THE PETRA NATIONAL TRUST SITE PROJECTS

EXCAVATION AND CLEARANCE AT PETRA AND BEIDA

by Fawzi Zayadine and Suleiman Farajat*

Introduction

The Petra National Trust is a society founded by a group of Jordanians in 1989 "to bring together people in Jordan and abroad who are committed to a collective international effort to safeguard Petra's unique physical and human heritage". The society is patronized by Her Majesty Queen Noor Al-Hussein and presided by HRH Prince Raad Ibn Zeid.

Due to the Gulf Crisis which started on August 2nd, 1990 and is still unsettled, a dramatic economic situation prevailed among the Wadi Musa population and the Bedul and 'Amarine tribes of Umm Seihun and Beida. To compensate the total absence of income from tourism which touched about 300 families, the society launched a project for the clearance and excavation of the major monuments, under the supervision of Suleiman Farajat, Inspector of Petra, Fawzi Zayadine and Khairieh 'Amr. The work started on November 17, 1990 and continued until June 1991. The first phase of the project concentrated on cleaning of the Sîq, the re-opening of drains and re-building of dams in preparation for the rainy season. This operation, which lasted for one month with a labour force of 15 to 20 men, proved to be useful, but was very soon overwhelmed by the first torrential rain. The retaining walls along the wadi bed, however, were resistant to flash floods. In addition to these preventive works, a programme of excavation and clearance was undertaken in various monuments. The clearance and excavation of rockcut caves included

those of Bab es-Sîq, the so-called "Royal Tombs" of the Khubtha mountain range, the main theatre, Beiḍa, Turkmanyeh and ed-Deir. Special attention was given to the Qaṣr el-Bint eastern podium, which was excavated for a stretch of 25m, while a potter's kiln was discovered and investigated by Khairieh 'Amr at Zurrabeh (see her report hereafter).

I. Bab es-Sîq: Aşlah Triclinium

Opposite the so-called Obelisk tomb, a group of oval shaped hills of whitish sandstone are carved with niches, caves, triclinia, tombs and cisterns. The northeastern hill (Pl. I,1 and Figs. 1-2) is the most remarkable: more than 14 baetyle niches are cut in the eastern rock face. It can be assumed that these little shrines belonged to the members of some religious association. We know, indeed, from Strabo (Geog. XVI, 26) that the Nabataeans prepared symposia in groups of 13 persons. Cave Br. 21 is a triclinium flanked by two little chambers. When the main hall was cleared of modern goat and sheep dung, two benches about 1.50m wide were exposed on both sides of the entrance, while a recessed depression about 1.95m was found cut against the back wall. The usual water basin for ablutions was carved on the right.

The Aṣlah triclinium, also known as Magharet eṭ-Ṭnûb, is famous because of the oldest recorded Nabataean inscription, which is engraved on the rear wall (Fig. 3) and reads:

1. These are the halls and cistern made by Aşlah son of Aşlah.

Meshorer, Nabataean Coins, Qedem 3, Jerusalem, 1975, p. 16 dates this inscription to the reign of 'Obodas II in 62 BC, while F.M. Cross relates it to 'Obodas I (see Z.T. Fiema and R.N. Jones, ADAJ 34 (1990), p. 244).

^{*} The final version of this report was prepard by F. Zayadine who assumes responsability for the archaeological arguments and hypotheses.

^{1.} Cf. Cantineau, Le Nabatéen, II, Paris, 1932, p. 2-3;

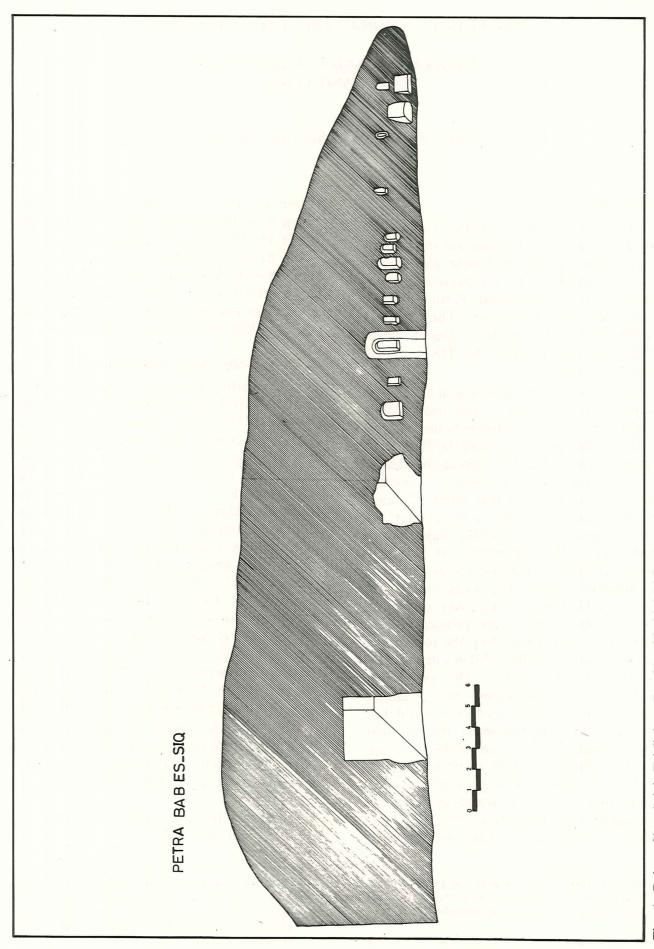


Fig. 1. Bab es-Sîq. Aşlah Triclinium Br. 21 with idol niches.

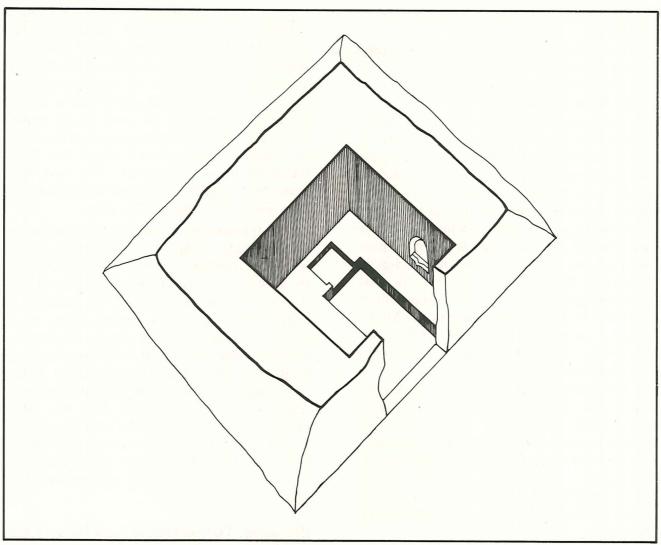


Fig. 2. Isometric plan of Aşlah triclinium (after Ali Da'jah).

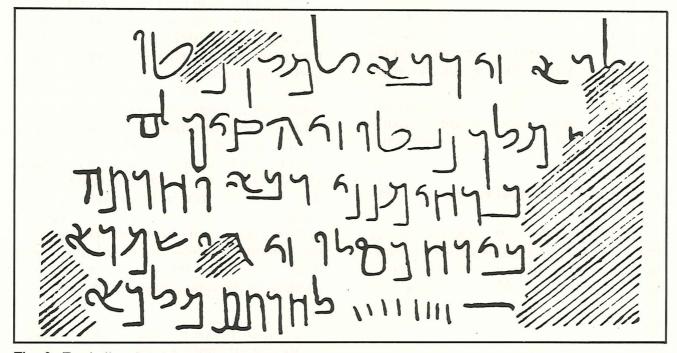


Fig. 3. Facsimile of Aşlah Nabataean inscription, after Cantineau, II, p.3.

- 2. This is the hall made by Aslah son of Aslah
- 3. to honour Dhu-Sharä, the god of Mankatu, during the reign of 'Obodat, king
- 4. of the Nabataeans, son of Ḥaretat, king of the Nabataeans, year 1.

The halls carved in honour of Dhu-Sharä were probably devoted to sacred symposia. In line 3, "Mankatu" is a better interpretation than the proposed "Manbato" of Cantineau II,² because the upper branch of the *kaf* is curved and differs from the almost horizontal upper stroke of the *beth*. Manikatu or Malikatu should be, as suggested by Father Starcky,³ an early monarch or prestigious member of the Nabataean dynasty, the date of the inscription being 96/95 BC. Haretat (II) the father of 'Obodat who ruled *ca.* 120/110-96 BC is mentioned by Fl. Josephus (*Ant.* XII, 360), during the siege of Gaza by Alexander Jannaeus.

Between the triclinium 21 and the second domed hill to the northeast lies an open space, which could have been used as a meeting place. A funeral chamber, containing 8 loculi, with a vaulted *arcosolium* opposite the entrance, is carved in the middle of the hill. It is noteworthy that none of the monuments in this area exhibits any architectural decoration.

To the northwest, between the tomb and the third conical hill (Pl. I,2), a cubic water reservoir, plastered with thick mortar, collects rain water by a channel cut in the foot of the hill. There is another cistern dug into the rock which is topped by a square cap stone (Pl. II,1) and receives the overflow of the cubic water reservoir. The only cultic feature in the entire complex of caves and cist tombs is an arched niche which houses a rectangular baetyl.

II. Wadi es-Siyyagh/Wadi Kharrubah Triclinium

In one case, the fury of the torrent was beneficial, since the flood uncovered a triclinium and washed it clean at the junction of Wadi es-Siyyagh and Wadi Kharrubat Ibn Jureimeh. The hall, which is widely open to the north (Fig. 4 and Pl. II,2), measures 8.10m by 6.10m. It can be approached from the northwest corner by a depressed landing. A water basin is carved in the eastern wall, and averages 1.10m in width and 0.60m in depth. It is noteworthy that the rock in the southwestern corner is roughly carved in the form of a pillar, while a small alcove has been recessed in the rear wall. The two side benches, although eroded, are well preserved to a width of 1.80m and 1.60m.

