

SWISS-LIECHTENSTEIN EXCAVATION AT AZ-ZANṬŪR/PETRA: THE ELEVENTH SEASON

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Introduction

During the ten weeks between 14 August and 25 October 2000, Basel University held their 11th excavation campaign under the patronage of the SLFA on az-Zanṭūr (الزنتور) in Petra. The field team in 2000 included Daniel Keller (field assistant), André Barmasse, Consuelo Keller, Laurent Gorgerat, Matthias Grawehr and Annegret Naef as well as the architect Anne-Catherine Escher. The small finds were photographed by Othmar Jäggi. Christiane Jacquat and Olivier Mermod of the ETH Zurich took care of the archaeobotanic samples, and Jacqueline Studer of the Musée d'Histoire Naturelle de Genève analyzed the faunal remains found during the campaign. Markus Peter of the Römermuseum Augst identified the coins restored by Christine Pugin.

Many thanks are due to Dr. Fawwaz al-Khraysheh, Director General of the Department of Antiquities of Jordan and to the Vice Directors Dr. Fawzi Zayadine and Faisal Qudah for providing logistical support. It was a privilege to collaborate again with Suleiman Farajat as the representative of the DoA. We would also like to extend our thanks to the Jordanian Embassy in Berne and the Swiss Embassy in 'Ammān for their help in administrative matters. The necessary funds were provided by the SLFA (Zurich), Kanton Basel-Stadt, Basel University, Max Geldner Foundation (Basel), and Novartis International (Basel).

The Nabataean Mansion on EZ IV (B. Kolb)

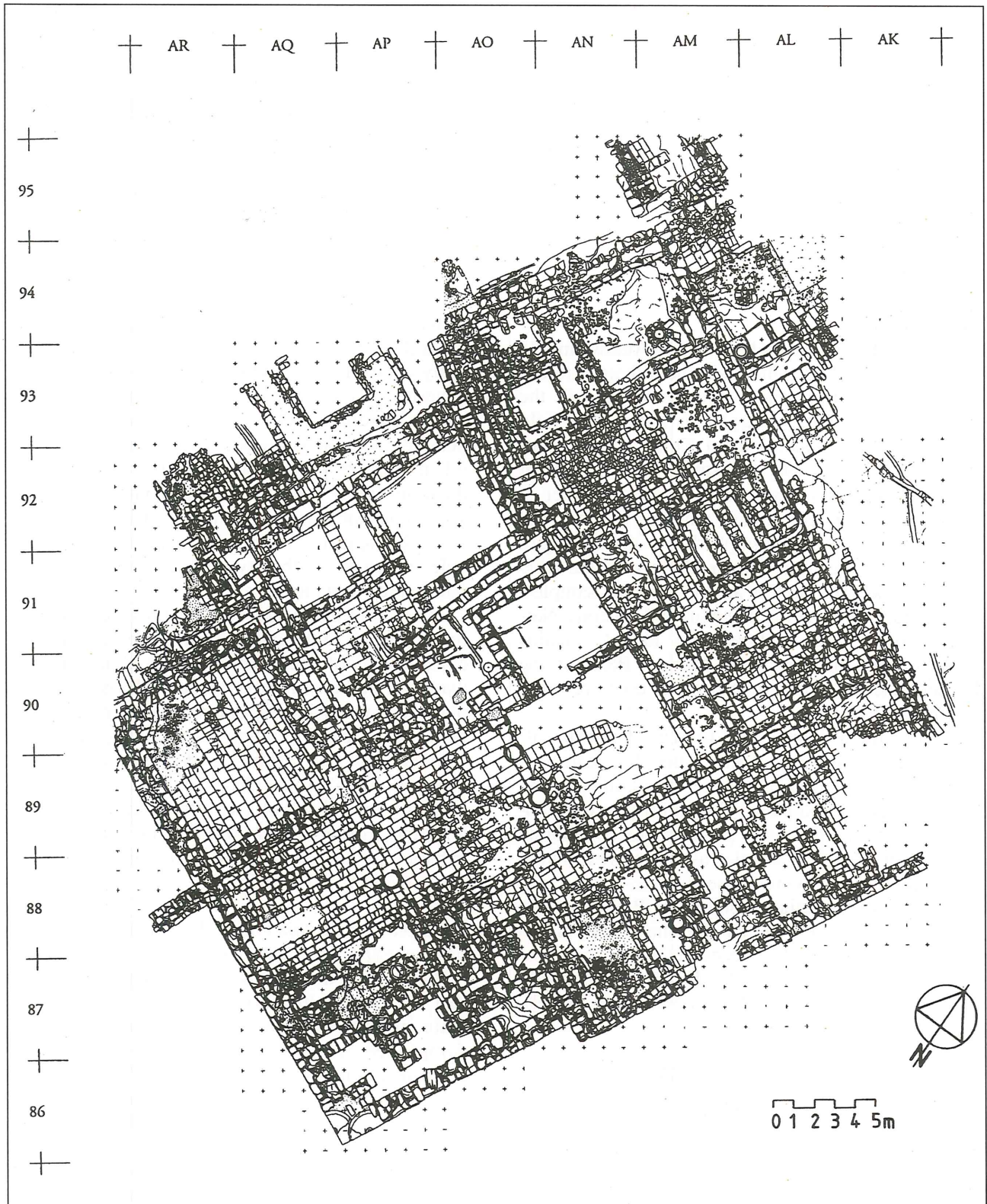
During the 2000 campaign, 19 grid squares (PQ) of 5 x 5m each (totaling 475m²) were investigated. By resuming the excavation, the northern outer Wall AQ/BB featuring the main entrance and the western outer Wall AY were discovered (Figs. 1-2). On the southwestern edge of the terrace, we exposed a second room with floor heating (Room 40) and its subsidiary Rooms 38 and 39. First evidence of buildings independent from the mansion on the western flank of the terrace was

provided by the large *Triclinium* 32, the Staircase 41 and other structures which as yet are only partially uncovered. However, the most important discoveries of the campaign were the remains of an earlier building, evidenced in Courtyard 15 and especially in the substructures of Room 17, where an oil mill/olive press and a cistern provided indications of a building dating from between the second half of the second and the early first century BC. This agrarian processing unit is the first datable structure of this type discovered until now within the Petra city area.

