

RAMAGRAM EXCAVATION-IV

Sukra Sagar Shrestha

Ramgram Main Stupa

Ramagrama, being a religious site, the structures from the excavation is also coming up with same nature. There are stupas, monasteries and the praying platform standing side by side connected with the streets and paved floors. The Mouryans could have erected the stupa covering the mud structure in round shape with big bricks. We see them now below the cruciform structure (Fig I) The protection walls were also found added in course of time. During the last phase, there were some round structures added in the east of the stupa. The purpose of them could not be understood well. They might be simply added for decorative purpose since they are coming connected together as an integral part of the wall structure running around, or the round structure on bricks might have been placed for praying facing towards the main stupa. A terracotta votive stupa in small size is also found to be erected in the north. This should be the offering of the people in the last phase.

Circular Brick Structure

The stupa of Ramagrama is found to have gone through many stages of destruction and renovations. If the postulation of late Babukrishna Rijal is correct then there should be a mud structure at the center. For ancient people the stupa is essentially a heaped up mound of earth over the ashes of the cremation. The possibility of having such mud structure at the center is more probable because the lowest phase of the brick structure measures more than 36.5 meters in diameter. To build such a huge stupa with largest bricks of 7x26x 41 cms leads one to surmise a mud structure inside it. It is not

illogical. Therefore we can surmise that the Mouryan people should have covered the mud structure at the center and erected the brick stupa veneering over that, (Fig .I)

The bricks laid inside the circular alignment are also compact and goes into the center of the stupa. But how far does it penetrates is not clear due to the super structure above which was not cut. In trench 44 Bs a small portion was cut deep and went down to 7 courses of bricks (Fig VII, Anc. Nep. Nr 157- p17) then was not possible to go down, due to the narrow space. It was cut in line with the square structure foundation and found to be laid compactly with all big bricks.

It could well be surmised that such a big structure could not be made only for structural purpose. It should have been made outside covering some very important edifice which should nothing but be other than the mud stupa containing the relics of the Lord. We hope such a big stupa should have such important object. That is why the Mouryans encased the valuable edifice by such a protective structure. The Kushanas followed it and raised it to the decorative structure first in square form with extended buttress on which the steps are provided in west. Above this structure the square is brought into the octagonal shape and raised almost a meter on top of which at last the dome structure of the stupa is raised. The height is raised to the level of unknown point but the remains in-situ paved bricks are traced to 1.70 cms below the present highest point of the stupa.(PI 8) We do not know yet how deep below the Mouryan veneering level could be traced because we did not go down from here also in order not to destroy the in-situ bricks of the structure. A complete exposure of the mound will give a nice picture if we could clear the debris on top.

Mud Structure

The mud structure, if any, could well be inside the area below the octagonal structure. Therefore the diameter of mud structure, we can guess, is less than 20m meters. The Mouryans could have erected the brick stupa covering the mud structure in round shape with big bricks (6/7x26/27x39/40). We see them now below the cruciform structure.(Pl. 2)

Similarly the height of it also should be less than six meters from the natural level because the base of Octagonal structure is measured nearly six meters from natural level. The builders of the octagonal architecture should have laid their base on top of the brick foundation, which should not be other than the brick structure of cruciform build-up. The thickness of the cruciform should be very big, not less than three meters (Fig 1)

The stupa of Vaishali, which was supposed to be opened by Ashoka in third century B.C., measured only 7.8 meters in diameter by the excavator. Similarly the height was recorded as less than 3.3 meters.(Allchin-1995:243)

Most part of the structure extended out of circular brick structure is found tilted outwards and some parts even collapsed. Same condition would have been occurred in the inner side of the octagonal structure if they did erect the structure on mud base. But it is found intact without any cracks and tilting inwards which show the structure to have been raised on top of the solid foundation of bricks.

Different phases of the evolution of the stupa is recorded from many trenches but well illustrated in the trench no 44Bs, 44Dh, 44Ad and 44Ai(Pl.1, Anc. Nep. Nr.157, p-22). The brick sizes of the lowermost structure are identical and comparable to the Mouryan bricks of Mayadevi temple in Lumbini. Unlike in Gotihawa stupa, there are no trapezoidal or wedge – shaped bricks in Ramagrama. It measures 7x26x40 cms in average, and all the bricks are molded in rectangular shape. The diameter of the circular structure measures to 36.5 meters. The brick courses below the foundation totals to fifteen layers laid not in even elevation. More it raises up the brick course goes out of plumb. One course left on top now in circular alignment over the foundation is traced in three trenches 44 Bs, 44 Dp, and 44 Ad (Pl 10, Anc. Nep.Nr.157,p-31)

When the next phase of the construction was raised on top of circular structure eight courses of the wall around was given then recessed in for 18 cms. in average. Then again raised another eight courses of the bricks on top of which is given the first decorative element of roundels. The roundels are comprised of three layers of bricks of which top and bottom bricks are cut circumferentially with beveled pattern and middle one with normal brick without any decorative element. When joined together they are in the shape of a half hemisphere in section. On top of roundel is given an angular cut designed brick. Then again is given one more recessed brick. On top of that the wall is raised with fourteen courses of brick bringing the structure in complete form of the cruciform.

The arms of the cruciform structure from the main corner are ten meters long and then extended three to four meters out at right angle. Again goes three meters in and after that three to four meters outstretched (Fig. 1).

On the outer buttress are provided with the steps leading up, of which only in western side is found left. On the south this portion is completely collapsed and went off with no trace of it and on east and north they are still to be fully exposed and understand.

If there is mud stupa at the center of the mound the diameter of it will not be more than the diameter of octagonal structure on top because the octagonal structure will not stand on top of the mud. Therefore it should be less than 20m. If the mud structure of Vaisali and Ramagrama stupa are compared and correlated each other then the mud stupa, if any, at the center, will be below the octagonal structure within the enclosure of its eight arms and the foundation should be at least one meter inside the present façade of Octagonal structure.(Fig I, pl 2)

The structure is erected with the brick size of 5x24/25 x 33/34cms and along with brickbats of the earlier structure. The structure is coming up with decorative element as well. There are decorative pilasters in outside corner and inside corners of the cruciform structure, followed by additional pilasters in between at a distance of two meters each,

They are made of decorative bricks, which were not molded but cut and carved before firing. The combination of different cut bricks erected one above other brings the shape of a decorative pilaster form in both shapes of the corners.

Another decorative band is provided all around the structure at the level of seventeen courses of bricks from the bottom of this structure. They are brought into the shape of round in one complete brick with round bevel shaped bricks added on top and bottom. (Pl 1, Anc. Nep.Nr 157, p-22)

This phase of the structure is dated tentatively after Mourya and before Gupta period.

Above the circular structure stand the cruciform architecture on top of which an octagonal structure is erected further and then dome structure of the bricks on top.

The stupa seems renovated once more during the Sunga Kushana Period, covering the brickbats raised the old surface around the cruciform structure. Total of five courses of bricks were added on top of the previous level, and then brought to the second working level. In the same time the level around the octagonal structure was also added with the brick ramming. (Fig VIII.) . The level there was also raised to some extent.

Since the diggings are done in trench patterns only, the structures are also understood in similar way. A complete exposure is necessary to understand fully which will give opportunity for the understanding of all the structures.

Octagonal Structure

A structure in octagonal plan is erected on top of the cruciform architecture. The diameter of this structure is 24 meter and each arms measure 10.25 m in length. As in the structure below, each corner of the octagon is embellished with the carved pilasters with additional five pilasters in between them. The height of it is nearly a meter high (Pl 3 a, b and Fig. IV, V and VI).

The octagon is standing on top of the cruciform structure with five courses of bricks. Then a decorative motif of a roundel comprised of two round beveled bricks is given. On top of that a cut-in brick for further decoration and finally recessed to 8 cms and lastly the octagonal wall is raised about a meter high. (Fig VIII)

The carvings are not in similar design instead different pilaster has different design of cut and decorated bricks. Only four middle courses of the bricks in the pilasters are differently carved and given varieties look of the

carving. But all the base of the pilasters is carved with similar designs, to bring it into symmetry.

There is an open passage in between the top edge of the cruciform structure and base of the octagonal structure. In first phase the passage was paved with the bricks and later on it was covered again with thick brick canker rammed.(Fig I and Fig VIII)

There is an open small space in between the base of octagonal structure and brick canker ramming and is filled with some lime stuff, which might have been used to prevent the depression of structural wall from rainwater percolation.

Above the octagonal structure we can simply guess the presence of dome structure because the structure seen on top of the mound gives the probability of this. But shape and size cannot be said precisely until whole of the structure is opened. Maximum of 170 cms of debris is seen collected on top of the mound. It is essential to clear them all and see if the circular alignment of the dome structure is to be traced. A deep trench of treasure hunters goes down to 170 cms from the top of the mound (Pl 8.)