A remarkable feature of the triclinium is an oval design some 0.85m in diameter which was incised in the vestibule and is connected to a cup 0.25m in diameter and 0.15m in depth by a runnel (Fig. 4). Its purpose is conjectural; was it an ancient game or a sacrificial place? If the latter solution is admitted, the animals should have been of small size. There exists another drain which runs from the corner of the eastern bench and empties into the wadi bed. This was most probably connected with the ablutions basin, as can be surmised from several triclinia at Beida (see below). No doubt, the Nabataeans protected this sacred hall by a dam which has disappeared.

III. Beida: The Sîq el-Bared and Umm Qussa Residential Complexes (Fig. 5)

Sîq el-Bared in Beida is always refered to as a "Petra in miniature", although its function was somehow different. The main attraction is the famous painted biclinium⁴ (supplied with two benches), dated to the end of the first century BC. However, there are several other interesting and appealing characteristics such as a hydraulic network system consisting of dams, cisterns and channels, together with several rockcut households. Unfortunately, the residential character of this suburb of greater Petra did not raise sufficient interest among archaeologists, probably because the caves were occupied by the 'Amarine bedouins and their herds. Since those settlers had been moved to a more comfortable housing compound, it was possi-

^{2.} Op. cit., p. 3.

^{3.} RB 64 (1957), p. 208.

Horsfield, QDAP 7 (1938), p. 21-24; Glueck, BASOR 141 (1956), p. 13-23.

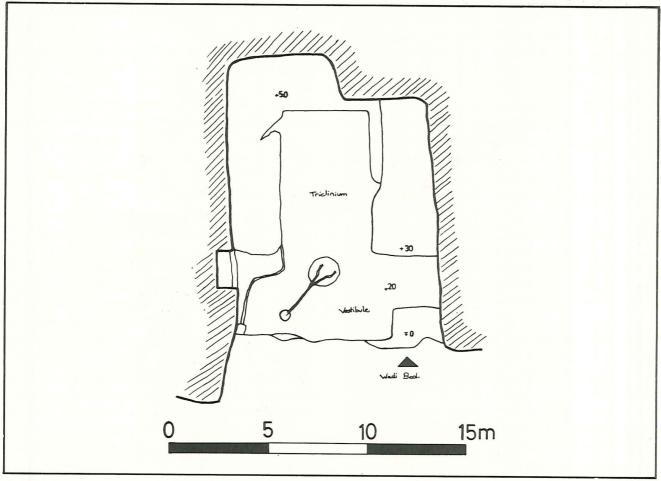


Fig. 4. Ground plan of the triclinium at the juction of Wadi es-Siyyagh and Wadi Kharrubah (after P. Schaff).

ble for the Department of Antiquities to clear the ancient domestic complexes. In 1983, Inyazi Shab'ân excavated four triclinia⁵ and Suleiman Farajat supervised the clearance of eight other caves. We shall describe here the specific monuments which best illustrate the domestic function of Beida.

1. At the entrance of Sîq el-Bared, opposite the nicely carved but unfinished façade Br. 846 (Pl. III,1), which is decorated with a frieze of triglyphs and metopes over the doorway, two caves were cleared. The southeastern cave is almost square (4.60m by 4.90m). It is provided with a bench 2.90m long by 0.80m high to the left of the entrance. The doorjambs are completely eroded, while three benches inside the chamber are well preserved; they are of irregular sizes, 1.82m and 1.70m to the left and opposite the

entrance; while the bench to the right of the doorway is low and not more than 0.39m wide. The usual water basin is missing, suggesting that the room was not a sacred triclinium but rather a shelter for a watchman (Pl. III,2).

- 2. Inside Sîq el-Bared, another small cave (3.40m by 3.27m) was filled with two metres of washed debris. The only remarkable feature of this cave are horizontal grooves to the left of the entrance, ready to receive shelves.
- 3. The nicely carved façade, distyle in antis (Br. 847) with classical Nabataean capitals topped by plain architrave and frieze (Pl. IV,1) was described as a "temple".⁶ However, there are no cultic installations inside the hall (such as benches or niches) to suggest a religious usage. The five arch springers to the

^{5.} F. Zayadine, Syria 62 (1958), p. 150-151.

Palmer, in *Die Provincia Arabia*, IB, Strassbourg, 1904, p. 413.

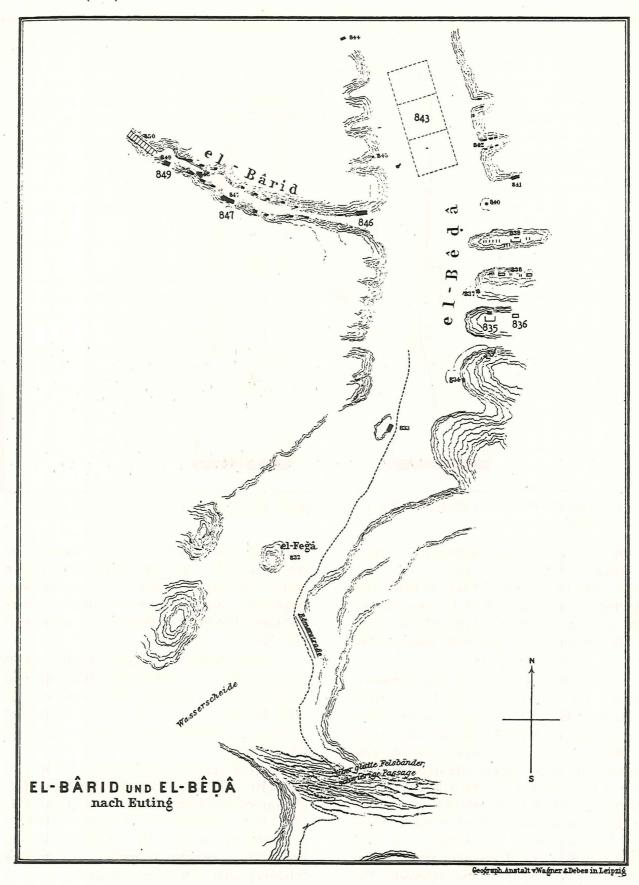


Fig. 5. Plan of Beida and Siq el-Bared, after Die Provincia Arabia, IB, Pl. XX.

left indicate that the hall was accessible by a flight of steps supported by a vault. The function of this monument should be put in connection with the lower caves. These represent a three room houshold hewn in the solid rock, and was excavated in May 1991. The north room, which is the largest (6.50m by 5.85m), was supplied with two entrances in the north façade, and has two niches in the south and east walls. It does not communicate with the next room, and was probably used as a guest hall. The second room, which is smaller in size (4.05m by 3.18m), has an opening to the north, and communicates by a little doorway (0.90m wide) with a kitchen provided with three recessed shelves in the walls.

Since the household has no courtyard, it may be assumed that the distyle hall Br. 847 served as a recreational veranda, widely exposed to fresh air (Pl. IV,1).

4. Umm Quṣṣa hall Br. 835 and cistern 836:

Lying to the south-southeast of Sîq el-Bared and across Sîq el-Amți (Pl. IV,2), the jagged hill of Umm Quṣṣa was visited by several explorers of the last century. The area is distinguished by the fertile fields around the hill, a large hall, Br. 835 and a water reservoir Br. 836 (Pl. V,1; 2 and Fig. 5).

Br. 835 is a nicely carved hall (approx. 10.70m by 8.45m) covered by a vaulted ceiling which springs from a cornice and engaged pilasters in the east corners. There is an almost inaccessible cave on top.

The interior of the hall was cleaned of accumulated dump and dung heaps in June 1991. There are three entrances to the hall, a central doorway 1.97m wide and two side openings which have been blocked by modern walls. Two rectangular cists are cut in the floor, one to the left of the south entrance and the other at about 4 metres from the doorway in the north side. Lamp niches were carved in the rock walls, but no benches or niches are extant in the hall to imply a sacred function.

From the open courtyard, enclosed to the west by the cliff face, it is possible to climb to a huge water reservoir (Br. 836), cut in the solid rock to the northeast and almost totally silted in (Pl. V, 2). There is a channel in the western cliff which runs into a cistern and two Nabataean graffiti are engraved above the southwestern corner of the water reservoir. They read:

CIS 467: ŠIm Qdmw 'Wšw = Peace Qadmw [son of] 'Awšw or Peace to Qadmw [from] 'Awšw.

CIS 468: *Dkyr Glwqs* = Let Glaukos be remembered.

The two Nabataeans who left their signatures were probably the owners of this comfortable residential complex, who cultivated rich gardens of vegetables and fruits.

It is indeed a pity that the local bedouins are not exploiting the water reservoirs and the rich surrounding land. But this failure is understandable because the 'Amarine tribesmen who are originally from Wadi 'Arabah, are no longer the owners of the land actually exploited by the Layathneh of Wadi Musa.

Historically, the Beida area was the gathering place of caravans coming from the Negeb by Bîr Madhkûr and Sîq en-Namala. On April 12, 1929, G. Horsfield⁸ photographed a caravan of Wahabi coming from Ḥayil in Saudi Arabia and driving about three hundred camels to market in Egypt. They halted for the night in Beida and entered Petra by Wadi et-Turkmanyeh, on their way to the Sinai by Zibb Fira'aun, Umm el-Biyara and Naqb er-Ruba'i. They hoped to arrive in Egypt in five days, exactly the span of time Sultan Baibars spent in 1276 in travelling between Cairo and Petra.9 It is obvious that Beida, with a probable large open market in Sîq el-Amți (Pl. IV,2), the grazing fields around Umm Qussa and the numerous water reservoirs, was a better station for caravaneers than the narrow closed basin of Petra city centre. Other caravan stations of greater Petra, such as Wadi Sabra and Sleisel to the south and southwest, would also have func-

^{7.} Die Provincia Arabia, op. cit. p. 410 & Fig. 464. The description of Palmer quoted by the authors is not adequate and refers to another cave.