The 2000 campaign did not provide any additional data as to the dating of the various phases of construction of the mansion: The main structure was built in the early first century AD and a second phase was provisionally dated to the turn of the late first/early second century AD. During the fourth century AD, the building underwent some minor changes. This third and last phase also coincides with the last phase of use, which ended abruptly with the earthquake in AD 363 (cf. Keller's contribution in this report; Kolb *et al.* 1997: 234; 1998: 262, 267-275; 1999: 266f).

Position and Architectural Features of the Main Entrance (PQ 90-91/AK-AL)

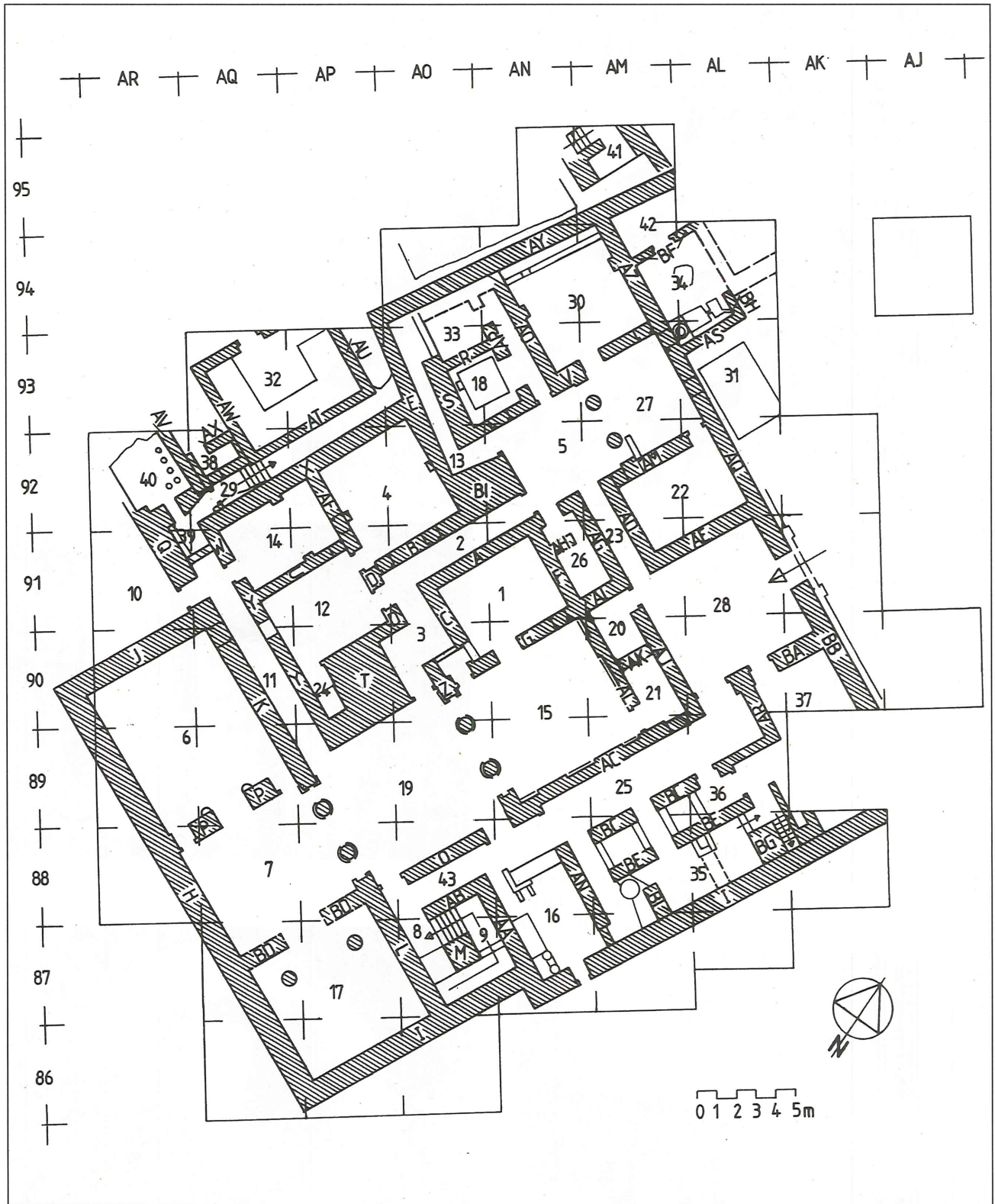
One of the main aims of this campaign, namely that of locating the northern outer wall and the main entrance to the building, was successfully accomplished in PQ 90-91/AK (Figs. 1-3). The poorly preserved northern outer Wall AQ/BB is built on the living rock — the perfect *solidum* mentioned by Vitruvius I, 9 — and is approx. 0.9m wide. In PQ 91/AK the two wall sections AQ and BB flank the main entrance which measures ca. 1.8m across and was originally equipped with a double door (threshold level: 925.05m). Both its position and measurements can be deduced from the 'scratch marks' left by the western door wing on the flagstones and from the arrangement of the pavers along the northern limit of Courtyard 28.



1. EZ IV. Top plan (drawing A.-C. Escher, A. Naef, B. Kolb).

Unlike the western and southern outer Walls H and I, the northern outer wall was largely destroyed during the earthquake of AD 363 (Fig. 3). What lit-

tle remains *in situ* of the main entrance cannot give any clues as to the architectural features of the original façade. Nevertheless, the fragments exposed in



2. EZ IV. Schematic plan (drawing B. Kolb).

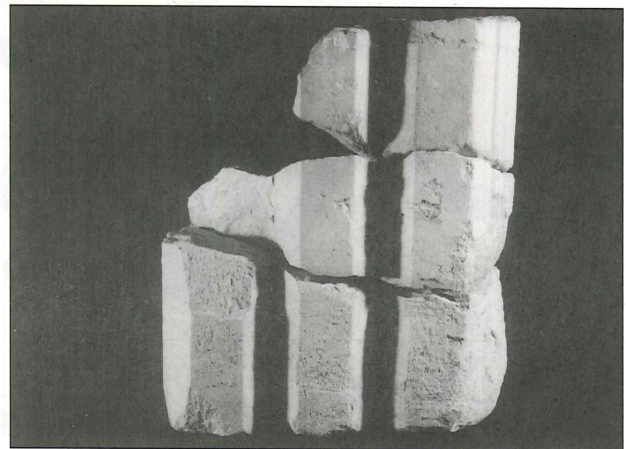
the debris to the north of the wall give the impression of a richly decorated entrance: Between Room 22 in the northwest and Courtyard 37 in the south-

east, a 'show façade' of approx. 0.4m thickness had been mounted on the outside (Fig. 2). Two shallow pilasters with unusual intermediary double

