

# REPORT ON THE AL-KHAZNA COURTYARD EXCAVATION AT PETRA (2003 SEASON)

*Suleiman Farajat and Sami Nawafleh*

## Introduction

The decline of tourism in the area in 2003, due to the war on Iraq, has played a major role in the beginning of excavation at the al-Khazna Courtyard in Petra. It is well known that this area is usually full of visitors during the high seasons (March, April to mid-May and September to October of each year), thus creating a practical obstacle to the progress of excavation due to visitor inconvenience and even danger to the visitors who may get too curious. As for the main scientific aims of the project, they may be summarized as follows: 1- attempting to solve the controversy regarding the nature of al-Khazna, as there are around 25 different opinions concerning the nature and date of al-Khazna (Table 1, after McKenzie 1990: 7); 2- uncovering part of the paved courtyard that is an extension of as-Siq and understanding its nature and relation to al-Khazna, and finally 3- the "rock-cut shelters" to the north of the monument presented an indication that there were remains still buried.

Following the written approval of Dr. Fawwaz al-Khraysheh, Director-General of the Department of Antiquities, an archaeological team was formed from the Petra Archaeological Park personnel under the direction of Suleiman Farajat, Sami al-Nawafleh, Hiyam Tweissi and Muhammad Salamin, as supervising archaeologists, Qais Tweissi as conservator, Saleh al-Nawafleh as site drafts-person, Sabri Fdoul as photographer, as well as Amer Bdour of the Ma'an Antiquities Office, who did the pottery drawings.

The project originally employed 12 technical laborers then the number was raised to 24.

## Excavations and Results

The project had two main parts: the excavation and the conservation and protection of the site from flooding as well as assuring the safety of visitors.

The excavation started on 14 April and continued through to 30 September 2003. Most of the

terrace adjoining al-Khazna was excavated in eight soundings and trenches, in addition to cleaning two large and one small tomb.

Squares 01-03 measured 4 x 4m each; Sounding 04 measured 8 x 3.4 - 4.2m; Sounding 05 measured 8.3 x 2.6 - 3.3m; Soundings 06 and 07 measured 6 x 4m each; and Sounding 08 measured 5 x 3m (Fig. 1). Squares 02, 03 and Sounding 04 were in the northern front section adjacent to the rock-cut of the al-Khazna terrace, while the rest were to the south. Including the tomb interiors, a total area of 252m<sup>2</sup> was excavated after the removal of the balks.

The results obtained during the excavation period allowed us to define four main phases

1. Phase 1, the oldest, represented by Tomb 62A (Incense Tomb).
2. Phase 2, represented by Tomb 62D (Window Tomb), the side Tomb 62E (Staircase Tomb), Tomb 62B (Obliterated Tomb), and Tomb 62C. The latter is located between the Window and the Obliterated Tombs, only its entrance was partially exposed in a small sounding due to time restraints.
3. Phase 3, represented by the al-Khazna Façade (no. 62).
4. Phase 4, represented by floors, paved courtyards, the central staircase, the side staircase, walls, water drainage channels and dams.

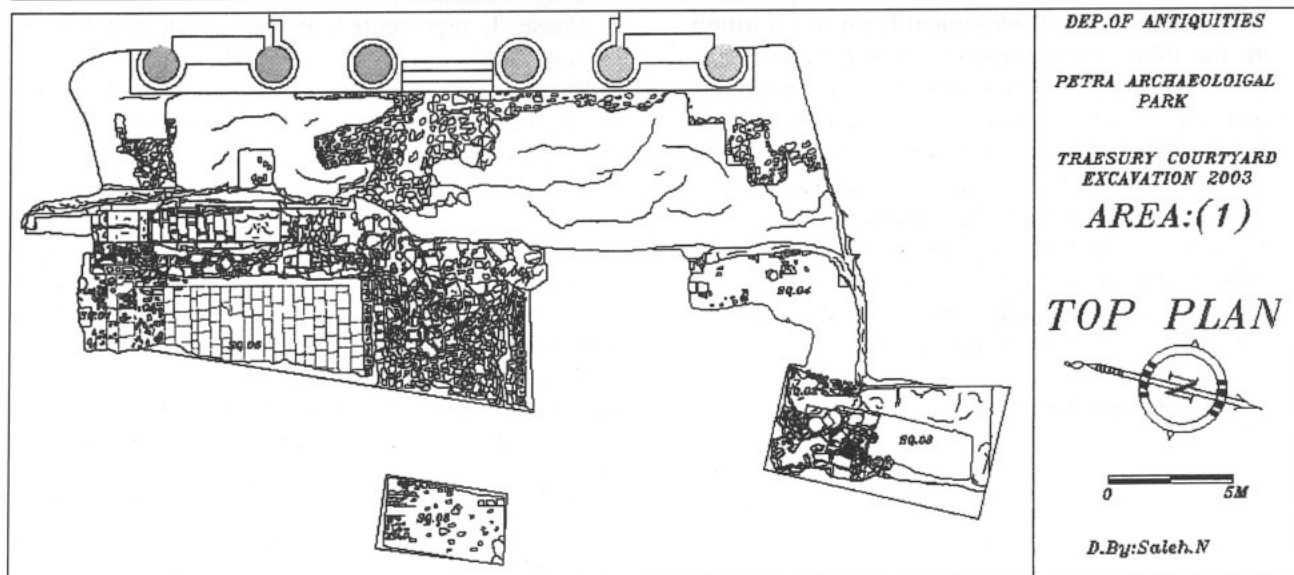
### *Phase 1*

The oldest phase is represented by Tomb 62A, called the "Incense Tomb". It was cut in the southern part of a rock-face at 2.69m from the surface. The tomb façade measures 2.54m in height and 4.55m in width. A channel (10cm deep x 2.54m high x 0.7m wide) was cut in its northern side.

The tomb is simple and for a single burial. The entrance is rectangular (1.63m high and 0.93-0.98m wide), topped by a frame of 0.43m high above a sill. The frame has a number of small holes for a plaque inscribed with the name of the deceased, which was probably of metal.

**Table 1:** Petra: Chronology of al- Khazna (from no 1-25 after Mckenzie 1990: 7)

No	Scholar	Date of Khazneh	Basis for Date
1	Brunnow and von Domaszewski (1904,186)	Hadrianic	Roman. Hadrian visited Petra.
2	Dalman (1908,47;1911;107;1912,77)	1 <sup>st</sup> cent A.D	Style. In "Hellemistic" category.
3	Wiegand(1912,10)	Augustan	Comparison of garlands.
4	Kennedy (1925,vii,51,54)	After A.D106	Roman Temple Tombs not at Madain Saleh
5	Ashby (1927,132)	2 <sup>nd</sup> cent A.D.	No reason given
6	Rostovtzeff (1932,44)	Late Hellenistic	Style. Similarity to second Pompeian style.
7	Ronczewski (1932) Schlumberger (1933,284-290)	Not after Augustus Hellenistic	Comparison of capitals.
8	Watzinger (1935,77)	Late Augustan	Capitals (Ronczewzki 1932) Similarity to late second and third Pompeian styles.
9	Robertson (1943,220-221)	After A.D.106	Roman Temple Tombs not at Madain Saleh. "General baroque effect". Unlike Tomb of Hamrath, Suwaida.
10	Wright (1962,37-44) Wright (1973)	Mid-late 2 <sup>nd</sup> cent A.D. not before c.A.D.100	Roman Temple Tombs not at Madain Saleh Similar to Temenos Gate --mid-late2nd cent.AD. History. Comparison of an iconographic detail.
11	Bennett (1962,237) C.H.	2 <sup>nd</sup> cent. A.D.	No reason given
12	Parr (1967,49)	After c.A.D.50	After paving of Siq.
13	di Vita (1968,74,77)	end Hellenistic/ Augustan	Capitals dissimilar to Temenos Gate. Plan details similar to Alexandrian tombs.
14	Starcky (1966,944;1971,82)	Augustan	Capitals (Ronczewski 1932). Similar to stucco decoration on side of Kasr el Bint. Similarity to second Pompeian style.
15	Lauter (1971,172)	Before 9 B.C.	Capitals similar to Temenos Gate ---before 9 B.C
16	Browning (1973,91)	Aretas III	Sequence. History
17	Lyttelton (1974,70-75)	Aretas III	Comparisons---1 <sup>st</sup> cent.B.C. Or early 1 <sup>st</sup> cent.A.D. History --- Aretas III.
18	Andreae (1977,575)	Late Hellenistic	Capitals (Ronczewski 1932). Similar to temenos Gate --- 9 B.C.
19	Negev (1978,957)	c.25 A.D.	History. Tomb of Aretas IV.
20	Hadidi (1980,107-108)	Hadrianic	Comparisons.
21	Schmidt-Colinet (1980,92-98)	Aretas III	Details similar to Kasr el Bint.
22	Zayadine (1980b,24)	Towards end 1 <sup>st</sup> cent B.C.	Capitals similar to Kasr el Bint.
23	Ward-Perkins (1981,329)	After A.D.106	Sequence. History. (Does not specifically mention Khasneh).
24	Bowersock (1983,62)	Aretas IV	Kasr el Bint and Main Theatre --- early 1 <sup>st</sup> cent A.D. Similarity to second Pompeian style.
25	MacDonal (1986,149)	After A.D 106.	Classical influence stronger in Roman period there.
26	Robert Wenning (2003, 141)	3 <sup>rd</sup> Quarter of 1 <sup>st</sup> cent.B.C	Capitals
27	Andrew Stewart (2003, 198)	Aretas IV	Comparisons .



1. Top Plan of al-Khazna courtyard excavation (2003) at Petra.

The entrance was blocked by four courses of limestone ashlar blocks, the outer faces of which are well dressed while the inner faces are rough with traces of quarrying tools. Two of the courses were found *in situ* (Fig. 2), their lengths were 0.80 and 0.83m, and the gaps between their edges and the tomb entrance were filled with mud and small stones. The third course (length 0.85m) was found leaning inward, while the fourth (length 0.83m) was on the floor inside the tomb. The displacement of these two courses is evidence that the tomb was robbed at a later period. The total height of the courses is 1.58m, which indicates that the remaining height was for mud mortar joining the courses.

The length of the grave is 2.30m, its height 1.63m and width 0.80-0.86m. The northern wall has a roughly worked niche (1.69m high, 0.80m wide and 0.30m deep) that was probably for placing a nefesh next to the head of the deceased, or for funerary offerings and personal effects.

The opening of the tomb caused it to be filled with flood debris that were found in relatively hard compact silt layers, varying in colour between brown and red. When these were excavated we noticed the remains of a fine grey line surrounding the place of the body, most probably indicating a wooden coffin that disintegrated. This is further supported by the discovery of four bronze pieces with remains of wood (Fig. 3). What we found of the skeleton are a hip, an arm and some hand bones, the rest was probably washed away by floods. A few Nabataean sherds were also found.