^{8.} The Geographical Journal 5 (1930), p. 383 & Fig.

^{18.}

See F. Zayadine, 'Caravan Routes between Egypt and Nabataea and the Voyage of Sultan Baibars to Petra in 1276', SHAJ II (1985), p. 163.

tioned as excellent market centres for ancient caravans, as not all of them entered the city centre to avoid heavy taxation.¹⁰

IV. Clearance and Excavation of Petra's Outstanding Monuments

The famous monuments of the Khubtha western cliff (known as the "Royal Tombs"), the Turkmanyeh and ed-Deir are considered as major attractions for students of Nabataean architecture. For a better understanding of their inner plan, it was decided to clear the chambers from blown-in sand and modern rubbish. The complete range of monuments, from the Urn Tomb Br. 772, to the Florentinus mausoleum, Br. 763, was subject to surface cleaning.

1. The Turkmanyeh Tomb

Turkmanyeh or Qabr et-Turkmân is now situated on a newly opened road from Umm Seihun to the Qaṣr el-Bint temple and was cleared of about two metres of debris (Pl. VI, 1, Fig. 6). The five-line Nabataean inscription above the entrance of the tomb does not include, as it is expected, the owner's name or the date, but lists important structures attached to the monument:¹¹

- 1. "This tomb and the chamber within and the smaller chamber behind it, in which are the burials in form of loculi,
- 2. the courtyard in front of them, the guest rooms in it, the benches and the triclinia, the cisterns for water, rock walls and retaining walls
- 3. as well as the rest of the architectural structures that are in the area, these are dedicated (herem) and consecrated to Dhu-Sharä, the god of our Lord [the king], to his protected throne and to all gods,
- 4. by the acts of consecration as specified therin. Dhu-Sharä, his throne and all gods

- watch over the acts of consecration so they will be observed and there will be no change
- 5. or division of whatever is included in them [the acts]; and no one will be buried in this tomb except for whom authorization is set in the acts of consecration for ever".

As it is indicated in the inscription, the plan of the tomb comprises a vestibule (10.35m by 5.45m) and an inner chamber of almost the same size (10.65m by 5.55m). There is a loculus above the entrance to the inner chamber and a shallow recess in the rear wall of the latter. Most probably, cist graves were also cut into the floor. It is clear from the well-dressed lower face of the incomplete façade that the missing part of the rock was completed with imported ashlar blocks. The courtyard was probably built over with houses and benches which have been washed away by repeated flash floods.

The Turkmanyeh tomb can be dated on stylistic grounds to the end of the reign of Malichus II (40-70 AD). The tetrastyle lower order is extended by four dwarf pilasters in the attica, a composition similar to that of tomb F.4 of Hegra/Mada'in Ṣaleḥ, ¹³ dated to 63/64 AD (Pl. VI, 2). If the owner's name was not included in the inscription, this was not according to a "sacred interdiction", ¹⁴ I believe, but rather because the inscription was carved before the tomb was attributed to a family. As is the case in other funeral monuments at Petra, the name of the deceased was inscribed on the loculus (see tomb 813). ¹⁵

2. The Deir as a Sacred Hall (Pl. VII,1 and Fig. 7)

It has been speculated by several authors that the imposing monument of ed-Deir (47m wide and 48.30m high) was not a mausoleum but rather a cultic hall.¹⁶ This hypothesis,

Ibidem, 'L'espace urbain du grand Pétra' in SHAJ IV, Conference of Lyon (forthcoming).

^{11.} For this inscription see Cantineau, Le Nabatéen II, p. 3-5; J.T. Milik, RB 66 (1959), p. 555-560. This translation is based on Milik and W. J. Jobling in J. McKenzie, The Architecture of Petra, Oxford, 1990, p. 35.

^{12.} This is the best interpretation, I think, of môtba hariša from Arabic hrs, to guard, to protect.

^{13.} Cf. Jaussen et Savignac, Mission en Arabie, I, Paris, 1909, p. 383-387 & II, 1914, no. 60, p. 434.

^{14.} According to M. Gawlikowski, SHAJ I, 1982, p. 303.

^{15.} ADAJ 19 (1974), p. 142-145; ADAJ 26 (1982), p. 366-367.

For example see Dalman, Neue Petra-Forschungen, Leipzig, 1912, p. 57 and 92; Starcky, Dictionnaire de la Bible, Sup. VII, Paris, 1964, col. 972.

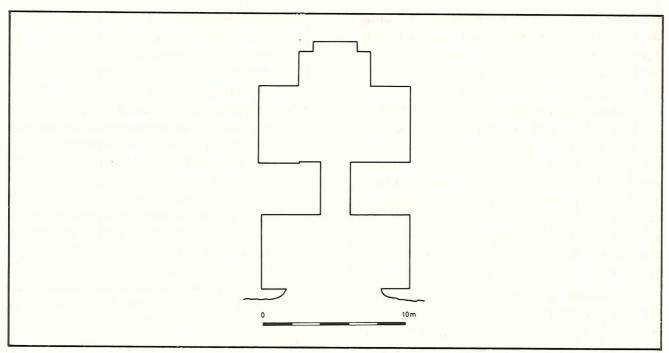


Fig. 6. Ground plan of et-Turkmanyeh.

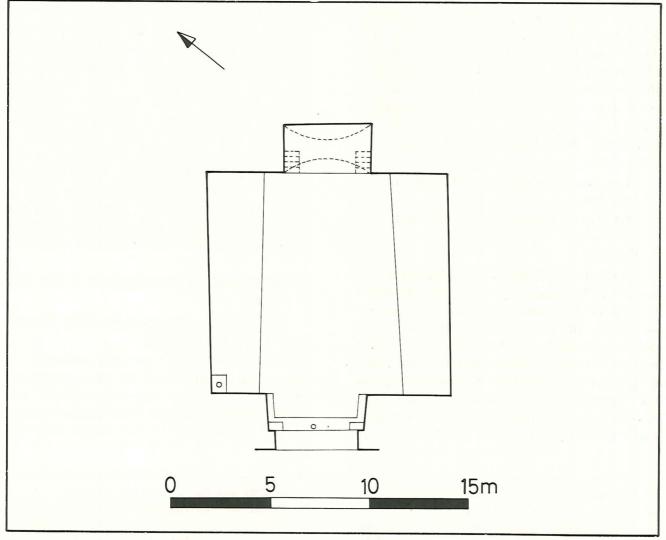


Fig. 7. Ground plan of ed-Deir.

however, could not be ascertained before March 1991, when the interior was excavated. Except for a fragmentary handmade pot and sherds of a Turkish pipe, no objects were left by the bedouins.

The chamber is rectangular (11.25m by 12.10m). Two low benches not more than 0.10-0.15m high and about 3.20m wide are cut on the long sides. There is an incised rectangle (0.90m by 0.70m) in the northwest corner, probably intended to fit a water basin for ablutions. A groove in the wall at 0.55m probably marks the height of the vase, and the circular hole in the floor, the position of a pedestal.

The most distinctive feature of the chamber is a platform 1.15m high and 2.30m wide, accessible by two flights of four steps at the corners (Pl. VII,2). It is situated in an alcove framed by two pilasters and surmounted by a segmental arch with an added cornice in stucco. There are traces in the back wall of an erased pedestal or more probably a baetyl. The crosses in the alcove suggest that ed-Deir (Monastery) was used as a Christian chapel in the Byzantine period. Originally, the monument was a biclinium for the gathering of sacred associations. A Nabataean inscription, is incised high up in the cliff to the west reads:

- "Let be remembered 'Ubaydu son of Waqiḥel
- 2. and his associates of the symposium of 'Obodat
- 3. the god".

This short graffito is a clear reference to a sacred association in honour of 'Obodas I (ca. 96-95 BC), who was buried at modern Avdat in the Negeb and deified after his death. It is likely, in this case, that ed-Deir mountain was the place where the cult of the king/god was celebrated. A chapel carved in the opposite hill can be approached by a stairway and a columned portico. A Corinthian floral capital at the entrance and an

elaborate niche in the rear wall confirm the Nabataean origin of these cultic installations.

Between the chapel and ed-Deir, a circular enclosure, some 70m in diameter, is visible from the chapel to the west and is clearly distinguishable on aerial photographs (Pl. VII,1). 19 There is an entrance on the western side where bedrock has been exposed. This structure was probably a sacred temenos to perform ritual meetings in connection with the cult of 'Obodas. Since Wadi 'Arabah and the Negeb can be overlooked from the top of the chapel, it is plausible that a festival or pilgrimage was celebrated in relation to a synchronized religious demonstration in the city of 'Obodat/Avdat. More research on the chapel and surrounding area, and particularly excavation, are needed to substantiate this hypothesis.

Because of its elevation in two orders of eight engaged columns or pilasters, ed-Deir was related to the Corinthian tomb. The capitals which belong to the pseudo-Ionic type in the lower entablature and to the Nabataean tradition in the upper order are different from the nice floral capitals of the Corinthian tomb. The late Father Starcky20 compared ed-Deir to the library of Celsus in Ephesus, dated to 110 AD. It is more appropriate, I believe, to compare this monument to the gate of Bostra in the Hawrân, which has been dated by means of excavation to the reign of Rabel II (75-106 AD).²¹ Together with the Palace tomb, ed-Deir was probably one of the latest productions of the Nabataean sculptors.

