines on the palm and position of fingers. 5' 0" below surface, south of Approach Way.

65. Bracelet (?), diam.  $1\frac{7}{8}$ , of copper with beautiful green patina. Ends not joined. 4' 6" below surface, east of Main Shrine.

### Main Shrine.

That the Main Shrine in its present form marked the site of some more ancient structure, has long been recognized, and it was, therefore, decided to examine the interior of the sanctum, the flooring of which, where it still exists in front of the entrance, is of  $2\frac{1}{4}$ " lime plaster over a concrete of lime and brickbats 10" in thickness. Below this for 2' 6" only earth, large stones and occasionally brickbats were found, but at a depth of 2' 10" appeared a continuous flooring. This, at a distance of 12' 4" east of the two pillars near the west wall of the cella, gave evidence of the straight edge of a walling, and the area to the west of this was removed brick by brick, layer by layer to a depth of 9 feet when only earth was met with. The two walls are of the same period and built on the same level, but the one to the east was apparently erected first, as in one part the face was broken as though a cross wall to run to the west had been contemplated. It is noticeable that in this solid mass of brickwork old and even ornamented bricks were found, proving that it is itself the spoil of earlier structures. The largest whole brick recovered was  $17\frac{1}{2}'' \times 11\frac{1}{2}'' \times 2\frac{1}{2}''$ , but few whole ones were found and the majority of the fragmentary ones appeared to be of smaller dimensions  $15'' \times 10'' \times 2''$ . The earth immediately under the base of the walling contained charcoal in one spot, but continued digging to a further depth of S feet revealed nothing but virgin soil. The only finds, naturally, were those made in the upper strata immediately below the concrete floor (which is level with the third step of the entrance) and were

merely a few architectural fragments of late Gupta workmanship, the most noticeable being half of a false doorway, 2' 5" in height, with three panels, the centre one showing a grotesque face with open mouth (Pl. LXIV c). It is thus certain that the Main Shrine stands in part over a solid mass of

It is thus certain that the Main Shrine stands in part over a solid mass of brickwork contemporaneous with and, possibly continuous with the lower strata of that revealed by excavation to the north. The clearance below the base of the brickwork also proves that at a depth of 2' 5" below the level of the polished portion of the Aśoka column still *in situ*, virgin soil is reached. In this connection it may be remarked that in two other places, namely, in the forecourt of the Main Shrine and to the west of the Aśoka column, excavation to a depth below the level of the base<sup>1</sup> of the Aśoka column yielded nothing; so that in the examined area, at least, no pre-Maurya remains exist.

The limits of this solid mass of brickwork could not be ascertained without imperilling the already weakened walls of the Main Shrine, but it is unlikely that it exceeds in width the portion recovered on the north. As the excavation in the centre of the shrine would have led to the ponding of rain water, tending still further to threaten the stability of the walls, in such places where they may not rest upon continuations of the brick foundations, the trench, after the preparation of drawings, was filled in.

# North of the Main Shrine.

Excavation in this area was started due north of the northern chapel of the Main Shrine and one foot below the surface of the ground, which here was almost entirely clear of structural remains, and level with the concrete pavement running round the Main Shrine a seemingly solid mass of brickwork was met with. Further search, however, finally revealed at a distance of 80' north of the Main Shrine, a curious circular ring of brickwork, its inner diameter 5' 7", its outer 12'  $7\frac{1}{2}$ ", and varying in thickness from 3 to 4 feet (Pl. LX). Projecting through the north-west side of this is a small square brick structure, 5 feet long, its outer walls faced with thick plaster and, seemingly, some monument that it had not been thought proper to destroy and which had, therefore, been incorporated with the later work. Surrounding these two monuments and separated from the inner circle by a distance of three feet is a similar and parallel circular wall, 4' 9" in thickness (Pl. LXII). On the north and south this outer circle has been partly demolished and cross walls of later date built against it. The outer ring on its eastern face descends to a depth of 7' 6" but the floor level between the two rings cannot have been more than 5' 10", as at this level certain earlier remains are met with. Whether these structures are successive encasements of a stūpa, it is impossible to say, but it hardly seems probable. In any case it is certain the space between them is not a *pradakshinā* for there is no means of access and the square structure would prevent circumambulation.

Earlier remains, all in brick, exist below these structures, but their complete examination was impossible during the recent operations and, indeed, will be difficult at any time on account of the superincumbent masses of brickwork. South of the structures already described the upper portion of the solid mass of brickwork extends

Base, that is, the boltom of the polished portion, the original level in Maurya times.

up to the edge of the outer cement pavement on the north side of the Main Shrine while the lower and earlier strata appears to continue to the south. One small room-like opening is found on the south of the outer ring of brickwork, its northern edge being formed by the southern curve of the brick ring. It is 7' 6" in length and, having no entrance or doorway and being 5' 6" in depth, must be some foundation. Another smaller opening to the west, 7' by 4', must have served a similar purpose (P1. LXIIa).

The whole area awaits further exploration, and its interpretation will become possible only then and after the preparation of very full and exact drawings. Nevertheless sufficient has been traced to show five well defined periods of building each marked by different bricks and technique. The erection of the structures exposed by these excavations seems to have proceeded in the following order : (i) The foundations of bricks,  $19'' \times 12'' \times 3''$ , which are exposed on the west side and appear as a curved projection to the outer ring of brickwork, and as a stepped pavement further to the south ; (ii) the walls running north and south and east and west under the inner ring and supporting the curious square structure and formed of bricks  $17'' \times 11'' \times 2\frac{1}{2}''$ ; (iii) the square structure itself of thick bricks  $12\frac{1}{5}'' \times 11'' \times 4''$ and covered with plaster; (iv) the circular structures constructed of fragments of bricks seemingly  $6\frac{1}{2}$  in width and  $2\frac{3}{4}$  thick; (v) the cross walls and the greater portion of the solid mass which lies to the south towards the Main Shrine. The highest portions of these lie just below the level of the Main Shrine, but there are foundations of structures in addition to the remains described which must have existed above ground after the Main Shrine was erected in its present form. The remains. therefore, may be considered to have extended from pre-Gupta to later mediaval times, and the circular structures attributed to the later Gupta period.

The antiquities recovered in this area were, as was natural, seeing the mass was generally solid, few in number and, unfortunately, such as to afford no chronological data. Quite near to the surface between the rings of brickwork was found the fine  $t\bar{o}ran$  lintel of about the first Century B. C. while close to the eastern wall of the room-like opening to the south of the brick circles and at a depth of 3' 6" was recovered a collection of stucco heads of the late Gupta or early mediæval period.

### Selected Antiquities Found North of Main Shrine.

1. Coping stone, length 9 feet, height 10 inches, seemingly from  $t\bar{o}rana$ . Both ends ornamented with honeysuckle ornament. In centre of face, stupa of archaic form with railing round both drum and  $harmik\bar{a}$ , and surmounted by one umbrella. To right of stupa, two human devotees followed by flower-offering *suparna* and four females each mounted on a lion and armed with a club or short sword. To left, similar figures but only three females on lions while the suparna and devotees bear long garlands as offerings. On front upper edge, bead and reel moulding and band of bell-like ornament. Four square mortice holes on under side regularly placed, and one odd one, six inches from the left end; the last is probably a later addition. Of black speckled sandstone with red colouring, c. 1st Century B. C. Found near surface on the east side of the smaller circular structure north of the Main Shrine. Railing cross-bar, length 1' 2<sup>1</sup>/<sub>2</sub>" and width 10", with lotus rosette. c. 1st Century B. C.; near surface close to circular structures north of Main Shrine.
 Terracotta scaling, diameter <sup>3</sup>/<sub>4</sub>". Five-lined inscription c. 6th Century A. D.

5' 0" below surface north of Main Shrine.

4. Fragment, 1' 2" high, of Buddha image apparently seated in *dharmachakra-*mudrā. Head, legs and hands lost. Elaborate throne traceable on back-slab. Gupta. 5' 2" below surface, north of Main Shrine.

5. Fragment, 6" high, of back-slab of image with fragmentary inscription of Buddhist creed in characters of 10th Century A. D.

6. Collection of stucco heads and cores of two others. The cores are of beaten 6. Contection of stucco heads and cores of two others. The cores are of beaten earth mixed with finely broken red brick and shaped roughly to the semblance of a head. Eyes, nose, cars, all modelled over core in good white stucco. As in some cases the pupil of the eye is indicated and the  $\bar{u}ry\bar{u}$  is marked as a noticeable projec-tion, features absent in stone sculptures of the Gupta period, it is probable that these belong to the early mediaval period despite the full lip and other Gupta character-istics. Found 3' 6" below surface to east of the room-like opening (Pl. LXII b) north of the Main Shrine.

- (a) Head, 9" high, of Buddha figure. Stucco over mud core. Very prominent úrnā.
- (b) Head, 11" high, in stucco over clay core. Ears apparently those of Buddha or Bodhisattva, but lobes lost. High ushnīsha-like projection.
  (c) Head, 8" high, in stucco over clay core. Hair in curling locks. Pupils
- indicated. Bodhisattva (?).
- (d) Head, 4'' high, of Buddha figure in stucco over clay core. Upper part of head lost and remainder defaced.  $Urn\bar{a}$  indicated.
- (c) Fragment, 3" high. Lower portion of face in stucco over earth core.
  (f) Head, 11" high, of figure with high headdress. Probably Bodhisattva. Slight moustache.
- (g) Two cores, S<sup>1</sup><sub>2</sub>" and 11" high, of stucco heads, of which the stucco coating is entirely lost. Bear traces of the beating with rods used to consolidate the material; earth and finely broken brick.

# West of the Main Shrine.

The special object of this portion of the excavations was to ascertain whether to the west of the Main Shrine, that is between the tank and that portion of the Asoka the west of the Main Shrine, that is between the tank and that portion of the Asoka pillar still *in situ*, there had previously existed, or still remained, any monuments contemporary with that column. That Maurya remains are likely to exist on all sides of the pillar is more than probable and choice was made of this western portion for exploration only because its examination could be carried out without necessitat-ing the destruction of numerous monuments of the later period such as crowd the northern and southern areas.

Now, the level of the ground in the Maurya period, at least around the Asoka column when it was first creeted, is marked by the dividing line between the un-dressed and polished portions of the column, which is 8 feet below the bottom of the inscription. To clear the western area to this level entailed the removal from the

-surface of the fragmentary relics of the later mediæval period as well as an early mediaval stratum which yielded pottery, a few sculptured fragments and a number of carved bricks of Gupta origin. It was noticeable that no structural remains were revealed by these operations. Reaching a level of 2' 6" above the base of the polished portion of the Asoka pillar and 44 feet west of it, the base of a wall running north and south was disclosed (Pl. LX). This is built of bricks  $18'' \times 10'' \times 2\frac{1}{2}''$  and the highest existing portion rises nearly 4 feet above the Maurya level, (Pl. LXI b). The foundation of this wall rests upon two layers of bricks  $20'' \times 11'' \times 3\frac{1}{2}''$ , probably the spoil of some earlier structure. For 49 feet the wall runs to the south and then disappears under another superimposed wall in the same alignment, which latter -extends almost continuously for 90 feet further to the south. These two walls seemingly mark the eastern boundary of a large monastic enclosure whose western boun--dary would, like that of Monastery II, be near the edge of the tank. But these two walls are not the earliest boundary; for beneath them in several places on their western face has been traced a yet lower wall of four layers of bricks of great thickness, some measuring  $21'' \times 13'' \times 4''$ . At a point 105 feel to the south of the boundary walls, this earlier wall turns to the west but has been traced in that direction for only 4'6". On the eastern face of the latest wall is a pavement of bricks  $15'' \times 9_4'' \times 2_4^{3''}$ , presumably of Gupta date.

To trace the entire alignment of the boundary walls was impossible in the operations of this season, attention having to be concentrated on the area immediately to the west of the Asoke pillar where structural remains of such a nature were found that complete clearance was necessary for their examination. Due west of the Asoka column and at a distance of 54' 4" were discovered the foundations of an -apsidal building 82' 6" in length, 38' 10" in width, the apse towards the west, the entrance presumably facing the Asoka column. Of this structure only the foundations now exist and these in a complete state only on the west (Pl. LXI b). In the centre of the apse the width of the foundations is 8' 6" but 64' from the eastern end these almost completely disappear being marked only by a line of brick on edge sometimes with two lines of bricks laid endwise on the inner side. Whether the foundation ran all round the building cannot now be stated with certainty, but it is most pro-In all places the outer face of the remains is covered with stucco even bable. where now only a single brick remains. No traces of bases of columns, such as might have supported the roof, were found, nor yet the signs of any conflagration which might have accounted for the disappearance of a wooden erection. The bricks forming the base of this structure are large and thick, varying from  $20\frac{1}{2}'' \times 9'' \times 3''$ to 20"×11"×4", and, as the foundations are only 1' 9" above the Maurva level and no earlier remains exist beneath, the structure may fairly be ascribed to the late Maurya period. To the east of this building and separated by a distance of 3' 2" is a single line of massive bricks  $18' \times 15\frac{3}{4}'' \times 3''$  on the same level and seemingly laid with reference to it.

After this apsidal building fell into decay two long walls and a platform 15' 5" by 7' 3" were built of its remains near its southern side (Pl. LX) but no idea can be

<sup>&</sup>lt;sup>1</sup> Maurya level being here taken as the base of the polished portion of the Aéoka pillar still in situ.

formed of the plan of the complete building. To this period or a little later may also be attributed the boundary wall now lying between these structures and the Asoka column visible behind the pennon in Pl. LXI b.

Asoka column visible behind the pennon in Pl. LX1 b. Of later date than these fragmentary walls and platform, but built while these must still have been visible, is a long narrow building immediately over the northern side of the Maurya structure. The width of this building is 18 feet and, though the total length cannot be stated with certainty as the eastern end is destroyed, it was not less than 52 feet. Along the northern side is a corridor 5' 4" in width; the southern side being divided into four cells averaging S' 4" by 7' 10". At the western end is a small room the full width of the building and 4' wide, the southern end now almost entirely filled by foundations of a later date. The bricks in this. end now almost entirely filled by foundations of a later date. The bricks in this wall are well burnt and, save for one line of larger bricks in the foundation, all of one size,  $16\frac{1}{2}'' \times 10\frac{1}{2}'' \times 2\frac{1}{2}''$  and laid in mud noticeably thick. The plan of this building (Pl. LX) is unusual, at least on this site, but can hardly have been anything but a monastery judging from the number and smallness of the rooms. Though some of the walls are still 3' 6" in height, no doorways or entrances into the cells can be traced with absolute assurance. It seems hardly possible, however, that the walls now exposed were merely foundations and entirely buried in the earth, but, if this was so, then the platform and other remains built of Maurya spoil may, at this period, have been entirely buried. In any case the structure is later than the apsidal building and the fragmentary wallings and platform, and is, therefore, very probably of Kushān or early Gupta date. No finds recovered near this building afforded any chronological data. afforded any chronological data.

alforded any chronological data. One structure carlier in date than this monastery remains to be noticed. Roughly built on the west side of the boundary wall (Pl. LXI b) is a room, 14' S" by 11' 9", in which was found a collection of earthen vessels and one large one of stone. The position of these gave a definite floor level for this room placing it a little, but definitely, below that of the base of the walls of the small monastery. The lime, heaps of river sand, and earthen and stone vessels found in this room leave no doubt that it was a store house for material needed for the petty repairs of the monastic buildings.

buildings. No other structures, save certain solid foundations, were disclosed in the area and these are of early mediaval date and built after the boundary wall, or at least its northern end, had fallen into decay. A reference to Pl. LXI b will enable a clear idea to be formed of the position and general appearance of the site <sup>1</sup> and the various levels disclosed. The Burmese bhikshu in the foreground is seated on the foundation of the apsidal structure. Behind him rises the south-west corner of the small monas-tery; to the right of the pennon is the store room for building materials; while on the extreme right is seen the higher level and the structures coeval with the Main Shrine. But the interest of the exploration of this area is not limited by its structural remains, for finds of an unlooked for nature came to light during the clearance of the ground, immediately to the west of the boundary wall. Here for a depth of 2<sup>o</sup> 6<sup>o</sup>, an area some 25 feet square was found closely packed with

The course of this and is marked by the peanon in Plate LXI b.

stone fragments, the débris of monuments ranging from Maurya times to the 1st Contury B. C. These fragmentary remains include human, semi-human and animal figures, railings, cross-bars, and copings, capitals with volutes, neckings of polished capitals of Indo-Persepolitan type inscribed with Maurya Brāhmī characters record-ing gifts of inhabitants of Ujjain and Pāțaliputra, and part of the rim of a large wheel resembling that which crowned the lion capital of the Sārnāth pillar, (Pls. LXV-LXIX). Some of the monuments, of which these once formed part, had undoubtedly been wilfully destroyed while others, especially railing pillars, had clearly suffered the ravages of fire. The structural remains found in the area preclude the possibility of these fragments being the débris of monuments which formerly stood on this spot, and it is plain that they have been brought from some other portion of the site and used as filling to level the ground, when some of the earlier buildings had fallen into decay. What could have been the cause of the catastrophe which resulted in the destruction of the magnificent and artistic monuments, of whose departed glories these mutilated remains are the sole remaining witnesses, it is impossible to state, and equally uncertain is the date of their overthrow, but that this latter occurred after the falling into ruins of the store room built against the boundary wall, is undoubted. If the now exposed walls of the small monastery give its true ground level (and this I am inclined to believe), then the decay of this building also was anterior to the deposit of these remains. Moreover, this filling was as high as the now existing portion of the west boundary wall and consequently later in date. The deposition of these fragments, which may not necessarily synchronize with the destruction of the monuments which yielded them, would, therefore, appear to be assignable to a post-Kushan date and one, very probably, not late in the Gupta period.

# Selected antiquities from west of Main Shrine.

### (1) MAURYA AND OTHER EARLY REMAINS.

### (a) Human and semi-human figures.

1. Fragment, S" high, of human figure, life size. The face is entirely destroyed, but traces of the right eye remain. The cars are normal and well modelled. A mural crown of seven merlons, above a wreath of laurel, hides the hair, save for a few short curls on the forehead. The head was apparently modelled in the round and is polished in the usual Maurya fashion. The statue, however, does not seem to have been intended to be visible on all sides, as five inches of the back are left unpolished. The stone is a fine speckled sandstone of a light grey colour, but the outer surface, where not concealed by a calcarcous deposit, is of a blackish hue as though affected by fire which has also diminished its original polish. The lines of the figure are robust and lifelike. Traces of drapery at the base of the neck. The top of the head and upper edges of merlons, which would be invisible when the statue was in position, are left unpolished, (Pl. LXVI, 4).

2. Eragment, 3<sup>3"</sup> high, of headdress of figure with laurel wreath and mural crown of merlons. Face entirely lost. Grey speckled sandstone, smoothly dressed but without polish. An inner circular ridge joins all the merlons.

3. Fragment, 6" high, of right check of human face. Mouth, lower portion of nose and greater part of right eye preserved. Eye full and open, check well rounded, lips full and rather prominent, no moustache, the face of a strongly marked character. Grey speckled stone with vestiges of polish. Red colouring on lip and traces of white colouring matter on eye.