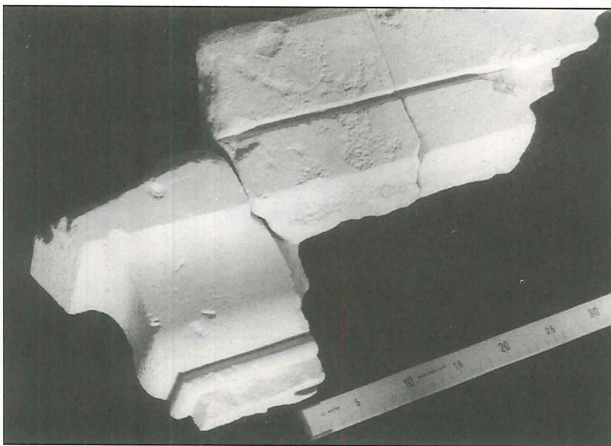


3. EZ IV. Main entrance, Courtyard 28 and collapsed façade, seen from the northwest (photo D. Keller).

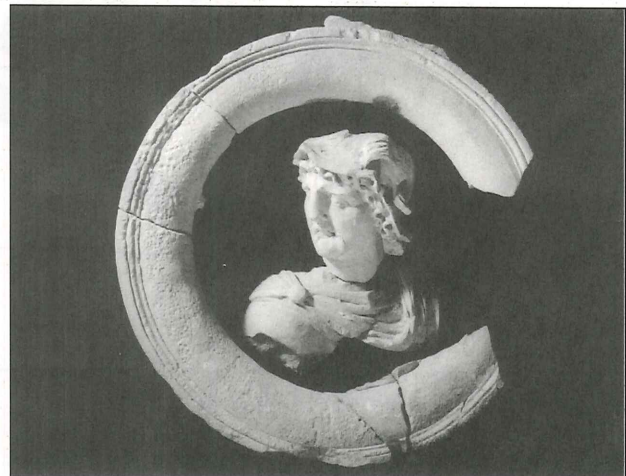
mouldings and capitals emphasized the entrance. **Fig. 4** shows three fragments originally belonging to one of the said pilaster capitals, i.e. the lower part of a Nabataean capital of the “blocked out type 1” (McKenzie 1990: 190, fig. g). Furthermore fragments of a triglyph (overall width 24cm, overall height approx. 34cm; **Fig. 5**) as well as fragments of a series of well-preserved metope-medallions of excellent workmanship were found. All these finds indicate that the shallow pilaster capitals were topped by a Doric entablature. The mentioned fragments of elaborately carved metopes adorning the Doric frieze are among the outstanding finds of the 2000 campaign (**Fig. 6**). However, before going into more detail, a further feature of the north façade should be mentioned: Some of the large ashlars originally belonging to north wall bear



5. EZ IV. Triglyph from the Doric frieze over the main entrance (photo O. Jaeggi).



4. EZ IV. Main entrance: lower part of a pilaster capital of the Nabataean blocked-out type (photo O. Jaeggi).



6. EZ IV. Relief medallion with bust of Dusares/Ares (photo O. Jaeggi).

well-preserved traces of paintings.¹ It seems that in a first phase, the outer wall was painted in a polychrome linear pattern; in a second phase, the wall was re-decorated by at least one large-scale figural scene (figures performing a libation at an altar?) on a white background and framed by green tendrils.² Did the Nabataeans publicly display their private piety on their house fronts, like the Roman inhabitants of Pompeii?³ In a last phase, the façade was whitewashed.

The Doric Frieze with Busts of Nabataean Deities over the Main Entrance

The rubble north of the entrance yielded a number of carefully worked ashlar and fragments of stone medaillons in high relief representing, as already mentioned, metopes of a Doric frieze. The profiled, circular 'frame' of the medaillons is 32cm in diameter. The medaillon bust shown in **Fig. 6** (PQ 92/AK, Abs. 2, FK 3422, EF 3358) presents a youthful, beardless male looking to the right. The full face with its deep-set eyes, the short, straight nose and the prominent chin is framed by short, thick curls springing from beneath a helmet pushed back from the forehead. The right shoulder is turned slightly forward, where a fibula holds together the *chlamys* that is thrown back over the left shoulder. Iconographically, this bust closely resembles another relief found in Petra, namely the one found near the Temenos Gate which has been identified as Dusares/Ares [*LIMC* II Ares (in per.or.) 1; McKenzie 1990: pl. 61, fig. a; Wright 1967/8: pl. XVIa.2]. Another, female bust fragment found north of the main entrance on EZ IV can be positively identified as the goddess Allat/Athena by the *aegis* and the *gorgoneion* on her chest [(PQ 91/AK, Abs 4, FK 3339, EF 3314) cf. *LIMC* I Allath 36; Zayadine 1980: 114, fig. 6]. Two other medaillon fragments (EF 3309 and 3310) indicate that the metopes of the Doric frieze crowning the entrance were indeed adorned exclusively with Nabataean deities.

Looking for possible models for this unusual frieze in Petra we have to turn to the temple of Qaṣr al-Bint at the western end of the Colonnaded Street. Its entablature does not only feature a Doric frieze, but also metopes showing busts of deities

set in medaillons. The medaillon fragments in the lapidary on the eastern side of the temple show that the profiles of the medaillon frames match down to the last detail with those of EZ IV (cf. McKenzie 1990: pl. 40, fig. a). The only relevant difference concerns their size and state of preservation: the monumental metope medaillons of the temple are roughly three times the size of those found on EZ IV — however, they have been wantonly damaged or destroyed by iconoclasts.

As discussed earlier with regard to the wall-paintings and the architectural stucco found in Room 1, this is not the first time Qaṣr al-Bint may have served as a model for the decoration of the mansion on EZ IV (cf. Kolb *et al.* 1997: 237). With these parallels in mind, are we to assume a special relationship between the patron of the mansion EZ IV and the temple, or was quoting from monumental buildings a standard feature of rich Nabataean private architecture? In view of the parallels observed between the decorations of Room 6 and the façade of the Palace Tomb at Petra, the latter assumption seems to be more likely (cf. Kolb and Keller 2000: 365-366, figs. 13-14).