V. Archaeological Investigations in the City Centre

1. The Drainage System of the Main Theatre (Fig. 8, Pl. VIII-IX).

After torrential rains, the orchestra of the main theatre used to get completely flooded. To prevent any catastrophies, the authors investigated the flood control system of the auditorium. It was found that the

^{17.} Cf. Starcky, op. cit. col. 972.

^{18.} Cantineau, Le Nabatéen II, p. 7.

^{19.} See M. Lindner et alii, 'New Explorations of the Deir Plateau, (Petra), 1982/83', ADAJ 28 (1984),

p. 163ff and Fig. 1 (after G. Dalman).

^{20.} Op. cit. col. 972. Recently, I noticed a Nabataean graffito on the steps leading to the monument.

^{21.} J.-M. Dentzer, SHAJ II, 1985, p. 152.

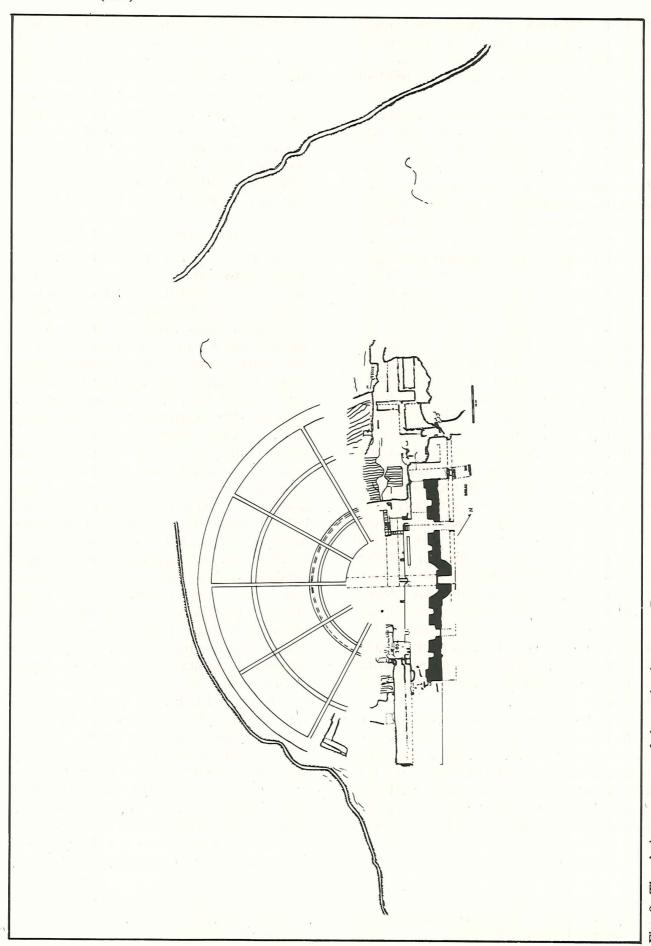


Fig. 8. The drainage system of the main theatre at Petra.

drainage canal above the summa cavea, about 0.60m to 0.80m in width, was completely silted. This was soon re-opened, in time to prevent damage which may have resulted from the floods of March 22-24, 1991. The canal runs to the east between small crenelated tombs and empties into the wadi bed, probably in a water tank (Pl. IX,1).

For the west side of the theatre, J.H. Hayes notes in the final report by P.C. Hammond: "Apparently, no canal was utilized on the sinistrum [left] side of the theater as no evidence of such is traceable in the upper drainage gallery, although the beginning of the diversion canal for the dextra [right] side is clearly obvious". 22 This superficial remark was considered by both of us as untenable. How could the engineers of the theatre neglect to drain the left side of the auditorium when several dams and retaining walls have been constructed on this side of the monument? After a careful survey of the area, a large canal (1m to 0.80m wide) was discovered. It traps the rain runoff high in the northwestern cliff and diverts it first to a sump near the stairway leading to the auditorium from the west. It drops from there vertically into a large plastered water reservoir (Pl. IX, 2, 3) flanked by two rockcut chambers. These were most probably part of a residential compound. The northwest chamber (10.05m by 8.10m) has three entrances, and its inner walls are carved with several square dowel holes to attach marble slabs or stucco. Springers for arches are also visible on the left and right walls. The exact function of this chamber cannot be determined except by clearing the interior, although its domestic character is obvious.

The rebuilding of little dams in the northwestern angle of the cavea greatly restrained the flood from gashing into the orchestra. However, this operation was not sufficient and we tried to re-open the drains of the *scaena*. Our effort was unsuccessful because the canal which crossed the back wall of the theatre was completely blocked. Meanwhile, the orchestra was cleared down to the

bedrock floor, revealing several double holes for tethering. These raised several hypotheses, among which was the fantastic idea that they were designed to tether wild circus animals. Fortunately, the bedouin workers who had been involved in the restoration project for the theatre columns in 1962 brought us to reality when they informed us that the holes had been used to fix the scaffoldings with ropes. This may have also been the original function of these holes.

2. The Paved Street (Pl. X,1-2, Figs. 9-10)

In 1955/56, Diana Kirkbride²³ from the British School of Archaeology in Jerusalem supervised, on behalf of the Department of Antiquities, the clearance of the paved street, or so-called cardo, from "the eastern pier of the steps which lead to the Upper Market to a few metres short of the Triumphal Arch. Some 240 metres of the road and the sidewalk were cleared from the sand and waterlaid deposits". Mrs. Kirkbride adds: "The cardo, which has been completely washed away by floods to the east of the point where the excavations started, runs straight West, descending steeply as it approaches the Triumphal Arch". 24 With the clearance of the Sîq in 1979/80, when large segments of the paved street were uncovered, it was evident that this statement had to be updated. Not surpisingly, the flash flood exposed a stretch of pavement east of the steps leading to the "Upper Market". By digging several probe trenches, Suleiman Farajat demonstrated that the paved street was preserved east of the Nymphaeum. A segment of about 50m in length was uncovered, starting from the ascent to the Urn Tomb and following the southern bank of Wadi Musa. At the place where the torrent makes a bend towards the theatre, the rock on the northern bank has been smoothed to follow the curb of the street. The pavement is not homogeneous. To the east of the curb, large flagstones (0.75m by 0.45m) are laid, while smaller slabs (0.20m by 0.20m) are fixed to the west. There is a depression to drain water across the middle of the exca-

^{22.} The Excavation of the Main Theater at Petra, 1961-1962, London, 1963, p. 52.

^{23.} ADAJ 4-5 (1960), p. 117-118.24. Eod. loc., p. 117.

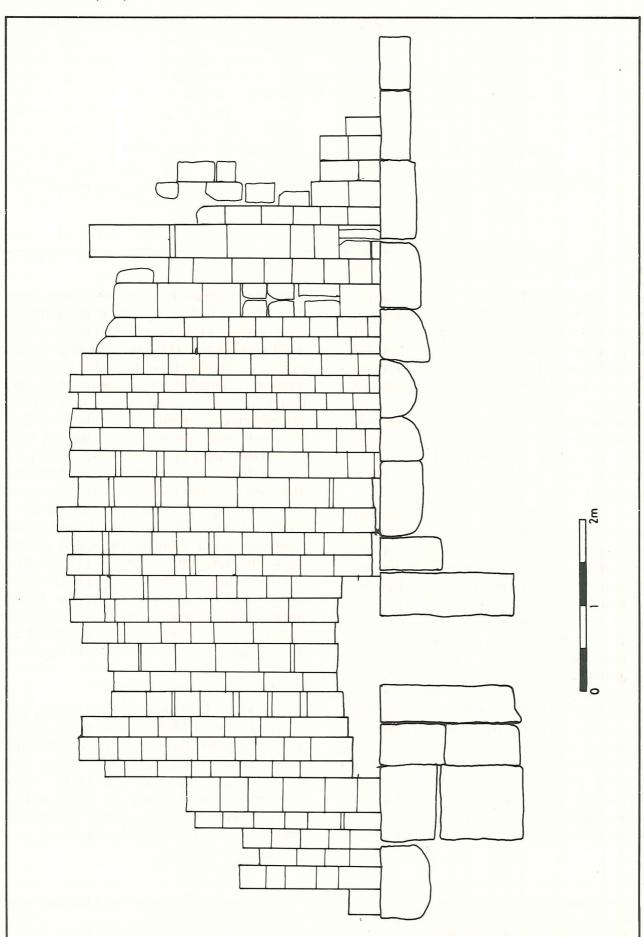


Fig. 9. The eastern part of the newly excavated paved street of Petra east of the Nymphaeum (after Ali Da'jah).

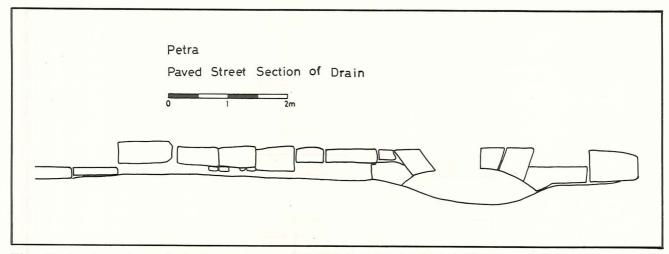


Fig. 10. Section of the drain in the paved street (after Ali Da'jah).

vated pavement (Pl. X,1, Fig. 9) which diverts the runoff to the south into a sewage system under the sidewalk, at a point covered by an arch (Figs. 9-10, Pl. X,2). It can be assumed that a drain was constructed along the south bank of the wadi which conducted the water towards the Nymphaeum. It is noticeable that the bedrock between the new pavement and the Nymphaeum was carved to allow the street to proceed to the monumental Gate of the temenos (so-called Triumphal Arch).