4. Head,  $5\frac{h''}{5}$  high, of male figure. Checks full and rounded, nose short and broad at the nostrils, mouth small, under lip rather prominent, the eyes open, left eye and upper eye-lid somewhat flattened. Long drooping moustache with curled ends. Chin broken. The ears small and without ornaments. The whole modelling of the face suggests portraiture. The head is smooth as though covered by a cloth which, bound by a plain fillet  $\frac{3}{4}$  wide on the forehead, falls behind like a full-bottomed wig. Grey speckled sandstone smoothly dressed and probably originally polished. In the round. (Pl. LXV h & i.)

round. (11. DXY # & 4.) 5. Head,  $6\frac{1}{2}''$  high, of male figure. Upper proper left of head-dress missing as well as greater portion of left ear. The head is covered by an elaborate turban of which only the lower portion is preserved. Eyes oval and long and well shadowed by the eyebrows, nose straight and broad at base. No moustache, lips firm and natural but compressed, chin well rounded. Large plain circular ornament in right ear. Grey sandstone, unpolished. Two parallel cracks, one on the forehead, the other under left eye. Calcarcous deposit removed from greater part of face. Pl. LXV f & g.

6. Fragment, 54'' high, of headdress of a figure with elaborate coiled turban. Upper portion of head and all below forehead lost. In front of headdress a projection, broken, the remaining portion resembling an inverted cone. On proper right, below the turban, the hair is seen dressed full and concealing all the ear, save the circular ear ornament which resembles that of No. 5 above. Grey speckled sandstone polished. Apparently in the round, but the back portion left unpolished.

7. Head,  $7_{5}^{a''}$  high, of figure with faun-like ears and ram's horns. The face is entirely destroyed, but part of the right eye remains. The face appears to have been that of a human being, (cf. the winged figures on the second architrave of the east gate at Sanchi). Traces of a jewelled band on the forchead, level with the ears. Grey speckled sandstone, smooth and originally polished. Probably in the round but the back is left unsmoothed. Pl. JXVI, 3.

S. Fragment, 1' 5" high, in two pieces, now rejoined, showing in relief a female figure of the type of the Early School with exaggerated breasts, narrow waist and large hips. Head lost. Body apparently bare to the waist which is bound by a plain girdle from which depends a small fringed tassel. Nevertheless, below the girdle there are indications of drapery, though the navel is indicated as though the body were bare. In all probability some transparent fine muslin garment is meant to be indicated. Right arm bent at the elbow, the upraised (now lost) right hand apparently level with the shoulder and upholding a heavy beaded garland. Wears a flat torque and a necklace with two ornaments separated by a large oval bead. Below the navel, the body is clad in a single garment of heavier texture which falls schematically but not ungracefully almost to the now lost feet, the edges of the robe in archaic folds. The left hand rests by the left thigh near the knotted ends of some garment. The weight of the body is on the left foot, the right knee being slightly bent. Limbs noticeably long. Of grey speckled sandstone unpolished. Pl. LXVc.

9. Fragment,  $7\frac{1}{2}$  high, of female figure sitting with right foot bent under the body. Only part of right foot remains. All above waist lost. The back is bare save for a heavy jewelled girdle. Two corkscrew curls are visible on the back falling below what is apparently a plain belt round the waist. On left side, indications of drapery. The left forearm is held close to the side, the hand supporting an indefinable object which bears traces of red colouring. Five bracelets on the wrist. The figure may have been in the round but the fracture on the right side renders this uncertain. Fine reddish speckled sandstone very smoothly dressed but with no high polish. Pl. LXV j & k.

10. Fragment, 2<sup>3"</sup> high, of drapery of similar technique to No. 8.

11. Fragment,  $6\frac{1}{4}$  high, of drapery and lower legs of a figure. Resembling No. 8, but of inferior technique.

12. Fragment, 3" high. Bust and left shoulder of female with well developed breasts. A jewelled flat torque and a necklace of two rows of beads, which fall between the breasts, adorn the figure. Greyish sandstone. Technique similar to No. S.

13. Fragment,  $3\frac{3}{4}$ " high, of breast and left shoulder of male figure. Reddish sandstone unpolished.

14. Fragment, 9" high, of waist and left thigh of figure with drapery. Grey sandstone, greyish black on surface.

15. Fragment,  $3\frac{1}{2}^{*}$  high, of female figure. Right arm with five bracelets on wrist, the hand holding a spherical object. Part of abdomen with navel preserved. Unsmoothed and unpolished.

16. Fragment, 7'' high, of standing female figure. Feet and ankle alone preserved. Left foot in broadest aspect, plain heavy anklet. Figure apparently standing sideways. Calcined.

17 Fragment,  $4\frac{1}{4}$  high, with face of figure with high headdress in Bharhut style. Calcined.

18. Head,  $5\frac{1}{2}''$  high, with large and elaborate turban in Bharhut style. Unpolished and not smoothly dressed.

19. Fragment, 6" high, of right upper arm and elbow and part of lower arm and drapery. Red speckled sandstone, smooth but unpolished.

20. Fragment,  $S_{3}^{1''}$  high, with traces of drapery. Indefinable; speckled sandstone smoothed and unpolished.

21. Fragment,  $2\frac{3}{4}''$  high, with traces of female figure.

22. Fragment, 7" high, of waist of a figure in high relief. Only a broad jewelled girdle and arm preserved. Red speckled sandstone unpolished.

23. Fragment,  $4\frac{1}{4}$ " high, with traces of left leg and drapery.

24. Fragment,  $3\frac{1}{2}''$  high, head and bust of female with high headdress.

25. Fragment, 12" high, with traces of right hand and drapery.

26. Fragment, 2<sup>3</sup>/<sub>4</sub> high, with hand and bunch of lotus buds, possibly part of No. 24.

27. Fragment, 34" high, of arm and drapery. Smooth, unpolished.

28. Fragment,  $3\frac{1}{4}$  high, of female figure, greater part of head and left breast remaining.

29. Fragment, 4" high, part of head of some figure with brow adorned with rows of jewelled bands. Remains of an ornament in front, a kind of feathery horn or wing above ears, which are lost.

30. Fragment,  $3\frac{3}{4}^{"}$  high, of head with mural crown of merlons, above jewelled band. Pointed, faun-like ears, the left alone remaining. Crescent ornament in iewelled diadem. Traces of polish.

31. Fragment,  $8\frac{1}{2}''$  high, of arm and drapery. Smoothly dressed.

32. Fragment,  $3\frac{7}{8}''$  high, with drapery. Smoothly dressed.

33. Fragment,  $3\frac{7}{8}$  high, of human figure, part of one ear with long pierced lobe still preserved.

# (b) Animal figures.

34. Fragment,  $6\frac{3}{4}$  high, of highly polished sandstone, reddish with black dots, showing in high relief part of body and trace of leg of a bird, pigeon (?) Pl. LXVI, 11.

35. Fragment, 6<sup>1</sup>/<sub>4</sub> high, from monument similar to No. 34; polished in front and below. On a projecting ledge  $\frac{3}{4}$  deep, legs and feet of two birds, apparently pheasants, moving to left.

36. Fragment, 6" high, as above showing polish on face and under side. On front what appears to be the foot of some animal but indefinable. Possibly foot of a horse.

37. Fragment, 5½" high, as above. Projecting ledge missing. Body and part of tail and legs of pheasant (?). Pl. LXVI, 7.

38. Fragment, 5" high, as above. Body and part of tail and legs of a game bird, the spurred legs perfect. Feet on projecting ledge. Facing left. Right foot damaged. Pl. LXVI, 8.

39. Fragment,  $3\frac{1}{2}^{"}$  high, as above, with body of game bird. Left upper leg also preserved. Pl. LXVI, 9.

40. Fragment,  $3\frac{1}{4}$  high, as above. Head and neck of pigeon facing left. Pl. LXVI, 14.

41. Fragment,  $4\frac{1}{2}^{"}$  high, as above showing game bird, pheasant (?) facing right. Head destroyed but tail intact.

42. Fragment, 1" high, of projecting edge of similar monument. Foot of a game bird facing right.

43. Fragment, 4" high, as above with body of a bird, pigeon (?) facing right. Pl. LXVI, 10.

14. Fragment,  $5\frac{1}{4}$ " high, as above. Front and top both polished. Head and breast of a pigeon facing left. Pl. LXVI, 6.

45. Fragment, 3½" high, as above. Body of bird, pigeon (?) facing left.

43. Fragment,  $2\frac{1}{2}$ " high, as above. Traces of body and leg of a bird facing right. .

47. Fragment, 31," high, as above. Part of body of bird facing right.

48 (a). Fragment, 31," high, as above. Indefinable polished fragment, probably part of bird.

49. Fragment, 3<sup>1</sup>/<sub>8</sub> high, of head of bull. Red colouring. Pl. LXVI, 22.

50. Fragment, 3" high, of head of horned creature. Part of eyes only left. Calcined.

51. Fragment, 3" high. Legs of sitting bull. Pl. LXVI, 19.

52. Fragment,  $9\frac{1}{2}^{"}$  high, of head of  $n\bar{\imath}lg\bar{a}i$ . Harness-like strap on head. Part of right cheek and one horn lost.

53. Fragment, 4" high, of head of bull. Cf. 49. Pl. LXVI, 21.

54. Fragment,  $3\frac{1}{4}^{"}$  high. Highly polished. Indefinable, possibly head of an elephant.

55. Fragment,  $3\frac{1}{4}''$  high. Eye and part of face of animal.

56. Fragment, 34" high. Eye and part of face of some deer-like animal.

57. Fragment,  $3\frac{1}{4}''$  high, of animal with long snout-like face. Eye, deer-like and coloured red and white. Calcined.

58. Fragment, 3" high, of head of bull. One eye remaining. Calcined.

59. Fragment,  $2\frac{1}{4}^{"}$  high. Lion-like paw.

60. Fragment,  $3\frac{1}{2}$  high. Fore legs of sitting bull.

61. Fragment,  $5\frac{1}{4}$ " high. Fore leg and part of body of sitting bull.

62. Fragment,  $3\frac{1}{2}^{\prime\prime}$  high. Lion's paw.

63. Fragment, 5" high. Lion's paw.

64. Fragment,  $3_4^{3''}$  high. Fore hoofs of sitting bull and part of the second leg. LXVI, 15.

65. Fragment, 6" high. Ear of some animal figure. Calcined.

66. Fragment, 34" high. Hoof of bull.

67. Fragment, 14" high. Talon of unknown beast.

68. Fragment, 6" high. Hoof of fore-leg of bull and taloned paw of lion (?) from composite animal capital. Pl. LXVI, 23.

69. Fragment, 54" high. Hoof of bull.

70. Fragment, 3" high.' Two taloned paws of lion.

71. Fragment, 4" high. Bird-like taloned claw.

72. Fragment,  $4\frac{1}{4}$  high, of pedestal and fore leg and hoof of hind leg of a seated bull. Pl. LXVI, 18.

73. Fragment,  $3\frac{1}{2}''$  high, of pedestal and two legs of elephant facing left.

74. Fragment,  $6\frac{3}{4}$  high. Neck of an animal with horse-like trappings, ears small, face destroyed.

75. Fragment, 10" high, of neck of an animal probably winged lion.

76. Fragment, 8" high, of hind part of sitting bull. Portions still retain original polish.

77. Fragment, 8" high. Hind quarters of sitting bull, tail intact. Part of pedestal remains. Pl. LXVI, 16.

78. Fragment,  $8\frac{3}{4}$  high. In two pieces, now rejoined. Hind portion of seated bull with portion of pedestal. Polished stone. Pl. LXVI, 17.

79. Fragment,  $5_4^{3''}$  high, of animal figure. Indefinable. Polished.

80. Fragment, 8<sup>1</sup>/<sub>4</sub> high, of lion figure. Only part of mane remaining. Polish lost.
81. Fragment, 7" high, of animal figure. Indefinable, but possibly winged lion.
Cf. 75.

82. Fragment,  $3\frac{1}{2}^{"}$  high. Two pieces. Part of head and neck of maned lion. Red colouring on open mouth.

83. Fragment,  $3\frac{3}{4}^{"}$  high. Mane of lion.

S4. Fragment, 4" high. Mane of lion.

85. Fragment,  $6\frac{1}{2}^{\prime\prime}$  high, of wing of monster. Grey speckled sandstone.

86. Head,  $6\frac{1}{2}''$  high, of bull, in the round. Both horns and left ear lost, otherwise perfect. Fine speckled red sandstone. Possibly from capital. Cf. 78. Highly dressed surface. Smooth but not polished.

87. Fragment,  $4^{1''}_{2}$  high, of relief with part of head of elephant. Smooth, but unpolished.

38. Fragment,  $4\frac{1}{2}^{"}$  high. Indefinable, possibly head, with bands of ornament. Almost in the round, as only portion of back is left rough.

89. Fragment,  $3\frac{1}{2}''$  high, of animal foot. Smooth, unpolished.

90. Fragment,  $3\frac{1}{2}$  high, crossed paws of lion, apparently unfinished.

91. Fragment,  $7\frac{1}{2}$  high. Taloned claws of some fabulous beast.

92. Fragment,  $3\frac{1}{2}''$  high. Elephant's foot. Still retains polish. The foot was apparently raised, as the under side is polished. Reddish speckled sandstone, smoothly dressed, but now greyish black either from fire or material with which buried. Circumference of base of foot  $6\frac{1}{4}''$ .

93. Fragment, 7" high. Taloned claw resembling 91. Smooth.

94. Fragment,  $4\frac{1}{4}''$  high, of head of figure of which only pointed faun-like ear remains.

95. Fragment, 5" high, of winged animal. Polished reddish speckled sandstone.

96. Fragment, 3" high, of ear of an animal.

# (c) Railing pillars, cross bars and copings.

97. Railing pillars, octagonal, each side  $4\frac{3}{5}''$ , diameter  $10\frac{1}{2}''$ . Numerous fragments but no complete post. Highly polished. Mortice for circular bolt in one fragment. Many pieces calcined.

98. Fragment, (including tenon)  $8\frac{1}{2}^n$  high, from left upper corner of railing post showing maned lion with long tail facing right. Face partly destroyed. Unpolished. On upper edge, fragment of inscription in post-Asokan Brāhmī : *Ghasadavasa suta....* 

99. Cross bars of railings. Numerous fragments, most of which appear to have been burnt in some violent conflagration. Unpolished sandstone. Ten specimens shown in Pl. LXVII, 1-10. Of varying sizes, major axis from  $5\frac{1}{2}$ " to  $6\frac{5}{8}$ ", and from at least eight different monuments. Ornamentation in all cases floral. Lotus principal motif but ornament varied, honeysuckle and bead and reel moulding also occurring.

100. Coping 62" high. Plain but smoothly dressed. Calcined.

101. Fragments of rectangular railing posts, varying from 54'' to  $6\frac{1}{2}''$  in width. Floral ornament, tendrils and leaves, and garlanded stupa. Calcined.

102. Fragment, S" high, of railing post, seemingly irregular octagon; front face  $5\frac{1}{2}$ " side faces  $1\frac{1}{2}$ ". Simple floral ornament.

103. Fragment,  $7\frac{1}{3}^{"}$  high, of rectangular railing post, full width  $12^{"}$ , thickness 8". Above a Buddhist rail, a half lotus rosette with head of deer supporting two pairs of small ankleted feet on left edge.

#### (d) Capitals.

104. Fragments of capitals with Perso-Ionic volutes. Apparently with double brackets but no complete specimen recovered. Ornament floral, architectural and figured; smooth but unpolished. Pl. LXVII, 12, 14 & 21-29.

105. Fragments of Indo-Persepolitan bell capitals. Large proportion retain original polish. Some calcined. Bead and reel and cable mouldings. Diameter varies from one foot upwards.

106. Fragments of vase-shaped capitals. Below bead and reel moulding, a swelling bowl-shaped body. Some ornamented with lotus below moulding. Many polished. Diameter of one capital 1'7''.

107. Fragments, 1" to 6" in height of neckings of capitals, diameter 1' $3\frac{1}{2}$ ". Polished. 14 fragments inscribed. Inscriptions I-XIII. Pl. LXVIII, 1-14; 29 uninscribed fragments.

#### (e) Miscellaneous.

108. Fragments,  $1\frac{1}{2}^{"}$ ,  $2^{"}$ ,  $7\frac{1}{2}^{"}$  in length, of large wheel resembling that crowning the lion capital, but edge pointed. Excluding bosses 4" in thickness. Smooth but not polished.

109. Fragments,  $2\frac{3}{4}$ ",  $3\frac{1}{4}$ " high, of polished sandstone. One side plain, the other with ten raised parallel edges averaging  $\frac{5}{16}$ " apart but unequally spaced. Curved and probably part of umbrella. Similar fragments have been recovered in excavations at Pāțaliputra. Thickness  $\frac{5}{16}$ "  $-\frac{1}{16}$ ".

### (2) ANTIQUITIES OTHER THAN MAURYAN.

#### (a) Images and reliefs.

110. Fragment,  $6\frac{1}{5}$  high, of head of figure with curly locks. Traces of red colouring. Gupta. 1' 0" below surface.

111. Fragment,  $6\frac{1}{4}''$  high, of relief in Gayā stone. Upper portion of slab with defaced head of Bodhisattva under pīpal foliage. Traces of throne. To right, a stūpa; on either side of halo flying garland-carrying celestial on cloud. Mediæval. 2' 0" below surface.

112. Fragment,  $8\frac{1}{4}''$  high, from left of a relief of Buddha in *bhāmisparša-mudrā*. Right hand and left foot remain. Pedestal represents rocky ground. One demon figure under throne. 2' 0" below surface.

113. Fragment, including tonon, 3<sup>1</sup>/<sub>4</sub>" high, of pedestal of standing Buddha figure. Feet alone preserved. Traces of red colouring. Gupta. 3' 8" below surface.

114. Fragment, 2" high. Lotus blossom, from proper right of a statuette. Black Gayā stone. Mediæval. 4'0" below surface.

115. Fragment,  $6_{4}^{3''}$  high, lower portion of seated figure and pedestal. Traces of throne to left. Right hand in varada-mudrā. On right front of pedestal in

small panel, in very low relief, a seated humped bull. Mediæval. 6'0" below surface.

116. Fragment, 4" high, from right of pedestal of statuette, the edge inscribed in characters of 14th-15th Century, recording a gift by a female mendicant. 4' 1'' below surface.

117. Statuette,  $7\frac{1}{2}''$  high. Headless figure seated on lotus throne in *lalilāsana*. Right hand in *varada-mudrā*, left by the ankle. Bejewelled and probably Bodhisattva. 4'1'' below surface.

118. Fragment, 5" high. Left hand and drapery of Buddha image. Red colouring. Gupta. 1'6" below surface.

119. Fragment,  $6\frac{1}{2}''$  high, of superposed panels. Of upper one, a corpulent dwarf-like figure alone remains perfect. Traces of a hand in lower panel. 1' 6'' below surface.

# (f) Terra-cottas.

120. Fragment,  $2\frac{1}{2}''$  high, of cover of small vessel. Grey clay with black slip. Traces of a standing female figure. 2' 0" below surface.

121. Circular terra-cotta, diameter  $3\frac{3}{4}^{"}$ . Grey clay with black slip. Concentric bands with plain incised patterns. Hole in middle, and probably originally knob on back. Seemingly a die or stamp. 2' 0" below surface.

122. Fragment, 5" high, of terra-cotta plaque. Lower part of standing Buddha. figure with two figures to his left, one headless extended horizontally level with the feet of the Buddha, the hands touching the Buddha's left foot, the other depicted. i mi-corps with hands raised in adoration. Seemingly legendary scene. Cf. 123, 124. 3' 10" below surface.

123. Fragment,  $5\frac{1}{2}''$  high, of terra-cotta plaque from proper right of a relief depicting the mahāparinirvāņa of the Buddha. Right hand of the Buddha and crouching figure, below the bed, alone preserved. Cf. 122, 124. 4' 0" below surface.