**The Hearth:** An interesting feature that was found on Floor 19, at the level of the floor of the tomb — below the present as-Siq floor and paved courtyard — was a large hearth situated in front of the tomb entrance, next to which was a placed lamp on the floor. The hearth was full of ash and surrounded by



2. The entrance of tomb 62A with two courses of limestone ashlar blocks found *in situ*.



3. Part of wooden coffin inlaid on bronze frame found inside tomb no. 62A.

lime stones that in turn surround a circle of sand stones. The hearth is 1.6m long and 0.6m wide, and is 2.35m away from the tomb entrance. Inside we found burnt bones and a number of painted Nabataean sherds (Fig. 4), as well as sherds of jars and lamps, iron fragments, and a quantity of burnt myrrh and incense. This may be the first time that such incense was found in Petra. The presence of the hearth outside the tomb indicates that funerary rites were carried out there. Additionally, three of



4. No of broken vessels found in a hearth in front of tomb no. 62A.



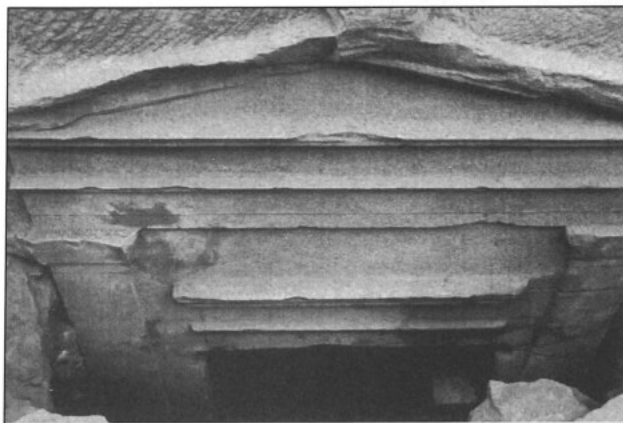
the painted bowls were restored and — judging by the stains inside them — it is obvious that one piece of incense was placed inside each bowl, and probably they were used only once. We also found many stones in the hearth that may have been used to smash the bowls to prevent their reuse, as intentional breakage were obvious on one of the bowls. Murray and Ellis had suggested that the painted Nabataean vessels were used in religious ceremonies after which they were smashed to prevent their reuse (Murray and Ellis 1940: 21). The pottery of this hearth was examined by Dr. Stephan Schmid who estimated the date (25BC–1AD) (pers. Comm.).

### Phase 2

Represented by Tomb 62D (Window Tomb), Tomb 62E (Staircase Tomb) and Tomb 62B (Obliterated Tomb).

*The Window Tomb (62D):* This tomb was carved in the rock face in front of al-Khazna, at around 5m from the front staircase. The entrance and façade of the tomb were blocked with stone ashlars, some of which are very large, and most of which came from the black iron-rich vein in front of al-Khazna. The roof of the tomb, which is directly in front of the main staircase of al-Khazna, was used as a front courtyard and paved with stone slabs similar to the pavement of the lower courtyard, however only one paving slab was in situ in front of the staircase.

We exposed the facade of this tomb (**Fig. 5**), which was neatly blocked while leaving a gap of around 5cm to protect it during the construction of the staircase leading to al-Khazna. The façade itself is well dressed and of one level. On the upper part there are rough anvil marks around the pediment, while the rest of the façade has smooth marks and elements, including the pediment that is decorated with three solid urns, one at each end and one at the top. This is followed by a rectangular frame with a

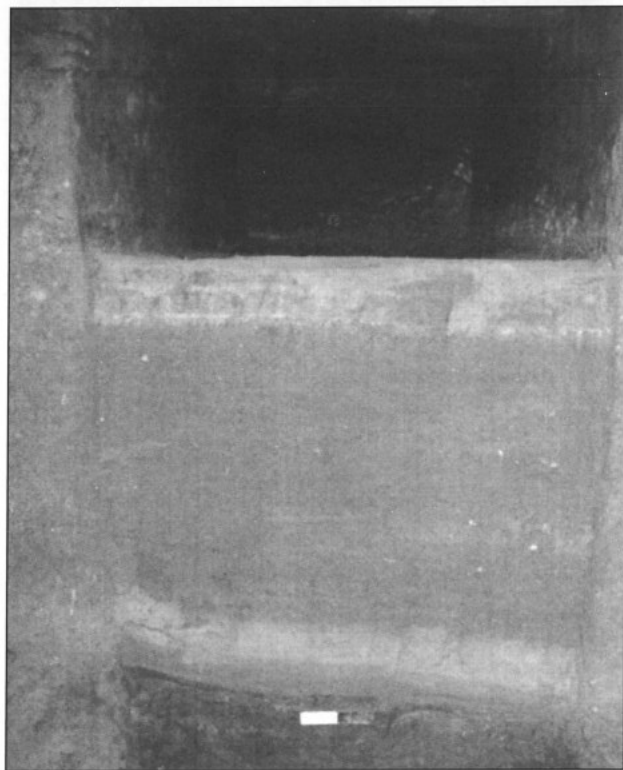


5. The façade of tomb 62D.

cornice at the bottom, which divides the upper part of the entrance into two rectangular fields. The entrance has two engaged columns with Nabataean capitals that have knobs in the middle (the protrusion on the southern capital is eroded), and there is another rectangular frame between the two capitals.

The façade is 5.40m high, and the entrance was 1.85m wide then narrowed down to 1.16m by building a course at either side. It seems that the structural aim of the northern course is to support the window through the staircase. The entrance has two engaged columns other than those of the façade which are 3.55m high and 0.39m across. There are two parallel examples to this façade at Wādī Farasa and the façade on the exterior northern edge of Siq al-Bārid (Zayadine and Farajat 1991: 275-311).

The entrance leads to a chamber below the terrace of al-Khazna, which was full of debris that may have drained through the widow during flood episodes. The debris was 1.30-1.90m high (**Fig. 6**), and formed of 10 layers, 9 of which were silt while the lowest one — directly on the floor — was coarse. The colors varied from light grey to deep red and brown. The top two layers were of very hard and compact silt, probably due to their absorption of water that entered through the window made with the staircase after the blockage of the



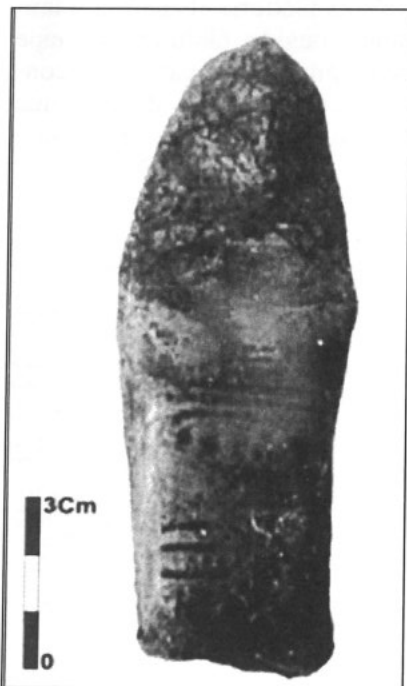
6. Stratigraphy and layers inside the loculus of tomb 62D.



tomb entrance, when a door was made to connect the Staircase Tomb with the Window Tomb.

The layers directly on the floor were 0.05-0.10m thick, full of sherds, stones and bones. The most interesting was the layer on the floor inside the entrance, which was original and not accumulated or moved by floods. It consisted of deep red sand and sandstone slabs. From it we recovered a small terracotta figurine (Figs. 7, 24E), an unpainted ceramic bowl and some pottery sherds. The layer covered an area of 5.80 x 1.60m. Upon clearing the chamber, we noted that the floor and ceiling slope from the back toward the front wall (east to west), and there were white salt incrustations on the upper parts of the walls. There were also eight rock-cut "hangers", four of which were in the ceiling and the rest in the north wall, probably for hanging funerary offerings. In the upper northern section of the back (west) wall, there is a rock-cut niche, 0.11m deep, 0.32m wide and 0.65m high, the upper part of which has two holes for attaching a statue.

In the western wall of the chamber we uncovered a rock-cut burial place, 2.57m high, 2.85m deep and 1.15m wide that was full of the same debris layers as the chamber. The lowermost layer was also deep red in colour, 0.20m thick and contained a few pottery sherds. It seems that the burial was closed off by a wall, the lowermost course of which remains at a height of 0.30m. No bones were found in the burial place so it is possible that they were washed somewhere else, as human and animal bones were found on the main chamber floor,



7. A terracotta figurine found inside tomb 62D.

including a fractured but complete human skull that was 2m away from the burial, next to the door connecting this tomb with the Staircase Tomb. The Danish team working at Shakārat Musay'id did a reconstruction of this skull that belonged to a man of around 50 years of age and had noble features. The skeleton of a ram was also found on the floor of the chamber, in the southeast corner next to the main tomb entrance.

*The Staircase Tomb (62E) (Fig. 8):* The façade of this tomb is of the "Hegra Type" according to McKenzie's classification. It is 6.26m high and 6.93m wide. At the top there is a straight cut, 32-44cm wide that seems to have been made after the façades and probably is contemporary with the carving of al-Khazna. Wall 22, of which we revealed nine courses of the western face, would have been at least up to this cut, so that the top of this wall and the straight rock-cut would have carried the roof and decorations. Thus the façade of the Staircase Tomb and the staircase would have been covered in a way that is amenable with the general setting of al-Khazna, and in accordance with the visual order of al-Khazna and the courtyard.

The façade has two large pilasters, the capitals of which were cut off during carving al-Khazna, along with the top of the tomb that most probably had a crow-step design. We only uncovered a small section of the pilaster at the northern edge of the façade while most of the column at the southern edge was found; it is equal in height to the façade and its width is 0.67m, the height of the base is 0.16-0.59m as it rests on the staircase leading to the main tomb, onto a small pilaster base 0.20m long and 0.56m wide, its base 0.11m high and 0.20m wide. This small capital is pure Nabataean, 0.24m high and 0.72m wide.

At the centre of the façade there is a large door with a triangular pediment, most of which had been



8. The entrance of tomb 62E.

intentionally chipped off. Many relief fragments from the façade were found incorporated into the staircase and in front of the tomb. The remaining part of the pediment is 0.68m high and 1.48m long, while the original length was 4.35m. It is at 0.65m below the top of the façade and below it there is a plain rectangular attic, 3.47m long and 0.27m high, above a cornice of 1.72m preserved length and 0.11m height (partially destroyed, its full length would have been 3.60m). There is another plain tablet below the cornice, 3.46m long and 0.13m high.