It is noteworthy that the sidewalk was built with huge blocks which average 1.90m in length, placed as headers (Pl. X,2). A close observation of the construction technique indicates that the pavement was laid after the sidewalk. According to P.J. Parr, "... the paved street, assigned to Phase XIII, is clearly later than AD 76, when Rabel II and Gamilath began to reign". 25 We collected in the recent excavation two bronze coins, one of Elagabalus (218-222 AD), who gratified the city with the honorific title of colonia, and the second coin of the fourth century AD. It is admitted, however, that the paving of the Sîq and the main street of Petra were part of an early urbanization programme of the caravan city. Even so, the exact date when this commercial thoroughfare was paved is subject to speculation. As early as AD 107,

after the annexation of the Nabataean kingdom, Trajan had started the construction of the via nova, which eventually ran from Aila/ Aqaba to Bostra. The letter of Julius Apollinarius, a soldier of the legio III Cyrenaica, addressed to his father in Karanis, Egypt, and dated AD 107, is often cited as evidence for the undertaking of that vital project: "Things are going well for me. After Sarapis conducted me hither in safety, while others [....] all day long were cutting stones and doing other things, until today, I endured none of these hardships". 26 In fact, this text is not a direct reference to the construction of the road, which was actually completed, according to the milestones, between 111-114 AD. However, the initials of the legio III Cyrenaica, which are scratched in the Sîq, to the right of the hemispheric baetyl of Adraa, 27 do suggest that the Roman legion was involved in the completion of the Trajanic highway.

3. The Qașr el-Bint Temple

Work in the temple of Qasr el-Bint was resumed in April 1990, with financial support from UNESCO. The project focussed on the restoration of the southwestern corner and the clearance and restoration of the inner southwest stairway, which was obstructed by heavy fallen blocks and almost completely stripped of its steps. Excavations were con-

^{25.} Near Eastern Archaeology in the Twentieth Century, ed. A. Sanders, New York, 1970, p. 370.

^{26.} M.P. Speidel, 'The Roman Army in Arabia',

Aufstieg und Niedergang der Römischen Welt, Berlin, 1977, p. 691-693.

^{27.} ADAJ 30 (1986), p. 199-200 & Fig. 1.

ducted along the south wall to retrieve and set back the ashlar stones, but the stones had to be reshaped by stonecutters, scaffoldings about 25m long and more than 16m high were built, and a movable crane (palanko) fixed on top.

When this project stopped on April 3, 1991, five courses 2.23m high were rebuilt to protect the relieving arch of the south wall (Pl. XI,1-2), by technicians from the Jerash Archaeological Project, under the supervision of A.-M. Mujalli.

A. The southwest inner stairway of the Temple

The two flights of steps located in the western and southern walls 4 and 3 are accessible through a doorway in the southwest compartment. Except for the three lower steps, the other sixteen steps of the N-S flight were completely destroyed. A fragment of an inscribed marble slab bearing the letter A was found, together with triglyph blocks and two medallions, defaced by iconoclasts. This is good evidence that the anthropomorphic reliefs which once adorned the Doric frieze were intentionally destroyed, probably before the monument was struck by the AD 363 earthquake. In a previous report, F. Zayadine²⁸ noticed that stands or benches decorated with lion heads were also deliberately smashed and rebuilt in ugly small walls in compartment No. I, before the catastrophic earthquake.

The sixteen missing steps, 1m wide and 0.24m high, were restored in February 1991 by the Jerash technicians (Pl. XII,1). The steps were originally monolithic, but were reconstructed in two pieces. It was noticeable that the ashlar stones in the staircase were roughly dressed and included several re-used blocks. Out of thirty steps in the south wall 3,

twenty nine were in situ, and almost all in perfect shape (Pl. XII,2). This fact can be easily explained if the upper east-west flight was not accessible to stone robbers, due to the extensive stone collapse. From a landing still in its original position, the personnel of the temple could have accessed the balcony of the southwest compartment. Proceeding westwards, one could climb another flight of steps, located in the western wall 4, and reach the wooden deck. Actually, seven steps of this flight are in situ, but some fifteen others are missing. The circulation device of the southwest compartment does not correspond to the isometric reconstruction published by G.H. Wright, 29 which was not based on direct observation, since the stairway was inaccessible at that time.

B. The podium of the Temple

The existence of a podium on the western side of Qaşr el-Bint was demonstrated by a sounding dug in 1979³⁰ at the southwestern corner. Another sounding was plotted in 1989/90 at the foot of the northwestern pilaster.31 After a layer of modern deposit, another stratum of blown pinkish sand, a cobbled floor of wadi pebbles, fixed with hard yellow mortar, was reached above the pavement of the podium. Fragments of a late Roman lamp were associated with this floor. Curiously, the base of the pilaster consists of a roughly shaped rock (Pl. XIII,1), but fragments of marble slabs confirmed that the pedestal was revetted with grey marble. Several pieces of a floral Corinthian capital were collected, together with a 10cm high sandstone statuette of a Cupid (Pl. XIII,2,3).32 The way in which the statuette was chipped suggests that it belonged to a frieze or a capital. With its fleshy prominent cheeks, globular eyes and curled hair, this young little

^{28.} ADAJ 29 (1985), p. 243-244 & Pls. LVII, LXI.

^{29.} PEQ 93 (1961), p. 7-38 & Fig. 4. Cf. J. McKenzie, op. cit., Pl. 72b. Although the author worked for several years on the architecture of Petra, she did not suspect the inaccuracy of Wright's isometric reconstruction.

^{30.} ADAJ 26 (1982), p. 380.

^{31.} Financial support for this operation was kindly

provided by Mme M.-P. de Cossé Brissac, a former "Sous-Directeur des Sciences Sociales et Humaines" at the French Ministry of Foreign Affairs.

For good examples of Nabataean sculpture, see The Art of Jordan, Treasures from an Ancient Land, ed. P. Bienkowski, Exhibition in the National Museums and Galleries, Liverpool, 1991, p. 51-55.

figure illustrates the tradition of Nabataean hellenized statuary,³³ very common in the sculpture of Petra.

In 1979, the team of P.C. Hammond excavated a trench perpedicular to the eastern wall 2 of Qaşr el-Bint, which exposed a segment of the podium (Pl. XIV,1). Work was resumed in this trench, numbered 4.6, according to our grid, in February and March 1991. The dump that washed into the trench was removed down to a layer of fallen blocks. The main objective of this operation was to check the stratigraphy and to retrieve architectural elements for future restoration. The sequence of occupation proved to be almost identical for the three trenches that were excavated. The top layers were modern, and the pan of a portable scale, a model used by itinerant vendors, was the most significant find. Collapsed blocks of the upper structure were spread over a space about 4m long. A thick layer of yellowish sand covered column drums and bases 0.60m in diameter, together with a floral Corinthian capital (Pl. XIV,2). There is now substantial evidence for a columned portico which stood along the eastern podium, and a large quantity of tiles indicated that it was roofed. For this reason, the drains which were cut in the chamfered cornice of the podium were blocked with a limy mortar, since they were no longer functional. Almost in the middle of the excavated podium, between Sqs. 4.6 and 4.5, a square about 1.65m each side was paved with a mosaic of black and white marble in addition to coloured sandstones. This probably served as the base of an altar or royal statue.

The actual width of the podium averages 3.45m, with a preserved height of 2.56m. Unfortunately, no column base was found in situ, and it is difficult at the moment to determine the exact position of the stylobate. It can be assumed, however, that it was on the edge of the podium. Several construction phases can be identified, but since the excavations are in progress, it is too early to finalize their chronology.

C. Clearance and excavation of the stepped approach, Sounding 5.4

Important information was gathered when the sounding excavated in 1959 by P. Parr³⁴ through the stepped approach of the Qaşr was cleared from washed-in debris (Sq. 5.4). It was determined that this crucial trench for the history of the monument could also be a serious danger for the wing wall of the monumental stairway and for the foundation of the podium. To prevent the catastrophic danger of washout by flash floods, we decided to refill it. But before this operation, we thought it would be worthwhile to extend the trench by one metre and have the baulk re-drawn, with the assistance of Muhammed Murshed. The work was continued from February through March 1991, and the following phases were recognised (Fig. 11):

The earlier phase I comprised three loci. Loc. 1 is a layer of medium sized wadi pebbles mixed with a hard yellowish sand. A 0.40m deposit of red sand with gravel follows (Loc. 2). Above the red sand, a drain runs SE-NW below the wing wall of the stepped approach (Loc. 3). It is carefully executed in yellowish limestone blocks about 0.32m wide in which a gutter of 0.13m is carved, with a lead pipe set in it and capped with slabs (Pl. XV,1). It was impossible to follow its course to the west because it is covered with the heavy fill of the stepped approach and was, no doubt, built before it. Unfortunately, not a single sherd was found associated with the three loci of phase I.

Above this was phase II, in which we came upon the most unexpected discovery, a cubic structure about 1.40m in width and preserved to 1m in height (Pl. XV,2, Fig. 11). It was built, like the footing of the podium, from rough wadi bed stones fixed with hard yellow mortar, and its upper surface was coated with a thin layer of white plaster. The function of this structure is subject to speculation. If it belonged to an earlier approach to the temple, it should have been in the form of a sloping ramp. The second alternative is that the cubic construction belonged to a platform

For similar Cupid reliefs, see *Inoubliable Petra*, ed.
D. Homès-Frédéricq, Exhibition Musées Royaux

d'Art et d'Histoire, Bruxelles, 1980, p. 38, 2. 34. ADAJ 12-13 (1967-8), p. 15-16 & Fig. 17, Pl. X.