124. Fragment, 5" high, of terra-cotta plaque, depicting the mahāparinirvāna of the Buddha. Feet and right hand and head of the Buddha lost. One royal figure in background. *Cf.* 122, 123. 4' 6" below surface.

125. Figurine,  $3_4^{1''}$  high, of parrot. 5' 0" below surface.

126. Fragment, 1<sup>3</sup>/<sub>4</sub>" high, of figurine of garuda (?). 5' 0" below surface.

127. Head,  $4\frac{1}{2}^{"}$  high, of Bodhisattva (?) figure with long flowing curly locks. Bright red colour. Beautifully modelled. Gupta or very early mediæval. 4' 2" below surface.

128. Figurine, 3" high. Bust of female. Three holes at the back of the head. 5' 6" below surface.

129. Terra-cotta,  $2\frac{1}{2}''$  high. Oblong vessel, rudely modelled horse or cow. Apparently *chirā gh*, the wick passing through the mouth. One leg broken. Grey clay.

130. Terra-cotta,  $1\frac{1}{8}^{"}$  high. Rectangular vessel  $1\frac{1}{2}^{"} \times 1\frac{1}{4}^{"}$  with black shiny slip. Handle and spout(?) both broken. Resembles pottery ascribed to Kushān period. 5' 0" below surface.

131. Fragment,  $2\frac{7}{8}$ " high. Spout of vessel fashioned in form of long-snouted. crocodile. Red shiny slip. 3' 6" below surface.

132. Brick capital of circular pilaster, 5½" high. Gupta. 3' 9" below surface.

133. Five carved bricks,  $8\frac{1}{2}$ " to 9" long, with floral designs and incised squares. Gupta. 2' 0" below surface.

134. Terra-cotta,  $3\frac{1}{4}$ " high. Ornamented base of dwarf pilaster. Gupta. 4' 3" below surface.

135. Four fragments,  $8\frac{1}{2}$ " to 1' 2" high, of terra-cotta ornament. Thick bricks with foliage in spirals modelled before burning. Very deeply and beautifully cut and 4" in relief. Gupta. 3' 0" below surface.

136. Open-mouthed bowl,  $3_4^{1''}$  high. Broken on one side. 6' 1" below surface. 137. Wide-mouthed vessel,  $4_4^{3''}$  high. Broad lip. 5' 1" below surface.

138. Wide-mouthed chat,  $6_4^{1''}$  high. Red slip, half way down. Had held line. 5' 0" below surface.

139. Narrow-mouthed pot, 1' 3" high, diameter of mouth  $4\frac{3}{4}$ ". Found in room to west of boundary wall of monastery, along with No. 140.

140. Narrow-mouthed pot,  $10\frac{1}{2}^{"}$  high; diameter of mouth  $5\frac{3}{4}^{"}$ . Vase-shaped with broad lip. Red slip. Along with No. 139.

141. Two alms bowls (*bhikshāpātra*)  $5\frac{1}{2}''$  and  $5\frac{3}{4}''$  high; diameters at top  $8\frac{1}{2}''$  and  $7\frac{1}{2}''$  respectively. Grey clay with black glaze. One damaged, the other in perfect condition. Found 3' 0'' below surface.

142. Two open-mouthed vessels, 2' 0" and 2' 2" high ; diameter at mouth 1' 10". Thick coarse fabric. Found filled with sand, along with No. 139, etc.

143. Bowl, 1'  $l_{\frac{1}{2}}^{\prime\prime}$  high; diameter at mouth 2' 1". Along with No. 139, etc.

144. Bowl,  $8\frac{1}{4}$ " high, diameter at mouth 1' 4". Broken on one side. Along with No. 139, etc.

145. Wide mouthed pot, 1'2" high; diameter at mouth 8". Coarse fabric. Along with No. 139, etc.

146. Narrow-mouthed pot, 1' 3" high; diameter at mouth  $5\frac{1}{2}$ ". Along with No. 139, etc.

147. Pot, 8" high ; diameter at mouth 7". Along with No. 139, etc.

148. Five sealings, diameter  $1\frac{1}{2}^{\nu}$ , with 18 lines of inscription in minute characters. *Cf.* No. 41 above, *p.* 103. 5' 2" below surface.

149. Sealing, 1" diameter, with seven rows of dots and indefinable figure. 4' 1" below surface.

150. Sealing, diameter  $\frac{3}{4}$ ", with four-lined inscription c. 6th Century A. D. 4' 1" below surface.

### (g) Miscellaneous.

151. Fragment,  $4\frac{1}{4}$ " high, of shallow steatite vessel with straight rim, base ornamented with crude incised lines. Greyish black on outside, lighter where fractured. 4' 0" below surface.

152. Railing pillar,  $2' 3\frac{1}{2}''$  high. Three flutings on front. One circular lotus medallion complete and two half rosettes. c. 1st Century B.C. Near surface.

153. Railing pillar, 3' 2" high, in two pieces now rejoined. Lotus medallions. c. 1st Century B.C. Near surface. 154. Railing pillar, 2' 4" high, with rectangular panel of lotus flowers, leaves and seed vessels. Tenon above. Lower part of stone missing. On upper front face inscription in later Mauryan Brāhmī vedikā dānam (Pl. LXIX e). Near surface.

155. Railing pillar, 2'  $5\frac{3}{4}$ " high, with three lotus rosettes c. 1st Century B.C. Near surface.

156. Fragment,  $3\frac{1}{2}^{"}$  high, of stucco. Eye of large image. Traces of red colouring. Pupil indicated in black ; a black line  $\frac{1}{2}^{"}$  wide inside eyelids, remainder of eye white. 3' 0" below surface.

157. Architectural fragment, 1'  $3_4^{3''}$  high. Heavy block with chaitya window ornament. Under one to right, a seated Bodhisattva (?) figure. Gupta. 3' 6" below surface.

158. Architectural fragment,  $1' 4\frac{3}{4}''$  high, resembling 157 above but with elliptical arch and dwarf pilasters. Under arch, seated defaced figure. Gupta. 3' 6'' below surface.

159. Stone bowl, 1'  $3\frac{1}{2}$ " high; diameter 2' 1", thickness  $2\frac{1}{2}$ ". Found filled with lime and sand, along with No. 139, etc., in room west of boundary wall.

160. Stone grinding stone,  $1' 2_4^{3''} \times 8''$ . Much worn. 5' 1'' below surface.

161. Stone pestle, 91 long. Much worn. Along with No. 160.

## Inscriptions.

Forty-four new inscriptions were discovered during the season. Of these, eighteen are repetitions of the Buddhist creed and do not require to be dealt with in detail, as they are only of importance for settling the date of the objects on which they are found. Those of greater interest are dealt with below, and, with the exception of those recording the Buddhist creed and No. XLIV, are arranged in chronological order. As will be seen, they range from the Mauryan period to mediæval times and several are of special interest.

The following notes on these epigraphs have been drawn up by Pandit Hirananda Shastri, M.A., M.O.L., Curator, Lucknow Museum, and Mr. Y. R. Gupte, B.A., Assistant Surveyor. The former has dealt with those of the early period, namely, Inscriptions I—XIII inclusive, the latter with those of the Gupta and Mediæval periods, namely, Inscriptions XIV-XLIII.

# Inscriptions I-XIII.

The following thirteen inscriptions, found on fragments of polished capitals (Pl. LXVIII) during the excavations this year west of the Aśoka column at Sārnāth, are all donative and resemble in character and other respects those incised on the railings of the Bhārhut and Sāñchī stūpas. They record the names of the pious donors and mention their occupation or calling and in some cases their place of residence. The letters of these inscriptions closely resemble those of the Bhārhut railing but their alphabetical character is practically the same as that of the time of Aśoka. Some of the characters, such as the symbols for ya and sa, do, indeed, show a slight development but it is not pronounced.

From such fragmentary and meagre inscriptions it is impossible to draw any wide conclusions regarding the language, but it may fairly be surmised that it differed but little from the literary Pālī and still less from the dialects of Aśoka's edicts. It shares the peculiarities of the language of the Bhārhut inscriptions and like that can fairly be ascribed to the period of the Mauryas. This we learn from comparison, for instance, of the genitives of the feminine stems in i (e.g., Ujeni and  $^{\circ}Hariti$ ). They sometimes end in ya (No. 1) and sometimes in ye (No. IX). This, we know, is due to the mixture of the terminations used in the eastern and western versions of Aśoka's edicts. The indication of donation by the word danam, as we see in the inscriptions of Sañchī and Bhārhut, points to the same conclusion. On these grounds, it will not be unreasonable to assign these inscriptions to the end of the third or first half of the 2nd century B.C.

It is to be regretted that, owing to the fragmentary nature of the remains, but few of the names of the donors are complete. Only two names,  $Visad\bar{e}va$  and  $Agath\bar{i}$ , occur in full and one of them is the name of the mother of the donor. The former is, I think, incorrectly <sup>1</sup> spelt and stands for  $Viscud\bar{e}va.^2$  The latter I believe to be the Prakrit form of  $Agast\bar{i}$ <sup>s</sup> (a female descendant of Agastya). Both these names are connected with the ancient Vedic worship and, like the names in the Sāñchī inscriptions, would go to indicate the existence of it in the third and second centuries B.C.

Another noteworthy name, which one of these inscriptions (No. I) records is that of Hāritī, reminding us of the demoniacal goddess, the devourer of the children of Rājagriha, who was converted by the Buddha. Unfortunately, the inscription is incomplete and it is not certain that the whole of the name has been recovered. Of the geographical names in these records only two can be made out and identified with certainty. One is Ujēnī, the modern Ujjain, the other is Pāţali(putra), the present Patna. The second component of the latter name has not been found, but the restoration becomes practically certain when the record is compared with some of the Bhārhut inscriptions.<sup>4</sup>

### I

### -hāritiya thambhō dānam.

" Pillar, gift of "Hāritī." (Pl. LXIX a).

#### Π

### Ujēni [ya].

### "Of Ujjain." (Pl. LXVIII, 9-10).

<sup>&</sup>lt;sup>1</sup> Negligent spelling is not uncommon in the Sanchi inscriptions. Cf. Bubler Ep. Ind. Vol. 11, p. 10.

<sup>\*</sup> This name occurs in Sanchi inscriptions (No. 95) Ep. Ind. Vol. II, p. 107.

<sup>&</sup>lt;sup>3</sup> Panini, Ashtadhyayi, VI. 4, 149.

<sup>.</sup> Cf. Cunningham. Stupa of Bharhut, p. 139, Nos. 2, 4,

Thambho.1 (Pl. LXVIII, 11).

" Pillar."

IV

Vipa? (Pl. LXVIII, 13).

V

Pāțali [puta\*].

"Pațali [putra\*]." (Pl. LXVIII, 14).

# VI

-nakasa Agathiputa[sa].

"Of . . . . . naka, the son of Ágathi (Agasti)." (Pl. LXVIII, 1).

# VII

Sugutāya thambhō dānam.

"Pillar gift of Suguta (Sanskrit Sugupta ?)." (Pl. LXVIII, 2).

# VIII

-dakasa sathavāhasa Visadēva [sa\*].

"Of . . . . . . . . the merchant Visadeva (i.e., Visvadeva)." (Pl. LXIX c).

## IX

-niyē tham [bho\*].

"Pillar gift of . . . . . " (Pl. LXVIII, 4).

#### х

[dā\*]nam.

" Gift." (Pl. LXVIII, 5).

### XI

Ujenakasa su [ta\*].1

".... Of Ujjain." (Pl. LXIX d).

### XII

[tham\*] bho danam.

"This pillar ..., gift." (Pl. LXVIII, 7).

### XIII

-sa sathavā [hasa\*].

"Of merchant-" (PI. LXVIII, 8).

### XIV

This inscription is found on the pedestal of a statuette of a standing Buddha figure, of which only the feet and a fragment of drapery remain, but to the right of which is a headless worshipper. It is in two lines and reads :---

1. Deyadharmmo=yam Šakyabhikshunya Dharmmade . . .

2. yā yad=atra puņyam . . . mātā pitro[h] sarvvasa . .

"This is the pious gift of the Buddhist nun Dharmmade . . . . Whatever merit there be, . . . . of parents and all (sentient beings)."

The inscription may be assigned to the latter half of the 4th Century A. D.

For Ujfnika used as an adjective of. Sanchi 1. 121, 214, 266, 326, Ep. Ind. Vol. II, pp. 110, 879, 385, 391.

R 2

<sup>&</sup>lt;sup>1</sup> Ujēnakasa is propebly a mietake for Ujēnikasa. Of. Sanchi No. 266, Ep. Ind. Vol. II, p. 385.

### XV

This inscription was found on the pedestal of a Buddha image (Pl. LXIII b) recovered east of the Main Shrine. It consists of three lines and runs :--

- sachatuµpañchāśad-uttarē bhūmim rakshati 1. Varshaśate Guptānām Kumāraguptē māsē Jyēshțhē dvitīyāyām ||
- yatinā pūjārttham=Abhayamitrēņa pratim= 2. bhakty-āvarjjita-manasā âpratimasya guņai [r=a] pa [rē] yam [kā] ritā Šāstuķ∥
- puņyēn=ānēna 3. mātā-pit ri-guru-pūrttiķ 1 satvakāyo=yam labhatām = abhimatam=vpasamam=a h . . . . yam

"When a century of years increased by fifty-four of the Guptas had passed away and on the second day of the month of Jyeshtha, when Kumaragupta was protecting the earth, this image of the Teacher (Buddha), which is unparalleled for its merits, was caused to be made for worship by Abhayamitra, a monk with mind subdued through devotion. By this religious merit (acquired) let (all) parents and preceptors and the multitude of sentient beings obtain the desired extinction (from worldly existence.) ... "

This inscription of Kumāragupta and the following two of Budhagupta are of much value since they give definite dates for these princes whose history is for the most part shrouded in mystery.

Kumāragupta II's date is put as circa 530 A. D. by Smith.<sup>2</sup> Now, for the Kumāragupta of this inscription we get the date G. E. 154 (A. D. 473-474). This, however, apparently conflicts with the dates of Skandagupta namely cir. 455-480 A.D. But there will be no contradiction if we assume that Kumāragupta II was only a governor in G. E. 154. If we reject this view, we shall have to assume that another Kumāragupta was reigning at the time over the province of Benares. The latest coins of Skandagupta bear the date G. E. 148. Puragupta was the halfbrother of Skandagupta and was succeeded by his son Narasimhagupta after whom came his son Kumāragupta II.<sup>3</sup> We must have some margin for Puragupta and Narasimhagupta, who was succeeded by Kumāragupta II. For two or three generations six years may seem too short a period in the ordinary course. On this supposition it is not absolutely safe at this stage to express an opinion as to whether the Kumaragupta of the Sarnath record is Kumaragupta II. Further discoveries may throw light on the subject. (Pl. LXIX n).

# XVI.

This is a fragmentary inscription in three lines engraved on the pedestal of a beautiful image of the Buddha standing on a lotus (Pl. LXJII d). The portion of the stone to the proper left is missing. The inscription reads :

1. Guptanām samalikkrāntē sapta-pamchāśad-uttarē (|) śatē samānām prithivīm Budhagupte praśasati

2. Mayā kārit=Ābhayamitrēņa pratimā Sākyabhikshuņā || imām=u[ddhasta<sup>1</sup>-sachchha] tra-padmāsa [na] . . . . . .

Daya Ram Sahni suggests pürzeih, which is a better reading. Ed.

<sup>:</sup> V. A. Smith. Larly History of India. Third edition, Oxford, p. 327.

<sup>&</sup>lt;sup>3</sup> Ind. Ant. Vol. XIX, pp. 221-229. Cf. Ep. Ind. Vol. VIII. Appendix I, p. 10.

<sup>\*</sup> Daya Ram Sahni suggests uddanda meaning lofty. Ed.

For translation and remarks see XVII infra.

### XVII.

This inscription is found on the pedestal of a Buddha image similar to that bearing inscription No. XVI (Pl. LXIII a). The part of it to the proper left is out on a piece of a halo found some distance away, which has now been carefully refixed. The piece must have belonged to an earlier image of the Gupta period. Though both of the parts were engraved at, or about the same time, they are probably the works of different hands as can be judged from the slight variation in the *ikāra* strokes and the lower portion of *ma*. The inscription reads :

1. [Guptänäm samatikkränte sa]pta-[pamchäśa]d—uttare sate samänäm prithinim Budhagu [pte] prasäsati || Vaisäkha-mäsa-saptamyäm mű [le]...

2. [mayā | kārit=Ābhayamitrēņa] pratimā Šā [kyabhikshuņā ||] imām . . . .

On comparing the estampages of the above two fragmentary and damaged inscriptions, Nos. XVI and XVII, and the stones themselves in all lights it has been found possible to restore all the letters. The inscriptions, it need hardly be remarked, are identical. The verses run:

Guptānām samatikkrāntē sapta-pamchāšad-uttarē | šatē samānām prithivīm Budhaguptē prašāsati || Vaišākhamāsa=saptamyām mūlē šyā[ma-gatē] mayā | kārit=Ābhayamitrēņa pratimā Šākyabhikshuņā || imām=uddhasta-sachchhattrapadmāsana-vibhūshitām | Dē[va] putravatō di[vyām] chitravi[dyā] sachitritām || yad=atra puņyam pratimām kārayitvā mayā bhritam || mātāpittrōr=gurūnām cha lōkasya cha šamāptayē ||

"When a century of years increased by fifty-seven of the Guptas had passed away and on the seventh day of the dark fortnight of Vaiśākha, when the lunar mansion was Mūla, when Budhagupta was ruling (the earth), this charming image of one having divine sons (disciples) (Buddha), that is adorned with wonderful art was caused to be made by me Abhayamitra, a Buddhist monk. Whatever religious merit I have acquired in causing this image to be made, let it be for the attainment of final beatitude of my parents, preceptors and mankind."

Divya has been rendered by ' charming'.

 $D\bar{e}caputravatah$  gen. of  $D\bar{e}caputravat$  is a curious expression. It stands for Buddha, however, whatever particular interpretation may be put on it.  $D\bar{e}va$  adj. means divine and noun, a god.  $D\bar{e}va$ , no doubt, is applied to kings as an honorific title. But Buddha had no sons who could succeed to his principality. Nevertheless, the monks were likely to take pride in addressing him by titles peculiar to kings. In the above translation, however,  $d\bar{e}va$  has been rendered by ' divine.'

The main interest of these inscriptions centres in the fact of their being dated in the Gupta era and the mention of the name of the ruling monarch. 'Lue Eran stone pillar inscription of the year G. E. 165 A.D. (484-5), of Budhagupta who came of the Izo Imperial Gupta Dynasty but whose power was supposed to be very much limited is well known. But at Sārnāth the present records carry us eight years back, viz. to A.D. 476. "In the western province of Mālvā", remarks Mr. Smith, "we find re-cords of Rājās named Budhagupta and Bhānugupta, who cover the period from 484 to 510 and evidently were the heirs of Skandagupta in that region".<sup>1</sup> Mālvā, it will be-seen, was ruled through a viceroy and Sārnāth is far from Mālvā. So the extent of Budhagupta's kingdom cannot have been very restricted. Nor can it be safely argued that the donor Abhayamitra came from Mālvā and so wrote the name of his king. We have above an epigraph due to him of the reign of a Kumāragupta. Further-more, in that case, a man from a far off province would be expected to give the name of the ruler who had control over the holy place. Again in the Eran pillar inscrip-tion the words "Kālindī-Narmmadayōr=mmadhyaṁ"<sup>2</sup> reveal the fact that even a feudatory of Budhagupta was governing the country between the rivers Kālindī or the Jamnā and the Narmadā. It is clear, therefore, that Budhagupta can have been no insignificant monarch. no insignificant monarch.

no insignificant monarch. Dr. Kielhorn in his supplement to Northern list *Ep. Ind. Vol. VIII*, Appendix 1, *p.* 10, footnote 3, says regarding Budhagupta and Bhānugupta that the relation. of them to those preceding them in the list cannot be given for the present. He assigns the date A.D. 484 for Budhagupta, I presume from the Eran pillar inscrip-tion, and seems to be inclined to believe that they came from the Imperial Gupta family as he gives their names below the Early or Imperial Guptas. Budhagupta's date is so near to that of the Kumāragupta of our inscription (No. XV) that we cannot but consider them as related. Again the finding of records at the same place *viz.*, Sārnāth and the fact that they were engraved for one donor, *viz.* Abhaya-mitra, point to the same conclusion. mitra, point to the same conclusion.