From the cuttings done till today it has been noticed that the treasure hunters had done tremendous destructions to all forms of the structure of the mound from circular, cruciform to the octagonal and then to dome structures as well. There are many dug-holes encountered. (Pl. 5.) But no one seems to have gone through the center of the mound where the mud structure stands, if any. (Anc. Nep-15, Pl-3c)

Monastic Complex –I

To the north west of the main stupa at a distance of nearly ten meters away stands a monastic complex of moderate size. This, along with the praying platform, is two conspicuous structures in the vicinity of Ramagram Stupa. (Fig I, Pl.7)

The monastic complex measures 13.5x13.5 m. having 2.40m. wide rooms and the courtyard of 4.80m square. The size of the wall is 1.15 m to 1.25 m. thick and brick sizes are 6x19x30 cms and 6x23x36cms showing two phases of the construction. Surprisingly no evidence of roof tiles are recovered showing the roofs to have been covered by organic materials most probably the thatch or leafy covering. This reminds the mention made by Hieun Tsiang in his record:

On this he (the Bhichhu separated from his group to Vow for the stupa) constructed for himself a leafy Pannasala (Pannasala is the Sinhalese word for leafy hut)

(29: Si-yu-ki bkII vol III)

Being a Sramanera monastery, the complex is comparatively a smaller one and it tallies with the description of Fah-sien and Hieum-Tsiang, who saw there only few monks.

All the outer wall foundation of the monastery remains intact at least with some bits of brickbats robbing mostly in probable door locations. In southern façade of the monastery, there are as many as 32 courses of brick left and in eastern part there are 23-28 layers still remained in-situ. But tops of them are uneven and also no doorframes are encountered. They might have been robbed away or destroyed in course of time due to being organic material.

The depth of the foundation trench while laying the first bricks is also not in even level. In trench 35 Cp in East and 35 Ct in South the depths are 220 cms below the surface while in 35 Ch in North is 195 cms and 35Cm in West it is recorded 215 cms.

The inner room size of the compartment ranges from 205 cms to 240 cm. without any dividing walls. Probably organic materials, like reeds and bamboos, divided the rooms.

The location of the doors is not found with any tangible objects like doorjambs and doorframes. But a door hook is found from the trench. One door is surely in SW. corner (tr.no. 35Cs) and another probably two in the east (Tr. no. 35Cu and 35Cp) where same type of wall destruction above the foundation level is noticed. In north may be two in trenches (tr. no. 35Cs and 35Ci) and in western part, since the wall is not exposed fully cannot be said precisely.

Unlike in outer walls, the inner walls of the monastic complex is nearly all robbed away leaving only seven courses of bricks in western side. Where as in north three layers of the bricks are left in sporadic condition (tr. 35 Cg) and in south also same condition prevails.

The eastern side where it is left with only ghost walls filled in with brickbats after the bricks from the wall were taken out. The remains of the ghost wall could easily be detected in sections. The exit to the courtyard

is in southeast corner of the complex.(Anc.Nep.Nr.-148,p-3)

From the study of stratigraphy and the depth of foundation reached in different parts it can be surmised that the foundation was laid only after the deposition of sticky dark layer (*Matiara matti*) in trench 35Ch where the foundation rests on the soft ashy layer (i.e. 165 cms below the present surface). From this we know that the foundation is cut down from the brownish dark layer of the trench 35Ct in which the fireplaces are nicely detected. So this phase of deposit predates the monastic complex.

The monastic occupation is now seems noted only in the eastern half of the trench 35Cs west of the trench 35Ct where the working level comes at 140 cms. and are well marked with the laying of the bricks in floor touching the wall in slanting position of which in trench 35Ct the bricks were already lifted. This is the working level, which is in average 140 cms below the present land surface.

If we presume the present monastic complex to be made during Gupta period then the layers below them certainly predates the Gupta phase, which is also supported by the potsherds coming from that level.

The southern foundation of the monastery goes down further 30 cms than the northern wall of the same structure. Below foundation is a pot buried in broken state. This pot brought nothing special. Therefore this could be only chance position. The pot is in inverted position and broken and lies 10 cms below the last course of the brick in northern wall of the southern bay of the monastic complex.

Further down from the last course of the foundation brick there came several layers of fireplaces, which brought gray ware sherds mixed with cord marked sherds with some black and red wares as well. This is interesting situation, which could be the overlap of cord mark phase with gray wares. But no postholes could be detected which pushed us to think the fireplaces to be used temporarily and sporadically. The area gone down was only two-meter squares.

Discard Of the Monastic Complex

The monastic complex seems collapsed and discarded well before the last flood occurred. This is shown by the brickbats concentration in almost all the trenches laid over the monastic complex. The brickbats concentration goes below and is well overlaid by yellow

flood deposit. When did the flood occurred is unknown, but seems after fifth century because a charcoal sample collected from the top of brickbats concentration showed the date of 330±60 AD (Anc.Nep-157, P-5)

The buried complex was noticed with the information gathered locally. The local informants informed us a piece of land to North west of the main stupa as Unlucky field because who so ever, tried to cultivate it, would suffer from deaths at home of either family members or cattle. So they never tried to cultivate it and therefore left it fallow.

On the information of that, Department of Archaeology in collaboration with Bradford University Geophysical team on the financial support of UNESCO conducted a geophysical survey in the area in 1997 September and found an anomalic feature of subsurface archaeological remains (PI 6.).They interpreted the result as:

The features appear to represent two or three square enclosures containing an inner enclosure. The most complete example is some 12m. square with an inner enclosure of some 5 m. square. We have tentatively identified them as a votive Buddhist stupa within individual perimeter walls, perhaps mistakenly identified as diabolical residences by local farmers thus giving the field its unlucky reputation.

(47:Coningham and Schmidt-1997)

Department of Archaeology immediately conducted the archaeological excavation and found the result as a monastic complex against the interpretation as stupa complex understood by Bradford team.(Fig II)

Votive stupa at the courtyard of the monastery

There is a votive stupa erected at the center of the courtyard. The placement of this stupa is little deviated towards southwest by 20 cms. The size of the courtyard is 4.80 m square; exactly double the breadth of the monastic room- size. The stupa does not seem contemporary to monastic complex because the last flood occurred after the abandonment of the monastery and this votive stupa is found constructed on top of that last flood layer. The placement of the stupa seems chance placement at the center of the monastic courtyard. The stupa has six courses of bricks and seems erected from the salvaged bricks collected from surrounding. All the bricks used in this structure are found to be the size of 5x 19x 29 cms.

The aim of opening this structure is to understand about the purpose of this monument. Since it looks like a stupa and foreign deposit seen below it in western section, it has been decided to cut down in order to check that deposit and fully understand about the structure. The structure is removed layer by layer with photographing and drawing each layer before it is removed. The drawing is done with superimposed central point fixed each time vertically in the same spot with the help of a thread marked red in central point (Anc. Nep. Nr.148- p 5)

Surprisingly the deposit thought to be the foreign materials turned out to be the rain penetration, which carried down the surface composition, and it was seen only in western section. The whole structure is cut down to the bottom and found the surface below the structure merely a flood deposit, Half of the bricks at last layer are left in-situ after seeing all the structure (Ancient Nepal Nr. 148 p.19). The result is late erection of the structure, which was raised only after the last flood occurred in the area. The flood deposition itself is after the abandonment of the monastic complex.

Monastic Complex II

Another monastic complex was traced by the Geophysical survey at a distance of hundred meters to the Northwest from the main stupa. It also measures almost to the size of the monastery number one.

The textual description given by the Geophysical survey team is not available. But from the comparison and correlation with the same sort of picture from unlucky field, it can nothing but be a monastic complex with a brick structure of a stupa or an oven used for long period of time to the north of it.(Fig III)

It was opened partially in three trenches but could not be fully understood. However from short duration of digging in three trenches of 4x4 meters and one in 2x4 meters the following information could be gathered.

The first phase of the monastery was contemporary to the praying platform standing to the west of the main stupa. It was abandoned after an earthquake. The titled wall of seven course brick on top of eight course standing wall shows this situation. (PI 9,Anc Nep Nr 157. p-30.) Same sort of the picture of earthquake is recorded in the Northeast corner of main stupa as well (PI 14,Anc. Nep.157,P-35)

The working floor of this phase is at 2.20 m from present surface from where a nice Kushana incurved bowl is retrieved.

The second phase people came to the site and erected on top of the phase one structure (27 Ai). The brick sizes of those two phases are also quite identical with 5x 27/25 x 37/38 cm and 4x 19/20 x 32x 33 cms to first and second phase respectively

The alignment of the structure in super imposition also sheds the light on this. The second phase came at a gap of some period is also noticed with the deposit in between those two structural phases. But second phase people could not live there for long.

The location gives the nice picture of undisturbed layer of stratigraphy. Therefore it is thought to be a fruitful digging in the future to understand fully about the chronological history of Ramagrama complex with the stupa deposit. (Anc. Nep-157, P 30)

Praying Platform

A rectangular structure measuring 8 x 17 meters is exposed to the west of the main stupa with a raised square platform (4x 4.5 m) at the center (fig I). The structure is presumed to be a praying platform.