Surprisingly, there were no clues whatsoever to an access road north of the main entrance. Right on top of the smoothed bedrock surface (924.75m; cf. **Fig. 3**) nothing but a thick ash layer containing finds dating from the fourth century AD could be found underneath the debris of the outer wall in 91/AK.⁴ Since there are no signs of wear whatsoever on the smoothed bedrock, it must be assumed that the original construction had been removed during the last phase of habitation — possibly in connection with maintenance activities on the rock-hewn water channels in PQ 90-92/AK (cf. **Fig. 1**).⁵

Courtyard 28 and Rooms 35-37 (PQ 88-89/AK-AM; 90-91/AK)

Courtyard 28 measures 6.9m x 5.4m (**Figs. 1-3**). Missing flagstones in the northwestern corner show that only a thin levelling fill of sand and flat stones separated the uneven bedrock from the limestone pavers (bedrock surface approx. 924.90m, floor level 924.95-925.05m). Walls AE and AQ closing off Courtyard 28 in the northeast were built on bedrock ledges, ca. 1-2 decimeters higher than

1. The stretchers are up to 1.2m long and always 0.45m high.
 2. The painting fragments were cleaned and conserved in winter 2000/2001. Thus, a detailed and in-depth discussion of these important finds has to be postponed to the next contribution to *ADAJ*.
 3. Several façades in Pompeii were decorated with paintings praising the domestic deities. For general information on this issue cf. Fröhlich 1991; Zanker 1995: 137, fig. 69; Borriello *et al.* 1996: 120 tab. 39 with a reconstruction drawing

of the Termopolium VI 10,1 by de Niccolini.
 4. PQ 91/AK, Abs. 5, FK 3357: EF 3320, bronze coin, AE 3, Constans or Constantius II, AD 337-341; EF 3333, bronze coin, AE 4, Constans, AD 347-348.
 5. This seems all the more likely since the floor coverings in Rooms 2, 10 and 11 were ripped out carelessly for cleaning the rock-hewn channels and were then put back and repaired in a capricious manner.

the courtyard floor. Under Wall AE the ledges slope off unevenly from the north towards the south, indicating the original surface level of the rock before the ground was prepared for Courtyard 28.

Courtyard 28 and so far only partially exposed Room 37 were originally linked by a door in the eastern Wall BA (blocked up at an unknown date), its width being 1.2m and thus exceptionally large. Room 37 closes off the series of small rooms in the east wing (16, 35 and 36) towards the north. Its proximity to the main entrance and its close connection to the rooms of the east wing indicate that Room 37 originally served as an ancillary courtyard not meant for the owners and their guests, but for their servants. Goods delivered for the daily welfare of the inhabitants would have been received there before being stored or processed in Rooms 36, 35 and 16 respectively. The proximity of Room 16 to the reception and dining Rooms 6 and 17 points to the possibility that the room was originally used as a kitchen. Corridor 43 provided a short, direct and discrete access to Exedra 7 and the banquet Rooms 6 and 17. Unfortunately, the structural additions and alterations of the fourth century AD destroyed any evidence for determining its original use with any certainty.⁶ This also applies to Rooms 35 and 36, where shoddily erected divisions between Walls BC and BE, a newly installed *ībūn* between Walls BE and BI and a structure of unknown purpose on the east side of Wall BE (Room 35) considerably changed the character of the east wing. The staircase built around Pillar BG (Figs. 2, 7) — though as yet only partially excavated — seems to confirm the as-



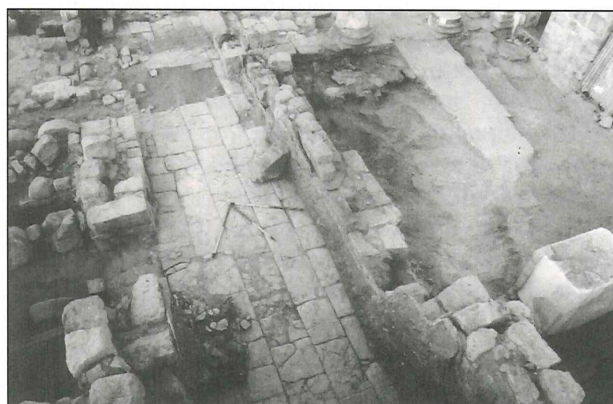
7. EZ IV. Room 36 and narrow staircase around Pillar BG, seen from the north (photo D. Keller).

6. Changes carried out in Room 16 during the fourth century AD: the western wall was taken down to the foundations, a small L-shaped structure was built at the southern end of the lost western wall, the structures of unknown purpose built along the southern Wall AA were added and the con-

sumption of storage and kitchen rooms in the east wing: it features steps of approx. 0.7m width — only around half the width of the steps in the spacious main Staircase 9. It is likely that this modest staircase leading to the living rooms on the first floor was meant for servants only.

Corridor 25, Room 21 and Courtyard 15 (PQ 89/AL-AN)

In PQ 89/AL-AN the exposure of the Rooms 25, 15 and 21 was completed (Figs. 1, 2, 8). Corridor 25 is 2.3m wide and ca. 14m long, connecting in an elongated pi-shape the entrance Courtyard 28 in the north with the main Courtyard 19 in the south. Featuring the usual limestone pavers, the corridor is slanting off imperceptibly to the south⁷ and was narrowed at its southern end by two shallow wall-projections (see Fig. 2: Corridor 25, Wall AC; cf. Fig. 8). Also at the south end, representative Corridor 25 was separated by a door from the corresponding service Corridor 43 (cf. above). On Wall AC, fragments of wall-paintings preserved *in situ* indicate that the lower area of the wall was decorated with simple but elegant *Feldermalereien* in bright hues of yellow and red — a scheme known in the Roman world since about the late the first century BC (Barbet 1985: 89-103). Unfortunately nothing remains of the painted dado. A large number of recovered stucco fragments bear witness to a second decoration type in Corridor 25, namely isodomic courses of white panels with red and blue drafts. It is not yet clear whether whole sections of the Wall BC were covered with this old-fashioned, i.e. Hellenistic Masonry Style, decor or whether the Masonry Style was used only in the



8. EZ IV. Corridor 25, Courtyard 15 and Room 21, seen from the north (photo D. Keller).

necting door to Room 35 was blocked up.
7. The difference amounts to approx. 0.7m (floor level at the northern end: 924.53-57m; floor level at the southern end: 923.85-88m).

upper zones of the respective walls.