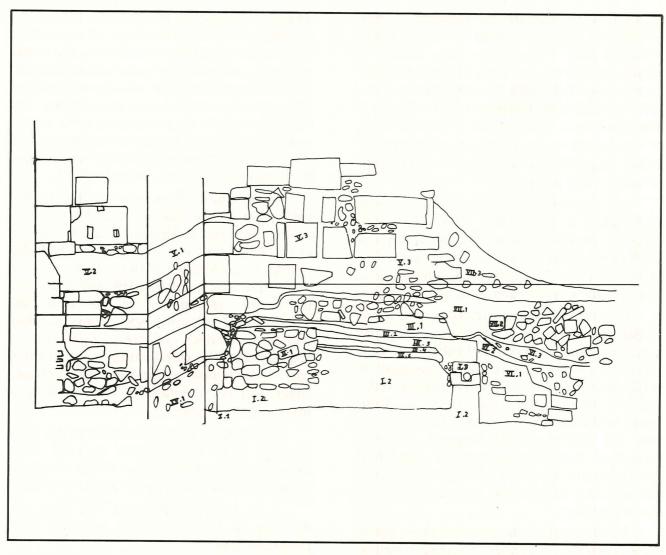


Fig. 11. Section through the stepped approach of Qasr el-Bint.

Phase I, Loc. 1: Wadi pebbles and hard yellowish sand.

2: Red sand with gravel.

3: Drain.

Phase II, Loc. 1: Cubic structure.

2: Fire place (not in the baulk).

Phase III, Loc. 1: Packed yellow sand.

2: Mixed orange to grey fill.

3: Hard packed yellow sand.

4: Loose red sand mixed with bones and gravel.

5: Ashy remains.

6: Green loose sand.

Phase IV, Loc. 1: Dark grey concrete poured in the foundation trench of phase V.

Phase V, Loc. 1: Large dressed blocks.

2: Red sand underneath two courses of blocks.

3: Ashlar blocks laid as foundation to the stairway.

Phase VI, Loc 1: Ashy deposit.

2: Purple sand with gravel.

3: Green yellowish sand.

Phase VII, Loc. 1: Red sand over stone fill.

2: Stone fill.

3: Gravel with red sand.

or altar which antedates the building of Qaṣr el-Bint. In association with the base of this structure was a fireplace, some 0.70m in diameter, and several body sherds of a thin cooking pot belonging to a Hellenistic type. The fireplace was mentioned by P. Parr and described as a "clay oven" ³⁵ (Loc.2).

Phase III is an accumulation of six loci of debris, deposited to the north, after the cubic structure was abandoned.

A new thriving building operation was undertaken in phase IV, when the cubic structure of phase II was cut to the south and dark grey cement poured into the foundation trench of phase V, representing the foundation of the stepped approach (Pl. XV,2).

In phase V, six courses of well dressed ashlar stones, some of them preserving the traces of painted stucco and others cut with square dowel holes, were laid. A fragment of a ribbed storage jar, which may belong to the second century AD, was retrieved from underneath the heavy blocks. It is obvious that the builders of the stepped approach looted an important monument, antedating the Qaṣr, and this observation was noticed in the previous excavations and restoration of the monument.

To the north of the cubic structure phase II, and the water channel I,3, a heavy wall of undressed boulders (1.40m wide and 1.10m high) lies below the eastern wing wall of the stepped approach and was reported by P. Parr. It runs westward and probably continues under the stairway. To the north of this wall and the water drain, the stratigraphy is complex: there is a deep cut down to the wadi bed, filled with ashy soil (VI,1). A purple sand layer follows (VI,2), covered by a green yellowish soil (VI,3). Above these layers, a heavy fill of red sand and irregular stones serve as a bedding for the marble steps which were laid on a thick dark grey concrete floor (VII,3).

To sum up this part of the excavation in Sq. 5.4, it is clear that several structures existed before the stepped approach and the wing wall, including a cubic platform, a nicely carved drain and a thick wall of boulders. It is

difficult, because of the limited area of the sounding, to decide the nature of occupation before the building of the monumental approach, and probably prior to the construction of the temple. If we add the well dressed ashlar blocks reused in the foundations, the conclusion of P. Parr stating that "a major occupation phase between the construction of the Qaṣr and the provision of its steps cannot be postulated" is no longer valid.

Significant information regarding the development of the podium and the temenos wall was brought to light when the northeastern corner, between the podium and the peribolos (enclosing wall of the temenos) was excavated. The baulk was trimmed back and the tumble amounts to ca. 3m in height, comprised of column bases, drums, capitals and cornices which collapsed, apparently, in two periods. The architectural history of this part of the temple underwent several phases which will be summarized here, pending a more detailed report:

- 1. The Qasr podium consists of 1m high footing, built with roughly squared wadi stones, above which stands a wall of nicely trimmed ashlar blocks to the height of 2.56m.
- 2. In the following phase, the Qaşr and the altar to the north were enclosed by a *peribolos* wall.
- 3. Most probably during the reign of Aretas IV (9 BC-40 AD), benches were added against the temenos wall, containing the dedication to the statue of Aretas IV, together with other royal inscriptions.
- 4. A roofed portico was built along the eastern podium and the original floor was probably raised at the same period. The above mentioned mosaic square was set during this phase. Corinthian capitals of the floral type excavated in the tumble suggest that the portico was erected in the Nabataean period, although the tile roofing might have been added after the Roman annexation. A bench about 0.70m wide was built up against the western face of the *peribolos*, opposite the podium. A sandstone block (0.61m by 0.59m) appeared in the corner, between the bench and the baulk (Pl. XVI,1). It was

recessed and affixed with a marble plaque (0.30m by 0.25m), bearing at least three lines of a Nabataean inscription (Pl. XVI,2). Unfortunately, only the first line is legible and reads (Fig. 12):

1. HRTT 'BRK 'NT B'W[?]: O Aretas, you are most blessed in (or) among...

This dedication is probably addressed to Aretas IV, according to the palaeography: rounded alef, het with a gabled top, kaf provided with a curved head. 'BRK is the elative adjective, common in Nabataean (cf. 'KTB, 'SLH, 'R'). 'NT, you, occurs in Aramaic and Palmyrene (see Jean-Hoftijzer, Dict. Insc. Sem. Ouest, s.v. 'T). 'W... could be a place name, 'wytw in the Sinai, but there is not enough space for this site. It could be also a tribe name, Awd in Ibn Doreid and would mean: among the tribe of Awd (see Cantineau, II, 1932, s.v.). The block was in all probability built in the temenos wall. As it has been already estimated by Parr, the temenos wall must be earlier than the first half of the first century AD. The pottery associated with the construction of the temple was assigned by him to "the period from c. 60 BC to c. 25 AD". 37 There is no doubt in this case that the main temple of Petra must be assigned to the first half of the first century BC, during the reign of Malichus I (59/58-30 BC), or Obodas III (30-9 BC).

Two floors of compact limy soil are laid over the pavement of the temple esplanade and cover channels which drain the water to a collector before it runs into a cistern or tank. The pottery found on the upper floor was Late Roman.

The Deities of Qasr el-Bint

During his work at Qasr el-Bint, P. Parr discovered in 1959 "a fragment of a marble

hand, about four times life size". 38 He correctly estimated that this was part of a cult statue, about 6-7m tall which was placed in the central adyton or holy of holies. It could not be decided, however, whether the statue belonged to a male or female deity. New elements concerning the cult in the main temple were excavated during the campaigns of the Department of Antiquities.

The upper part of a sandstone eye idol (Fig. 13) was found on the floor of the central podium of the adyton. It is a well known cultic stele common at Wadi Ramm and Petra and abusively interpreted by some authors as "al-'Uzzä" baetyl, although inscriptions identify it as al-Kutbä or Atargatis of Manbidj-Hierapolis. On the other hand, fragmentary Greek inscriptions were collected in the debris. A marble base excavated in the eastern compartment bears a dedication which was interpreted as "Zeus Hypsistos", the equivalent of the Syrian Baal-Shamîn and the Nabataean Dhu-Sharä. Another fragmentary marble slab (0.19m by 0.12m and 0.02m thick) was found in April 1989 in the debris deposited along the northern wall 1 of the cella (Sq. 7.5) and reads (Fig. 14):

1. ...]ΣΕΒΑ[... 2. ...]ΔΕΙΤΗ[...

3. ...]ΟΚΟΛΩ[...

The inscription can be restituted to read: [Υπὲρ σωτηρίας τοῦ κυρίου αυτοκράτορος Καίσαρος]σεβα[στοῦ Αφρο]δείτη[[Πέτρα Μετρ]οκολω[νία]

This Roman dedication to Aphrodite, dates most probably to the third century AD, after the city of Petra was granted the honorific title of Metrocolony by Elagabalus (see above). On the other hand, we can deduce from the Babatha archive, 39 disco-

^{37.} Eod. loc., p. 16.

^{38.} Idem, p. 18.

^{39.} N. Lewis, ed., The Documents from the Bar Kokhba Period in the Cave of Letters, Greek Papyri, Jerusalem, 1989, p. 48-49. The 'extract from council minutes' reads: "Verified exact copy of one item from the minutes of the council of Petra the Metropolis, minutes displayed in the temple of Aphrodite in Petra...". G.W. Bowersock in his Roman Arabia, Cambridge, Mass., 1983, p. 87

identified the Aphrodeision of Petra with the "Winged Lions Temple", excavated by P.C. Hammond on the hill north of Qaşr el-Bint. This identification, suggested by Starcky in Petra et la Nabatène, Exhibition Museum de Lyon, 1978/79, p. 36 is not supported by the archaeological evidence. On the one hand, the temple was burned, according to Hammond "in the last days of Rabel II and left without roof thereafter". On the other hand a statuette of Osiris and two figurines of Isis were found in this temple.