The structure is elongated north south. The central part of the structure is connected to the steps leading upwards in the main stupa by means of a paved street. Only a trace of paved bricks is left with an alignment in the edge.

The thickness of the wall in the structure measures from 80 to 85 cms and bricks used are of 4/5x 20 x 34/35 cms in size. Total of 12 courses of bricks are left in northern wall, 13-15 courses in the middle and no trace is done in the south wall because it was not opened down to the bottom. The southwest corner of the structure is seen collapsed due to the flood of river Jharahi. There are 18 courses of the bricks left in southern façade of the central square portion.

All the area inside the structure was paved with brickbats. The paving in the central square portion is found raised 20-25 cms above the surrounding level.

The level of the paved floors is 105 and 125 cms below the present surface in central square portion and area below it respectively.

It is presumed that the lower level was used as praying platform for general monks and central square portion for the high-ranking teacher. Both type of devotees used to pray facing towards the stupa in the east thus the name-praying platform.

No efforts could be accomplished single-handed. During the course of excavation many colleagues, friends and well-wishers did contribute in many ways.

Among the colleagues, Praveen Shrestha did contribute a lot in photograph and drawing works in the site. Despite his official duty of photography he did not mind to work more but enjoyed on it. Mahesh Sharma joined hand in hand with Praveen Shrestha. Both of them deserve my special thanks.

Narad Yadav, a local colleague from Nanai village working with Bussi-no-Kai contributed in unsurpassable dimension. His cooperative, untiring and unflinching efforts contributed in the successful field accomplishment of six long seasons. He remains a diligent prospect in this type of fieldwork in future also. I owe him a lot.

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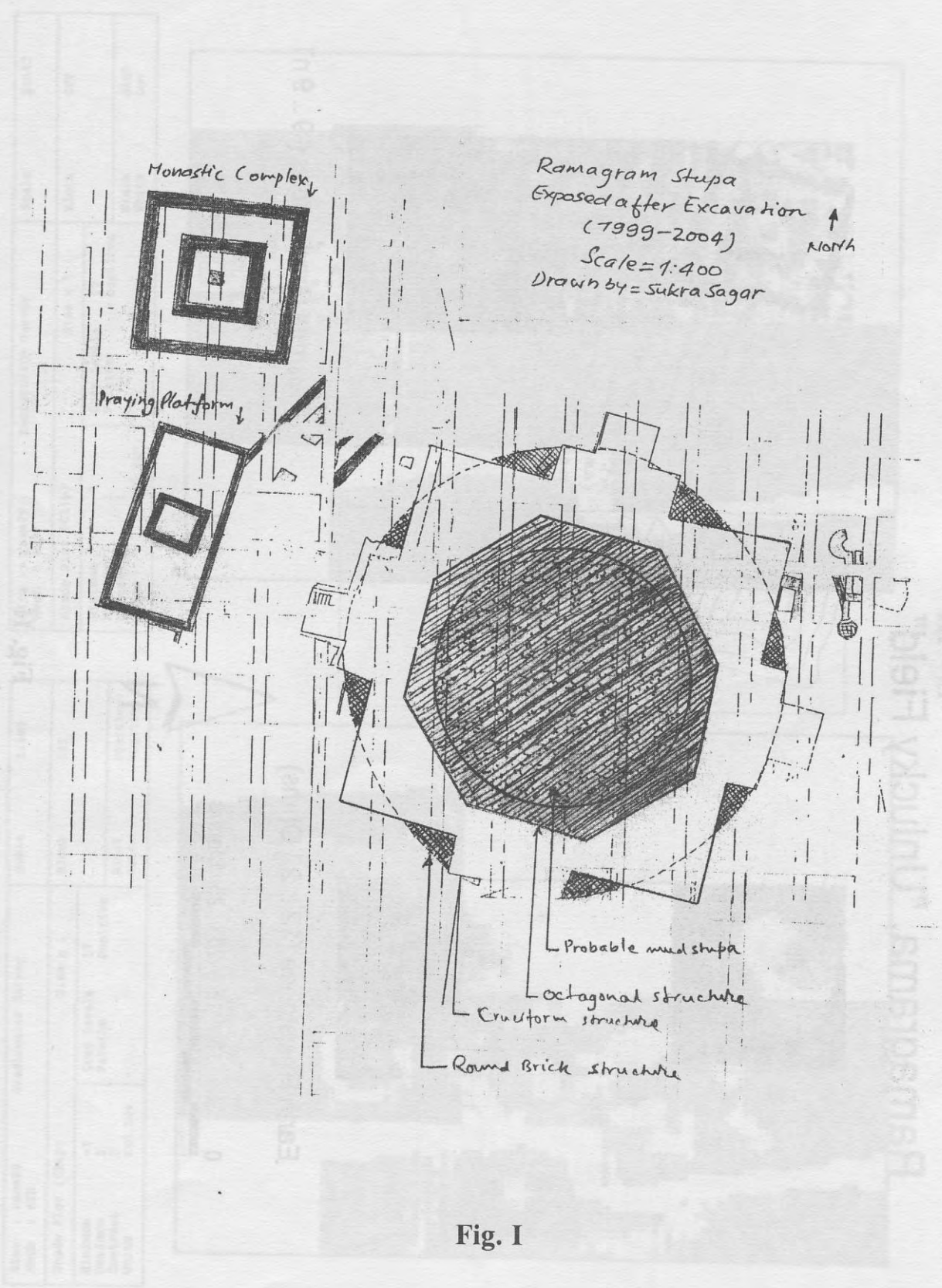
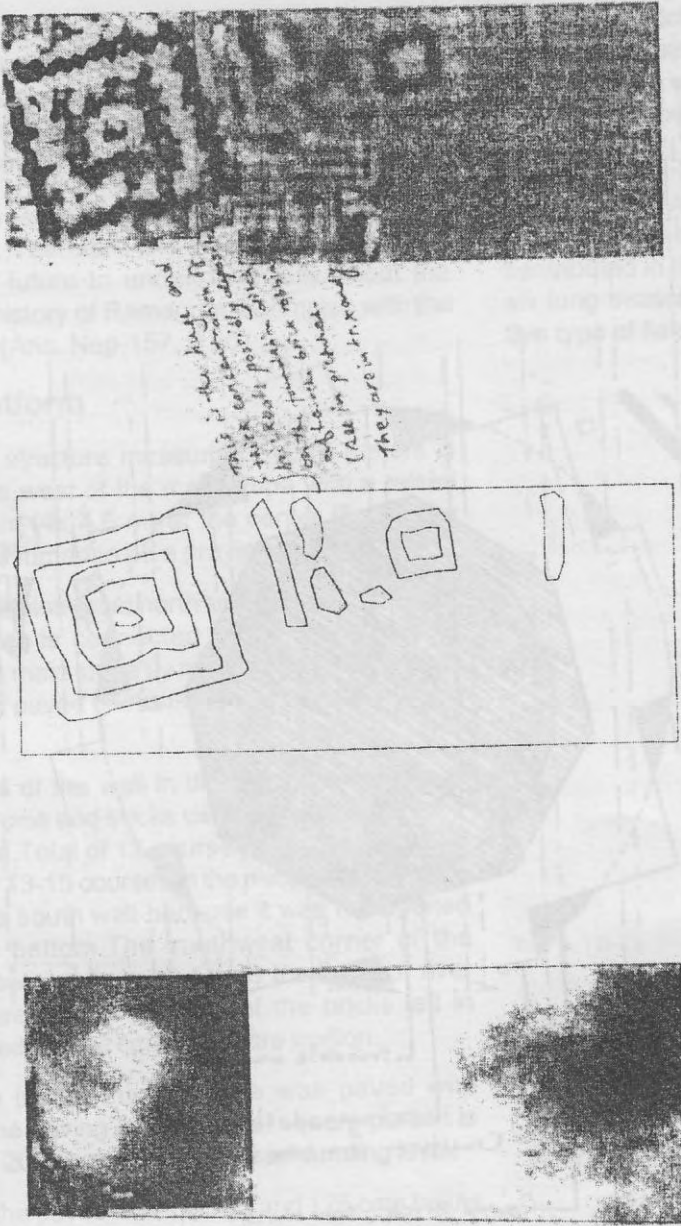


Fig. I

Ramagrama, "Unlucky Field"



Fluxgate Gradiometer (-9 .. 9 nT)

Earth Resistance (12 .. 25 Ohms)