Using chronologically and typologically different wall-decorations on the same wall at the same time is a well-known feature of the dwellings in the cities at the foot of Vesuvius and should thus not come as a surprise if found in Petra. Nevertheless, since we know as yet little of the Nabataean private style of living, we must remain open to the possibility that the Masonry Style remained fashionable in Nabataean culture much longer than in the Mediterranean world. In other words, we cannot exclude *a priori* that *Feldermalerei* and Masonry Style in Petra were used concurrently. We will have to wait for the detailed analysis of the material scheduled for 2002-2003 before coming up with possible answers. Reconstructing the wall-decoration in Corridor 25 will be even more difficult when taking into account the significant fragments of a third decoration type, imitating a complex wall encrustation consisting of square, triangular and round elements which have no obvious connection with either the *Feldermalerei* or the stuccoed panels.

At some point in time the polychrome paintings on Wall AC were plastered over with white rough-cast — possibly because that was easier and cheaper than restoring the damage the paintings had sustained over the years.

What can we say about the relative chronology of these different decor types? In the original layout, Corridor 25 had a door at the northern end of Wall AC connecting it with Room 21. The door was blocked up in such a way that on the west side it is set back by 10cm behind the alignment of Wall AC, thus forming a shallow niche in the eastern wall of Room 21 (Figs. 1-2). On the eastern face of Wall AC it becomes clear that the rough coat, the finish coat as well as the paintings had been applied after the door was blocked up. Thus the preserved paintings most probably belong to the second construction phase on EZ IV.⁸

After removing the destruction layers of AD 363 from the eastern part of Courtyard 15 (PQ 89/AM-AN), we made some interesting discoveries: The eastern Wall AC is structured by two lisenés or pilasters on either side of a set-back wall section; all three sections are 1.6m wide, while the lisenés are ca. 25cm deep (Figs. 1-2, 8). Two narrow wall-strips of 0.9m length each terminate the wall to the north and south. Wall AC obviously echoes its west-

ern counterpart: The set back-sections of the wall relate to the opposite doors, i.e. between Pillar Z as the southern limit and the corner of the Walls G/AL as the northern limit. Similarly, northern Wall AL and its lisenés/pilasters mirror the position of the columns at the opposite side of Courtyard 15.

Along Wall AC, the final Abs. 5 (89/AM, FK 3397) and 6 (89/AN, FK 3361) brought to light the bedrock surface which is irregularly rising to the north as well as remains of the levelling fill of the pavement, mostly devoid of finds. Yet two of the sparse finds from the fill — consisting of fieldstones and sand — are two fragments of Hellenistic black-glazed ware which are of outstanding importance for the settlement history on EZ IV.⁹ The two sherds can be dated between the second half of the second and the early first century BC.¹⁰ Figs. 1 and 8 show that the above-mentioned levelling fill has to be related to the flagstone pavement which is partially preserved in Courtyard 15. The southernmost flagstones are protruding at an oblique angle from beneath the stylobat of the columns and must thus be earlier than the *distylos in antis* of Courtyard 19. Overall, the findings in Courtyard 15 prove that there was a building on the site EZ IV predating the mansion of the early first century AD, which, according to the Hellenistic sherds, must have been erected between the second half of the second to the early first century BC. Further clues were provided by the substructures of Room 17 (see below).

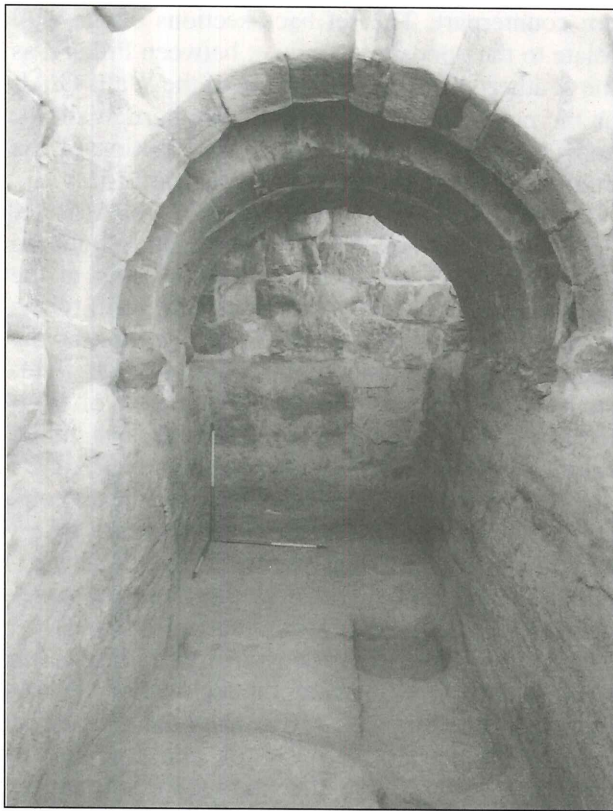
The Substructures of Room 17: Findings of an Earlier Building on EZ IV (PQ 86-87/AP-AQ)

The two substructures or cellar rooms in 86-87/AP-AQ, divided by Wall N, were cleared of their alluvial deposits and the underlying debris of AD 363. In the northern cellar (width: max. 2m, length: max. 4.75m) there were no clues indicative of a floor — the rubble reached right down to the bedrock surface (approx. 920.10-25m). Several bowl-like cavities of varying dimensions and shallow channel-like structures dug into the rock must have had a specific, but unknown, function (Fig. 9). From the bedrock floor to the crown of the arches supporting the *opus sectile* floor of Room 17, the northern cellar measures approx. 3.1m. Slightly more than half the room's height was dug into the rock, the remaining part was constructed in the usual dry-wall technique. To the west, the visible

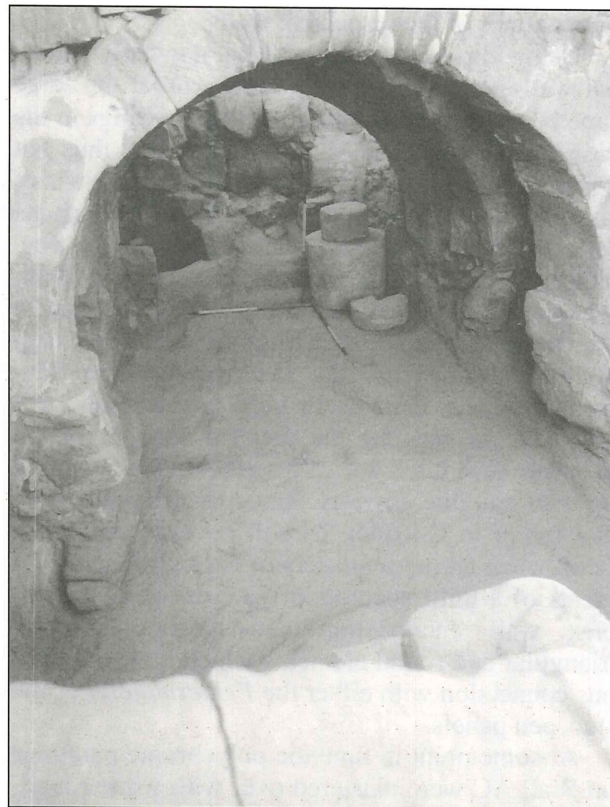
8. Cf. the provisional findings concerning the decoration of Room 6 (Kolb *et al.* 1999: 262) as well as the decoration in Room 1 (Kolb *et al.* 1999: 268f.).