# XVIII.

This inscription (Pl. LXIX f) is cut on a detached pedestal of an image of Buddha found east of the Main Shrine. It is in two lines and reads:

- 1. Gurum pūrvvangamam kritvā mātaram pitaram tathā kāritā pratimā Šāstu [ħ\*] Šīlas [ē] n [ē] na bhikshuņā
- 2. Yad=attr=ānuttaram puņyam nirvvāņa-śrēya-labdhi vā | tēna jñāna-sukha-prāpta (ā) h satvā bhavantu nirmmalā [h\*] ||
  This epigraph is full of mistakes. Two viz. the visarga after Sāstu in line 1

and *prāptah* for *prāptāh* are evidently due to the engravor's carclessness. But the composition also is faulty. "*Nirvvāņa-śrēya-labdhi vā*" can hardly be a blunder of the engraver. Nor can the fault be avoided by reading *śrēyō-labdhir=vā*, for the reading does not agree with the metre. There is also another mistake in the metre due to the plural form bhavantu.

With this inscription cf. No. V, p. 75, A.S.R. for 1907-08. There purveau-gamam has been rendered by, beginning with. In the present instance if it be trans-lated by the same words the fault will be  $d\bar{u}r\bar{a}nvaya$ .

÷ .

The sign of punctuation is a dash and is used twice in line 1.

Smith, Karly History of India, Third Edition, Oxford, pp. 314-5.
 Hect, Corpus Inscriptionum Indicarum, Vol. III, pp. 88-00.

"Having honoured (his) preceptor and parents, (this) image of the teacher (Buddha) was caused to be made by the monk Śilasēna. Whatever supreme merit, or attainment of extinction from worldly existence or final beatitude there be, by it let all the sentient beings that have acquired knowledge and happiness, become sinless."

The record may be assigned to the end of the 5th Century A.D.

### XIX.

This inscription (Pl. LXIX m) in two lines is engraved on the pedestal of a large Buddha image of which only the feet remain, and runs:

 [Dē]yadharmmô=yam paramopāsaka-Narņņaņa-mātāpitaram=uddiśya kāritā\\yad=atra puņyam

2. tad=bhavatu sarvvasatvānām=anuttarajñānāvāptayē ||

"This is a pious gift. (This image) was caused to be made with reference to the parents of the great lay disciple Narnnana. Whatever merit there be, let it be for the attainment of supreme knowledge of all sentient beings."

The *ikāra* stroke should be marked, for it shows that this record must be later than the dated inscriptions recovered. The characters may be assigned to the 6th Century A.D.

### XX.

This inscription is found on two scalings of baked clay, the diameter of which is 1", and is in four lines. It reads:

1. Śri Saddha [rmma-cha] kkrē

2. Śrī Mülagandha-

3. [ku] tyäm bhaga [vatõ]

4. . . . . . . . . . . .

" In the illustrious Mūlagandhakuțī of the Holy One, at the celebrated Saddharmmachakra."

The characters are of the 7th Century A.D.

With these scalings may be compared F(d) 5 Sārnāth Museum Catalogue, where similar ones run :

1. Śri Saddharmmachakkrē Mū-

2. -la-gandhakutyām bhaga-

3. vata [h].

The characters have been ascribed to the 6th or the 7th Century A.D. Mr. Daya Ram Sahni, the author, laments the disappearance of such scalings. Fortunately for the Museum collection the two now discovered have the same inscription save that they have one more Sri before Milagandha.

### XXI

This inscription, of about the 9th Century A.D., in one line, is cut on a stone forming part of a base of a small structure (Pl. LXIX g) and reads:

Ōm pitur=uddiśya Amritapālēna kāritam.

"Om. (This structure) was caused to be made by Amritapāla having reference to his father." -sya and .1 are not compounded probably because the name Amritapála. might otherwise be missed by the readers.

# XXII

Similar to No. XXI. The inscription reads :

Om. māmak=öddiśya Amritapālēna kāritam (Pl. LXIX k).

"Om. With reference to (his) maternal nucle, Amritapala caused (this structure) to be made."

With Nos. XXJ and XXII compare No. VI, p. 75, A. S. R. for 1907-08.

Amritapāla of the present inscription is in all probability the same person as in Dr. Konow's inscription No. VI.

# XXIII

This inscription in Sanskrit is found on oval tablets and contains eighteen lines of very small letters.<sup>1</sup> In the middle is a representation of a stupa. The characters belong to the 9th or the 10th century A.D. The last four lines contain the Buddhist creed. The rest cannot yet be satisfactorily deciphered even with the aid of a magnifying glass. Sufficient, however, has been read to make it evident that the first fourteen lines, besides salutations to Buddha, contain a mantra or mantras of the Mahayanist school. I have had this verified by Prof. Dharmanand Kosambi of He writes to me in his letter of 30th August 1915 that similar mantras Poona. are found in the Mahayanist literature. For instance, the Sikshāsamuchchaya of Śantidevacharya (Biblio. Buddhika, edited by C. Bendall, pp. 139-142) contains specimens of similar mantras. A Japanese friend of the Professor says. that a similar mantra, found in Amogha's translation of the Bodhimandaladharina, is used generally by the Buddhist laymen to purify themselves and to get children ! These kinds of mantras are not met with in Pali literature.

# XXIV

This inscription, in one line, is found on the pedestal of an image seated on a lotus and reads :

Deyadharmmo=yah (yam) || Ka [chhatpinārtambha ? (sic) ] kāyāh ||

"This is the pious gift of . . . . . . . . . . . by . . . (?)"

The name of the donor, who seems to have been a lady is partly lost. The letters beginning with Ka... may denote her name.

# XXV

This inscription is engraved on the base of an image (Pl. LXIX i-j) and is in one bine. It reads :

[Dēya\*-]dharmmō=yam paramōpāsikā-śrī-Jasamaņa- [U] dayana-Vikarma-mātāḥ,

"This is the pious gift of the mother (or mothers) of the illustrious, Jasamana. Udayana and Vikarma, (who is) a female lay disciple."

The grammar is bad as can be seen from the form  $m\tilde{a}t\bar{a}h$  and the negligence of the Sandhi rule in the case of -na Udayana.

The inscription may be assigned to the 12th or the 13th century A.D. and is thus the latest one recovered during the season under report.

### XXVI-XLIII

All these inscriptions contain the Buddhist creed or fragments of it. They are to be assigned from the 5th to the 12th century A.D.

### XLIV

On the extreme right edge of the top step of the monolithic stairs on the east side of the Jagat Singh stupa, an inscription was discovered identical with that found during the explorations at this site in 1907-8 on the stairs to the south.<sup>1</sup> It reads':-

āchāruvānam Sarvvāstivādinam parigraha[4]

"homage of the Sarvastivadin teachers."

As the third identical inscription of the Sarvästivadins at Sarnath, the epigraph is not On the right hand side of the sloping edge of the same stairs are without interest. traces of an earlier inscription deliberately effaced and probably by the Sarvāstivādins.<sup>2</sup>

In conclusion, though the excavations have not, except on the north, disclosed any extensive architectural remains, and though, indeed, such could hardly have been anticipated, they have, nevertheless, been extraordinarily fruitful, yielding epigraphical material ranging from the 2nd Century B.C., to the 12th Century A.D., a wealth of images and objects of artistic and archæological interest, and, above all, have added definitely to our knowledge of the early history of India in supplying two new dates for the Gupta period.

The remains found to the west of the Asoka column throw light upon those monuments of Sārnāth which existed during the first three centuries before our era. How numerous these must have been is witnessed by the extraordinary abundance of the finds, while the many different forms of railing cross-bars, capitals, human and animal figures, and the fragment of a large wheel, which must have been intended to crown some lofty column, indicate no less strikingly their beauty and variety. Of what structure, torana, railing, capital or frieze, the now fragmentary polished birds once formed part, it is impossible to state, but it is noticeable that the edges of the stones bearing these figures are straight, not curved, and that both the upper and lower edges are polished and presumably intended to be visible. Similarly, exactly what part in the architectural scheme was played by the human and senihuman figures of which only the heads have been recovered, cannot definitely be Nevertheless their diversity, the mural crowns, laurel wreaths and faun-like stated. ears are all additional material for the student of the history of art. But they do more than merely confirm a long advanced theory of foreign origins. They prove that side by side with the semi-archaic Mauryan images from Patna and the unifaci-

Parkham image in the Mathura Museum, there existed others of more advanced

<sup>&</sup>lt;sup>4</sup> A. S. R., 1907-08, p. 73. Pl. XXI l. <sup>2</sup> Cf. A. S. R., 1906-07, p. 96.

type. It is true that the heads of the recently recovered Sārnāth figures, though in the round, do not all appear to have been those of free standing statues, as is indicated by the small unpolished portion at the back, and, moreover, with one possible exception, none of the recovered fragments could be identified with any certainty as . part of the body of a human figure. Nevertheless, bearing this in mind and making all allowance for a coarseness common to colossal figures, there is a wide difference between the realistic heads from Sārnāth and those of the colossi of Patna and Parkham. The strongly modelled head of the figure (Fl. LXVI, 4), the anatomically correct ear, and, above all, the poise of the head mark a considerable advance. while no less striking is the seeming portrait head shown in Pl. LXV, h and i.

Previous explorations of this site had tended to prove that the Buddhist commumity at Sārnāth attained its highest prosperity in the Gupta period (c. 300-600 A.D.) and the recently recovered antiquities confirm this belief. As examples of purely decorative art, the architectural fragments depicted in Plate LXIV a and d, cannot fail to evoke admiration, while the chaste simplicity and beauty of the two capitals (Pl. LXV b) are no less noteworthy.

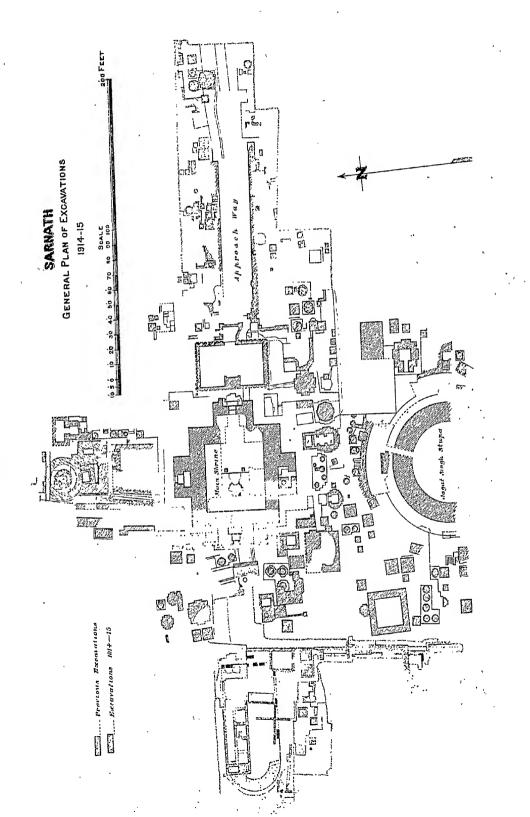
The numerous Buddha figures of the same period present no new artistic features of special interest but the three inscribed and dated images (Plate LXIII a, b and d), are of particular importance. The two dated G. E. 157, "when Budhagupta was ruling ", present no special difficulty and may be accepted as adding another date to the two already known of Budhagupta and, by bringing the commencement of his reign but three years earlier than has been suggested, do no violence to the commonly accepted chronology.<sup>1</sup> But it is otherwise with that dated G. E. 154 "when Kumāragupta was protecting the earth". Now, as all three images were dedicated by the same monk, one Abhayamitra, in the same place and within three years it may, despite the slight difference in the wording, he fairly assumed that the Kumāragupta and Budhagupta of the inscriptions ruled over the same region, that Sarnath was included in that territory and that Budhagupta succeeded Kumāragupta and was probably his immediate successor. But the question arises, 'Who is this Kumāragupta ?' IIe cannot be Kumāragupta I, whose known dates run from G.E. 96 to 117, for the Bhitari inscription proves Skandagupta, with dates G.E. 136-148, to have been his successor. Nor is it likely that he is the Kumāragupta II Kramāditya, the son of Narasimhagupta, whose reign, according to Allen,<sup>2</sup> was from c. 530-540 A.D. and to whose genealogy the Bhitari<sup>3</sup> seal, which omits Skandagupta, bears witness.

Mr. Gupte in dealing above with these inscriptions rightly leaves the question open for the present, but suggests that G.E. 154 apparently conflicts with the dates given by certain authorities for Skandagupta, c. 455-480 A.D. But as the latest known date of Skandagupta is 467-468 A.D., the seeming confliction does not actually occur. He also offers the suggestion that the Kumāragupta in question may have been actually a governor in G.E. 154. Personally I favour the last pro-

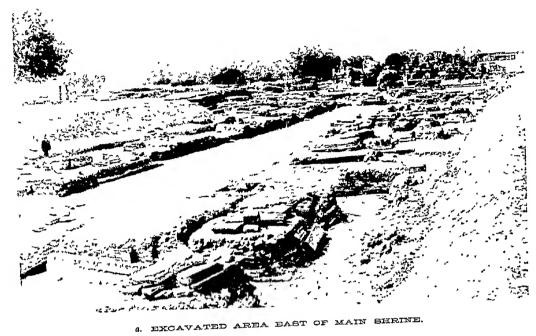
Allen. Catalogue of Indian Coins. Gupta Dynasties. London 1914, p. 153, where c. 480-500-A.D., proposed. The case 300-400 A.D., on p. CXXXVII of the same publication must be a typographical error.

<sup>\*</sup> Buitari, it man be noted, is 20 miles by rail from Särnüth.





# SARNATH EXCAVATIONS.





EXCAVATED AREA WEST OF MAIN SHRINE. ь

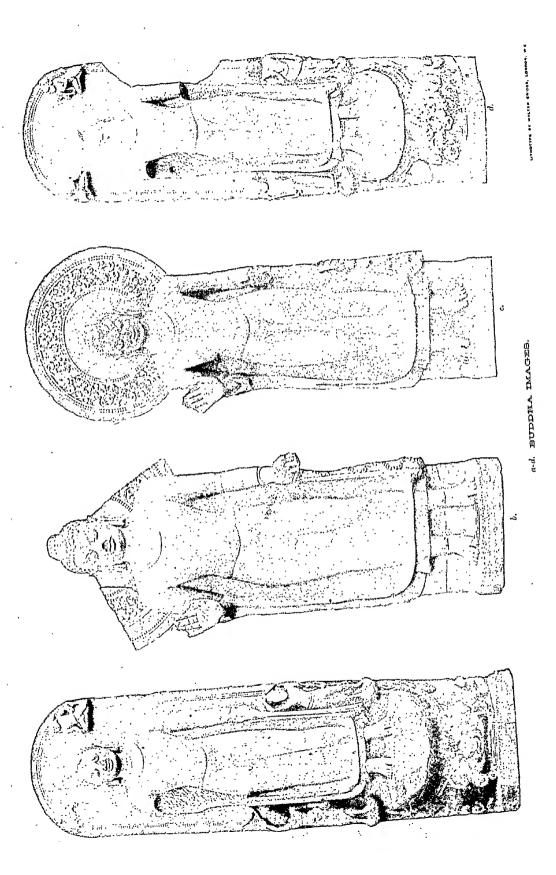


6. EXCAVATED AREA NORTH OF MAIN SHRINE.



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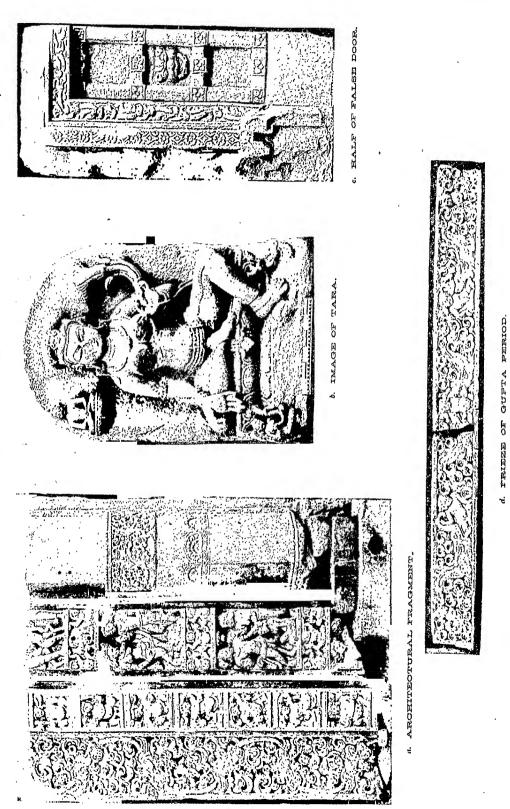
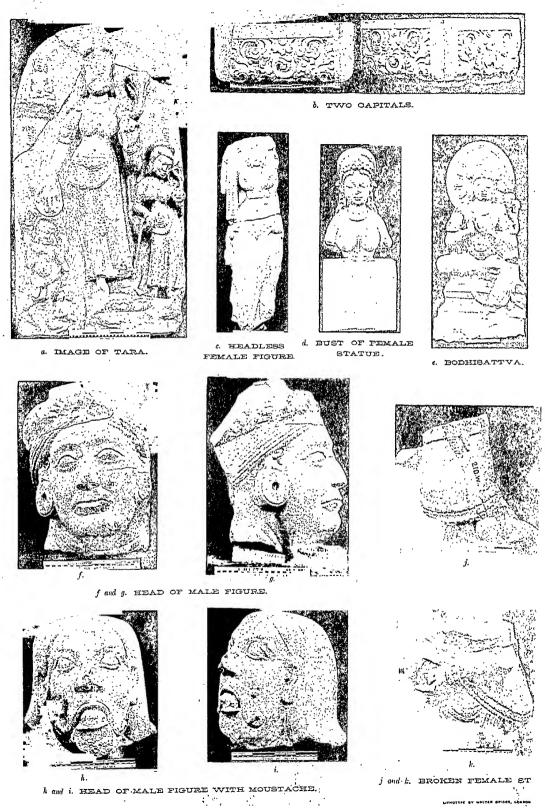


PLATE LNIV.