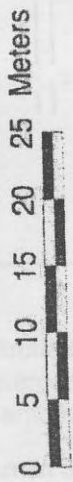
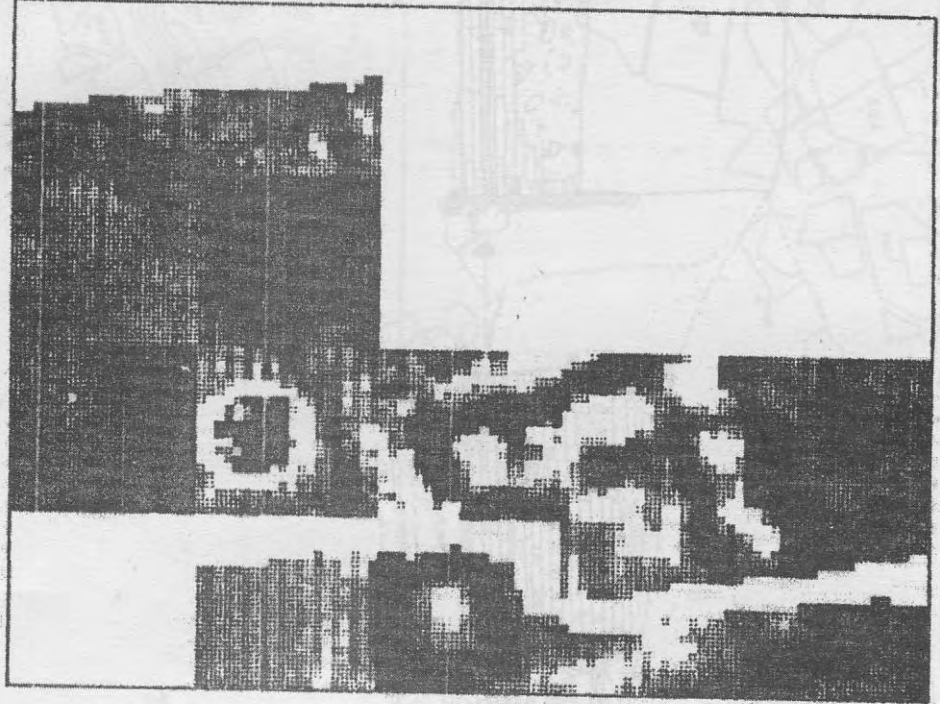


Fig. II

Site : rama99 Mesh : s2M	Gradiometer Survey	Scale 1:443
Shade Plot (Clip)		Block Off
Minimum -1	Grey Levels 17	Positive
Maximum 1	Palette	
Contrast 1	Std.Dev.	
Units		Negative



Site : rama99 Mesh : 62r	Resistivity Survey	Scale 1:443
Shade Plot (Clip)		Block Off
Minimum -1	Grey Levels 17	Positive
Maximum 1	Palette	
Contrast 1	Std.Dev.	
Units		High Low

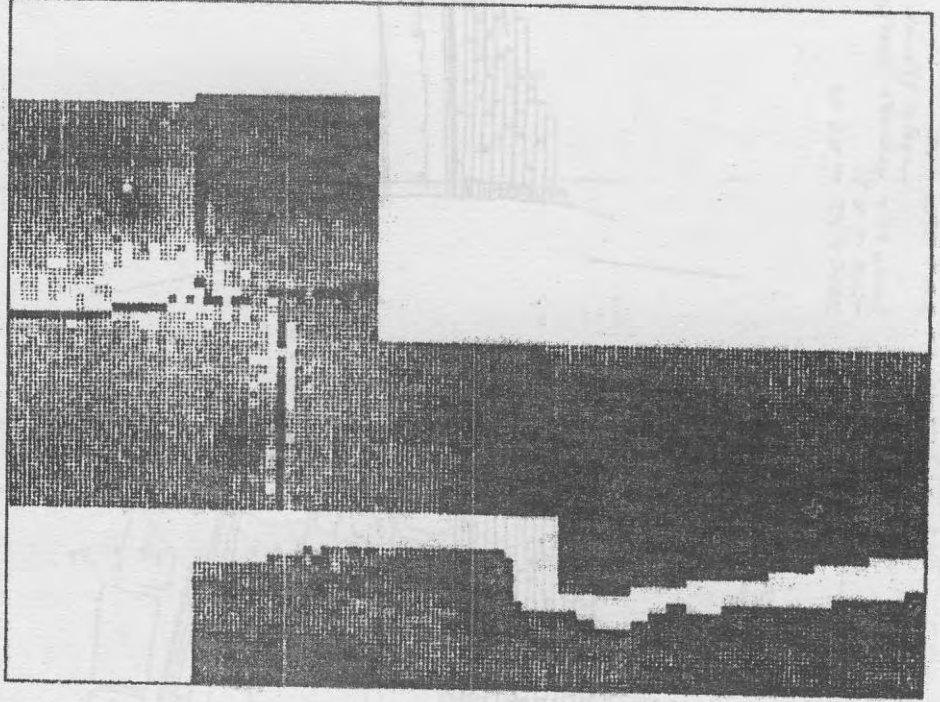
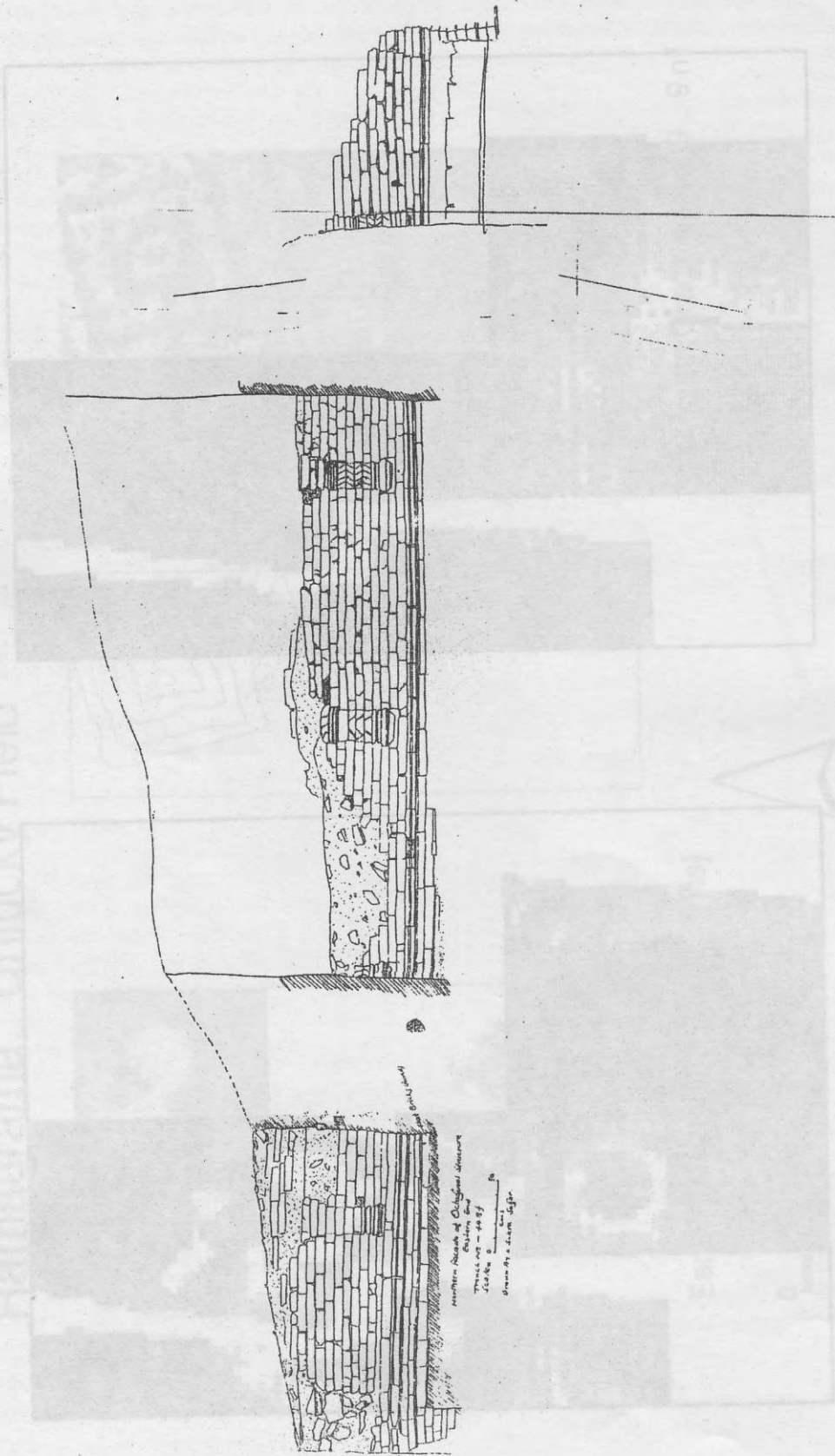


Fig. III

Fig. 10
Panorama "Unlucky Field"



Vertical Scale of Original Structure
 Trace no. 4487
 Scale 1:1000
 Base of section 4487

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Fig. IV

UNIT	THICKNESS	DESCRIPTION	POSITION	DEPTH	REMARKS
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TRENCH NO. - 24 41
 SCALE - 1:10
 DRAWN BY - PROVER STARRS
 DATE - 25/1-42
 A-100 (100' x 100' x 100')
 B-100 (100' x 100' x 100')