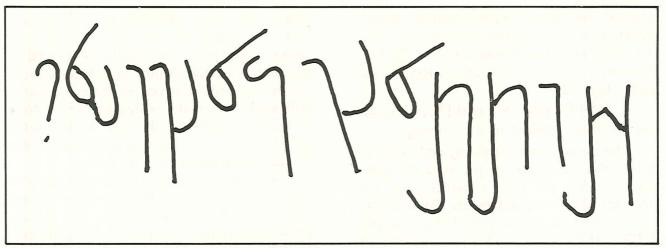


Fig. 12. Facsimile of the Nabataean inscription discovered in the northeastern corner of Qaşr el-Bint peribolos.

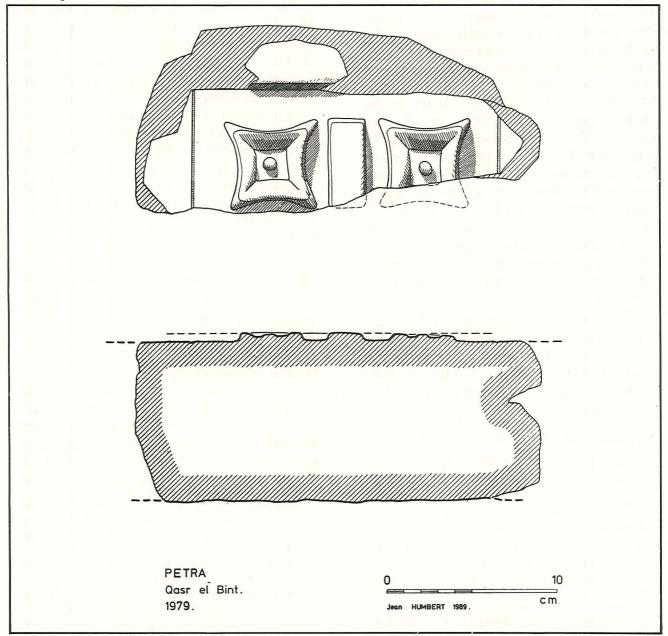


Fig. 13. Eye idol excavated in the adyton of Qaşr el-Bint (after J. Humbert).



Fig. 14. Roman dedication to Aphrodite.

vered at Wadi Habîr on the western shore of the Dead Sea, that the temple of Aphrodite was prospering in the second century AD and Epiphanius refers in his *Panarion* II, 52 to the cult of Dusares and his Virgin mother Chaamou. The latter name is believed to be a corruption of Aramaic 'Almou or Ghalmou, meaning young maiden or virgin. 40 It becomes evident in this case that the main temple of Petra, the Qaṣr el-Bint (of the Maiden) was a worship centre of Dhu-Sharä and al-'Uzzä/Aphrodite.

General Conclusions and Acknowledgements

On April 1, 1991, the Jordan Times titled: "Another Rose-red City near Petra". After more than seven months of continued clearance and excavation, our discoveries do not warrant such an April fool. Nevertheless, with the uncovering of triclinia at Bab es-Sîq,

Wadi es-Siyyagh and Beida and households in Sîq el-Bared and Umm Quṣṣa, instructive information on a so-far badly explored chapter of Nabataean domestic rockcut architecture were gleaned. They should stimulate, hopefully, other researchers to sponsor a survey of the domestic installations of Beida.

The excavation of Qasr el-Bint podium adds a new documentation to the history of this important monument and more precisely to our knowledge of the deities worshipped in the Nabataean and Roman periods. These unexpected results were realised thanks to the support and understanding of the Petra National Trust members. Following the disastrous floods mentioned above, HRH Prince Raad Ibn Zayd, Princess Majda, together with Mrs. Suha Shuman and Mr. Rami Khoury, hurried to Wadi Musa and Petra to express their concern to the population and urged the Jordanian Government to repair the damage to the infrastructure of the site. Both Dr. Ghazi Bisheh, the former Director of the Department of Antiquities and Mr. Nasri Atallah, Undersecretary of the Ministry of Tourism launched a campaign to re-open the Sîq and repair the damages with the steady efforts of the Department of Antiquities staff and the help of the Jordanian army. Within one week, Petra was ready to welcome tourists and visitors. Several people volunteered to prepare this report. The Wadi Musa municipality lent their surveyors to draw the water channels of the theatre while 'Ali Da'jah, the draughtsman of the Department worked for several weeks at the site. Architects Jacques Seigne and Pierre Schaff from the IFAPO prepared many plans. Finally, we should not forget Kenneth Russel who accepted to read and comment on this report. To all of those who were involved in the salvage of the "human heritage" of Petra and its promotion, the writers wish to express their gratitude and deep appreciation.

F. Zayadine

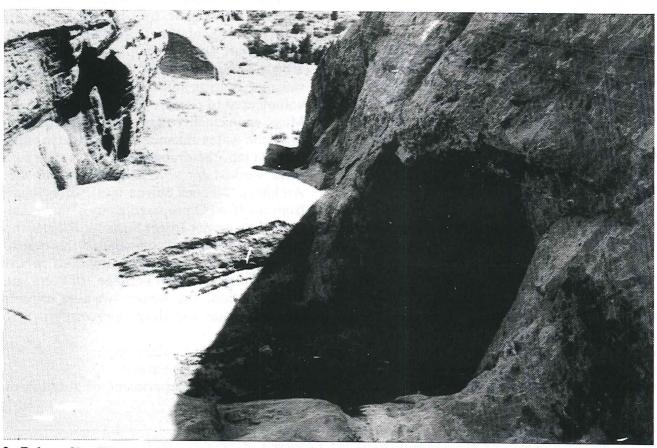
S. Farajat

Department of Antiquities

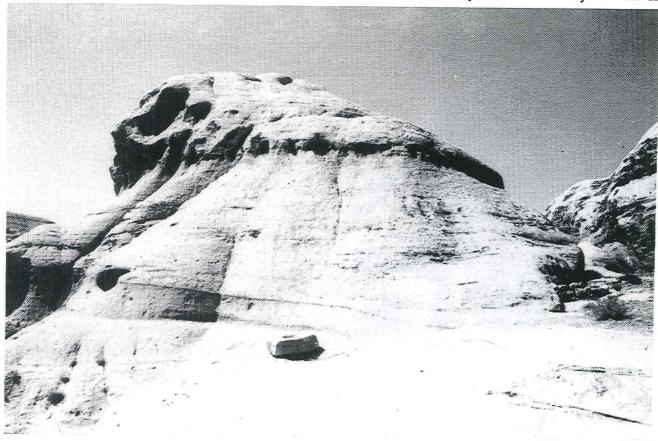
^{40.} For this interpretation, see Mordtmann, 'Dusares bei Epiphanius' ZDMG 29 (1875), p. 101-102 (according to Fleischer).



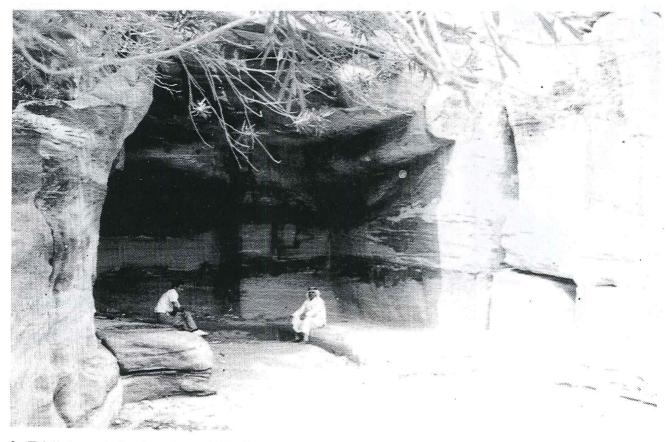
1. Petra, Bab es-Sîq. Aşlah Triclinium Br. 21.



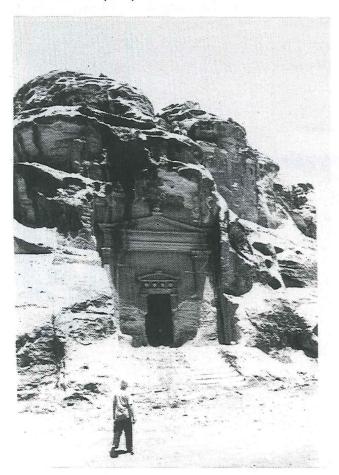
2. Bab es-Sîq. Water reservoir to the northwest of Aslah Triclinium.



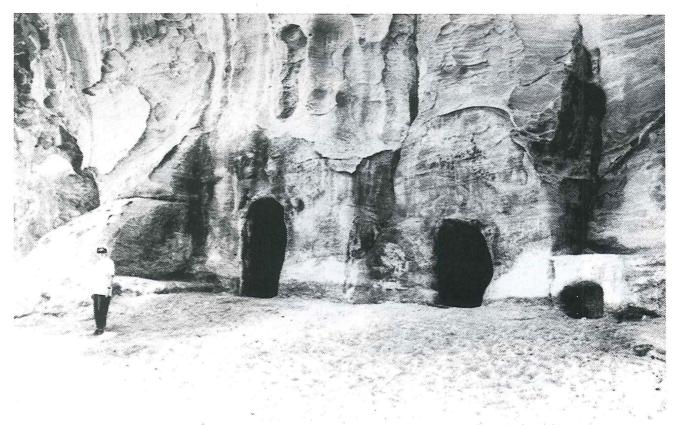
1. Cistern covered by a cap stone to the northwest of Aslah Triclinium.



2. Triclinium at the junction of Wadi es-Siyyagh and Wadi Kharrubah.



1. Beida, façade of Monument Br. 846 at the entrance of Sîq el-Bared.



2. Two caves recently excavated at the entrance of Sîq el-Bared.



1. Sîq.el-Bared. The distyle hall Br. 847 above a three room household.



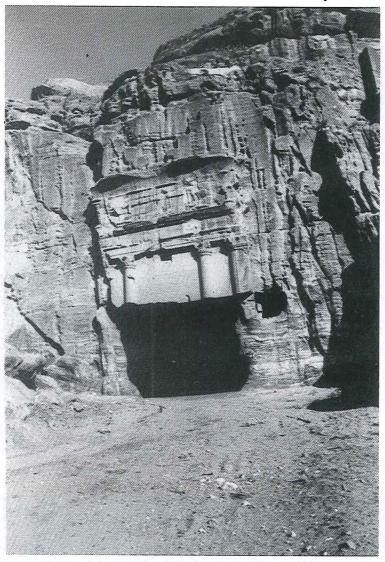
2. Sîq el-Amți at Beida.