The door is framed by double pilasters that are better cut than those at the façade edges. The outer pilaster has quarter column attached to it with a single capital. Its height is 3.04m and width 0.61m; its base is 0.32m wide and 0.16m high. The capital is of the second Nabataean style that is characterized by a tongue below each horn, some of its projecting parts are missing. Its height is 0.54m and is 0.92m wide. There is a groove of 0.37-0.54m in width next to this column.

The northern column is similar to the southern but we could not expose it totally as a small east-west wall (no. 24) covers its lower part to the height of 1.62m and a width of 0.62m. The capital is complete, 0.92m high and 0.55m wide. It is again of the second Nabataean style according to McKenzie classification known at Hegra with similar examples at Petra, e.g. (Fig. 9) Uneishu Tomb No. 813 and Façade 559. Schmidt-Colinet argues that the horned capital may be explained as a geometrically reduced form or an abstraction of the Graeco-Roman Corinthian capital (Schmidt-Colinet 1987: 142).

There is a plain attic between the two columns, 0.44m high and 1.02m long, above a fluted frieze 2.26m long and 0.28m high, then a plain frieze of 1.72m in length.



9. A horned capital of Hegra Type with quarter column engaged to pilaster decorated the entrance of tomb 62E.

The inner entrance to the tomb is rectangular, 2.56m high, 0.98m wide and 3.62m from the ground level, again framed by a pair of pilasters with plain capitals. The southern column is at a distance of 0.29m from the main column next to the door; it is 2.36m high and 0.30m wide, its capital is 0.32m high and 0.24m wide. The northern inner pilaster is 0.29m wide, and 1.10m of its height was exposed while its capital had been destroyed by Wall 24 that covers it to protect the entrance from the flash-floods. This column is 0.31m away from the main column of the northern façade. There is a cornice with incised decoration above the doorway, while the floor is solid rock. The façades are separated by large grooves that seem to have been blocked with ashlars, thus distinguishing them from the rock face and other façades even at a distance.

*The Chamber of Tomb 62E:* The archaeological evidence indicates that this tomb was cut after the Window Tomb (62D), and there are differences in the exterior architectural features, while the chamber was not completed. The doorway opens onto a chamber that was full of flood debris. Removal of the debris exposed a semi-rectangular chamber with a floor that slopes from west to east. At the centre of the rear western part, we exposed a rectangular rock-cut platform surrounded by four channels. The surface of the platform bears haphazard scratches, probably as a result of sharpening the metal tools used for carving, and it seems that the platform was left on purpose as a step to aid the carver while cutting the interior of the chamber. Directly to the north of this platform there is a quantity of white gypsum, roughly circular in shape with a central circular groove, probably for containing the water used to cool and dampen the cutting tools, and for avoiding the dust that would affect the breathing of the carver (Fig. 10).



10. Rock cut plate form and a circular shape of white gypsum with central circular groove.

In the western (back) wall, which is 7.17m in length, there is an unfinished groove that may have been intended as a loculus, while in the northern part of the eastern wall, which is 7.00m in length, there is a small niche topped by an unclear nefesh probably symbolizing the buried person, as we found remains of a human skeleton including the skull, long leg bone, and some foot bones, all of which were at 20cm above the floor. Next to the bones there were two cover slabs.

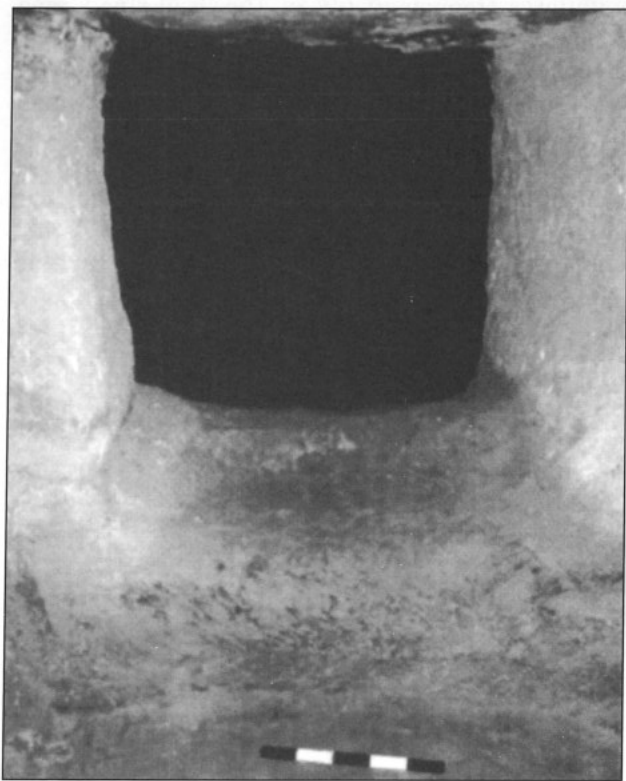
In the northern wall there is an entrance leading to Tomb 62D which was not finished, as there is a long line near the eastern edge where the carver intended the entrance to finish (**Fig. 11**). This line also indicates that the carving of the entrance was done from the Staircase Tomb chamber and not from Tomb 62D. The visitation to Tomb 62D, after blocking its entrance, was done from the main lower paved courtyard through the staircase then the main chamber of the Staircase Tomb and through the doorway into Tomb 62D (Window Tomb). This doorway between the Staircase Tomb 62E and Window Tomb 62D attests to the importance of the Window Tomb that was left open for visitation for a long period of time. The archaeological remains of pottery found inside the tomb also indicate the continuity of offerings. The entrance additionally helps in the ventilation

through the window cut into the slope, thereby creating an air current inside the Tomb 62D chamber.

Both the western and northern walls were well finished, as opposed to the cutting of the eastern and southern walls, while the ceiling has rough and fine anvil marks indicating that both pointed and flat anvils were used. It also seems that the ceiling was cut in different phases whereby the carvers partitioned it into several longitudinal sections extending north-south, each being 0.88-0.90m wide. We noted that the sections start at the northern edge of the ceiling going towards the south however it seems that the ceiling was never finished. As for the dimensions of the walls, they are 7.17m for the western wall, 7.00m for the eastern, 6.31m for the southern and 6.39m for the northern, while the heights from the floor reached 2.04m in the southwest corner and 2.51m in the northeast corner. The entrance between the two chambers is 1.64m high, 1.60m wide, 0.67m deep at the western jamb and 1.14m deep at the eastern jamb.

In the southwestern corner we found a hearth 3.40m long and 1.73m wide. It was surrounded by irregular sand and lime-stones, concentrated in the eastern part. The northern edge of the hearth was at the platform, and the western and southern edges at the chamber walls. The hearth was full of ash, bones and pottery sherds. It seems this tomb was never finished as indicated by the unfinished loculus in the western wall, as well as an irregular form in the western part of the southern wall where another loculus may have been intended. The floor and ceiling of this tomb are lower than the floor and ceiling of Tomb 62D.

*The Side Staircase of the Staircase Tomb:* We exposed the lower courses of a wall separating the Staircase Tomb from the paved courtyard. The entrance to the tomb was reached from the courtyard by a staircase adjoining the tomb façade and Wall 22. The staircase extends on the southern side, and ends at the tomb entrance on a natural rock floor in front of the lower tomb threshold, which is 1.37m long. It is composed of 11 steps, the uppermost two being rock-cut while the other nine were built of sandstone blocks and mud mortar (**Fig. 12**). The heights of the steps vary between 0.14-0.22m, the depths are 0.23-0.28m and the average length is 0.42m. The height of the staircase is 5.12m, and at its top there is a platform with a channel-like cutting in the middle. Two steps that were discovered in front of the tomb entrance during the excavation may have originally been on this platform and were removed by floods or human action, thus the total number of steps could have been 13.



11. An interior entrance leading from tomb 62E to tomb 62D.





12. The staircase of tomb 62E.

*Phase 3 (represented by the façade of al-Khazna)*

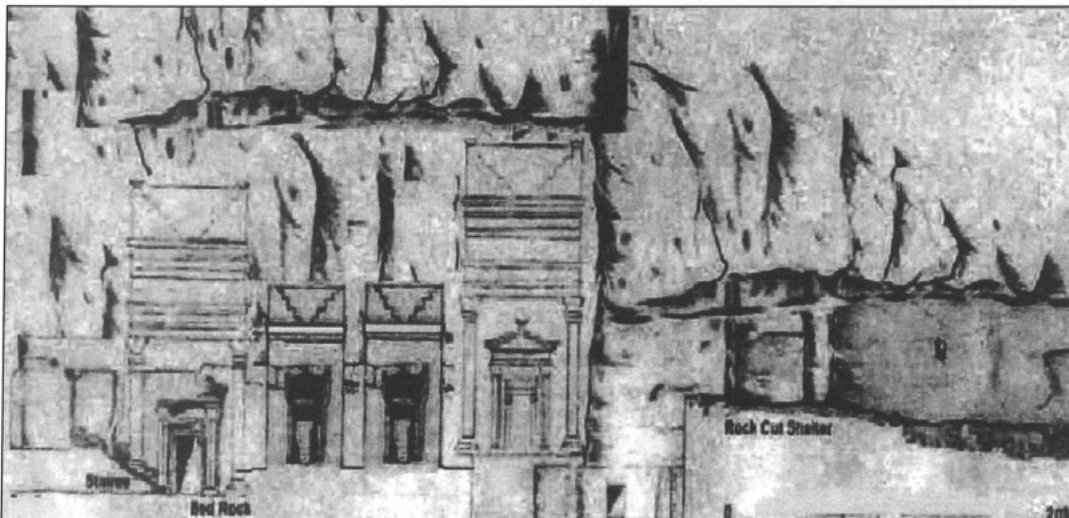
When talking about al-Khazna, we should imagine the site before cutting the façade. The archaeological evidence we discovered show that the two tombs (the Window Tomb and the Staircase Tomb) were cut at the site prior to al-Khazna. Both are of the Hegra style and most probably had attics with crow-step designs (Fig. 13). When the decision was taken to carve al-Khazna, it was necessary to remove the attics of the tombs and some of their other decorations, including the column capitals in the case of the Staircase Tomb, in order to create enough space for the carving of the façade. As the façade was carved from the top down to the bottom, the carvers used the tops of the existing tombs as supports and then cut them off as they went down. This substantiates the theory that the grooves on both sides of al-Khazna were for scaffoldings, as they are found at around 11m above the al-Khazna platform, which would have been just above the heights of the removed tomb attics. Another indication that the pre-Khazna

tombs rose to this height are the remains of carved long grooves on both sides of the slope around al-Khazna, at a level slightly below the “scaffolding” grooves. We believe that these long grooves represent the inner limit of the rock overhang that protected the pre-Khazna façades. Additionally there are more “scaffolding” grooves on the inner rock-faces surrounding al-Khazna, below the level of the long grooves mentioned above.