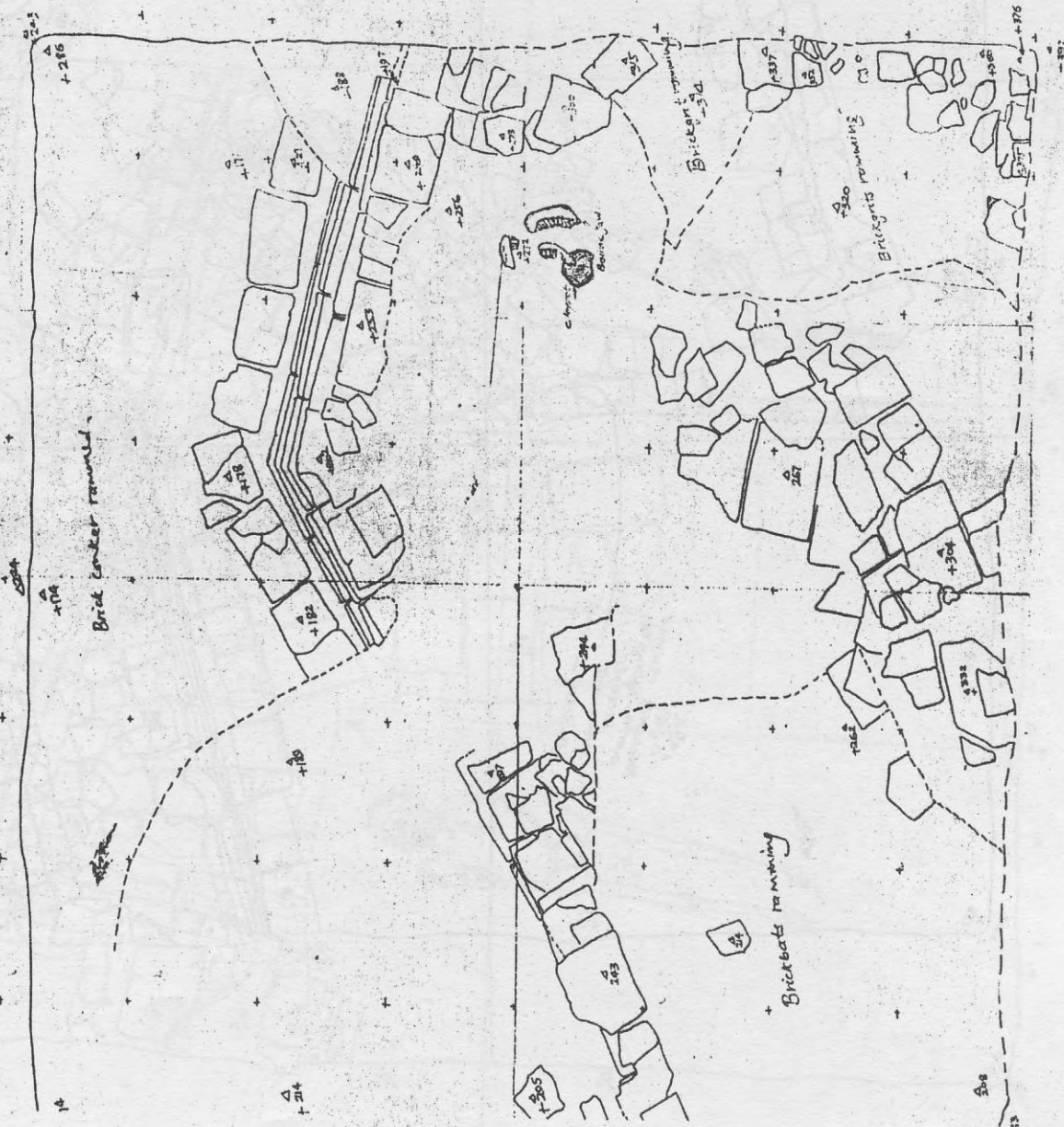


Fig. V

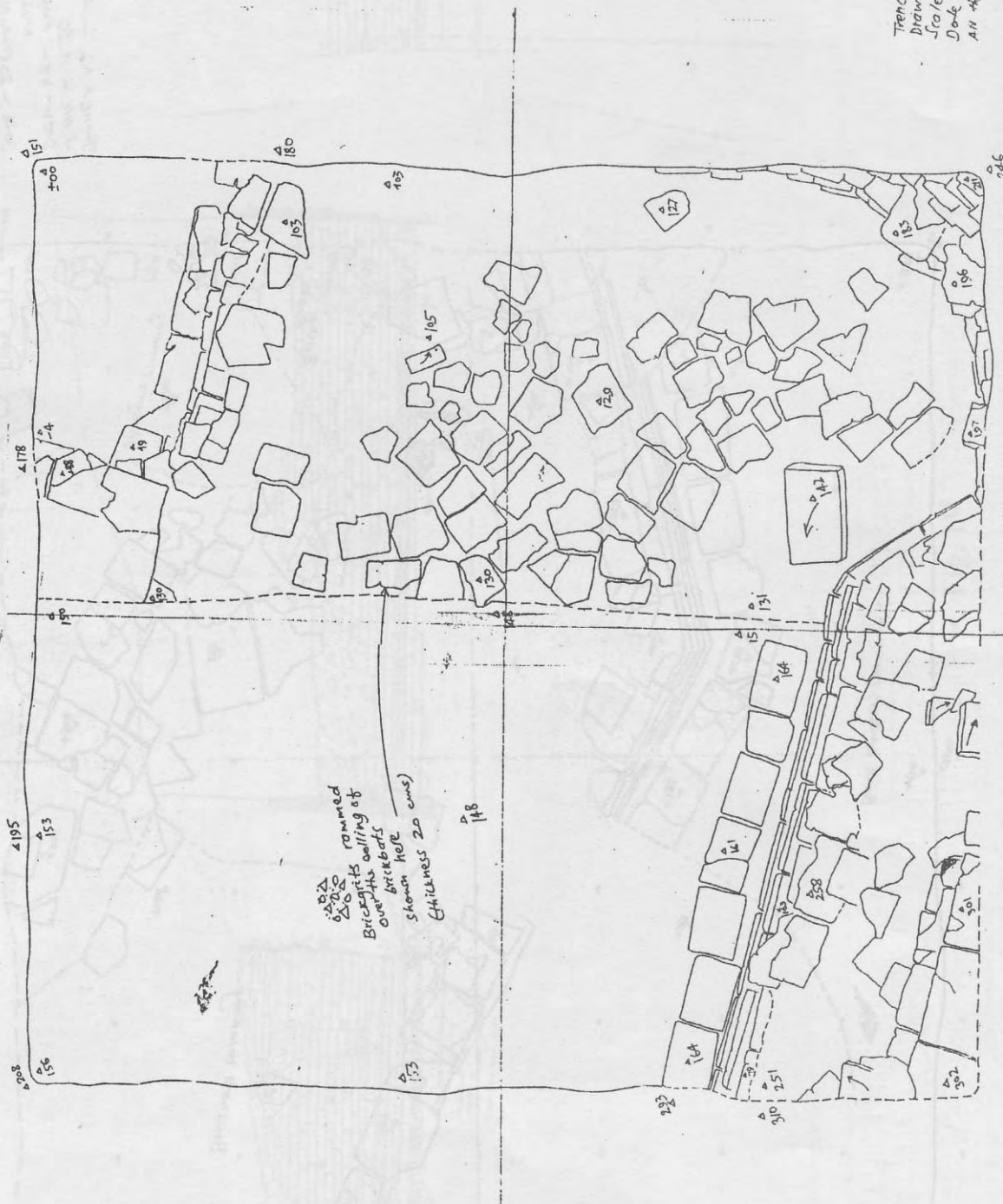
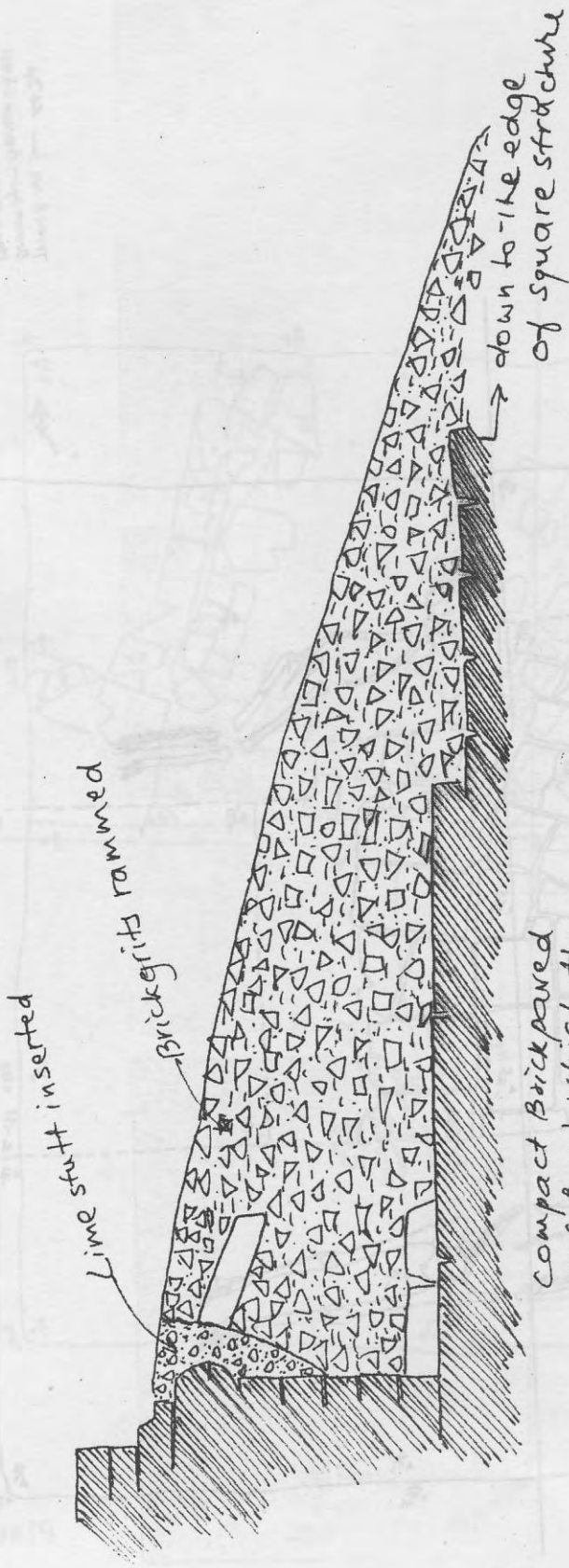