9. Fragment 1 was found in PQ 89/AN, Abs. 6, FK 3361; fragment 2 in PQ 89/AM, FK 3397, Abs. 5.

10. The dating of the sherds is based on findings made on site EZ I, cf. Schneider 1996: 132, 141. For a general introduction on Hellenistic pottery in Palestine cf. Lapp 1961: 71ff.



9. EZ IV. Northern Substructure/Cellar 17, seen from the east (photo D. Keller).



10. EZ IV. Southern Substructure/Cellar 17, seen from the east (photo D. Keller).

courses of the fill of hammer-dressed blocks (Room 7) were in such bad preservation that we had to consolidate them immediately after removing the rubble, otherwise the cracked stones would have collapsed (Fig. 9).

The southern cellar measures 1.85m x 4.95m, thus covering about the same space as its northern counterpart (Fig. 10). The bedrock floor level, however, is approx. 1m higher (ca. 921.15m). Unlike the northern cellar, the rubble from the 363 earthquake (FK 3348) contained a large number of gilded and painted stucco elements in excellent condition, obviously parts of the wall-decoration of Room 17. Through the hole left by the collapsed floor in the southwestern corner of Room 17, a considerable number of marble fragments (*opus sectile*-tiles) as well as fragments of column bases and capitals had also found their way into the cellar. Albeit these were certainly noteworthy finds by themselves, they were eclipsed by the unexpected structures discovered on the floor itself: In the easternmost part of the room we found a circular struc-

ture hewn into the bedrock, which was partially built over by a later partition wall. What had this structure been intended for? The answer to this question had been clearly visible even before the excavation had begun: a large crushing basin broken in two, approx. 1.8m in diameter, fashioned from light-coloured breccia, had been built into the corner of Walls H and I. This incredibly heavy *stator* of a round rotary olive crusher had originally been positioned on the bedrock-base. When the mansion was built in the early first century AD, the crushing basin had been removed from its original position and built into the near corner of the Walls H and I (cf. Fig. 1, PQ 86/AP-AQ).¹¹ In other words, both the basin and the remains of an earlier floor covering in Courtyard 15 must be considered as part of a building, erected in the second half of the second or the early first century BC. These findings were further confirmed when the well (approx. 0.8m in diameter) of a rock-hewn cistern in the western corner of the same substructure was exposed. The cistern is situated underneath the cor-

11. In the center of the round crushing basin (*stator*), a wooden pivot had been positioned on which the runner was fixed; a wooden shaft was used to rotate the runner horizontally. For detailed comments on the technical side of presses see Frankel 1999: 68ff, figs. 20 and 23. On the position of the

millstone on EZ IV cf. Lindner *et al.* 1993/1994: 310 with fig. 6 documenting the two millstone fragments in Walls H/I. The surveyors of 1990, however, did not realise that the huge fragments had originally formed a millstone.

ner formed by Walls H/BD (Fig. 10), and although only about half the rubble-fill has been removed up till now, it was possible to ascertain the dimensions of the cistern. It takes the shape of a stout square bottle with horizontal shoulder and has been waterproofed with hydraulic mortar. It measures approx. 3.1m in depth, the sides are approx. 3m wide. The crucial point of this discovery in relation to the settlement history on the terrace EZ IV, however, is a second, shaft-like well leading upwards from the southwestern corner of the cistern and ending deep below the pavement of Exedra 7. The well is carefully covered flush with the bedrock surface. Thus, in the area of what became later the Exedra 7, the floor level of the previous building was identical with the rock surface (approx. 1m lower than the later level of Rooms 6, 7 and 17). Sometime during the first century AD, the floor level was raised by filling in fairly large hammer-dressed stones in order to level out the irregularities of the rock surface between Courtyard 19 and the southern representational rooms (Fig. 10 shows clearly the level of the living rock and how the floor level of Rooms 7 and 17 was raised by courses of hammer-dressed stones).

Summing up, we can say that the findings in Courtyard 15 and in the substructures of Room 17 prove that in the late second or early first century BC a building was erected on EZ IV, dedicated at least in part to processing agrarian products. We have thus the earliest and only datable proof of agrarian activities within the Petra city area under Nabataean rule.¹² Obviously, an olive crushing device on EZ IV would not have made sense unless the necessary primary product, i.e. olives, were cul-



11. EZ IV. Rooms 39, 40, 38 and 29 seen from Wall Y, towards the west (photo D. Keller).

tivated in the neighbourhood. This throws new light on the social structure, urbanistic and economic history of the city within the period under discussion.

Rooms 38-40: A Private Bath on the Southwestern Edge of EZ IV (PQ 92/AR, 93/AP-AR)

During the last days of the campaign we examined a small complex of three interconnected rooms (38-40) on the southwestern edge of EZ IV (Figs. 2, 11). Room 40, the largest of the three, is a small *caldarium*, 2.25m wide and with a preserved length of approx. 4m; due to the exposed position on the edge of the slope, the walls and the floor construction are in a very bad state of preservation. The sub-floor (level: 921.85m) consists of broken tiles set into a floor of beaten earth. Along Wall AV a few remains of the former column-supports made of circular bricks (*pilae*) which originally supported the suspended floor (*suspensura*) were found *in situ*. In the eastern wall, a firing hole whose sides are faced with bricks is clearly visible, linking the floor-heated room with the small *Praefurnium* 39. So far, we have not yet cleared the firing hole, thus protecting the very fragile structure. The *Praefurnium* 39 measures 1.9m x 1.5m, its floor has been cut from the rock (921.70m), and along Wall Q it is equipped with a narrow bench, 0.3m high, still bearing remains of a mortar coating. Towards the north, a door connects Rooms 39 and 29 — the *praefurnium* of Room 14 (cf. Kolb and Keller 2000: 361f.). Immediately to the west of this door another opening — which was later blocked up — connected the two firing rooms with the roughly cobbled, lower Room 38 (floor level approx. 921.50m, cf. Fig. 11). Its small size (0.85m x 1.75m) indicates that this was where the fuel used for heating Rooms 14 and 40 was stored.