We do not want to go into the artistic and architectural details of al-Khazna, but it is worth mentioning that its southern part has suffered from erosion, mainly caused by rain as a result of the blockage of the channel above the façade, which we will mention later on.

*Phase 4 (represented by the floors, paved courtyards, central staircase, water drainage channels and dams)*

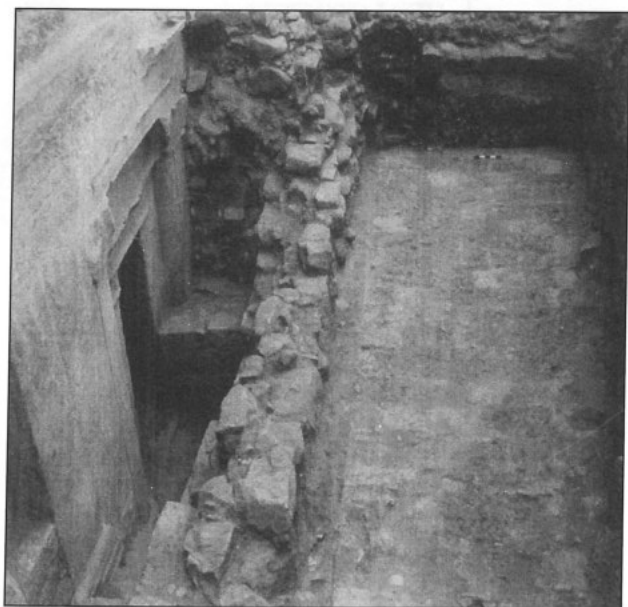
After choosing the first three excavation squares, the pottery readings indicated that the oldest archaeological stratum was in Square 3 locus 20, which is grey in colour and composed of sand mixed with limestone and sandstone cobbles with appreciable amounts of pottery sherds directly on natural rock this. It became clear that this layer was a leveling floor to even out the rock. Above this level was Floor 20, which is somewhat compact and light cream in colour, composed of sand mixed with large amounts of pottery sherds and had bone fragments on top. This floor is contemporary and associated with the tomb 62A found in this square. This square also had large amounts of cobbles and medium-sized stones that were transported by the flooding in as-Siq, and accumulated through the time of desertion of the city or at least this site. The compact flood layers had some pavers from as-Siq, and their removal posed a great difficulty for the



13. An imagination reconstruction for tombs no. 62A, 62B, 62C, 62D and 62E.

excavation team as we found a large rock, probably fallen from the mountain top next to al-Khazna on the northern side and then moved by floods onto the Tomb 62A entrance. The layers in front of the tomb and above Floor 19, which are below the paved floor level, were composed of fine red sand.

It seems that during a later period, and because of an important project, the area was backfilled and its level was elevated. What is curious is that the material used for the backfill may have been the sand resulting from the carving of al-Khazna (fine red sand). This use of material would have saved effort, time and money as huge amounts of rock were cut out for the chambers and niches. The backfill elevated and leveled the front courtyard to ease its paving, as remains of the paved courtyard were found with the bedding directly above the rock outcrop into which Tomb 62A was cut. The paving was also found in Square 2, where the bedding was made of small limestone fragments — the lower being irregular in shape while the top ones had flat surfaces — bound with mud mortar. Superfluous materials, including column drums, were also used for the preparation of the irregular area for paving, as this courtyard is at the confluence of three wadis (Wādī Sadd al-Jarra, Wādī Khubtha and as-Siq) in addition to water falls from the surrounding areas. In the exposed part of the courtyard, the paving could be seen as remains of lines in mortar (Squares 01, 04, 06 and 07), indicating that the paving was rectangular in shape with varying dimensions (Fig. 14), although most were close to the dimensions of the paving found next to the upper staircase of the al-Khazna platform. The



14. The remains of the mortar that used to fix the pavement.

floor below the pavement was mixed with pottery sherds. To get rid of rainwater, the southwestern part was lifted to form a slight slope towards the north and east. It was also noted that the courtyard had a drainage system as we found a channel heading east then dipping towards the north.

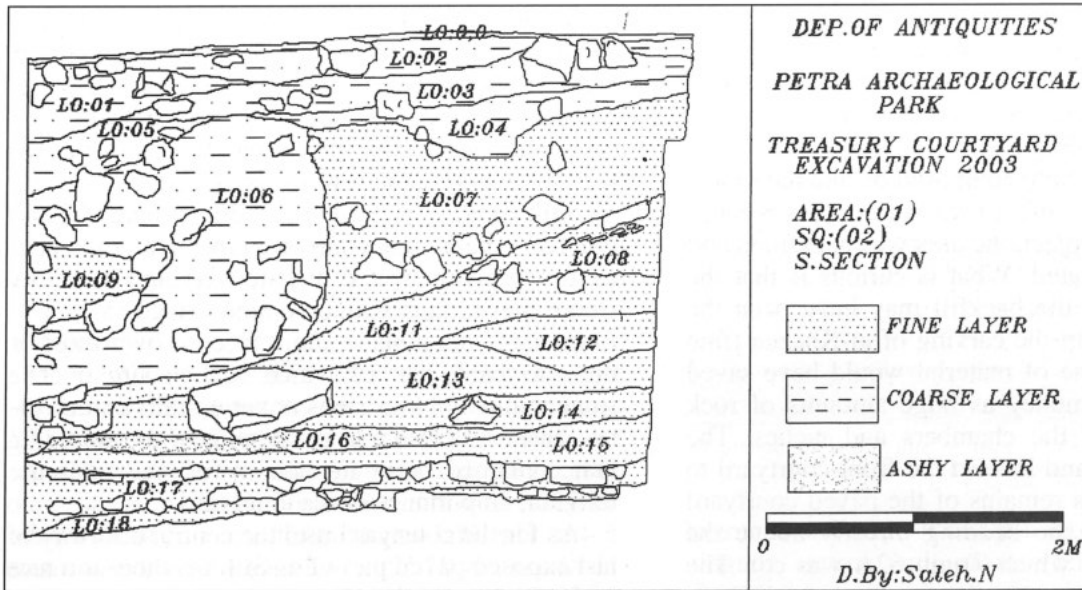
Some pavers were found *in situ* (Squares 02 and 04), and whether the courtyard pavement was eroded away by floodwater, or purposely removed, this would have happened at a later stage. We also found large amounts of burnt incense over most of the courtyard, part of which was *in situ* over a stone that may have been converted into a small altar. There was also a large burnt layer in Square 02 that contained burnt incense, which indicates the religious importance of the courtyard.

As for the courtyard itself, it is 6.37m below the last exposed paved part of as-Siq, i.e. there is a natural slope connecting the two exposed areas.

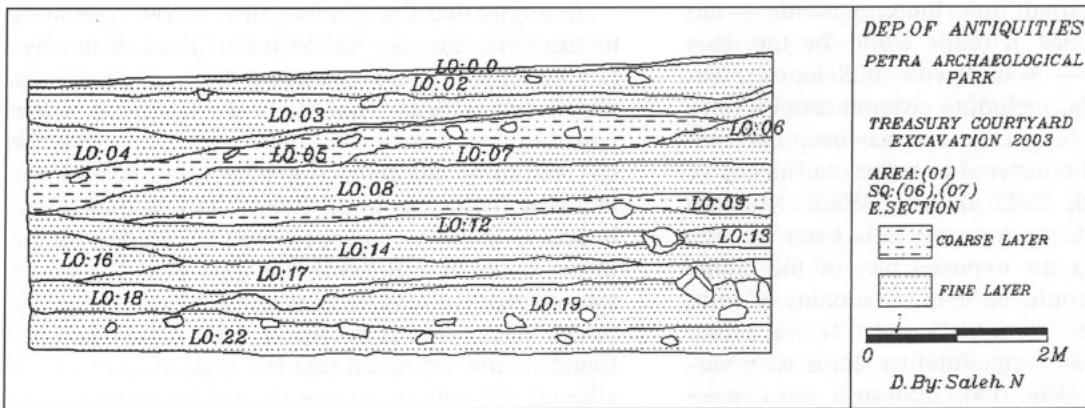
It seems that the absence of a central authority to supervise the site led to the neglect of the hydraulic system maintenance and consequently its destruction (Farajat and Falahat 1993), as there was a yellow sandy layer that covered most of the site including the tomb floors, which explains the fact that there was little archaeological deposition between this layer and the floors (three deposits at most). It seems that the flood came from the south, specifically from Wādī Dangūr al-Khazna that has three Nabataean dams where this yellow sand is found, while we noted that the western part of the alluvial deposits in Square 02 and those in Square 04 were brought by the floods from the mountain slope to the east of al-Khazna through the cleft there. The eastern part of the deposits, close to as-Siq, were brought from there as we found a number of as-Siq pavers in them (Figs. 15A, B and C).

A small altar was found at floor level in Square 04, measuring 0.40 x 0.43m. It was full of burnt incense that would have been used as offering during the religious ceremonies in the courtyard (Fig. 16). At the same level we exposed remains of the pavement with five complete and two broken pavers *in situ*, while eight others had been moved. They are all of sandstone with level smooth tops and rough bottom surfaces to embed them well into the mud mortar and lower bedding described above.