\*\*\*\* B\* WALTEN BRIDGO, LOUNDU, 4

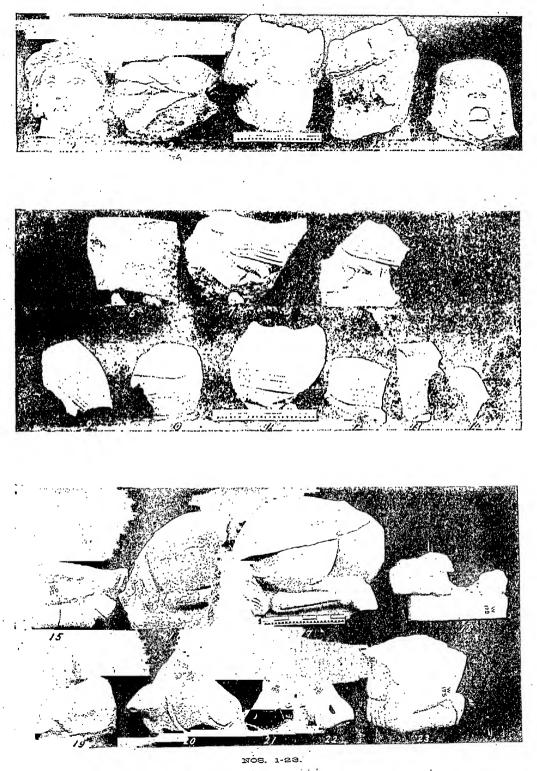
#### SARNATH EXCAVATIONS.

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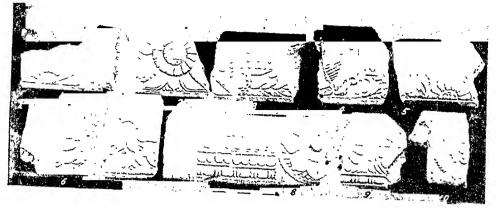


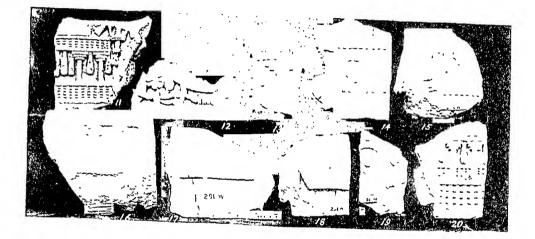
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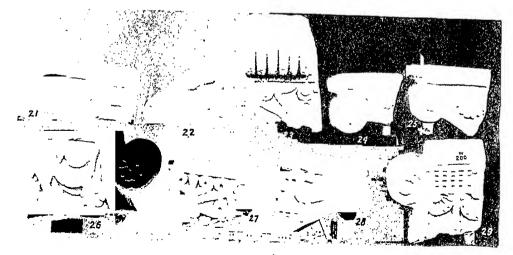




LITHOTYPE BY WALTER GRIEDE, LONDON, W.G.

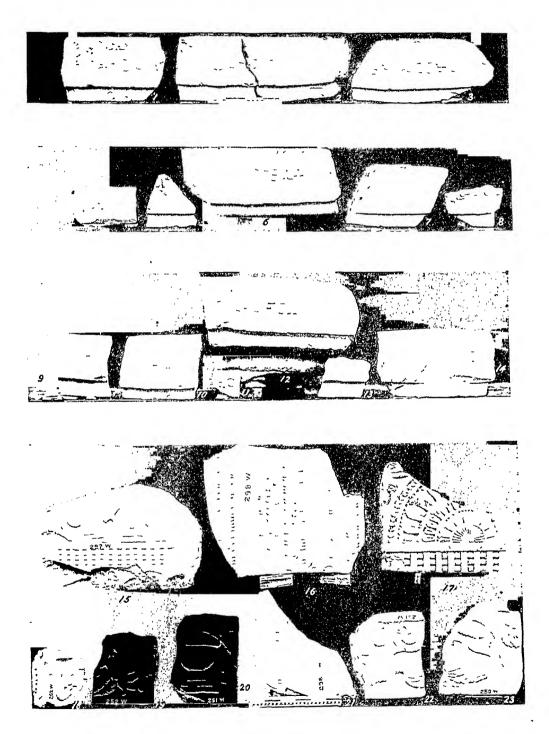




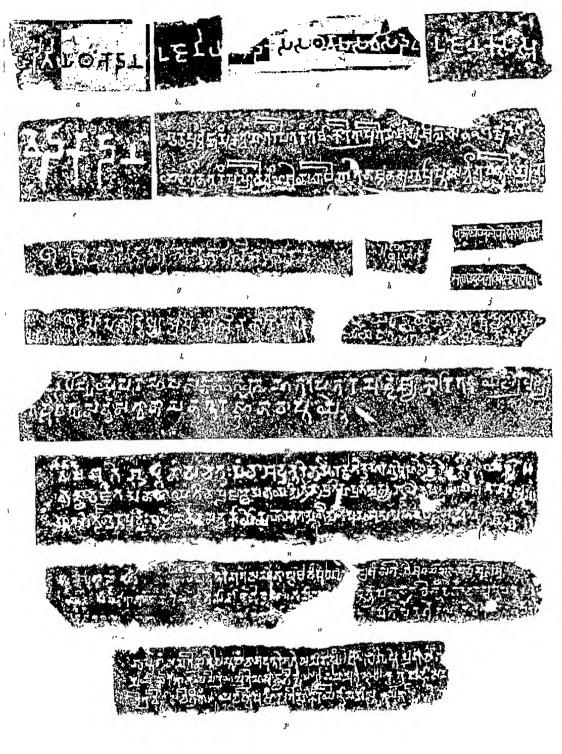


NOS. 1-29.

### SARNATH EXCAVATIONS



NOS. 1-23.



INSCRIPTIONS "P

### EXCAVATIONS AT SARNATH.

position he puts forward, namely, that we have in the Kumāragupta of our epigraph an hitherto unnoticed Kumāragupta, coming chronologically immediately after Skandagupta, and the predecessor of Budhagupta and ruling over the same dominions. Budhagupta and his successor are sometimes designated as Guptas of Eastern Malwa. The limits of Eastern Malwa are not stated, but it is a fair conclusion from the epigraph that Sārnāth lay within its borders.

Numismatists have not, hitherto, indicated coins of a third Kumāragupta, but this is not so strong an argument against his possible existence as might at first seem. Of Budhagupta, of whom we have ample epigraphical evidence, only silver coins have been recorded, and Allen enumerates but three.<sup>1</sup> Whether coins of the Kumāragupta of our epigraph do exist, is a question for nunismatists, but search among the silver coins attributed to Kumāragupta I, especially those which omit his *āditya* name, may not be without success. Be that as it may, the technique and beauty of these dated images prove that the loss of political power by the later *inptas* is marked by no corresponding restriction of the field of artistic effort; for the statues are among the finest ever recovered.

The mediæval antiquities are of no special merit, though the images of Tara (Pl. LXV a) are good examples of the art of the period.

Including transport of the numerous antiquities, repairs to broken statues by refixing with copper dowels, the erection and fixing of the large images in the museum and numbering and labelling, the total cost of the operations was Rs. 3,608-11-9.

### II. HARGREAVES.

# THE ANTIQUITIES OF BIDAR.

"Should my heart ache, my remedy is this; A cup of wine, and then I sip of bliss."

> Inscription over the tomb of Ahmad Shah Bahmani, the founder of modern Bidar.

Introductory.

THE town of Bidar stands on a beautiful plateau 2,330 feet above the sealevel; its situation is picturesque and its climate bracing: it is a place over which the spirit of romance seems to have brooded from of old, and with which from the earliest times have been knit the associations of poetic myth and the glamour of old-world legend. Thus we read how Nala, the love-sick Raja of Malwa came to woo the beautiful princess Damayanti, "whose stature was like a lotus-stalk, and whose eyes were like the almond "-the beloved daughter of Rājā Bhimsen of Vidarbha. This episode, which is treated with so much of poetry in the Mahābhārata, has been beautifully retold in imperishable verse by Faizi, the poet-laureate of Akbar, in his well-known double-rhymed poem, Nal-u-Daman. Again, in the Mahābhārata, we find the love-god Krishna abducting the handsome sister of Rājā Rukmin of Vidarbha, who is stricken to the heart at the slight offered to him by the demi-god, renounces the world and returns to the jungles of Bhatkuli. And then we glide down the stream of time and see in fancy the "sweet-voiced" Pari Chehrah (Fairy Face) with the love-light in her eye laying siege to the soft heart of Prince 'Alau-d-din; while the envious taunts of his previous consort, the talented Malika-i-Jahán (Queen of the world), assail our ears.

Encircled as it is by a halo of romance the metropolis of the Bahmanī and Barīd <u>Shā</u>hī kings also possesses cdifices and shrines, which in magnificence and splendour vie with the monuments of Granada and Cordova. But before making an attempt to describe these monuments in all their characteristic details, it will be worth while to give a brief history of the town, and narrate the vicissitudes through which it passed under various rulers and diverse dynasties.

# History.

Modern investigations in Epigraphy and Numismatics have proved conclusively that the ancient kingdom of Vidarbha, which is mentioned repeatedly in early Sanskrit literature, corresponded with Berar and Khandesh; but the name, curiously enough, survives in Bidar, which may have been an important town. Firishta and Muhammad Salih both describe Bidar as the seat of the government of the Rāes of the Dekhan, but their information seems to have been based merely on tradition, and probably what they mean is that Bidar was a flourishing provincial scat when it was first besieged and captured by Muhammad Tughlag, then Prince Alaf Khān, in 1323 A.D.1 Practically speaking, the history of Bidar begins with the Muhammadan conquest of the Dekhan, and lasts till it was finally captured by the hosts of Aurangzeb in 1686 A.D.

In 1345 Nusrat Khan, who had farmed the revenue of the whole province of Bidar at one crore of rupees, unable to make good that contract, rebelled; but Qutlugh Khān, who was ordered against him from Daulatahād, expelled him from his government. A little later Amīr 'Alī, one of the Umarā-i-Jadīdāh (New Officers), was sent from Daulatabad to collect the revenue of Gulbarga ; but finding no legitimate authority in the country, he raised an army and occupied Gulbarga and Bidar on his own account in 1346 A.D.<sup>2</sup> Muhammad Tughlag on this occasion also deputed Qutlugh Khan to subdue the rebellion, and when he arrived on the confines of Bidar, Amir 'Ali gave him battle, but he was defeated and obliged to shut himself up in the city. He was, however, soon obliged to capitulate, and Qutlugh Khān sent him a prisoner to the Imperial Court. In 1347 Zafar Khán, who afterwards assumed the title of 'Alau-d-din Bahman Shah, appeared before Bidar with 20,000 horse, but did not attack the place until a large body of troops were sent to his assistance by the Raja of Warangal.<sup>3</sup> A great battle ensued in which the Royalists were defeated, and 'Imādu-l-Mulk, son-in-law to Muhammad Tughlag, was killed. After this battle Zafar Khan at the suggestion of Nasiru-d-din Ismā'il was unanimously elected as a king by the people of the Dekhan. The new monarch divided his empire into four provinces of which Bidar was one, its governor receiving the title of A'zam-i-Humayūn (the Auspicious Chief).4

After the establishment of the Bahmani kingdom Bidar does not reappear in history till 1429 when Ahmad Shah Wali, the tenth king of the dynasty made it his capital. Khāfī Khān relates a pleasing story to account for Ahmad Shāh's choice, and although some modern historians scoff at it, yet in the East, where the personal whims of a monarch go a long way, such a reason for a change of capital is not wholly unlikely. I translate the story below :---

"While the king (Ahmad Shah Wali) entered the environs of Parendah he noticed a dog pursuing a fox. After a long chase when the dog neared its victim. the latter stood at bay and attacked the dog and drove it away. The king beholding the tiger-like courage of the fox attributed it to the invigorating climate of the place, and decided to build there a town with a fort and high mansions. He laid there the foundations of a strong fort more durable than the heavens. and styling the place Ahmadabad Bidar made it his capital." 5

Meadows Taylor speaking of the foundation and situation of Bidar says : "There **Climate** and is no more healthy or beautiful site for a city in the Dekhan than Bidar." Its situation.

Muhammadan conquest.

133

Early history under the Muhammadans.

Bidar becomes the Capital under Ahmad Shah Walt.

<sup>1</sup> Briggs, Ferishta, vol. I, p. 405.

<sup>\*</sup> Ibid, p. 429.

<sup>&</sup>lt;sup>3</sup> <u>Ch</u>8H Khan, Munta<u>kh</u>abu-l-lubab, Vol. III, p. 14 (Bibl. Ind.), and Briggs Ferishta, Vol. II, p. 2:9. <sup>4</sup> Fide Elliot and Dowson, History of India, Vol. VII, p. 126, and Briggs, Ferichta, Vol. II, pp. 295 36

Muntakhabu-l-Inbab, Vol. III, p. 71.

central situation as well as its lofty position gave it several advantages over the low-lying ancient capital, Gulbarga; and once it was given this honour, it always retained it until the final annexation of the town to the Mughal empire. A modern writer, referring to the rapidity of its erection observes: "Soon, as if by magic, rose some miles to the north of Kulbarga one of the most splendid cities of India or of the world. The great mosque of Ahmadabad Bidar was for centuries unequalled for simple grandeur and solemnity, and the more delicate beauties of the Ivory Mosque (?Pavilion), inlaid with gems and mother-o'-pearl, was long one of the favourite themes with which travellers delighted to illustrate the wealth and prodigality of the realms of the Far East." In the year 836 A.H. (1432 A.D.) the fort or citadel was completed and Firishta has it that the king ordered public rejoicings on the occasion.

In 1435 A.D. Ahmad Shāh Wali died, leaving his son 'Alau-d-din Shāh to

'Alāu-d-din adorns the Capital.

Humāyūn's reign; massacre at Bidar.

ascend the throne at Ahmadabad Bidar. This monarch further adorned the new capital with magnificent palaces and elegant gardens, and also founded charitable institutions and endowed them with considerable grants of land.<sup>2</sup> In the reign of Humāyūn Shāh, nicknamed Zālim (the Tyrant), Bidar was the scene of a most bloody massacre, perhaps unique in the annals of the country. In 1459 the king had marched an army against a Zamindar of Telingana, and during his absence a rebellion under Shāh Habibu-l-lāh and Prince Hasan Khān broke out at the capital. On hearing this the king's wrath knew no bounds. When he arrived at Bidar his first act was to punish the neglect of the city guard, all of whom, to the number of two thousand, he put to death with cruel torture. He also caused the Kotwal to be confined in an iron cage, every day cutting off some member of his body which he obliged him to eat, until he died in a few days. For the punishment of the rebels themselves the king directed stakes to be set up on both sides of the King's Chowk, or marketplace, and caused vicious elephants and wild beasts to be placed in different parts of the square. "The king ascending a balcony in order to glut his eyes on the spectacle first cast his brother Hasan Khan before a ferocious tiger, who soon tore the wretched prince to pieces. Other rebels were then beheaded in the king's presence, and the females of their innocent and helpless families, being dragged from their houses, were violated and ill-treated in the palace-square by ruffians, in a manner too indecent to relate."3

Chronogram of Humāyūn's death.

<sup>&</sup>lt;sup>1</sup> Historical and Descriptive Sketch of .B. H. the Nezum's Dominions, Vol. II, pp. 379-80.

<sup>\*</sup> Ferishta, Vol II. pp. 434 ff.

<sup>&</sup>lt;sup>3</sup> Ibid, pp. 461 ff.

### Translation.

- (1) Humāyūn Shāh died and the world was free;
  - God is High ! What a fortunate death !
- (2) The world felt ecstatic, and the date of his demise may be derived from (the phrase) " the World's Ecstacy ".
- (3) The sighs of the oppressed rekindle the dead lamp, and their tears of blood pierce through a wall of steel.

Humāyūn Shāh was succeeded by his eldest son Nizām Shāh, who was then a child eight years old. The dowager-qucen Makhduma-i-Jahan managed the affairs of the kingdom aided by the advice of Khwajah Jahan and Khwajah Mahmud Gāwān. In the early part of the king's reign the Rie of Orissa in conjunction with the Zamindar of Telingana invaded the Bahmani kingdom, and plundered and laid waste the country as far as Kaulās. From there the Rāe of Orissa advanced to within ten miles of Bidar, it being his design to demand restitution of the country of Telingana, and to exact tribute from the child king. But the invaders were soon repelled and eventually a peace was concluded, according to which the Bahmani king received a large sum as war indemnity. Soon after this campaign Sultan Mahmūd Khalji of Malwa invaded the Bahmanī territories, and in the action which followed the Bahmanī troops were defeated and pursued as far as the capital. The dowager-queen committed the charge of the citadel of Bidar to Mallu Khan Dekhani, and returned with the young king to Firozabad. Sultan Mahmud Khalji obtained possession of the city--the fort or citadel still held out--in seventeen days after the king's departure ; a great part of the country also submitted to his authority, and it was the general opinion that the dominion of the house of Bahmani would pass into the hands of the Khaljis of Malwa, when accounts were received that Mahmud Shah of Guirat had appeared on the frontier with an army of eighty thousand horse to help the young king. On hearing of his approach the Malwa ruler withdrew his forces, and retreated towards his own territory suffering considerable loss from the continual attack of the Bahmani troops, who harassed his rear.<sup>1</sup>

In 1463 Nizām Shåh died suddenly in the midst of the festivities which were being held in the royal palace at Bidar, in connection with his coming marriage. Firishta writes : "On that very night when the assembly of mirth was full and the court rang with feasting and joy, screams issued suddenly from the royal apartments: and the voice of lamentation proclaimed with loud cries that Nizam Shah had departed this life."<sup>2</sup> He was succeeded by Muhammad Shāh. the second son of Humāyūn, who was nine years of age, and the affairs of government were conducted as in the reign of his late brother by Khwajah Jahan and Khwajah Mahmūd Gāwān, under the direction of the Queen-mother. In 1469 Mahmud Gāwān led an expedition into the Konkan, in the course of which he captured many towns and fortresses including the island and port of Goa, which was then in possession of the Rājā of Vijayanagar. Mahmud Gāwān returned to Bidar after an absence of three years and was received with great honour : the king paying him a visit of a

Nizām Shāh sučceeds Humāyūn.

Bidar invaded by Mahmud Khalli of Maiwa.

Death of Nizam Shāh.

Muliamad Shah ascends the throne.

Mahmud " conquers Goa,

<sup>&</sup>lt;sup>1</sup> Ferishta, Vol. 11, pl. 463 ff.

<sup>· · ·</sup> P. Ibid, p. 476.

whole week, conferring upon him the highest titles, with a suit of his own robes, and the Queen-mother gave him the appellation of brother.

Plot against Mahmud Gawan.

In 1481 Bidar witnessed a cold-blouded tragedy, the effects of which ultimately led to the overthrow of the Bahmani kingdom. The Dekhani nobles who had longbeen jealous of the growing power of Mahmūd Gāwān laid a plot for his destruction. They forged a letter from him to the Rae of Orissa in these words : "I am weary of the debaucheries and cruelty of Muhammad Shāh; the Dekhan may be conquered with little trouble. On the Rajahmandri frontier there is no officer of any merit; and that tract lies open to invasion from your quarter. As most of the officers and troops are devoted to my interest I will join you with a powerful army. When we have, in conjunction, reduced the kingdom, we can divide it equally between us." The letter was presented to the king when he was in a drunken mood, and he was so much upset by it that, without weighing the probability of the circumstances, he sent for Khwajāh Mahmūd and sternly asked him, "When any one is disloyal to his sovereign and his crime be proved, what should be his punishment?" The Khwajah undauntedly replied, "Let the abandoned wretch who practises treason against his lord meet with no mercy." The king then showed the letter, upon seeing which the minister repeated this verse of the Qura'n; "O God, verily this is a great forgery." The king who had lost all command over his reason did not care to make any further examination and ordered his Abyssinian slave Jauhar to put the minister to death on the spot. Thus died Khwajāh Mahmūd Gāwān in the seventy-eighth year of his age, after he had been minister to four Bahmani kings. A little before his death he completed a poem in praise of his master Muhammad Shāh, the first verse of which is preserved in the Muntakhabu-l-lubāb of Khāfī Khān.