As yet we cannot ascertain whether the *Caldarium* 40 was connected to the main building via Room 10. Without doubt we can say that the firing and storage Rooms 29, 38 and 39 were necessary for heating the winter living Room 14 and the *Caldarium* 40. Further, going by the findings made in Room 14, we can assume that the newly discovered structures were built during the second construction phase, which has been provisionally set at the turn of the first to the second century AD.

Rooms 32 and 41 on the Western Slope (PQ 93/AP-AQ; 95/AM-AN)

Wall AW of *Triclinium* 32 is of first class work-

12. Agrarian installations within the urban area of Petra have been compiled by L. Nehmé (1994: 64). She stresses that nothing is known about the agricultural development in

Petra between the fourth century BC and the fourth century AD.

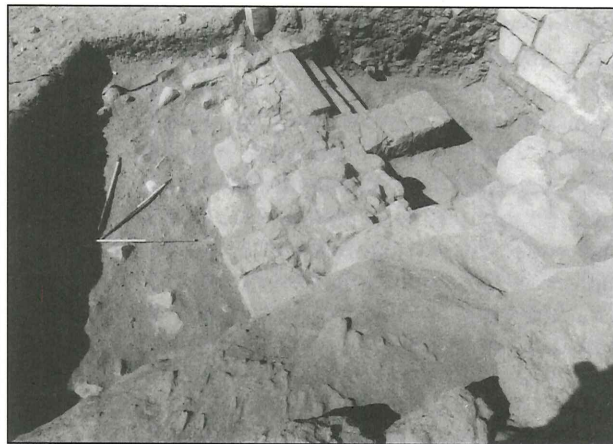
manship and joins right onto the northern wall of Room 38 (Figs. 1-2, 12). The *triclinium* measures 6.2m x 4.5m and was cut into the bedrock of the western slope of the terrace EZ IV, opening with a door towards the west. Benches (0.6m high, 1.5-1.6m wide) were built along Walls AW, AT and AU, their surfaces covered with beaten earth. The floor level (920.25m) is 0.3m lower than that of Room 38. North of the *triclinium* the rock has been cut down to a depth of at least 1.5m between Walls AU and E (the bedrock in this area has not yet been reached), so that Wall AU was erected on a stepped rocky ledge (cf. Fig. 12). The fact that a deep aisle was cut into the rock between Walls AU and E and that there are no doors or stairs leading to the adjacent rooms probably means that the *triclinium* was not part of the mansion on the terrace, and thus belonged to a different building erected on the western slope.

No data could be collected either in Rooms 38-40 or in the *Triclinium* 32 to help us date the structures. However, the striking difference in building technique and quality indicates that in all likelihood the *triclinium* had already been constructed when the necessary changes in infrastructure were undertaken to provide heating for Rooms 14 and 40 during the second building phase of the mansion.

Yet another structure not connected with the mansion was found in the northwestern corner of the excavation site: Staircase 41 in PQ 95/AM-AN, situated on the northwestern slope of the terrace EZ IV. To the west of outer Wall AY the rock was hewn to a depth of 2m, thus forming a first artificial step in the sloping terrain (Fig. 13).¹³ On



12. EZ IV. Triclinium 32 seen from Wall E, to the south (photo D. Keller).



13. EZ IV. Staircase 41 seen from Wall AY, to the northwest (photo D. Keller).

this smoothed rock surface three steps of a staircase are preserved, originally leading up to a sidewalk-like paved surface along Wall AY. Since there are no doors in outer Wall AY and since the floor levels of Rooms 30 and 42 differ by 0.7m from the outer pavement, it can be deduced that the staircase was not part of the mansion, but may have been connected to an access along the slope, leading to buildings further north. In PQ 94/AO yet another room on the western slope has been partially excavated; trying to reach the floor had to be abandoned at a depth of 3.5m below the surface for safety reasons, for the time being.

The investigation of the structures along the western slope — which has yet to be completed — will furnish further data concerning the planning and the infrastructure of the housing districts of Petra. It is quite obvious by now, that the built-up areas were not limited to the natural terraces but also embraced the steep slopes — thus confirming the findings on site EZ I, i.e. Rooms XXI and XXV on the northwestern slope (cf. Bignasca *et al.* 1996: plans 2 and 6).

An Eye Idol Found in Room 30

In the northwestern area of Room 30 which is in a very bad state of preservation, a narrow stone alignment runs parallel to the outer Wall AY (Figs. 1-2). Into this definitely late structure an eye idol had been built; the rectangular stele (47cm high, 30cm wide and 14cm deep) is cut from fine-grained, light-coloured limestone (Fig. 14).¹⁴ Two square frames define the eyes with round, centrally placed pupils and a vertical rectangle for the nose constitute the schematic face cut in shallow relief.

13. Bedrock level immediately west of Wall AY: 924.65-75m; bedrock level in Staircase 41: 922.70-80m.

14. PQ 94/AN, Abs. 2, FK 3349, EF 3326. Lower level:

924.99m. For eye idols cf. Zayadine 1980: 114-116 and fig. 8; Merklein and Wenning 1998: 71-88.