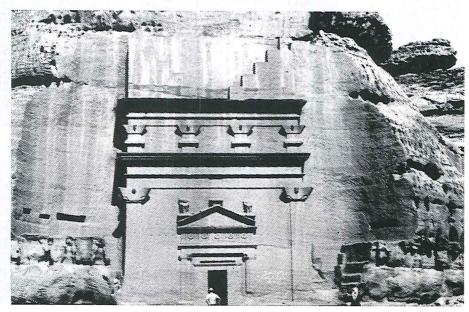
1. Umm Quṣṣa, Cave Br. 835.



2. Umm Quṣṣa, water reservoir Br. 836.



1. Turkmanyeh Tomb Br. 633.



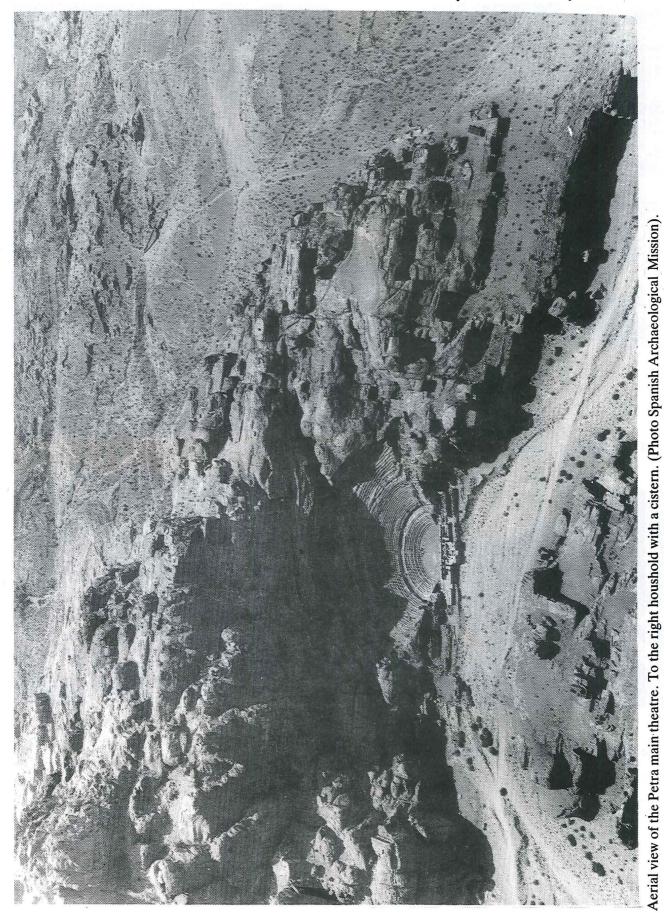
2. Hegra/Mada'in Şaleh. Tomb F4 dated 63/64 AD.



1. Ed-Deir Br. 462 looking East. Note the huge circle to the southwest of the monument.



2. The recently cleared hall of ed-Deir. Two low benches are carved on both sides of the podium.



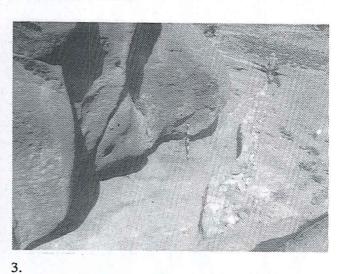
— 303 **—**

F. Zayadine & S. Farajat — Pl. IX



1. The eastern drainage canal of the upper gallery of the main theatre.





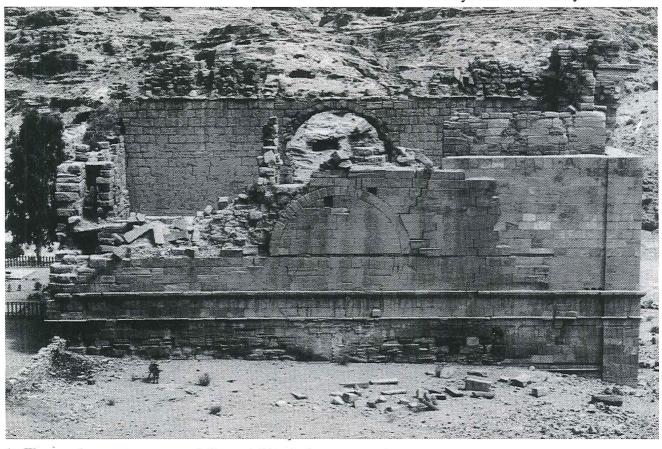
The western drainage canal of the theatre at Petra.



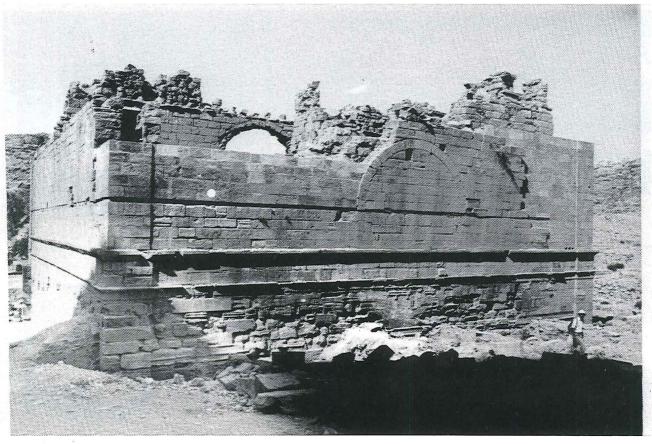
1. The newly uncovered paved street of Petra, east of the Nymphaeum (looking W).



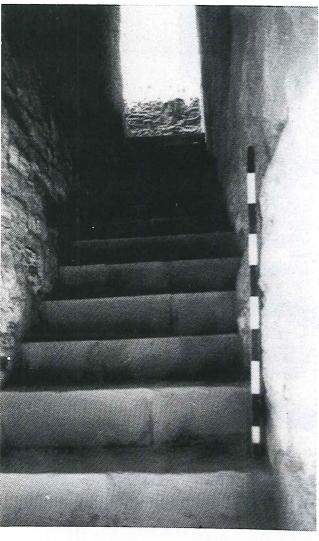
2. Depression and drain covered by a low arch (looking S).



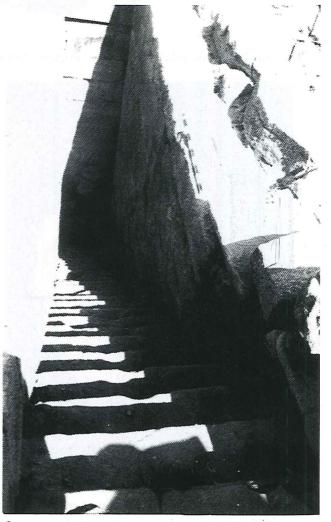
1. The southwestern corner of Qaşr el-Bint before restoration.



2. The southwestern corner of Qasr el-Bint after restoration.



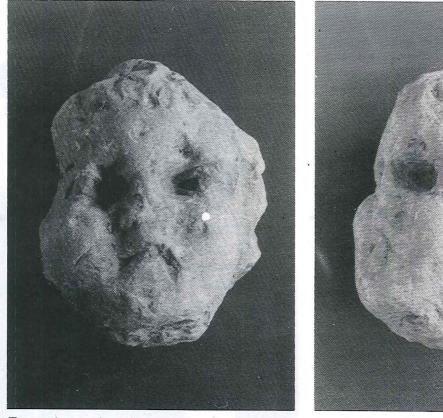
1. Qaşr el-Bint: Stairway in S wall 3.



2. Qaşr el-Bint: Inner stairway in W wall 4.



1. The northwestern pilaster of Qaşr el-Bint, before restoration.



2-3. Front view and profile of a Cupid relief excavated at the foot of the northwestern pilaster of Qaşr el-Bint.



1. The eastern podium of Qaşr el-Bint, Sq. 4.6.



2. A Corinthian capital excavated on the eastern podium.



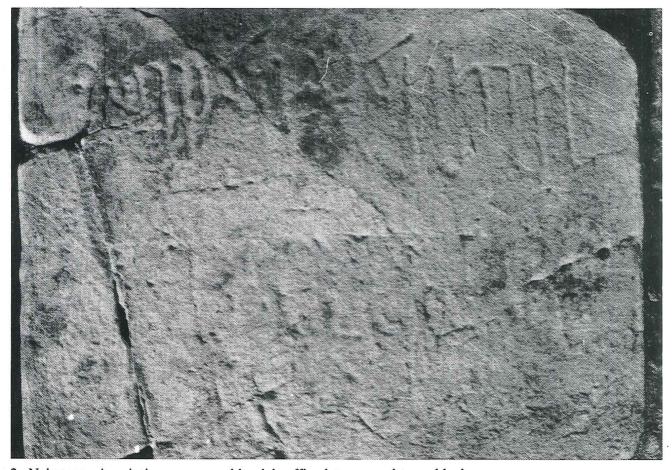
1. A water channel in Sq. 5.4, in the sounding through the stepped approach.



2. Sounding 5.4 through the stepped approach of the Qaşr. The metre stick is resting on the cubic podium.



1. Sandstone block and its impression in the baulk against the peribolos of the temple.



2. Nabataean inscription on a marble slab affixed to a sandstone block.