Fig. VI



Compact Brickpaved
on top of which the
Octagonal structure
is raised

Trench No = 44 A
Scale = 9 cms
drawn facing west
By: Sukra Sagar
Dt. = 20.6.12-25-4.

cross-section at the Corner of Octagon
in this trench.

Fig. VIII

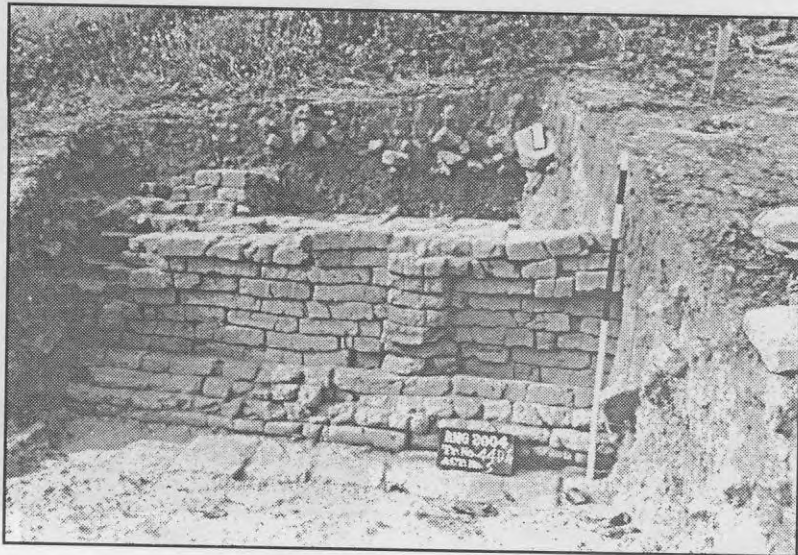
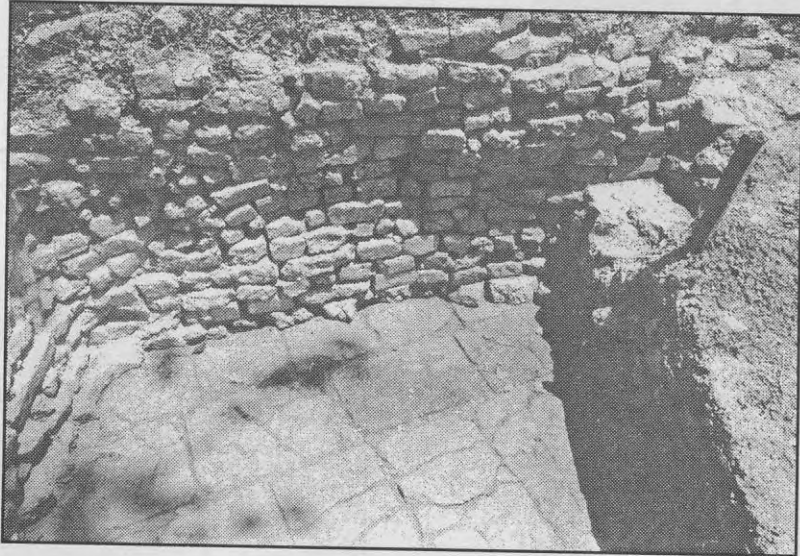
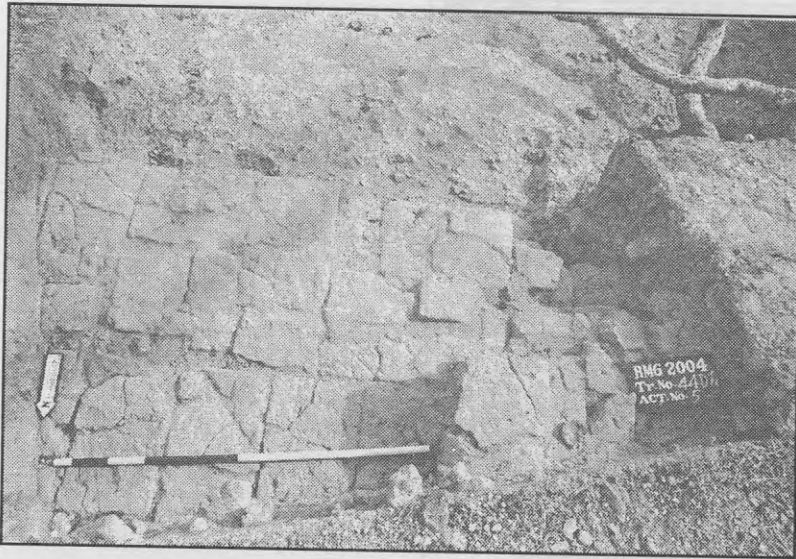


Plate 1

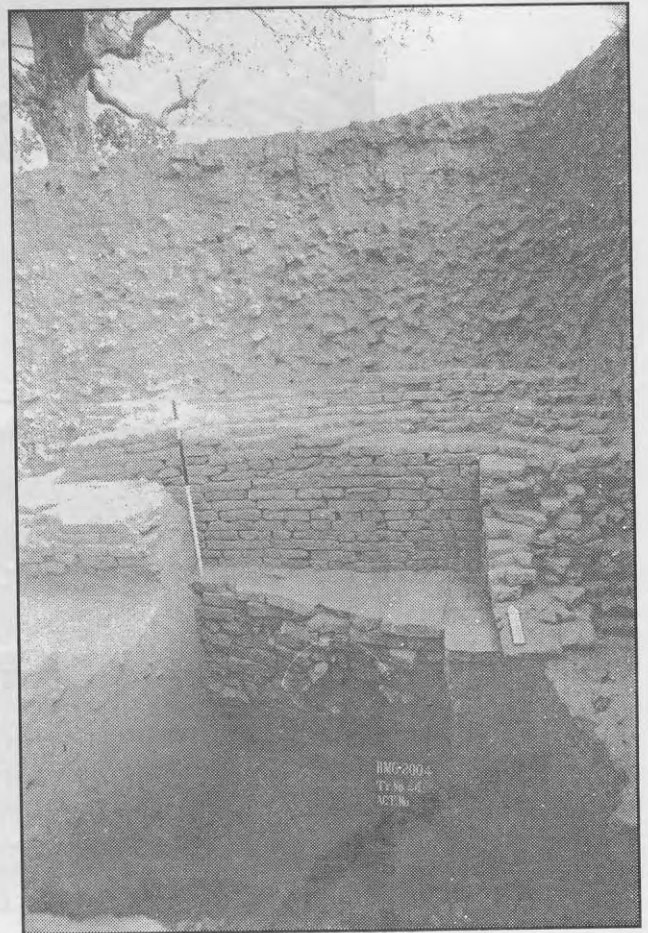
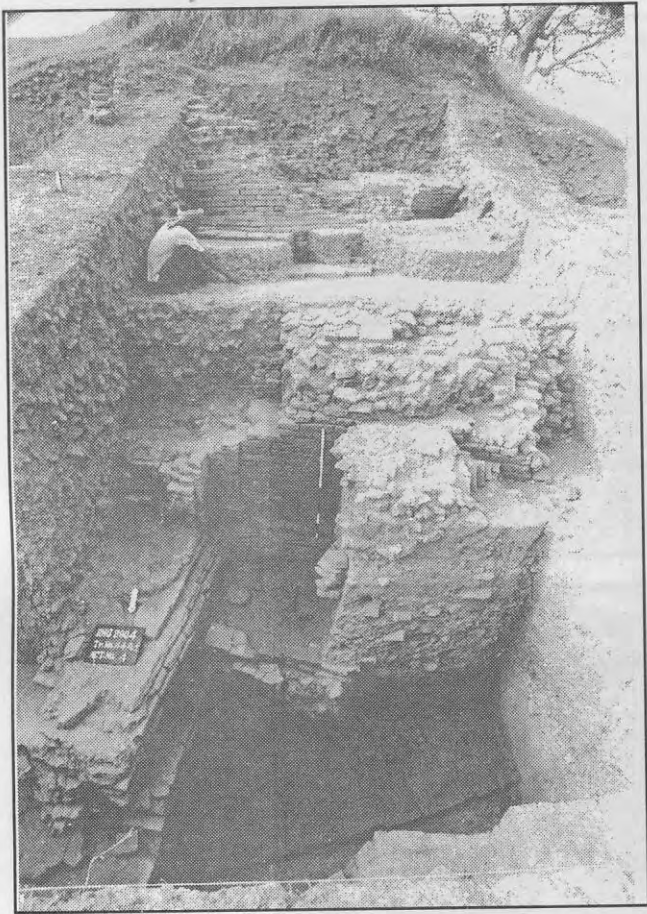