> ای ش<sup>کل</sup> ضرب تیغت بردرش جان حمالل میکل ز حرز سیفی رانگه هراس ای دل

Chronograms of Mahmud Gawan's death, Mulla 'Abdu-l-Karīm Hamadanī, the author of the  $T\bar{a}r\bar{i}\underline{kh}$ -*i*-Mahmūd <u>Sh</u>āhī, has written an excellent life of <u>Kh</u>wajāh Mahmūd Gāwān, and an extract of it is given in the  $T\bar{a}r\bar{i}\underline{kh}$ -*i*-Firishta. The Mulla composed the following verses on hismartyrdom :—

> شهید بی گذه <sup>م</sup>خدرم مطلق که عالم را زجردش برد ررنق اگر خراهی تو تاریخ رفاتش فرر خوان قصهٔ قدّل بناحق

### Translation.

If you would know the date, when the innocent martyr, truly worthy of veneration, whose bounty made the world glad, suffered death, you will find it recorded in "The unjust execution."

In another distich the same author observes, "If you are asked the date of his death, say that

The guiltless Mahmūd Gāwān saffered martyrdom."

The execution of the late minister caused profound grief among the "foreign" (Turki, Persian and Mughal) *amirs*, and in spite of the remonstrances of the king they declined to remain at the Court, and returned to their respective governments.

The king, a prey to the torturing memory of his injustice, did not survive this event long. On the 1st of Safar S87 A. H. (March 24, 1482 A. D.) when to drown his miseries he had drunk himself into strong convulsions, he breathed his last crying that <u>Kh</u>wajāh Maḥmūd Gāwān was tearing him to pieces. The date of his death is contained in the following verses :

شهنشاه جهان شاه محمد که در <del>اح</del>ر فنا ذاکه فرر شد دکن شدچرن خراب از رفتن ار خر<del>آیی دکن</del> تاریخ ار شد

### Translation.

"Muhammad Shāh Sultān, the ruler of kings,

"When suddenly summoned to yield up his breath,

" Abandoned the Deccan, and all worldly things,

"And 'the ruin of Deccan' recorded his death." 1

Mahmud Shāh II ascended the throne of the Dekhan in the twelfth year of his age, and his coronation was conducted with much pomp and glory. Firishta has given a vivid description of the ceremony, and as the coronation of a Muhammadan king has been rarely described, I make no apology for quoting the description here :--

"The Takht-i-Firoza (Turquoise Throne) was placed in the grand hall of audience, and on each side of it a chair of silver. Shah Mohib Oolla and Abdul Hancef, the two most celebrated men of the age, having offered prayers for the king's prosperity, placed the crown on his head; then each supporting one arm they assisted him to ascend the throne, which at this time exceeded in splendour and intrinsic value every other in the world.<sup>2</sup> After which the holy men seated themselves on either side on the silver chairs placed for them. Nizam-ool-Moolk Bheiry (minister) and Kasim Bereed then advancing made propitiatory offerings, an example which was followed by all the nobles and officers present. The king then conferred honours and titles on the *communa* and presented them with *khil'ats* suitable to their respective ranks."

The reign of Mahmūd Shāh II, which lasted for a long period was a reign of Civil wars. troubles and civil wars, which ended in the subversion of the Bhamanī dynasty. The king was a mere tool in the hands of his minister, Nizām-ul-Mulk Baihrī, and disturbances broke out frequently in the city of Bidar and other parts of the kingdom. During the king's absence on an expedition in Telingana, Nizām-ul-Mulk determined to seize as much of the royal treasure as possible, and then join his son, who was governor of Juner. The plot was discovered by the governor of Bidar, and

Muhammad Shah's death,

<sup>1</sup> Ferishta, Vol. 11, p. 518.

<sup>\*</sup> The King later converted this throwe into drinking goblets and vases,

Nizām-ul-Mulk was seized and executed. In the year 896 A. H. (1490 A. D.) the Dekhanis and Abyssinians again conspired to subvert the influence which the "foreigners" possessed over the king. Pasand Khan combining with the Dekhanis agreed to assassinate Mahmud Shah and place another prince of the royal family on the throne. The king narrowly escaped with his life, and for three days afterwards continuous attacks were made by his troops upon the conspirators and their forces who were in the city. In order to celebrate his escape from this danger, Mahmud Shah held a magnificent festival lasting forty days, and went in solemn procession through the city, the streets of which were handsomely ornamented for the occasion. After this the king neglected the affairs of his government leaving them entirely to the direction of his favourites. Khāfī Khān and Firishta have given vivid accounts of the morals of the court at the time.<sup>1</sup> The latter writes, "Musicians and dancers flocked to the court from Lahore, Delhi, Persia and Khorassan; as also story-tellers, reciters of the Shah Namah, and other agents of pleasure. The people following the example of the Prince attended to nothing but dissipation: reverend sages pawned their very garments at the wine cellars, and holy teachers quitting their colleges retired to taverns and presided over the wine flask. The consequence of this state of affairs became in a short time apparent; for excepting the province of Telingana and the districts adjacent to Ahmadabad Bidar no parts of the kingdom in reality remained in the king's possession."

Qāsim Barīd, who had succeeded Nizāmu-l-Mulk Baiḥrī as minister, had the king completely in his power, and practically ruled over the kingdom. During this time Malik Aḥmad Baiḥri Nizāmu-l-Mulk, Fatḥu-l-lāh 'Imādu-l-Mulk and Yusuf 'Ādil <u>Kh</u>ān proclaimed their independence in Ahmadnagar, Berar and Bijapur, respectively, founding the Nizām Shāhī, the 'Imād Shāhī and the 'Ādil Shāhī dynasties. A little later Qāsim Barīd also proclaimed his independence in Ausa and Qandhar, but the king made terms with him and in 1492 confirmed him as Amir-i-Jumla or prime-minister. Thereafter the Bahmanīs ceased in fact to be a ruling dynasty, though Maḥmūd Shāh had four nominal successors in Bidar : Aḥmad Shāh II, 'Alāud-d-līn Shāh II, Walīu-l-lāh, and last of all Kalīmu-l-lāh, who died a fugitive in Ahmadnagar in 1527.

In 1504 Qāsim Barīd died and was succeeded by his son Amīr Barīd. He was constantly at war with the newly established Bijapur kings, and in 1529 Ismā'il 'Ådil Shāh marched at the head of a large force to Bidar, which he blockaded. Amīr Barīd entrusting the defence of the citadel to his eldest son withdrew to the fortress of Udgīr. After the blockade had lasted for some time the besieged made a sortie and a severe engagement ensued under the walls of the town. While the siege was still in progress 'Alāu-d-dīn 'Imād Shāh came from Berar to intercede with Ismā'il 'Ādil Shāh for Amīr Barīd, but was informed that the injuries which the intriguer had inflicted on Bijapur could not be pardoned. Shortly afterwards Amīr Barīd was taken prisoner while in a fit of intoxication, and carried to the Bijapur king. He begged that his life might be spared and promised to induce his son to give up the fortress of Bidar and the treasures of the Bahmanī family. The son refused to give up the fortress, upon which the Bijapur

the Nixon Shirt th

the Nizam Shahi, the 'Imad Shahi, and the 'Adil Shahi dynasties.

Establishment of

Qāsim Barīd de facto ruler.

Court morals.

succeeded Qasim Barīd,

Amir Barid

Wars with the 'Ad il Shahis,

Amīr Barīd taken prisoner.

<u>.</u> .

king issued orders for Amīr Barīd to be trampled to death by an elephaut. However, his life was spared; and, after a second parley with his son, the garrison evacuated the place and returned to Udgīr, taking many of the Bahmanī jewels with them. Ismā'il now entered the fort and distributed the treasures amongst his nobles, troops, 'Alāu-d-dīn 'Imād Shāh and other neighbouring chiefs, reserving none for himself, to show that he did not make war for the riches of the Bahmanī family.

Amīr Barīd was in attendance on Isma'īl 'Ādil Shāh at the sieges of Raichur and Mudgal in 1530 A. D., and after the conclusion of the campaign the Bijapur king restored Bidar to him on condition that he should give up Kalyāni and Qandhar to Bijapur. Amīr Barīd died at Daulatabad in 1549, and was succeeded by his son 'Ali Barīd, who was the first of the dynasty to adopt the title of Shāh. Firishta observes that though his grandfather Qāsim Barīd had assumed regalia he did not take the royal title.<sup>1</sup> In 1579 Murtaza Nizām Shāh made an attack upon the territory of Bidar, and laid a close siege to the capital itself. 'Alī Barīd applied to the king of Bijapur for assistance, who sent a large body of troops and promised to send more on certain conditions. At this time Murtaza 'Nizām Shāh heard ot the rebellion of his son in Ahmadnagar, and relinquishing the siege hastily returned to his capital.

'Alī Barid died in 1579 and was succeeded by his son Ibrahīm Barīd. He reigned for seven years and was succeeded in 1586 by Qāsim Barīd II. In 1589 Qāsim Barīd II was nominally succeeded by his infant son, but a relative Amīr Barīd usurped the throne. He was expelled in 1601 by Mirzā 'Alī Barīd, another member of the family, and compelled to fly to Bhagnagar. Mirzā 'Alī Barīd Shāh reigned till 1609 and was succeeded by 'Alī Barīd II. In 1619 Ibrahīm 'Âdil Shāh II marched to Bidar to punish 'Alī Barīd II, who had maintained the family tradition of hostility to Bijapur. Bidar fell and 'Ali Barīd II and his sons were taken prisoners by Ibrāhīm, who carried them to Bijapur, where they ended their days in captivity, Bidar being annexed to Bijapur.<sup>2</sup>

In 1656 Bidar was besieged by Prince Aurangzeb, and was taken after a siege of twenty-seven days. In 1687, after the fall of Golconda, king Tāna <u>Shāh</u> (Abul -Hasan) was sent to Bidar as Aurangzeb's prisoner. He was detained here for a few months until his removal to Daulatabad. Bidar remained in the possession of the Mughals till the first of the Nizams declared his independence, when it submitted together with the other Dekhan forts.<sup>3</sup>

#### The Monuments.

Bidar must have been a fine city in its palmy days; and although

".... Decay's effacing fingers

"Have swept the lines where beauty lingers ; "

yet the ruins of its noble monuments bear testimony to its pristine splendour. In describing these buildings chronologically the fort or citadel comes first. It was

Distribution of Bahmanï treasures.

Death of Amfr Barid ; 'Âli Barid succeeds him.

Murtaza Nizam Shāh attacks Bidar.

Bidar annexed to Bijapur.

Aurangzeb conquers Bidar.

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The Fort.

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<sup>1</sup> Ferishta, Vol. III, p. 497.

<sup>&</sup>lt;sup>2</sup> Historic Landmarks of the Deccan, p. 191. Firisnta's information regarding the chronology of the later Barid Shahi kings is not very reliable.

Bilgrami, Historical and Descriptive Sketch of H. H. the Nizam's Dominions.

begun, as already stated, in 830 A.H. (1426 A.D.) during the reign of Ahmad Shah Wali, and took six years to complete. The fort stands on an eminence in the rolling plateau, and commands the country three hundred feet below towards the west and north. It is guarded by a triple ditch, the partition walls of which have been hewn out of the living rock (Pl. LXX b). The barbicans, bastions, towers and gates are all very solidly built, and most cleverly arranged. History tells us that although Bidar was besieged eight times, the invaders could never conquer the citadel on account of its excellent defences. On some of the bastions are mounted large pieces of ordnance. one of which may favourably compare with the Malik Maidan of Bijapur (Pl. LXXI a and b). Its circumference near the muzzle is 11 ft., and the bore is 1 ft. 8 inches. M. Thevenot saw the gun in 1667, and roughly calculated the mouth to be 3 feet wide. Another gun is extraordinary on account of its length, which is 28 ft. 11 inches being 3 feet longer than its rival in Gulbarga (Pl. LXXI c and d). These pieces are built up with bars of laminated metal, bound with hoops beautifully welded together, the surface being well polished and bronzed. Some of them have the maker's name engraved upon them together with the charge of powder to be Circular earthen gun-powder measures with hanging arrangement have used. recently been discovered in various sizes in an old arsenal; they seem to be contemporary with the guns (Pl. LXXIV b).

Rangin Mahall.

Entering the fort by a zigzag path after passing through several gates, the first building of note is the Rangin Mahall or the Painted Palace (Pl. LXXII a), so called as its facade and inner walls were once profusely decorated with tiles of diverse colours. The building stands on a lofty plinth and is approached by a long flight of steps. Its eastern wing consists of three spacious vaulted halls in which the court and the office of the First Talukdar are now located. The old paintings and tile-work of these halls have completely disappeared; but the cement ground on which tiles were laid is still intact in several places, and the old patterns can be traced on it. To the right of this block and adjacent to it were the royal apartments, comprising a hall, supported on exquisitely carved wooden pillars, and a pavilion which, though square at the base, appears octagonal on account of its deeply recessed windows. The wooden pillars of the hall were once beautifully painted and gilt like the pillars of the Athar Mahall of Bijapur, but the hand of the vandal has left little of the gilt, and the inevitable white-wash of the Public Works Department laid on annually with unremitting zeal has completely obscured the fine carvings on the pillars. The chief attraction of the pavilion, or the Shāh Nishīn, is the grand display of the old tile and mother-o'-pearl work which covers the walls. The design, which bears traces of Persian influence, is not confined to geometrical patterns, but has most beautiful and elegant floral and calligraphical devices, and derives an added charm from its colour. Blues merging into green or violet, blend with gold and rose pink in a perfect revely of colour. The Mughal adorned his pavilions (Muthamman Burj) in the palaces at Delhi and Agra with a lavish use of precious stones-agate, cornelian, lapis-lazuli, etc. ; the Barīd Shāhī prince employed cheaper materials, but the effect is not less striking nor less artistic. Inside the pavilion there is a marble tank which was probably kept filled with rose-water to allay the thirst engendered by tropical heat. Persian verses inscribed in letters of mother-o'-pearl on a ground of highly

polished black basalt record the fact that this pavilion was built by 'Alī Barīd. The lines, which I quote below, are fine specimen of the Persian literature of the period.

(a) Inscription on the inner arch of the pavilion. هر در ثمين كه در صدف دارد عشق از بهر نثار درگهت دارد عشق عاشق شود أنكس كه در آيد ز درت گويا ز در ر بام تو ميبارد عشق المدتنصر بنصر الله الملل**ت** المالك المجلس المكرم ر الهمايرن الاكرم بريد ممالك علي Translation.

Every precious pearl which cherishes love in its shell, Cherishes the desire to be given away in alms at thy court. Any one who enters thy door is inspired with thy love; As if Love pours down from thy portico and balcony.

Invoker of Divinc help, the supreme king, Majlis-i-Mukarram, Humāyun-i-Akram, Barīd-i-Mamālik, 'Ali.

## (b) Inscription over the windows of the pavilion.

۱ـــ منظر دیده از جمالت روشن وی کرده چر در در صدف سیفه رطن بخرام بشه نشین خلوتگه دل کز بهر تر آزاسته شد این گلشن

## Translation.

O Thou ! who hast brightened the sight of mine eye,

Who hast taken thine abode in my breast (*lit*. taken thy abode in the bosom like the pearl in the shell),

Graciously enter the chamber of my heart,

For that plaisaunce has been adorned for thy use.

### (c) Inscription over the outer gate of the pavilion.

شاه نشین چشم من تلبه که خیال تو جای دعاست شاه من بی تومباه جای تو

## Translation.

Since in my eye (*lit*. the chamber of my eye) always dwells the image of my lord,

It is my prayer that my sight may remain only as long as that vision.

Close to the Rangin Mahall, are the remains of the Gagan Mahall, the Tarkash (Tirkash) Mahall, the Chini Mahall, the Nagina Mahall and the Royal Royal palaces. Bath, all of which were built during the reign of Muhammad Shāh Bahmanī. These lofty structures which are several storeys high are now in a more or less ruinous condition, but their spacious halls relieved with beautiful water-channels, cascades, etc., give us an admirable idea of their past splendour. In the Royal Bath is now located the Court of the District Judge, while the Tarkash Mahall has become the Record Room of the Taluqdār's office. A part of these buildings is utilized as the District Jail. Thus verily doth time bring its revenges. On the gate of the inner enclosure the following lines are inscribed :--

بتوفیق الله قادر و سبحان عمارات شاهان دیریده مرران ز مسجد و کرت و محلها و ایران مجده نموده ملک شان امرجان

# Translation.

" By the grace of the Holy and Almighty God, The buildings of bygone kings, Comprising mosques, forts, palaces, and halls,

Were repaired by the sovereign-like Malik Marjan."

This Malik Marjān was an old servant of Ibrāhīm 'Ādil Shāh, the Governor of Bidar, when Aurangzeb laid siege to the town. The account of his gallant defence against the Mughal hoards is vividly given in contemporary Mughal histories.

Sola Khamb Mosque. Adjacent to the Tarkash Mahall is the famous Solā Khamb mosque, (Pl. LXXIII a), a most massive building, solemn in its simple grandeur, supported on circular pillars, which are 4 ft. 3 inches in diameter. The whole mosque measures 295 feet by 77 feet, and is divided into square bays, which are surmounted by low domes. The central dome towards the west end is bigger than the rest, and has been carried to a considerable height. The monument has lost much of its charm owing to the buildings which have recently sprung up around it, and sadly obstruct the view. Some of the domes have crumbled and except the central portion, which is now enclosed by low walls, the mosque has fallen into disuse. On the walls an inscription originally belonging to a balcony built by one Qalandar Khān, Governor of Bidar under Aurangzeb, has been recently set up. It reads thus :--

که از عدلش شده گیدي مذرر	بدرر شاه عالم گير غازې
که از بویش جهان گشته معطر	قلذدر خان بهار باغ دولت
بود دریا رکان یک ذرہ کمتر	بەپيش آفتاب دست جردش
که باشد زیر این فیررزه منظر	رراقی ساخت بهر یادگارے
ندا آمد که خال روی بیدر	پۍ تاريخ او از طارم چرخ

## Translation.

In the reign of <u>Shāh</u> 'Ālamgīr, the victorious, By whose justice the world has been illumined, Qalandar <u>Kh</u>ān, the bloom of the garden of the State, Whose sweet odour has perfumed the country : Before the sun of whose generous hand, The treasures of the ocean and the mine dwindle to a particle, Built a balcony as a memorial,

To last long under the azure window of Heaven,

For the date of its erection from the balcony of the sky,

These words were heard—" the beauty-spot (*lit*. mole)<sup>1</sup> on the face of Bidar." The mosque has also some interesting historic associations, and, as they throw light on the administration of the period, I venture to describe them below :—

"Prince Alla-ood-Din Shah was fond of learning, and sometimes he would ascend the pulpit in the grand mosque on Fridays and festivals, and read the Khootba, in which he mentioned himself by the following titles :—" The monarch just, merciful, patient and liberal to the servants of God, chief in worldly and religious affairs, son of the most distinguished among princes, Ahmad Shah Wali Bahmani." One day an Arabian merchant who had sold some horses to the king, the payment of which was delayed by the officers of the house-hold, being present when he read the above titles, roused by the ill usage he had experienced exclaimed with a loud voice, "Thou art neither the just, the merciful, the patient, nor the liberal king, but the cruel and the false, who hast massacred the Prophet's descendants, yet darest to assume such laudatory titles in the pulpit of the true believers." The king struck with remorse, commanded the merchant to be paid on the spot, saying that those would not escape the wrath of God who had thus injured his reputation."<sup>2</sup>

This is an instance of how in the Islamic countries the king was approachable even to his lowliest subject, and the ministers and high officials of the State could not tyrannise over the people.