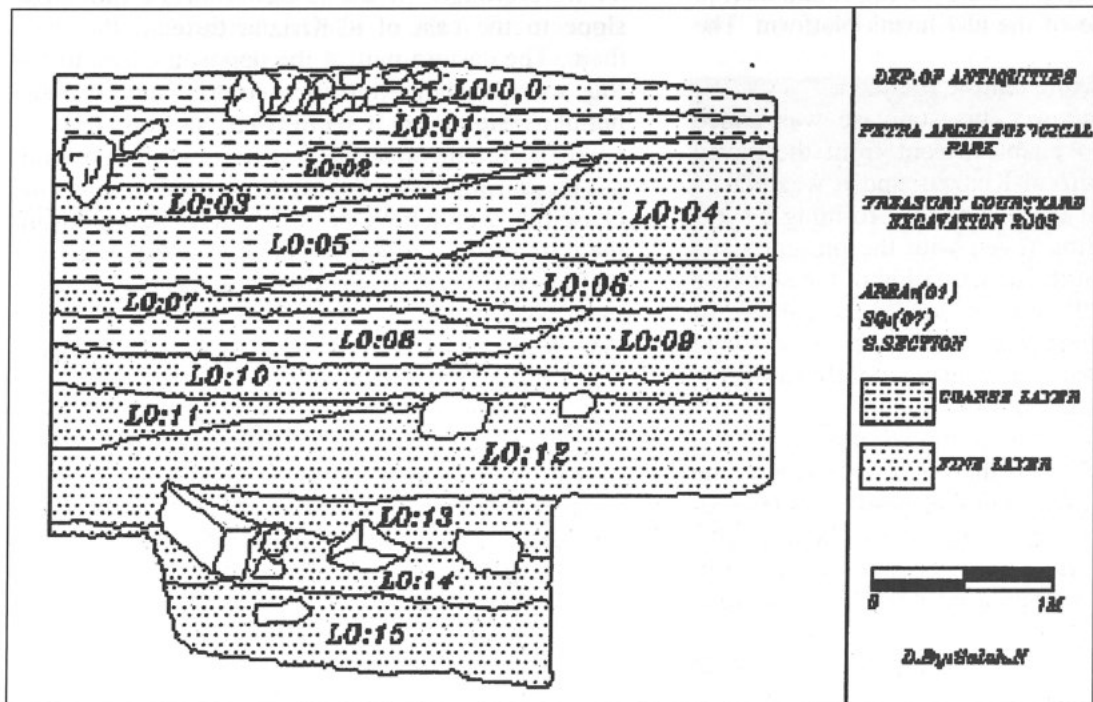
Above this level we exposed a rough layer composed of sand and limestone cobbles with some black stones that seem to have been cut from the black vein in front of the present staircase to al-Khazna. At this level we also found a quantity of burnt incense, pottery sherds, an iron nail and a nail head. In this Square 04 we also found the back rock wall of a monument that may have been a



15A. S. Section of SQ. 02, Treasury courtyard.



15B. E. Section of SQ. 06, 07, Treasury courtyard.



15C. S. Section of SQ. 07, Treasury courtyard.





16. A small altar at floor level in situ found in Square 04 measuring 0.4 x 0.43m full of burnt incense.

room or tomb, and we called it 62B. The centre of this wall is slightly protruding and is roughly worked, measuring 4.66m in length and 1.43m in height. In the northern side there is another wall cut in the rock (0.66m length x 1.43m height). It is well hewn and the join of these two walls form the northwestern corner of 62B that seems to have been removed after finishing al-Khazna. The waterfall at the northern part of al-Khazna may have played a role in the removal as it falls directly onto 62B and poses a danger when it carries large amounts of rock and stone, as we found a large rock that seems to have fallen at a later stage within Layer 10 that is 0.63m above the floor. It seems this area suffered from flooding at least seven times as attested by the flood deposit layers. No archaeological remains were found in this Square 04 other than the remains of the paved floor and bedding. The most important small finds were three arrow-heads and a white marble fragment.

**The Central Staircase:** This staircase was added during Phase 4 to enable ascent from the paved courtyard directly to al-Khazna, and it was placed directly in front of the façade thus forming a symmetrical composition (even with the present staircase). It seems that the construction of the staircase was started after the completion of the carving of the al-Khazna façade, and most of its stones were cut from the iron-rich vein that currently forms the front courtyard of al-Khazna.

This staircase was supplied with a window next to the doorway at the northern side, connecting the upper part of the lintel and the northern outer wall of the staircase. This window is channel-like, measuring 0.81m wide x 0.30m high at its north-eastern edge, and 0.65m wide x 0.37m high at the entrance. The function of this window is to supply the Window Tomb with light and ventilation after its doorway was closed with the staircase that was

partly constructed of elements from the southern tomb façade (the Staircase Tomb), including the pediment, in addition to the iron-rich black stone. These huge amounts of large stone slabs were well compacted and carefully arranged so as not to affect the tomb façade. The staircase slopes from the western side adjoining the al-Khazna platform and the Tomb 62D façade, down to the east at the centre of the courtyard. All the steps are lost either by floodwater or human intervention (Fig. 17).

*Sounding No. 8*, measuring 8 x 5m, was opened in order to locate the foundation of the staircase. The foundations for four steps at the eastern end of the staircase were found at the bottom of the sounding (Fig. 18), making the length of the staircase 12.73m, its width 5.65m and its height at the tomb 5.4m. The total length up to the central doorway of al-Khazna is 27.52m. We also found the northern and southern foundations of the staircase, extending east-west and built with yellow limestone blocks over natural rock (Fig. 19). These limestone blocks may have been brought from outside Petra and mortared to the bedding of the paved courtyard.

The substitution of the main entrance to the Window Tomb with a window and side entrance indicates that the tomb was used for a long period of time. The importance of the tomb and the person buried there is also indicated by the fact that the stone mass for the staircase was carefully constructed so as not to affect the façade.

### The Archaeological Evidence for the Disfigurement of the al-Khazna Façade

The evidence found during excavation indicates that there was intentional disfigurement of most human and animal representations on the al-Khazna. It seems that the motive was religious, and



17. General view for tombs 62D, 62E and the ramp of the staircase.



18. Sounding no. 8, represent the foundation of four steps at the eastern end of the staircase.



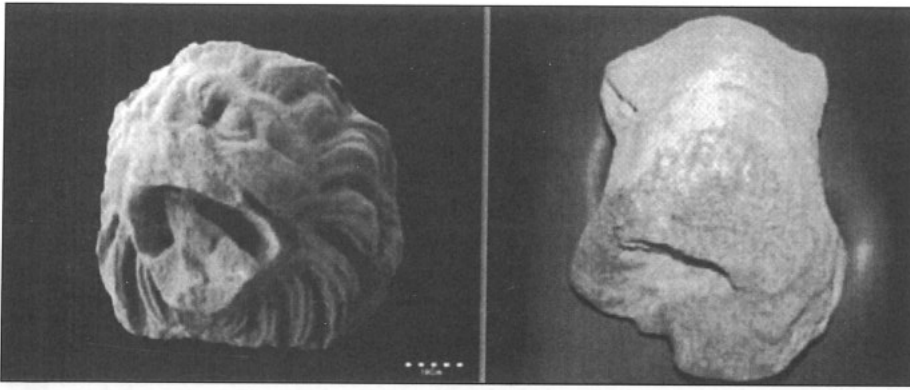
19. The northern foundation of the staircase running east-west and built with yellow limestone blocks over natural rock.

here we should point out the arguments of Patrich and Hammond who believe that an iconoclastic ac-

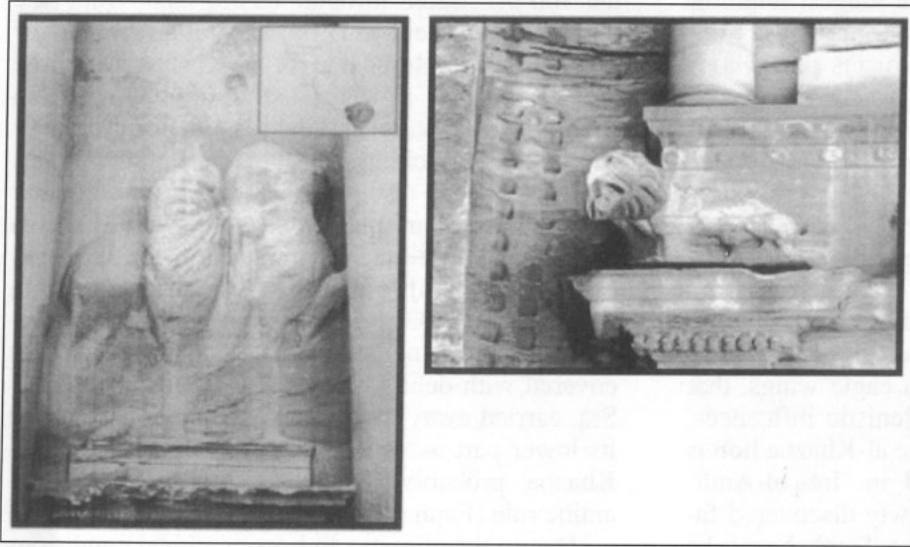
tivity took place during the reign of Malichus II AD 40-70 (Patrich 1990: 157).

The more recent iconoclastic movement took place during the Byzantine period (Leo III), and was mainly concentrated in churches. The animal and human representations on the Petra Church mosaics, however, were not affected as the church was in use up to the early seventh century and lost its importance when the Seat of the Bishop was moved to Rabba Areopolis, while the iconoclastic movement started during the reign of Leo III in 726AD, (Zayadine 1971: 71-76) i.e. after the destruction of the Petra Church and when its mosaics were under debris. Here we believe that the Christians of Petra abided by the call of Leo III and did not find "icons" other than those on al-Khazna to destroy. A fact that supports this theory is that all the statue fragments were found in the upper levels close to the surface. These fragments are of animal and bird heads as well as some architectural decorations, such as the head of the lion on the southern part above the lower level that was found in the northern part of the staircase slope at 1.53m below the surface. There was also the muzzle of the horse on the lower southern part of the façade, parts of an eagle wing and decorations from above the burial chambers. Close observation of the lion head revealed that it was cut off the southern lion, as all frontal and lower facial and hair details, seen from the courtyard, were carefully executed while details on the side adjacent to the façade were neglected and only roughly outlined. The same holds for the horse muzzle where the nostril and mouth were artistically executed on the frontal side and absent from the back. Our attempts at comparing the fragments with the bodies gave perfect matches as seen in (Figs. 20-21). This also holds true for the eagle wing.

The Restored Frontal Column next to the entrance (Column no. 3) was not purposefully destroyed but naturally eroded by floods and moisture from the underlying tombs. During excavation in Tombs 62D and 62E, we noted that there is a high moisture level resulting from the water seeping in and being trapped inside, as the deposits there were wet and difficult to excavate, and water droplets seeped down the rock walls. This negatively impacted the porch columns of al-Khazna which rests directly above the tombs. We think that this problem was solved after evacuating the mud from the tomb chambers. We found the Column 3 fragments at a depth of 0.30m below the surface which indicates that the collapse was recent and would have happened less than 500 years ago, and if we trace the descriptions and drawings of travel-



20. A relieves of a lion head and horse muzzle.



21. An imagination reconstruction of the lion and horse original location.

ers who visited Petra such as Birkhardt 1812, David Roberts 1839 and Laborde 1838 (Joukowsky 1998: 30) we see that they sketched the al-Khazna façade with the column missing and its fragments fallen, we also see that its lower part had eroded substantially, which would have weakened it and led to the collapse of the upper part.

### The Architectural Elements and Decorations of the Staircase Tomb and Window Tomb

The architectural rock carving at Hegra — Madā'in Šālīḥ forms a distinctive artistic school from which we have several names carved on the façades dating mostly to the first century BC to 76AD. The architectural style of the Tombs 62E and 62D façades discovered in front of al-Khazna fit well into this school.