Plate 2

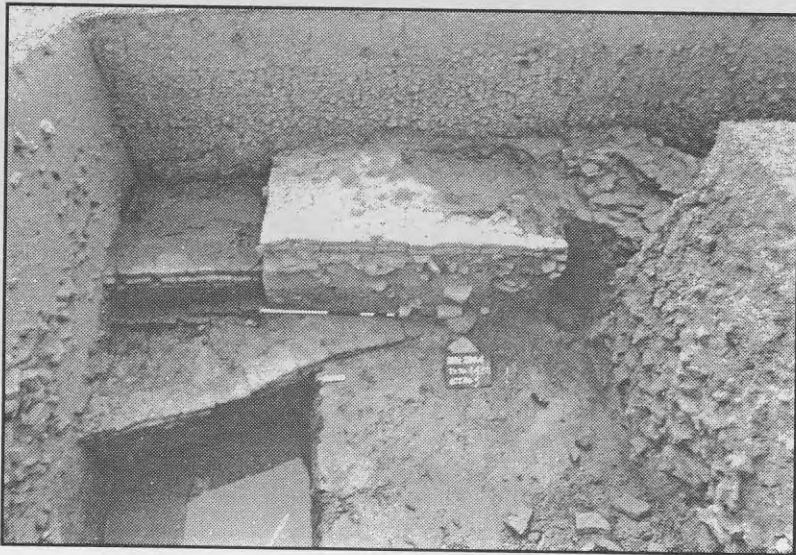
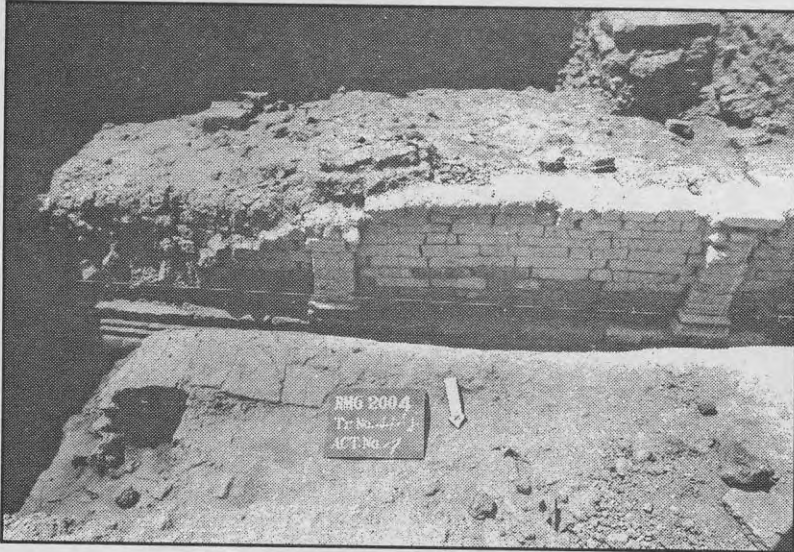
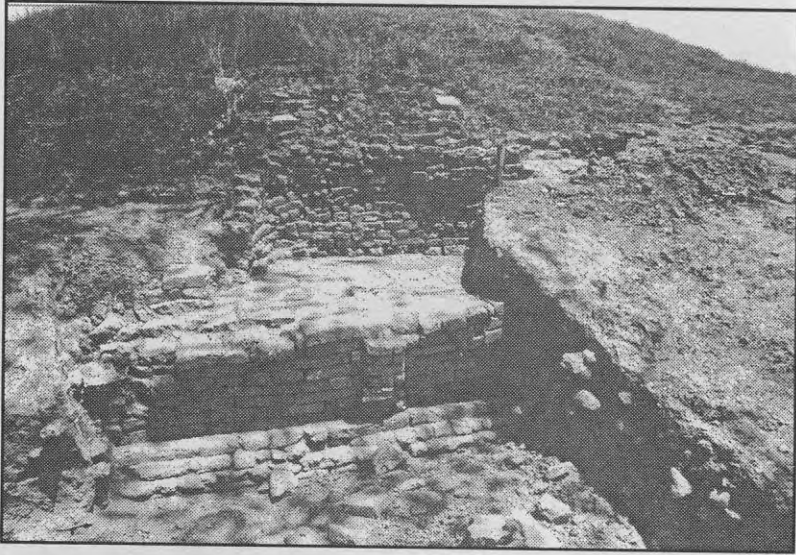