It was in this mosque that Prince Aurangzeb jubilant at his conquest of Bidar hastened in 1686 to have the Khutbā read in the name of the Emperor (Shāhjahān).

The date of the building is not exactly known, but it is coeval with the Gagan Date of the sola Mahall, Tarkash Mahall, etc. Muhammad Sālih describes it as two hundred years Khamb mosque. old when Aurangzeb conquered Bidar, and <u>Khātī Khān</u> relates that it was built by the minister Khwājāh Jahān.<sup>3</sup> As the title was conferred on several ministers by the Bahmanīs, it is difficult to say precisely which of them erected the mosque.

Leaving this group of buildings, a road takes us to the Zenana palaces, which are now a mass of ruins, and except a few spacious enclosures nothing of them re-zenana palace mains. Close to these palaces are the remains of the famous Takht Mahall (Throne- and the Takht Hall) which witnessed the coronations of so many Bahmanī and Barīd Shāhī kings, <sup>Mahafi</sup> and to extol the magnificence of which the poet Adharī composed the following quatrain :--

"How excellent is this strongly built palace, compared with the excessive loftiness of which,

The sky is but as a step at its threshold.

'Tis an impropriety to compare it with Heaven,

Verily it is the palace of the Sultan of the world Ahmad Bahman Shah."

<sup>&</sup>lt;sup>1</sup> In the East a mole on the face of a person is a mark of beauty.

<sup>&</sup>lt;sup>1</sup> Ferishta, Vol. II, p. 450.

<sup>&</sup>lt;sup>3</sup> Tide Elliot and Dowson, History of India, Vol. VII, p. 125, and Aruntakhabu-l-lubah, Vol. II, p 452.

This structure also is in complete ruins, and owing to the accumulation of débris it is difficult to determine its plan. The remains of tile-work, which are visible here and there, prove that the building was once adorned with this kind of decoration. The most striking thing which I noticed in the building was that in one of its chambers the device of distributing the weight of the dome by overlapping arches was exactly the same as the arrangement in Muhammad 'Adil Shah's tomb at Bijāpūr. The credit of being the originator of this device may therefore rest with the Bahmanis, although the 'Adil Shahis must get the praise for carrying it to such a scale as to make their dome one of the wonders of the world.

It may be noticed that at Bidar the architect used a variety of devices to counteract the lateral thrust of the dome, and the various quaint shapes which he has given to the domes themselves recall Fergusson's remark that " in the East they did play with their domes." It is my intention to illustrate these domes by sectional and other drawings in a future issue of this Report.

Bahmant tomhs.

Shah Walt.

In chronological order, the next group of monuments are the tombs of the Bahmanī kings, which are situated at a distance of two miles from Bidar in a village called Ashtur. These tombs, which are twelve in number, are very much in the same style, standing on square bases and surmounted by bulbous domes (Pl. LXXIII b); but their chief interest lies in their rich decorations of tile-work and paintings. The biggest of these tombs is that of Ahmad Shah Wali Bahmani, the founder of modern Bidar. The interior of the tomb is most profusely adorned with paintings of Persian style, which on account of the richness of their colours and the Tomb of Alimad elegance of their designs are unique in India. Unfortunately, it is difficult to convey by means of a photograph an adequate idea of their freshness and lustre, especially as the sombre interior of a Muhammadan tomb hardly permits of any photographic reproduction except with the aid of flash light (Pl. LXXIV a). Another feature of the tomb is the inscriptions, which are painted in letters of gold on a ground of bright vermilion or of deep blue. The calligraphist has shown his skill in arranging the writings in all the known styles, Kufi, Tughra, Naskh etc., and therefore the inscriptions are of great value for the study of the Muslim palæography of India. The verses inscribed in the tomb are imbued with a strong Sufic spirit. I quote a few of them below :--

> تا <sup>مر</sup>حدط دیده برزد صوب عشق هفت دریا را چو سیلی دیده ام نعمته الله<sup>1</sup> یانتم در هر رجرد با همه عشقی ر میلی دیده ام<sup>2</sup>

> > Translation.

" Since the flood-tide of love flowed full on the ocean of my eye, The seven oceans (of the world) appear a (feeble) current before me. In every form of creation I discerned Divine Grace (Ni'matullah) In all I have seen love and adoration."

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<sup>&</sup>quot; The beauty of this verse is that the poet's name allies has been used so appropriately that it cannot be easily detected by the reader. Ni'matullah, whose full name is Ni'matullah Shah Wali Kirmani, was held in great esteem by the Barid Slahi kings. His Discan has been published in Tohran.

<sup>&</sup>lt;sup>1</sup> Divan-i-Ni<sup>e</sup>matullah Shah Wali, p. 210 (Tehran).

نعمة الله در همه عالم يكيست <sup>1</sup> بجد مثلي ر مثلي لايجد Translation.

"Divine grace (Ni<sup>i</sup>matullah) is one throughout the whole world,

Yet thou shalt not find another like me, nor shall anyone else."

The façade of the tomb of 'Alāu-d-dīn Shāh was originally covered with tiles, Tomb pieces of which still remain. The work represents various shades of blue, and is din SI quite peculiar of its kind.

By far the most remarkable monument of Bidar is the Madrasah or College of Mahmūd Gāwān, the minister of Mahmūd Shāh, which was built by him in 877 A. H. (1472 A. D.). The date of the erection of the building is contained in the following verses :---

این مدرسهٔ رفیع ر محمود بنا تعمیر شده است قبلهٔ اهل صفا آثار قبول بین که شد تاریخش از آیت ر بنا تقبل منا ۸۷۹ ه

## Translation.

"This college with noble and high foundations,

Has been built as the Qiblah of the men of Purity,

Look at the signs of its Divine approval that its date (of erection).

Can be gleaned from the verse "Our Lord accept it from us."

This building has already been illustrated twice, first by Meadows Taylor in his Sketches in the Deccan, and again by Burgess in the Archaeological Survey of Western India; Vol. III, but both the sketch of the former and the imperfect photograph of the latter fail to convey any adequate idea of the magnificence and the grandeur of the edifice.<sup>2</sup> I give here four photographs and a ground plan (Pls. LXXV—VII), in order to show to some extent its massive yet picturesque outlines, and its beautiful decorations. The front of the building, which was luxuriantly adorned by encaustic tiles of various hues and shades, all arranged in different designs, had two stately minarets at each side, rising to a height of 100 ft. These minarets also were decorated with tiles arranged in zigzag lines, a pattern which gave the building a most attractive appearance. The form of the minarets is worthy of notice, especially as regards the top and the balconies, which are unlike anything else in India, but recall certain prototypes in Turkish Arabia and Persia.

The building rises to three storeys in a most imposing position. Its entire length extends to 205 ft. with a width of 180 ft., which is divided up into apartments comprising the mosque, the library, the lecture halls, the professors' quarters, and the students' cubicles, leaving a space of 100 ft. square in the

<sup>2</sup> Bargess also has given a plan, but it was probably prepared in great haste, and therefore is not accurate.

Tomb of 'Alau-ddin Shah.

College of Mahmud Gäwän.

The line has a different reading in the Tohian edition (p. 116)-

نعمة الله در همه عالم يكيست مديدم بنتائي بي همتا بود

middle as courtyard. The mosque and the library were located in the front portion of the building on either side of the main gateway. The lecture rooms were in the middle of each of the three other sides, and, besides being of considerable length and breadth, rose to the full height of the building up to the third storey. Each of these halls has a semi-decagonal oriel crowned by a dome, which has given the exterior of the building a most pleasing appearance, relieving it of much of the heaviness which would otherwise have been observable on account of the long sloping walls, and supporting buttresses at the north-west and south-west corners. The professors' rooms were in the corners, octagonal in plan, and with shelves for books. The building has excellent arrangements for light and air, and cannot be surpassed on these points by modern structures. The Madrasah was in a flourishing condition in the time of Firishta, staffed as it was by professors and divines from the most distant countries of Asia and equipped with a library of 3,000 manuscripts.

In 1107 A. H. (1696 A. D.) the building suffered great damage from lightning, which deprived it of half of its front and half of the southern wing.1 Briggs in a note to his scholarly translation of Firishtā gives a different version of the ruin of the College; he says :--

"After the capture of Bidar by Aurangzeb, in the latter end of the 17th century, this splendid range of buildings was appropriated to the double purpose of a powder magazine and barracks for a body of cavalry, when by accident the powder exploding, destroyed the greater part of the edifice, causing dreadful havoc around."

This story, however, is not supported by contemporary history.<sup>2</sup> Through the neglect of several centuries this superb monument of the Bahmani kings has fallen into a shameful state of dilapidation, but measures are now being taken to repair it carefully, and then have it properly maintained.

Shāhī kings, which are situated on an elevated plain to the west of the town. These

The next important group of monuments comprises the tombs of the Barid

Barid Shahi tombs.

Barid

mausolea at one time stood in the midst of elegant gardens with water channels, fountains, etc.. to enliven the landscape, and had also charitable institutions attached to them. The happy surroundings which gave the buildings such a noble setting have either disappeared entirely or are only a mass of ruins. The most beautiful of these tombs is that of 'Ali Barid, the third ruler of the line (Pl. LXXII b). It is Tomb of 'All an imposing structure, and has an highly ornamented interior. The special feature of the tomb is its perfect proportions, which deceive the eye about its actual size. It is square in plan (57 feet each way), with an open arch on each of its four sides, and crowned by a turnip shaped dome terminating in a spire, the total height of the building from the ground being 106 feet. The large side openings admit to the interior of the building plenty of light and air, and it is in this respect different from other Muhammadan tombs, where the interiors are generally kept dark and dismal. in order to give them a sombre aspect. The tomb is built of hard black trap up to the drum of the dome, which is mounted with a brick and lime top, probably

"The words a jis give the year of the incident.

<sup>&</sup>lt;sup>2</sup> Vide Khafi Khan, Muntakhabu-l-lubab, Vol. III, p. 113 (Bibl. Ind.).

to protect the building from extra weight. Inside, along the walls, are several courses of exquisite enamel-work arranged in calligraphical devices. These inscriptions are composed in a most elegant style and are worthy of quotation here :---

#### Translation.

"O companions ! when Death knocked at my head,

"I fell down and my heart became gory;

"Yesterday I was as a rose blooming in the garden (of Existence),

"To-day I am shorn of all of my plumes and feathers."3

"Friends and relatives will come to visit my remains,

" And enquire of my remains, of my destination and whereabouts :

"This is a case of ' confusion of metaphors' in the original.

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<sup>&</sup>lt;sup>1</sup> This hemistich has another reading in the Hyderabad State Library MS. (Diwān-i-'-Aṭṭār, No. 503, folio 36). دي تازه و خشوری بدم در چمن عشق <sup>2</sup> The Hyderabad MS. (folio 36) gives a different reading of these two lines---عطار دلی دارم و آن لبز بخون غرق تا بذگرد ابن درد دلم دادگر من گر من بدام یک نظر لطف رساند حقا که نیاید در جمهان در نظر من

"If they sift the earth of the whole world,

"By Truth! they will not find any trace or sign of me."

"I have passed to a world whence I cannot return,

- "Nor do I cherish this hope that anyone will come to the place where I lie;
- "O 'Attar ! through grief (my heart) is weltering in blood :
- "By God! both the worlds have lost all significance in my eyes."

"Alas ! without us for a long time,

"The rose will blossom and the Spring will bloom,

"Those who are in secrecy with us,

"They will come and visit (lit. pass by) our remains."

"Rambling about in ambition and lust,

"We passed by the remains of many a person;

"Canst thou cherish the desire of living for ever,

"When thou hast not seen anyone living eternally?"

"One who goes trailing his long skirts on the earth to-day,

"To-morrow the dust of his earthly remains will be scattered to the winds;

"O blind self ! thy ashes will move about in thy bones,

"In the same way as eye-powder moves about in the collyrium-pot."

"The builder of this heavenly dome,

"Is the good-natured king, Barid, of blessed memory.

"The last hemstich contains the date of the building,

"Style the dome the Vault of Divine light (984 A. H. 1576 A. D.)."

"The sovereign presiding over the throne of the kingdom of Faith, 'Alī Barīd,

"When he passed away from the narrow street of the frail world,

"He found rest in Paradise, and these words were heard from Heaven,

"The date of his death is contained in 'Found rest in heaven'." (987 A. H. =1579 A. D.)

Bidar in its palmy days was adorned by a large number of gardens some of which still survive. One of them, Farh Bagh (the Abode of Bliss), is situated near the spur of a mountain, where water oozes out from the natural rock. The Hindus had a temple there from ancient times and worshipped an image of the lion-god Narasimha. In 1656, when Aurangzeb conquered Bidar, he destroyed in his iconoclastic zeal the temple, and built an insignificant mosque in its place. One

Farh Bigh.

of his generals has set up a long inscription here recording the event. It runs thus :---

بنا کرد مسجد بجای کنشت بر ابرایش انا نتصا نرشت

چرن همت رالا نيمت خدير دين پذاه موايد من عند إلله إبوالمظفر صحي الدين صحمد إرزنگزيب بهادر عالم گير بادشاه غازي بر انهدام بنيان كفر و ظلام ر تاسيس إساس دين إسلام مصروف ر معطوف گشت - كمترين بندگان صحتار خان الحسيذي السبزراري ناظم صربهٔ ظفرآباد به تخريب انتخاده ر ترتيب اين مسجد ر باغ پرداخت - ر بقاريخ بست ر پنجم شهر ربيع الارل سفه ١٢ جلوس ميمرن موافق سفه ١٠٨٢ ه نبري مطابق اين مصرع قاريخ كه

بتكد، مسجد شد، از لطف حق

بعنايت ملك علام صورت اتمام يافت - ر ازغايت خوبي ر دلذشيغۍ مكان به باغ قرح موسوم كردانيده بفرزند دلدند از عمر ر درلت برخوردار ميرزا فجم الدين محمد خلف فرزند سعادتمدن ميرزا قمرالدين محمد متعلق ساخت

كتبه قمر الدين محمد ابن <sup>م</sup>ختار خان العسيني .Translation

"(He) built a mosque in place of the temple,

"And wrote over its door the (Qura'nic) verse-" Verily We conquered."

"When the exalted mind of the Khedive, the refuge of Religion, supported by Divine Grace, Abu-l-Muzaffar Muhi-u-d-dīn Muhammad Aurangzeb Bahādur 'Ālamgīr, the victorious, was inclined to, and occupied in destroying the base of infidelity and darkness, and to strengthen the foundation of the Islamic religion, the humblest servant Mukhtär Khān al-Ḥusainī al-Sabzwârī, the governor of the province of Zafarabad,' demolished the temple and built a mosque, and laid out a garden, which by the Grace of the Omniscient God were completed on the 25th of Rabī'u-l-awwal in the 12th year of the auspicious reign (1082 A. H.) corresponding with the date contained in this hemistich :---

"By the Grace of God the temple became the mosque."

As the place was extremely beautiful and charming he (the humblest servant) styled if Farh Bägh (the Abode of Bliss), and entrusted it to the charge of his beloved child, blessed by long life and prosperity, Mirza Najmu-d-dīn Ahmad, the worthy son of Mirza Qamru-d-dīn Muhammad.

Written by Qamru-d-din Muhammad, son of Mukhtar Khan al-Husaini."

The town of Bidar is celebrated for the manufacture of a kind of ware which is Bidar-ware. styled Bidri-work. The metal is composed of an alloy of copper, lead, tin and zinc. It is worked into articles of most elegant designs, and inlaid with silver and occasionally gold (Plate LXXIV c). As there is unfortunately not much demand for these beautiful manufactures, the industry is fast dwindling.

GHULAM YAZDANI.

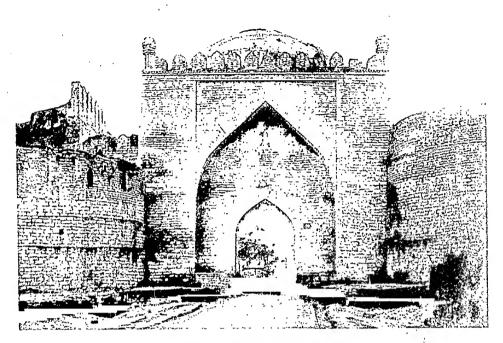
<sup>1</sup>Zafarabad was the name given to the province of Bidar by Aurangzob ; see Munia <u>khabu-l-lubāb</u>, Vol. II.

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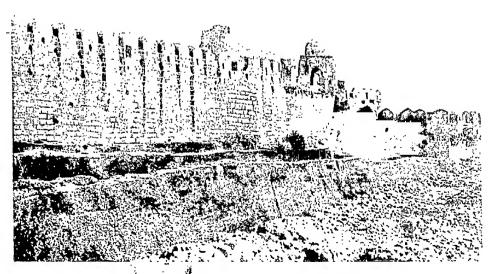
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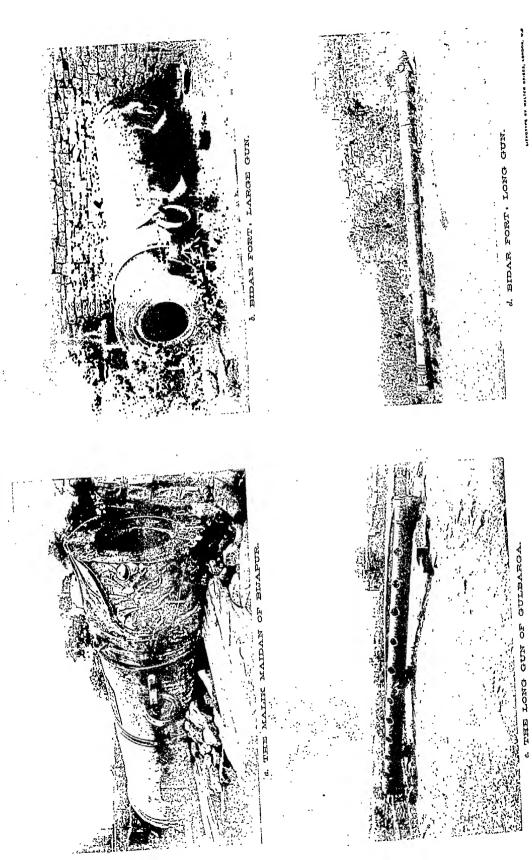
GHULAM YAZDANI.