Al-Khazna was a holy monument for the Nabataeans, and its visitation was considered a holy pilgrimage. The excavations proved this belief, as the front courtyard was a large public courtyard prepared for a significant monument, and people used to go there for blessings and prayers. Incense was burnt during these rituals as offerings to the

gods, and large amounts of that incense were found on the courtyard floor, as well as on a small altar where we found around two kilograms.

The Nabataeans carved several types of monumental tombs, some were simple like Tomb 62A, as well as family and royal tombs such as the Urn Tomb, which are large and care was given to their details and protection. Accordingly, and judging by the large dimensions of the burial chamber of Tomb 62D, the large size of the loculus in there, and the care for its façade after it was covered with the staircase, we think that Tomb 62D was for a well-known and prominent person, so much so that it was considered necessary to keep it open for visitation and blessings for a long period of time. Access was from the front courtyard, down by the carved staircase in front of Tomb 62E, then from Tomb 62E through a doorway opened with the purpose of reaching the burial. What also proves this is that the façade of Tomb 62D and the northern part of the façade of Tomb 62E, especially the column and pediment that were buried after the decision to build the staircase, were not affected by natural erosion or human factors. Thus they kept



their details in contrast to the parts left exposed for a long period of time, where we can see the erosion of the façade and its elements.

We think that a large project was carried out by royal decree, with the al-Khazna as its main element to honour the soul of the person buried in the main tomb. This may have taken place during the reign of Aretas IV (9BC-40AD) and the main lower tomb may have belonged to one of his family members or one of his wives. Such a magnificent architectural achievement would have required much time and effort, therefore it was most probably done during the reign of the longest reigning Nabataean king (i.e. Aretas IV), during whose time there were important building projects throughout the Nabataean kingdom. This project was comprehensive and included the necessary infrastructure: a paved courtyard, large staircase, water drainage system, and the building of several dams to provide water for the pilgrims as well as protection for the monument and the underlying tombs (Fig. 22).

It became obvious to us after this excavation, and mainly through the finds of the statue fragments such as the lion head and eagle wings, that the al-Khazna façade bears Hellenistic influences, where the posture and form of the al-Khazna lion is similar to that at Qaşr al-‘Abd in ‘Irāq al-Amīr (Zayadine 1991b: 5-24). The newly discovered façades (the Window and Staircase Tombs) may be classified as belonging to the Hegra Type, which is common at Petra. Laila Nehmé recorded 70 façades of the “Proto-Hegra Type” and 72 “Hegra Type” at Petra (Nehmé 2003: 158). At the sides there are columns with horned capitals. The two

stories, or levels, are separated by two oblong tablets each with a cavetto, and at the top there are the two large segments of the crow-step attic.

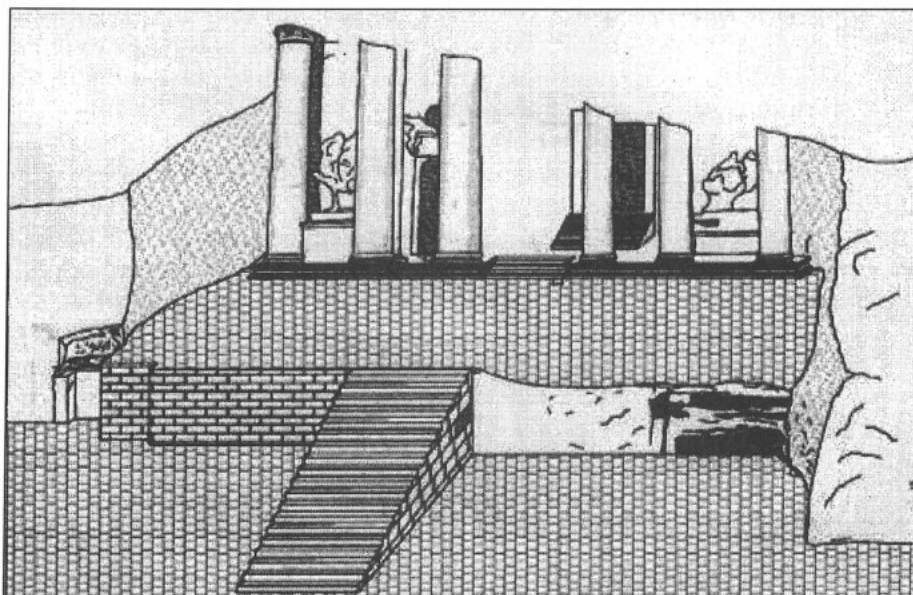
The dated façades at Hegra indicate that this type pre-dates the year 27AD, and the horned capitals with the mouldings confirm that the façades are of the “Hegra School”, dating them to the period of Aretas IV who carried out large projects at Petra such as the Temple of Qaşr al-Bint.

### The Main Water Run-off and Floods

The al-Khazna courtyard is a meeting point for the run-off water through as-Siq and from the mountains adjacent to Petra, as well as the run-off at the south-eastern side of al-Khazna from the area of Dangūr al-Khazna and originating from Brāq and al-Qanţara, and the run-off from Jabal al-Khubtha overlooking al-Khazna from the north. The Nabataeans also considered the run-off water from the ash-Sharā plateau through Wādī Mūsā, as they carved an 88m long tunnel in front of as-Siq entrance and built a dam to divert the water from as-Siq (PNT 2003: 1-32). When the Nabataean water control system went out of use and the dam was covered with debris, the running water entered as-Siq, carried away most of its pavement and buried its lower part as well as the front courtyard of al-Khazna, probably at a late phase after the Byzantine rule (Farajat and Falahat 1993: 25-32).

Due to the climatic and geographical conditions of the Petra area, it is prone to large-scale flooding at least once or twice each century (such as the famous 1963 flood that killed a group of French tourists in as-Siq).

Preliminary analysis of the excavated strata in-



22. An imagination of the upper and lower courtyard and staircase of the al-Khazna.

dicates that there were at least 15 floods in the area of Square 02 (**Fig. 15A**), eight of which were concentrated in the western part of the square and would have originated from the water fall on the northern slope of the mountain in which al-Khazna was carved. The soil of these deposits was of fine red sand resulting from the erosion caused by the water. Six flood deposits in the eastern part of the same square seem to have originated through as-Siq, as indicated by the presence of as-Siq pavers in the alluvial deposits that were coarse in texture and included wadi pebbles, and flint and limestone cobbles in a light grey sand matrix. At least five substantial flood layers from as-Siq were contiguous with layers from the water fall, indicating that they were contemporary and that the rainy seasons were torrential, while there were another five seasons of relative aridity out of the 15 floods that were detected in Square 02. In Squares 06 and 07 we also detected 15 floods of two sources (**Figs. 15B, C**), the water fall on the southern slope of the mountain in which al-Khazna was carved, and Wādī Dangūr al-Khazna, as Layers 3, 11 and 13 came through as-Siq, Layer 15 came from the southern water fall, while 11 alluvial layers came from the second major source (Wādī Dangūr al-Khazna) all of which were of red loose sand with cobbles and small stones except for Layer 8 that was compacted and similar to Layer 8 in Square 07. We noted that Layers 9, 12, 13 and 14 do not continue in the northern sector of Square 07 indicating that it was affected by a flood source other than that affecting the southern sector (Square 06, where the above-mentioned layers were excavated). The area of Square 07 underwent 15 floods as well, nine from as-Siq that were in the northern part of the square, five from the southern part of

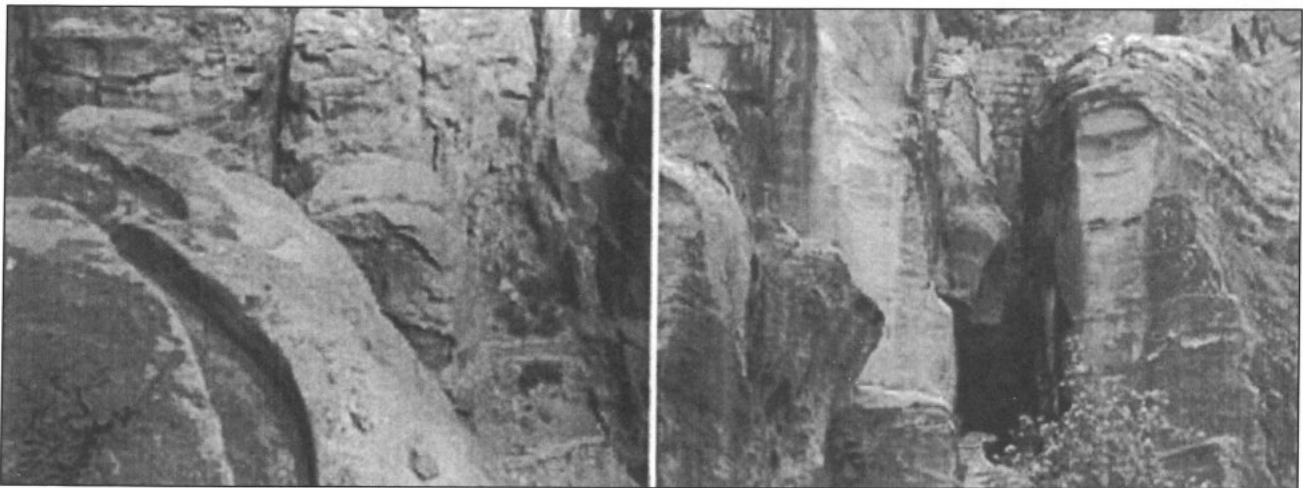
Wādī Dangūr al-Khazna, and only one from the al-Khazna water fall.

### The Site Protection Project

As mentioned above, the protection of this site from floods is a subject as old as Petra itself. The Nabataean concern with the subject is evident through their construction of dams and channels to divert water from the site. The protection of the façades was achieved either by carving them under rock projections or supplying channels at the top in order to divert water from above. Both protection methods are found at al-Khazna, as we discovered a channel carved in the slope above the overhanging rock (**Fig. 23**). The technical team of the Petra Archaeological Park cleared and conserved this channel, which is 16m long, 0.6m wide and 0.3m deep. The dimensions of this channel are large and other than the importance of the façade, they indicate that large amounts of rainwater fell during that period. When this channel was obstructed by debris, rainwater fell on the southern part of the façade and resulted in its erosion. This also indicates that the choice of the topographic and climatic site for the carving of the façades was done after detailed studies of the site from all aspects.

We discussed several suggestions and plans for the post-excavation protection of the site from flooding, especially that winter was closing in. The plan adopted was one that could be achieved quickly and accurately, and constituted of the following.