Plate 3

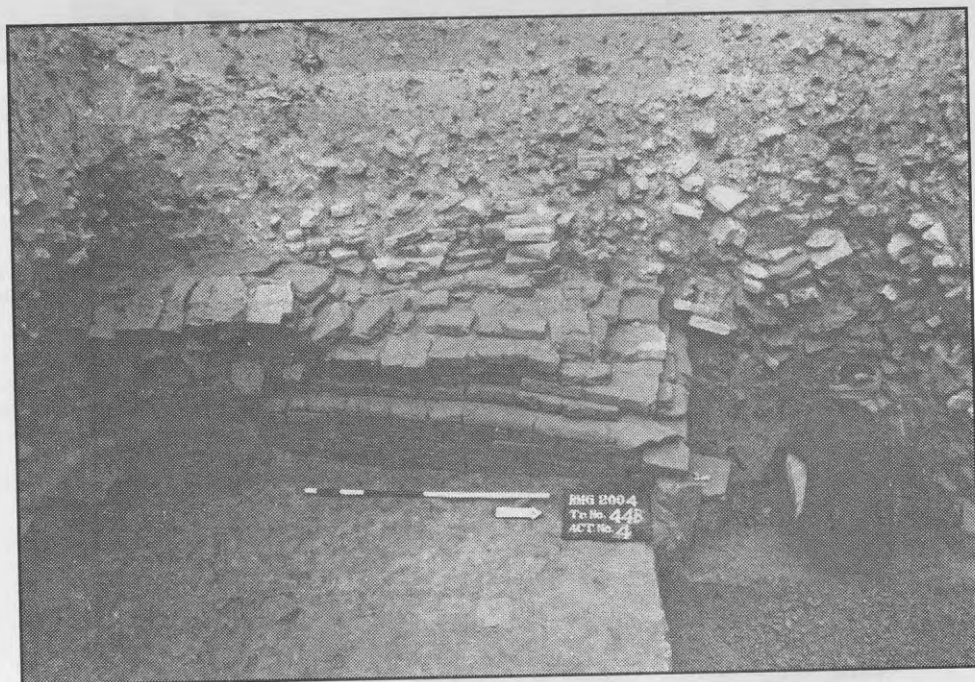


Plate 4

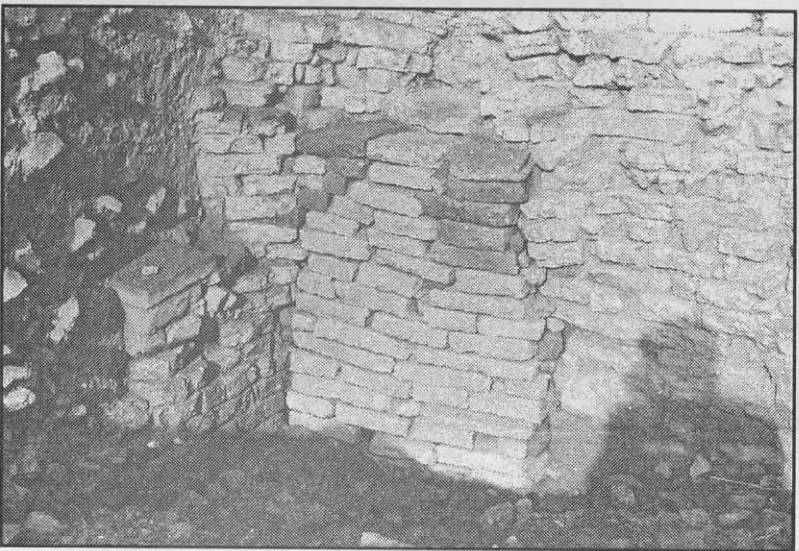
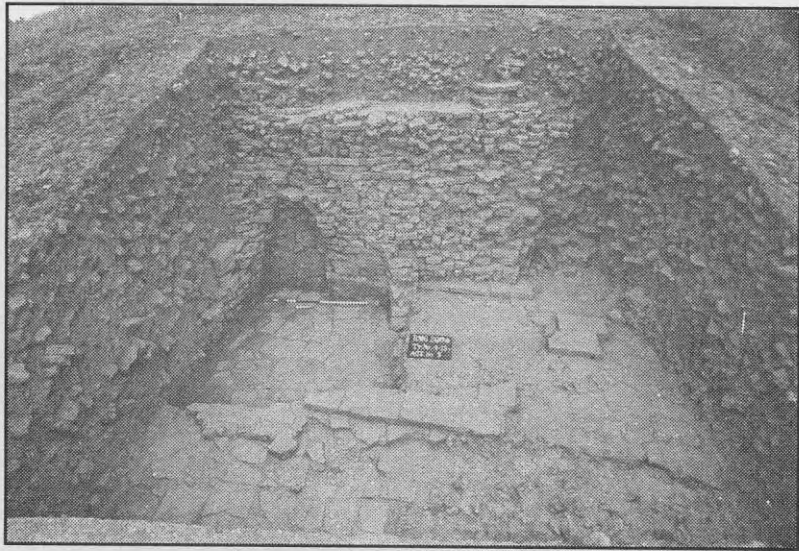


Plate 5



Plate 6

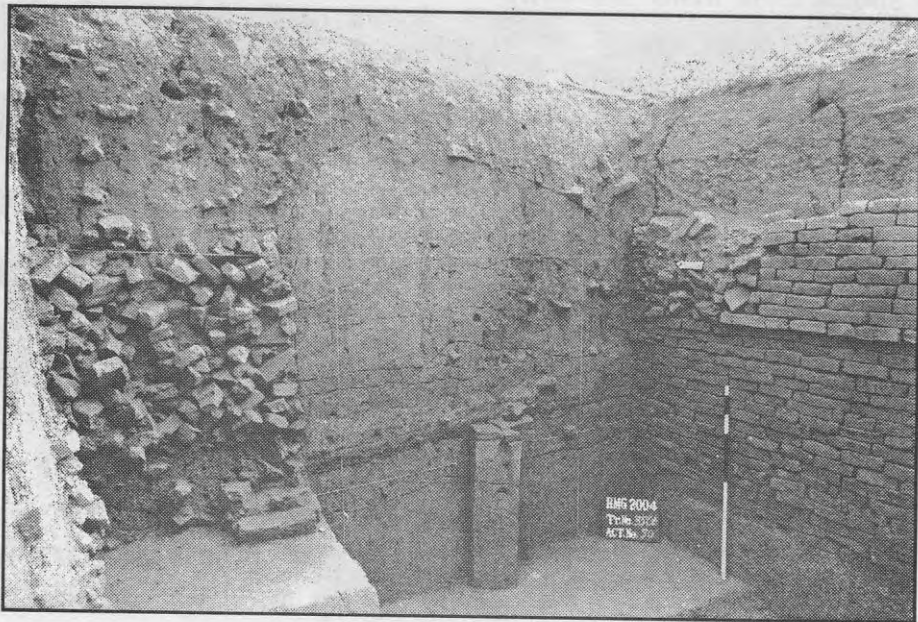
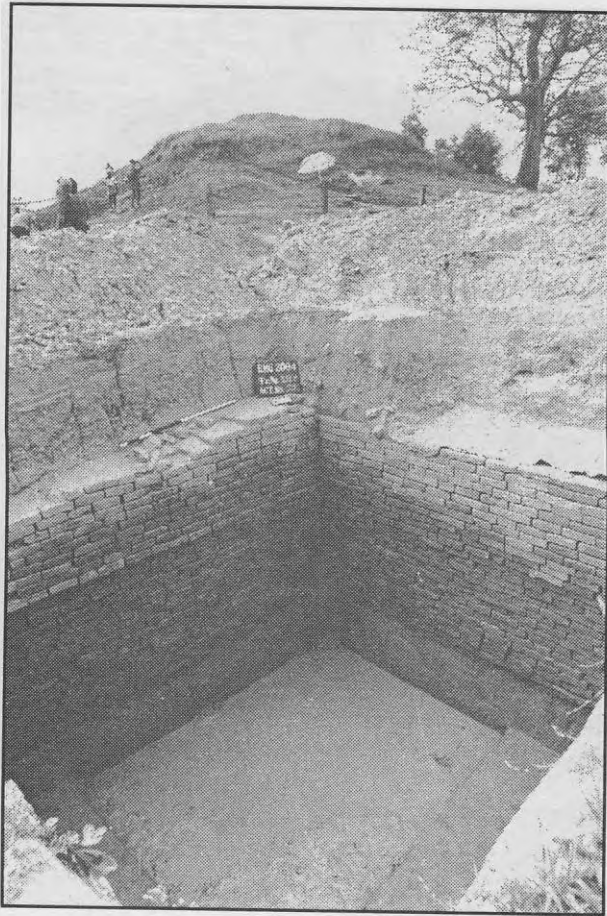


Plate 7

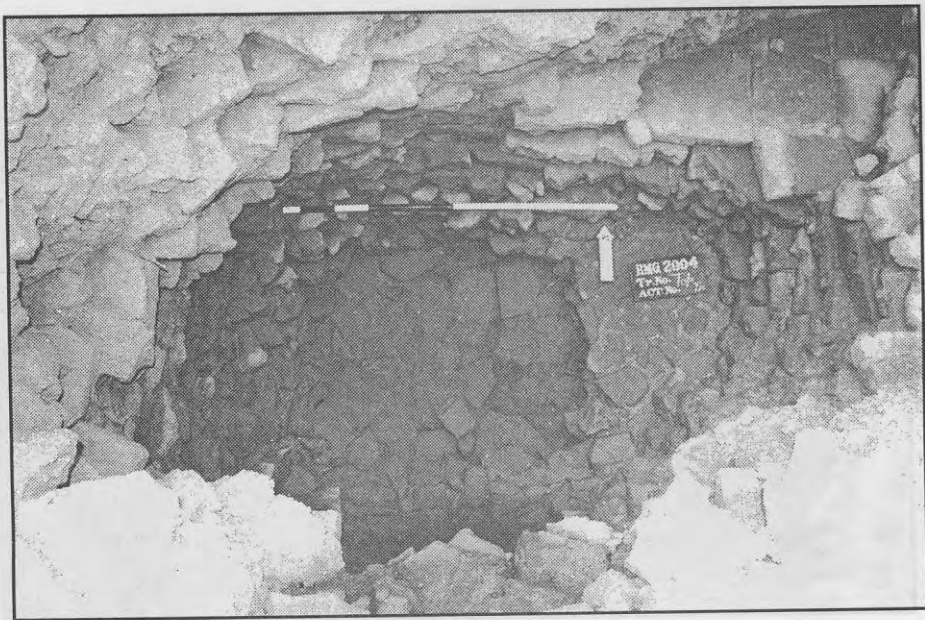
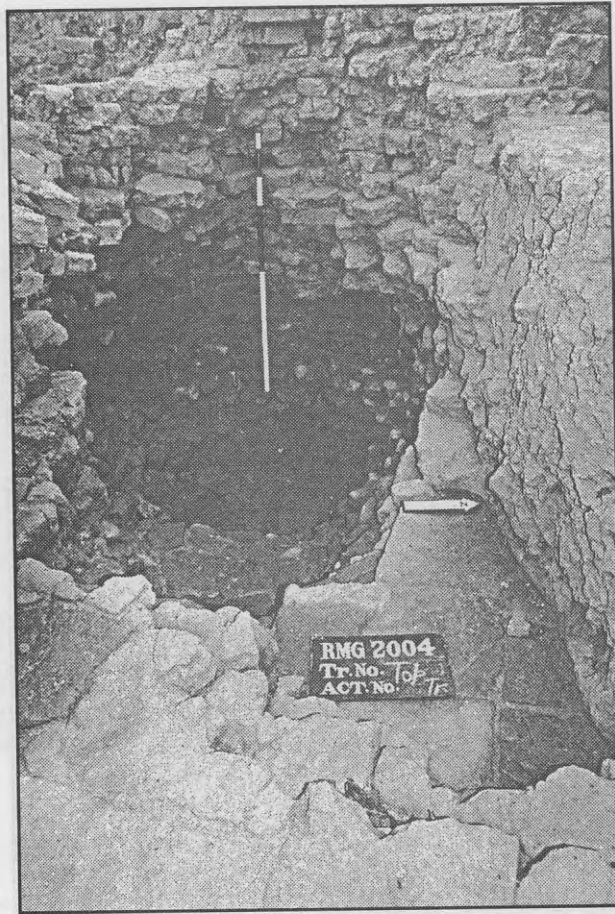


Plate 8