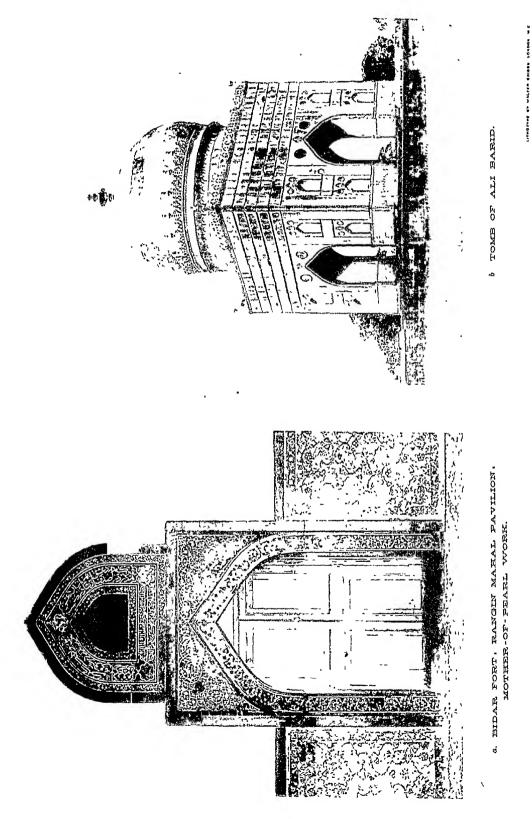


4. BIDAR FORT. GUMBAD GATE.

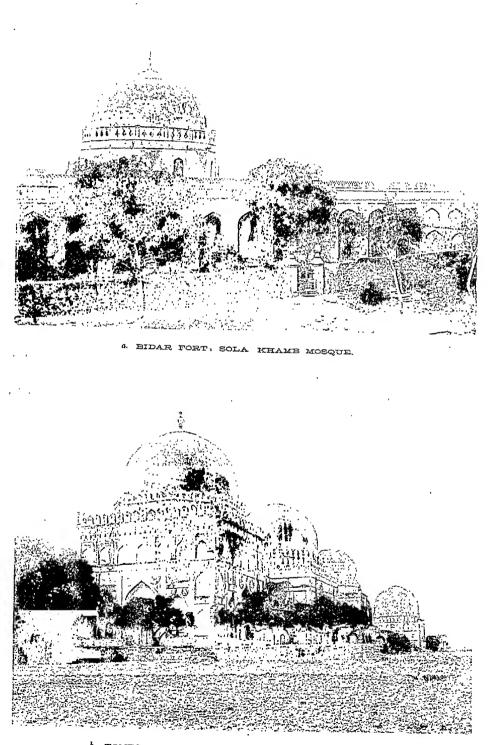


b. THE SAME. ROCK-CUT WALLS OF TRIPLE DITCH.

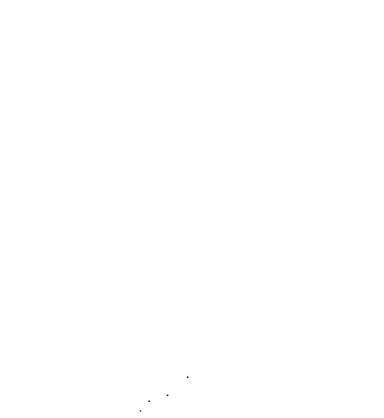




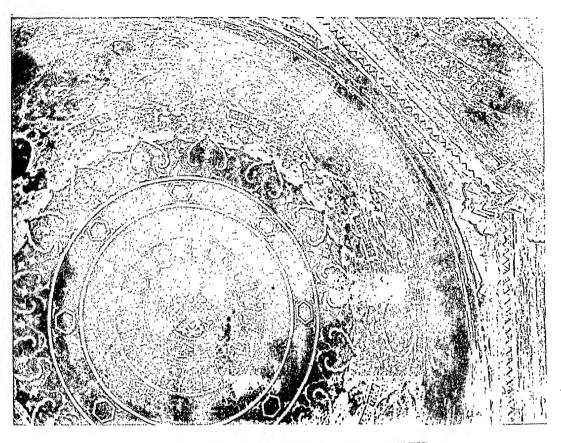
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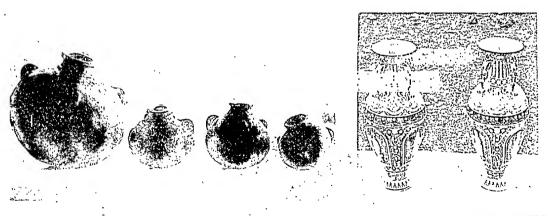
b. TOMES OF BAHMANI KINGS. GENERAL VIEW.



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G. TOME OF AHMAD SHAH WALI BARMANI, CEILING.



. BIDAR FORT: EARTHEN GUNPOWDER MEASURES.

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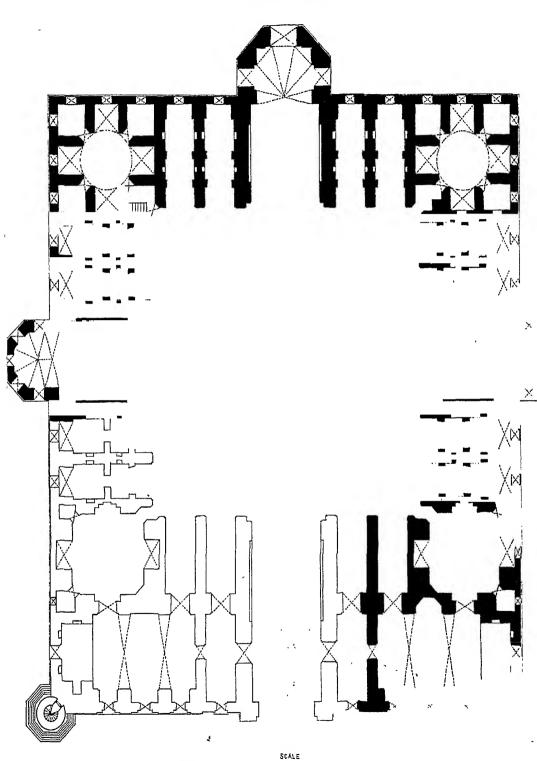
. BIDAR, WARE, FLOWER VASES.

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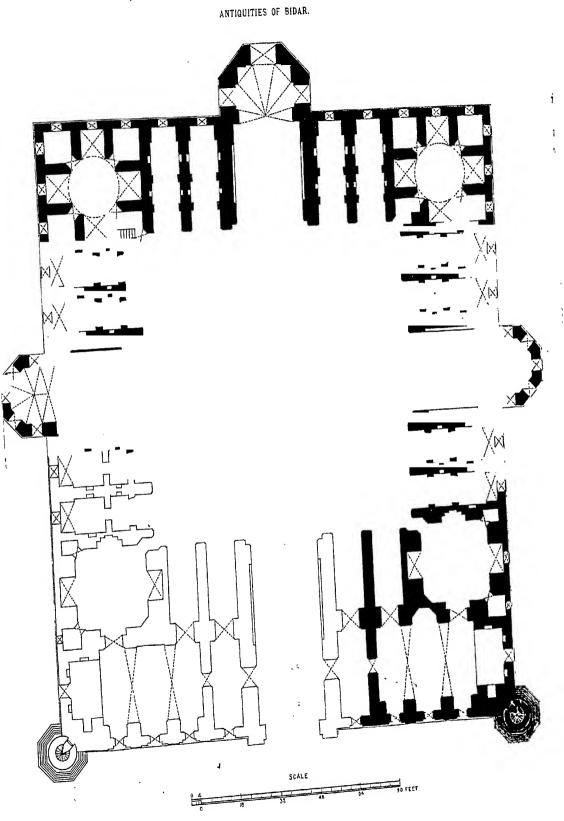
ANTIQUITIES OF BIDAR.



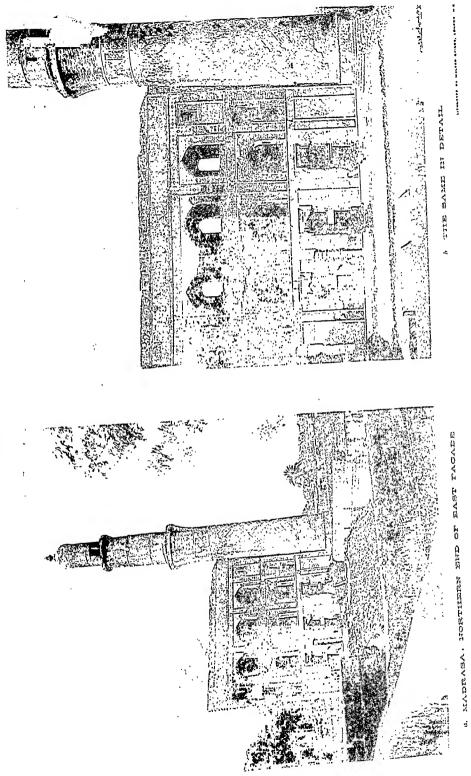


GROUND PLAN OF MADRASA.

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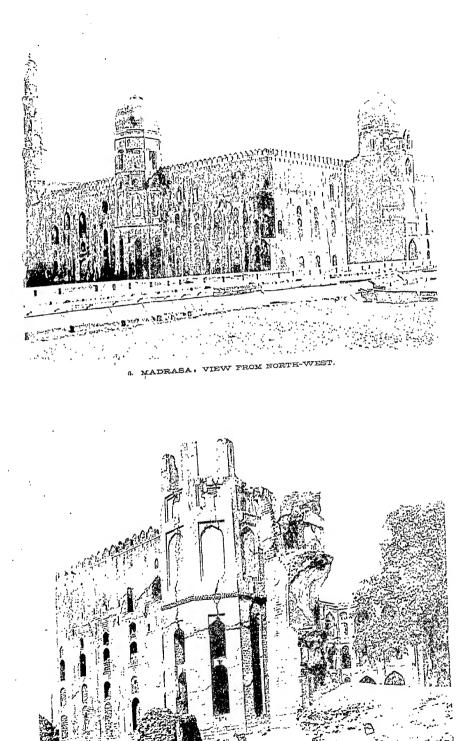
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ANTIQUITIES OF BIDAR.

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b. THE SAME. VIEW FROM SOUTH-EAST. LITHOTTOT BY WALTER GRIERS,

# BALBAN'S MOSQUE AT JALALI.

Jalali, a small town in the district of 'Aligarh, lies at a distance of 13 miles from the head-quarters of the district on the road to Kāsganj. Tradition assigns to it great antiquity, stating that it was once a Hindu town under the name of Nilauti. The circumstances connected with the foundation of the present town of Jalali, its date, the name of the founder and the origin of its name are lost in oblivion. The District Gazetteer for 'Aligarh', however, states that it was founded by Jalal-uddin Khalji during the reign of Ghiyāth-ud-din Balban. But the latter emperor did not ascend the throne until the year 664 A. H. (1265 A.D.), while the following passage quoted from the Tabaqat-i Nasiri, which was written not later than the year 658 A.H. (1260 A.D.), tends to indicate that the town of Jalali existed as early as 642 A. H. (1244 A.D.)

"Trustworthy persons have recorded that in the year 642 the most honoured Khāgān Ulugh Khān the Great (Balban) was appointed Lord Chamberlain in the most exalted court of Ala-ud-din (Mas'nd Shah). When the high and victorious standards moved from Delhi, he inflicted severe punishment on the insurgents of Jalali and Deoli in the Doab between the Jamna and the Ganges."2

We, however, learn that Balban reduced Jalali and garrisoned it with the Muhammadan soldiers, when he directed a campaign against the rebellious infidels of the Doab immediately after ascending the throne.<sup>3</sup> It was probably on this occasion that the emperor built the mosque which is now under notice. It bears an inscription containing the name of Balban and dated the year 665 A.H. (1266-7 A.D.), and stands to this day as a monumental record of the Muhammadan occupation of that town. The inscription (Pl. LXXIX b) is in Arabic written in Naskh characters on a piece of red stone which is preserved on the northern arch of the mosque.

> آمر هذه العمارة المسبجد السلطان المعظم غياث الدنيا رالدين خلدالله ملكه ر سلطانه سفه خمس ر سنين ر ستما ية Translation.

This mosque was ordered to be built by the great Sultan Ghiyath-ud-dunya-

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 <sup>2</sup> Tabagāt-i Nasiš, Aboo Omar Minhāj al-Din Othmān, Persian text, Bib. Ind. p. 287.
 <sup>3</sup> Tāri tri stata Muhamiand Qāsim, Persian text, Nawil Kishor Press, Lucknow, 1905, Part I, p. 77 急發

wad din, may God perpetuate his kingdom and reign, in the year six hundred and sixty-five."

Ziyā-i Barnī the author of the Tārīkh-i Feroz-shāhī gives a graphic account of this campaign, a short extract from which will not be out of place.

"After the Doab expedition was brought to a close the sultan Balban marched out twice to open roads to Hindustan, and proceeded to the neighbourhood of Kanpil and Patyālī. There he remained five or six months, putting the rebels and insurgents to the sword. The roads to Hindustan were cleared and the caravans and the merchants could pass. From these places much spoil was received in Delhi on account of which slaves and cattle became cheap. The Sultan erected strong forts and high and spacious mosques at Kanpil, Patyali and Bhojpur which had been the strongholds of the robbers who had infested the roads to Hindustan. He gave all the three forts to Afghans and set apart cultivable land of the aforesaid forts for them, and made these towns so strong by stationing forces of Afghans and Muhammadans that the roads to Hindustan were freed from the evils of robbery. It is sixty years (three Qarans) since these forts were erected and the guard-houses (Thanas) established, but the roads to Hindustan are quite safe and robbery has been totally suppressed. In the same expeditions he built the fort of Jalali which he gave to Afghans and thus turned the dens of robbers into a guard-house. He also set apart the land of Jalālī (for the support of Afghāns who had settled in its fort). Jalālī, which had been a residence of highwaymen, and where travellers to Hindustan had been plundered, was converted into an abode of, Muhammadans and the protectors of roads, and it remains standing to this day."1

It is strange that the author of the Tārikh-i Feroz-shāhī has made no mention of the erection of this mosque in Jalālī.

The mosque is now known as the Jāmī' Masjid (Pl. J.XXVIII a). It is a noble edifice constructed of brick masonry rendered with plaster, and is entered by a doorway on the east. The prayer chamber, which measures internally some 48 feet north and south by 15 feet east and west, is covered by three domes having gilt pinnacles. The façade is flanked by lofty minarets which are square in design and are surmounted by cupolas with gilt pinnacles. Corresponding to these there are two small minarets at the back of the parapetted roof The prayer chamber has three arched entrances, the central one being emphasized by small minarets surmounted by the usual cupolas.

It must not be supposed that the building as it now stands is the original structure. It has been considerably repaired on several occasions when apparently many additions and alterations were made. There are not less than four inscriptions referring to these repairs, which are to be found on the arches and the central mihrab. Two of these inscriptions have been noticed below, but the remaining two, which are rather modern (dated 1858 and 1901 respectively), are omitted.

The inscription on the southern arch of the mosque (Pl. LXXIX a) records its repair in the time of the Emperor Akbar by one Bū Nasr who was connected with

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one Muhammad Qāsim Beg. It is in Persian incised on a slab of red stone in Nasta'līq characters.

در زمان خلافت سليمان ثانى اسكندر جاه ا<sup>ن</sup>جم سپاه همابي آثار جلال الدين <sup>ص</sup>حمد اكبر بادشاه غازي خلد الله ملكه ر سلطانه بنده بونصر كمينه متعلق جناب صحمد قاسم بيگ حسبتهلله ر لرسوله ابن مسجد عمارت نمرد تا هر زمان از عالم غيب مده رحمت رباني برجان بانى رارد ر نازل باشد - ببت ازان كس كه خيري بماند رران دما دم رسد رحمتش بر رران ر تا انقراض عالم ناني نامش در دفتر جارداني باشد - بيت نمرد آنكه ماند پس ازري بجاي پل ر<sup>مسجد</sup> ر خان ر مهمانسراي تماميت يافت بتاريخ الرابع ر العشر من شهر رمضان المعظم عمت بركاته سنه خمس [ر]

#### Translation.

"In the reign of the second Solomon, of dignity like that of Alexander, having soldiers as numerous as stars, and possessing fortunate signs, (named) Jalal-ud-din Muhammad Akbar the king and champion of faith, may God perpetuate his kingdom and reign, the mean slave Bū Naṣr dependent upon Muhammad Qāsim Beg built this mosque for the love of God and His Prophet, so that the help of Divine blessing may ever descend from the invisible world on the life of the founder.

Blessing descends every moment on his soul from whom there remains a constant goodness.

And until the end of the mortal world his name stands in the register of elernity.

He is not dead who leaves after him, standing, a bridge, a mosque, an inn or a caravansera.

It was completed on the fourtcenth of the month of the honoured Ramazān, may its blessings be universal, the year nine hundred and sixty five."

On the central arch of the mosque there are two inscriptions, one of them which is on a piece of red stone is dated 1137 A. H. (1724 A. D.) and refers to the repairs of the building by <u>Thābit Khān</u> who was the governor of Koil ('Alīgarh) during the reigns of Farrukhsiyar and Muhammad Shāh (Pl. LXXVIIIb).

(1) بنام مسجد سادات شد بفضل آله بعهد سلطنت برالفتح محمد شاه
 (1) بعرن ثابت خان المتمام ناصر ر سنه هزار ريكمد ر سي همت از رسول الله
 محمد علي معمار

# Translation.

" In the name of God who is merciful and element.

 (1) The mosque of Sayyids was constructed by the grace of God in the reign of Bul Fath Muhammad Shāh,

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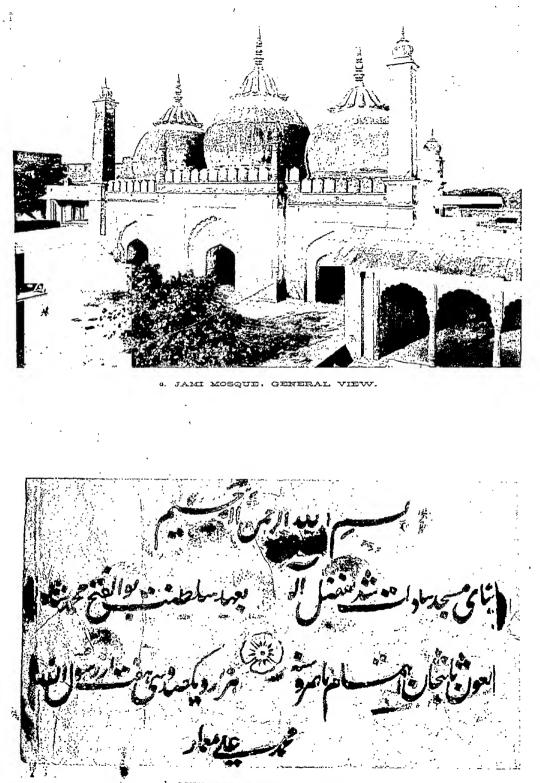
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(2) By the help of <u>Th</u>ābit <u>Kh</u>ān and under the supervision of Nāsir in the year one thousand one hundred and thirty seven from (the flight of) the Prophet of God.

Muhammad 'Alī the mason."

The inscription records the erection of a mosque of Sayyids, but apparently the repair of the mosque is meant, when it came into the possession of the <u>Sh</u>ī'a Sayyids who had settled in Jalālī.

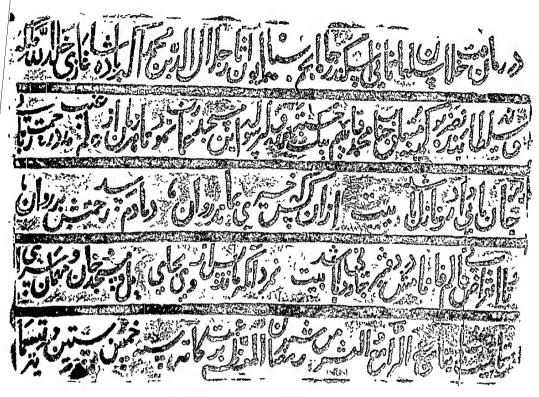
# ZAFAR HASAN.



b. MUHAMMAD SHAR'S INSCRIPTION.

PLATE LXXIX.

BALBAN'S MOSQUE AT JALALI.



JAMI MOSQUE. AKEAR'S INSCRIPTION

ام حدث و الهام و الم lab 8/

b THE SAME, BALBAN'S INSCRIPTION.