We covered the mortar remains of the paved courtyard with thick plastic sheeting and covered it with a 10cm thick layer of fine sand, thus creating an insulation layer between the courtyard and the large amount of coarse fill for the area between the



23. A water channel at the top of the al-Khazna to divert rainwater from above and one of the water dams to the south of al-Khazna portion.

eastern edge of Squares 01, 06 and 07, and the southern edge of Square 01. We also built a wall parallel to the Staircase Tomb and the northern solid rock-face (extending north-south), and next to Wall 22, so that its foundations came directly onto the plastic sheeting, while its southern end met another modern wall that we built in an east-west direction parallel to Wall 24 and adjoining the southern solid rock-face.

The exposed faces of the modern walls were covered with aluminium sheets painted a "rose colour" (close to the natural colour of the area). The height of the modern walls is just below the upper al-Khazna courtyard, and galvanized metal mesh was placed to connect the eastern edge of the upper Khazna courtyard and the top of the modern wall so as to allow the viewing of the Tombs 62D and 62E façades. A small course of stone and mud was built adjoining the western edge of the metal mesh in order to divert the water collecting at the northern part of the upper courtyard away from the two newly discovered façades.

The project also included the clearance of the channel at the mountain slope above al-Khazna and the restoration of its eroded parts, thus assuring the diversion of rainwater.

At the same time, we opened the waterway of Wādī Dangūr al-Khazna that extends in front of as-Siq and slightly raised its sides to assure that the water coming through this wadi and as-Siq would be diverted away from al-Khazna in its new appear-

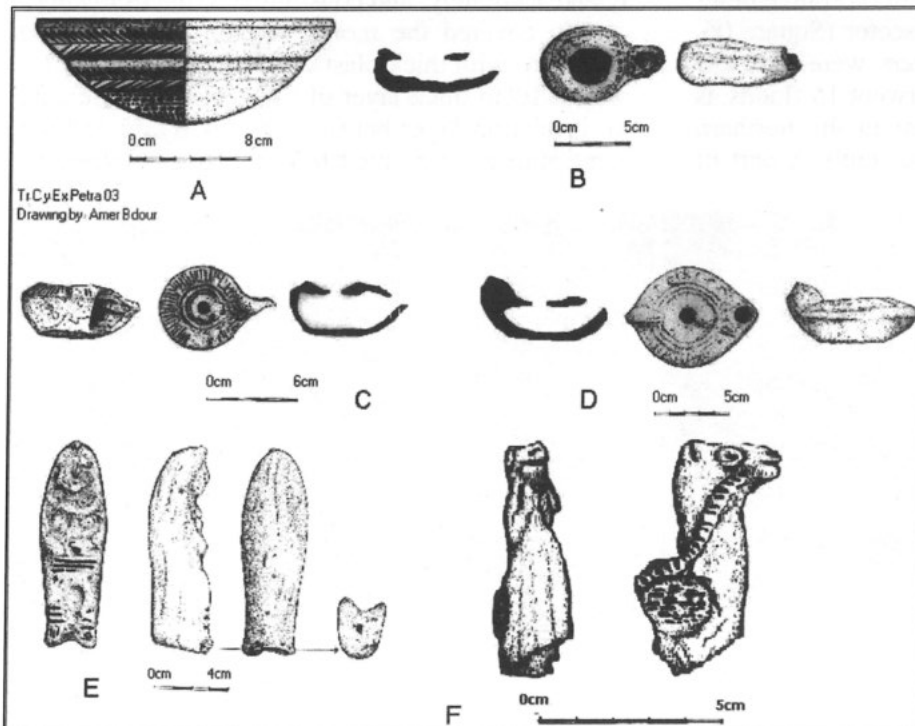
ance. The floors of Squares 02, 03, 04 and 08 were also covered by the method mentioned earlier then filled up thus protecting the site and the safety of visitors.

### Summary

The first phase at the site represented by Tomb 62A (the Incense Tomb) may be dated to the second half of the first century BC, according to the painted pottery discovered in the hearth in front of the tomb, and furthermore as this tomb was found below the level of the paved courtyard that is an extension of the as-Siq pavement, then the present pavement of as-Siq was executed at a later period, probably at the beginning of the first century AD.

The second phase — that is represented by the Window and Staircase Tombs, and according to the architectural decoration and typology of the façades that are similar to the "Hegra School" — may be dated to the beginning of the first century AD. Such tombs that consist of two levels, with crow-steps decorating the upper level, are numerous at Petra as well as Hegra. According to the pottery finds (Fig. 24C, D) and coins, these tombs were in use at least till the beginning of the second century AD.

As for the al-Khazna façade, which we ascribe to the third phase, we think that it was executed only a short time after the carving of the Window and Staircase Tombs. We think that all these monuments were done within a period of 40 years, dur-



24. Pottery finds from the al-Khazna courtyard excavation 2003.



ing the reign of Aretas IV when there were construction projects throughout the Nabataean Kingdom, especially at Petra and Madā'in Šāliḥ/Hegra where the tombs are dated to between 1BC and 75AD (Patrich 1990: 120). As well as tomb façades, the reign of Aretas IV was also a period of monumental constructions such as temples (Joukowsky 1998: 25).

Meshorer also points out that eight out of ten known Nabataean coins were struck during the reign of Aretas IV, which indicates an economic boost during the period (Meshorer 1975: 41). The riches may have been used by the Nabataean king to get Rome's support for his reign, such as the lavish banquet he gave at Rome honouring Tiberius' accession to the throne in 14 AD, when he gave expensive gifts including golden crowns (Tacitus 1998).

At Madā'in Šāliḥ, Jaussen and Savignac published 82 tomb façades, 31 of which were dated by inscriptions that included the names of owners, their positions, and the year of the king's reign. Names of master carvers were found on 16 of the façades (Wenning 2003: 140). Schmidt-Colinet points out that 13 of the inscriptions may be attributed to members of the same family or clan ('Abdobodat), and only two of them date from the first quarter of the first century AD, while nine date from the second quarter of the same century. Nineteen of the 31 dated façades were done during the reign of Aretas IV (McKenzie 1990: 119, Table 2).

**Table 2** lists dated tombs executed during the reign of Aretas IV, and shows that there were three periods of absence that lasted for over seven years each. One explanation may be that Aretas IV had employed the master carvers of Hegra to carry out the carving of façades at Petra during these periods that are 9-1BC, 8-15 AD and 16-26 AD (McKenzie 1990: 26). However, the earliest period is a time when Aretas IV was facing great difficulties with Syllaeus who tried to seize the Nabataean throne after having control over the kingdom's affairs during the reign of Obodas III (Meshorer 1995: 175) thus it is improbable that building activities took place at Petra, although the latter two periods are good candidates for calling upon the masters for carving in Petra.

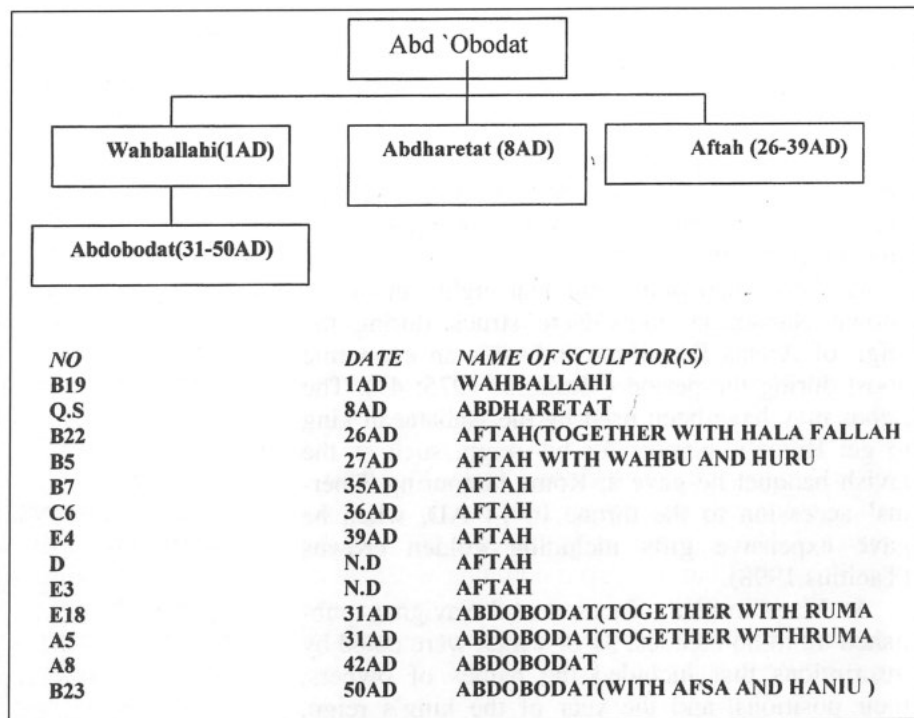
**Table 3** lists the master carvers, the three sons of 'Abdobodat, namely Wahaballahi who was mentioned once in 1 AD, 'Abdharetat who was also mentioned once in 8 AD and Aftah who was mentioned seven times between AD 26-39 (Schmidt-Colinet 1987: 143). The three may have worked at Petra at the same time between 8-26

**Table 2:** Madā'in Šāliḥ; list of dated tombs during Aretas IV reign.

TOMB NUMBE	DATE
B6	A.D.1
B19	A.D.1
A3	A.D.5
E1	A.D.7
GASR ESSANE	A.D.8
<b>First Gap ( 8 – 15 AD )</b>	
E3	1B.C-AD40
D	A.D.11-40
C7	A.D.15
C17	A.D.16
<b>Second Gap ( 16 – 26 AD )</b>	
B22	A.D.26
B5	A.D.27
A5	A.D.31
B1	A.D.31
E 18	A. D 31
B10	A. D 34
B 7	A.D 35
C 6	A. D36
E 4	A. D 39
E 6	A. D 39

AD, as this may answer the obvious question of where did 'Abdharetat and Wahaballahi work after 8 AD? and where did Aftah work before 26AD?

The infrastructure executed after the al-Khazna, such as the paving of the courtyard and the construction of the staircase, dams, water drainage system and façade protection system indicate that this monument was a famous Mausoleum that attracted many pilgrims who practiced religious rites and burnt large amounts of incense that were found during the excavation. Finally we may conclude that al-Khazna was executed during the first century AD and most probably during the reign of Aretas IV who was married with two wives, Queen Ḥuldu (9BC-16AD) and Queen Shaqillat (17-40AD). It is believed by some archaeologists that the Nabataean queens were like the Ptolemaic Queens, they were associated with Isis. Parlasca referred to a coin belonging to K. Schmitt-Korte with Queen Ḥuldu wearing an Isis crown similar to the one at the Khazna (Parlasca 1998: 69, fig. 2). This opinion is supported by many archaeologists like Stewart who believe that the woman at center of the upper story of the Khazna with the corna copia is often identified as Isis, the solar disk and horns that crown the pediment below this figure showing Isis's attribute U-shaped. Isis title "savior at Petra" in a second century AD Egyptian papyrus, and a

**Table 3:** After Schmidt - Colint 1987: 143.

coin portrait of Ḥuldu, Aretas IV first wife, wearing an Isis crown (Stewart 2003: 198), and Meshor noted that the coins of the fifth year of Aretas IV having on its reverse a figure of a woman crowned facing left and raising her hand, and he suggested that this woman is Ḥuldu Aretas IV first wife. He thinks that this woman reveals that it is the queen in the form of Tyche or Isis (Meshor 1975: 45).

### The Archaeological Small Finds

#### Pottery (Fig. 24)

The pottery assemblage included painted bowls; unpainted bowls; lamps; jar sherds; unguentaria and terracotta figurines.

**Painted Bowl (Figs. 24A, 26):** A painted bowl found broken, now mended but with a few sherds missing. It is of the type known as Nabataean egg-shell painted ware. The shape is circular with a diameter of 19.4cm, and the thickness is 0.3cm.

It was made on a pottery wheel using fine light brown clay without any grit. The surface has a self-same slip, on which are painted concentric circles containing designs resembling feathers, needle-like patterns, and dots. It was probably fired in a kiln which had a high temperature (between 700-800°C).

The bowl was found in front of Tomb 62A (incense tomb), in a hearth that was full of Nabataean pottery sherds. Traces of burnt incense on the bowl suggest that it was probably used during a cultic process as a funerary object or dedicatory offering. It dates to the period between 25BC-1AD.

#### Parallels

(Zayadine 1974: 135-145, e.g. sherd 57, p. 243/ first century BC; Stucky et al. 1991: 251-273, e.g. Bowl fragment no. 25, fig. 5; Parlasca et al. 1997: 126-144; Schmid 2003: 75-81).

**Hand Made Lamp (Fig. 24B):** The filling hole is large, a piece of the nozzle is missing, and there is almost no handle. It is decorated by an incised circular line surrounding the filling hole. On the interior edge of this line there are hash marks toward the filling hole for two-thirds of the circumference. On the front third, the hash marks are replaced by 5 excised dots. This decoration continues on the nozzle, with a single incised line at its join to the body. Between this line and the nozzle hole, 3 additional excised dots have been placed. Most of the dots have been defaced. The fabric is a light brown color.

#### Parallels

15 examples on az-Zanṭūr (Horsfield 1942: 159 no.241, Taf 29; Lindner 1986: 107 lower row middle, 110 lower row left; Zaroni 1992; Glutz et al. 1996: 317ff. no. 13).

Date (on evidence of az-Zanṭūr) to the second half of the first century BC — first quarter of the first century AD.

**Lamp (Fig. 24C):** Complete mould-made lamp, oval in shape with a flat base. Its handle, nozzle, and filling hole are all small. The upper part is concave, surrounded by grooves, and decorated with dots. It is light brown in colour. It was found inside the window of tomb 62D.

*Parallels*

158 Examples on az-Zantūr

(Negev 1974: 28, no. 88 shown on Plate 87 as no. 87, 1986: 136, nos. 1180-1188; Bailey 1994: 87f; Hammond 1973: 33f.47 no.93f.96; Lindner 1986: 107 Abb.14, 109, 1989: 76 Abb.25; 'Amr 1987: 30. 272. no.16f. Taf. 13f; Khairy 1990: 8ff.Abb. 1-5 Taf.1f; Barrett 1998: 275f.280 94-P-26).

Date (on evidence of az-Zantūr) to the first century AD. On az-Zantur there seems to be a tendency that the lamps with such a thick wall as the "Khazne - example" were produced towards the end of the first century AD.

*Round Lamp with Small Filling Hole (Fig. 24D):* Half of the nozzle and a piece of the body are broken away. The upper part is concave around the small, round filling hole, so it could have served as a funnel. It is decorated by three concentric grooves, which are in turn surrounded by incised lines similar to solar rays. It is mould made and has a flat circular base. The fabric is a light brown colour. It was found on Wall 22 in front of the entrance of tomb 62E.

*Parallels*

41 examples on az-Zantūr (Kurdi 1972: 87, no. 9-11, Taf. 2f; Murray and Ellis 1940: 26. 28 no. 12. 16 Taf. 36; Horsfield 1942: 144 no. 161 Taf. 21; Hammond 1973: 27-49. 36. 48 no. 134; Rosenthal and Sivan 1978: 98 no. 399; 'Amr 1987: 33, 277. PL 34f. Taf. 16f; Hammond 1065: 80 (No Fig.), for the dating of phase 1c in the theatre see 65); Zayadine 1981: 371f. no. 3, 8 Taf. 122).

Date (on evidence of az-Zantūr) ca. 80AD/ early second century AD.

*Female Figurine (Figs. 7, 24E):* A small hand modeled female figurine, possibly representing Aphrodite (al-'Uzza). It is 11cm in height. The drapery folds trend toward the right. The torso and breasts are clear, but the face is not. The hands are joined, resting on the abdomen. The head is veiled, and none of the hair is visible. A slight protrusion on the top of the head could be a crown; on the other hand, it could be associated with a means of suspending the figurine, as there was a hanging hole carved above the niche beneath which it was found. The fabric is light brownish in colour and has small white grit. The artifact seems unusually light in weight.

*Parallels*

(Zayadine 1982: 365-394. e.g. P561) standing Astarte Figurines.

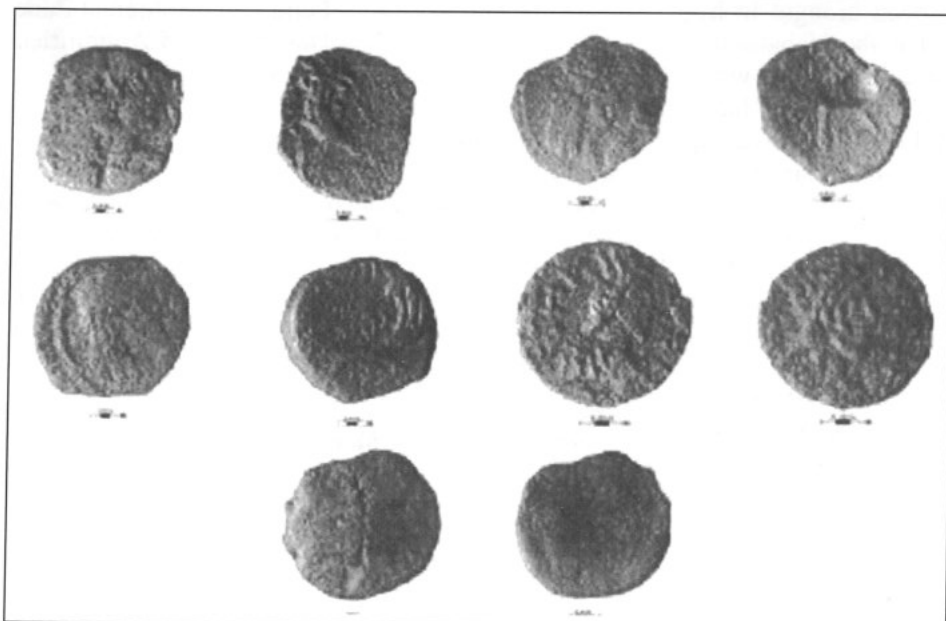
*Camel Figurine (Fig. 24F):* An incomplete camel figurine of which only the front exterior part was found. It consists of the head, neck, and part of the chest. The mouth, eye and ear are very clear. There is a shield, or part of the saddle (Hawdaj), evident as a circular shape decorated with excised dots. This feature is beneath a bridle, or rope, that extends between the mouth and the back. The artifact is hand modeled, and the interior portion, which was probably plain, is missing. The fabric is a light brown color.

*Parallels*

(Parlasca 1997: 87-105. e.g. Kamel typus L. Recnte Seite, Zeichung Pp. 30-37).

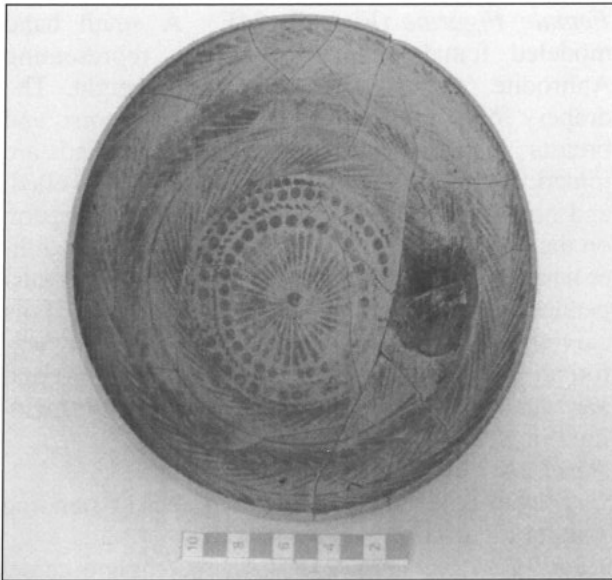
*Coins*

Five coins were recovered (Fig. 25) from the excavation and read as follows:



25. Four Nabataean coins and one Roman found above the floor.





26. Painted Nabataean Bowl.

- Coins A, B, C and E are Nabataean bronze coins of the first century AD. Coins C and E may be of Aretas IV and Shaqilat (18-40AD).
- Coins A and B are of Rabel II with the obverse bearing the image of Gamilat (80-105AD).
- Coin D is a small issue of the second century AD, probably of Antoninus Pius (mid-second century AD) or Commodus (176-192AD).

#### *Animal Bones*

A substantial amount of bones were recovered during the excavation. The preliminary study of the animal bones by Dr. Jacqueline Studet of the Swiss team working at az-Zanṭūr indicates that they belong to a variety of animals including rams and camels. The latter could have been brought in by floods and it is highly likely that the Nabataeans offered animal sacrifices. Other animal bones were found in the hearths mentioned above that have been burnt, and analysis showed that they have cut marks indicating their slaughter and severance.

#### *Human Bones*

The most significant human bones were two skulls, one from Tomb 62D and the other from the Staircase Tomb which is being studied by Niels Lynnerup Director, of Laboratory of Biological Anthropology, the Panum Institute in cooperation with the Danish team working at Shakārat Musay'īd, who supplied us with the information mentioned above in the Second Phase section.

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Suleiman Farajat  
Sami al-Nawafleh  
Petra Archaeological Park  
Department of Antiquities  
Petra-Jordan

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