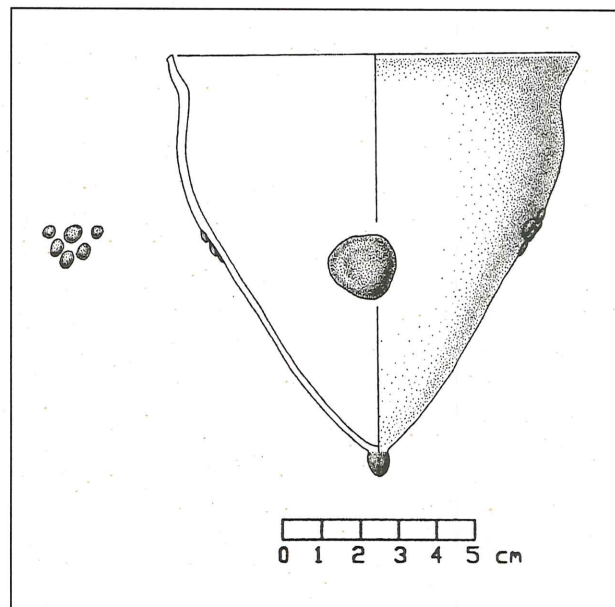


14. EZ IV. Nabataean eye idol found in Room 30 (photo O. Jaeggi).

The external ledges of the eyes are badly weathered, and the right pupil is almost completely missing. A detailed study of the idol will be published in due time. It is, however, remarkable that some years ago a tiny eye idol carved out of bone was found in a room used as a workshop, namely Room XXI on the steep northwestern slope of excavation site EZ I (Stucky 1996: 337-338, figs. 943-944). The question arises whether the eye idol from Room 30 was originally placed in a 'shrine' within the mansion, or was it collected somewhere else and brought to EZ IV just because it had the right size to be reused in the stone alignment.

Another Type of Glass Lamp from az-Zanṭūr (D. Keller)

In addition to the glass lamps presented in last year's preliminary report (Kolb and Keller 2000: 366-370), another type of glass lamp will be introduced here. So far, two specimens of the new type have been found on EZ IV. One of them could be put together from several small fragments and shows the complete shape (no. 1 in the *Catalogue* below; Fig. 15). The vessel is made of good quality thick-walled, almost colorless glass with a very pale green tint. The rim is everted and cracked. The



15. EZ IV. Narrow-based, conical glass lamp decorated with blue blobs: no. 1 FK 3047 and FK 3154 (drawing I. Hausener).

slightly curved side tapers to a narrow base and ends in an applied dark blue knob. About 5cm below the rim, there is a continuous horizontal band of two large semitranslucent dark blue blobs alternating with two groups of six small dark blue blobs arranged in a triangular pattern. The fragments of this lamp (no. 1) were found during the 1997 and 1998 seasons in the debris of the collapsed walls in Staircase 9, about 75 to 65cm above the floor level in FK 3047 (PQ 87/AO) and FK 3154 (PQ 88/AO).

Two matching rim and body sherds each are from another vessel of the same shape made of very pale green glass (no. 2), with the same decoration of small dark blue blobs arranged in a triangular pattern. They were found during the 2000 in the debris at the northern end of Corridor 25 in FK 3374 (PQ 89/AM). They were discovered in the lower layer of the collapsed walls between 60 and 7cm above the pavement of the corridor, just above the collapsed fragments of wall painting which were laying directly on the floor.

As the fragments of the two glass vessels were found relatively high above the floor level, they seem to have fallen down from a certain height together with the collapsed walls and the ceiling. Therefore they must have been positioned quite high above the floor at the time the building was destroyed. This also indicates that they were used as glass lamps and suspended from the ceiling. That they were found in a corridor favours this interpretation as well, since this was a narrow and dark passage that needed lighting and where per-

manently installed lamps would have made sense. The almost completely preserved glass lamp no. 1 was installed most probably at the southern end of Corridor 25, although it was found in Staircase 9. Because of the bad preservation of the corner of Walls AA and AB, which is between Corridor 25 and Staircase 9, it is quite possible that the lamp was suspended from the ceiling of Corridor 25 and had fallen from there down into Staircase 9 together with the walls. Hanging up two identical glass lamps at each end of Corridor 25 would correspond perfectly with the findings in Corridor 11, where glass lamps were found at either end of that corridor as well (Kolb and Keller 2000: 366-368).

Formal aspects of these cup-shaped vessels would also support their use as lamps: The everted rim can easily be enclosed by a collar, on which a lamp-hanger could be attached,¹⁵ and the tapering base favours suspension as well. Furthermore, the decoration of blue blobs would have been more effective if the vessel had been used as a lamp and illuminated from inside, than if used as a drinking cup, where the blobs would have been nearly invisible, especially if the vessel had been filled with a dark liquid such as wine. But the findspots of these vessels in Corridor 25 provide the clearest indication for their use as permanently installed glass lamps.

An identical glass lamp with the same decoration pattern of blue blobs and the applied blue knob on the base is in the Metropolitan Museum in New York and is said to come from Lebanon (Fremersdorf 1962: 55 pl. 109). A similar vessel with the same shape and the blue knob on the base, but with another pattern of the decorative blue blobs is in the Royal Ontario Museum in Toronto (Hayes 1975: 121 no. 476). As both pieces come from the art market, they yield no evidence for the date and the origin of this vessel type. But there are four rim and two body sherds of such vessels with everted rim, slightly curved wall and blue blobs, which were found in the excavations of a late Roman glass workshop at Jalame (Davidson Weinberg 1988: 91 no. 411-412, figs. 4-16, 411-412). Three of those sherds were found in the dump of the workshop, which indicates that they had been produced there. The dating of the glass factory at Jalame in the third quarter of the fourth century AD

(Davidson Weinberg 1988: 16-19; Kuhnen 1994: 47 no. 28) provides the first evidence for dating this type in the mid fourth century AD. The fragments from EZ IV support this dating, as they belonged to the inventory of the house which was obviously destroyed in the earthquake of AD 363 (Kolb and Keller 2000: 355). Therefore these glass lamps can be said to be typical for the mid fourth century AD, and according to the finds from Jalame they were produced in one of the numerous glass workshops on the slopes of the Karmel mountains in Western Galilee.

The glass lamps with blue blobs differ considerably from those with three small handles presented in last year's preliminary report (Kolb and Keller 2000: 366-370): One of the striking differences is the quality of the glass material used for the two types of glass lamps. The lamps with small handles are made of greenish or bluish quite thin-walled glass, whereas the lamps with blue blobs are made of good quality thick-walled, almost colorless glass with a very pale green tint. Further it is obvious that the lamps with small handles are more numerous. Fragments of 14 other lamps with three handles were found in addition to the five pieces already known in 1999 (Kolb and Keller 2000: 369 no. 1-5). Thus, the total is 19 ordinary lamps compared to the two glass lamps with blue blobs. The distribution indicates that the lamps with handles were common in Petra during the mid fourth century AD. They can be seen as cheap, locally produced glass lamps, whereas the thick-walled glass lamps with blue blobs were more expensive imported products.¹⁶ It is not surprising that the more expensive lamps with blue blobs were installed in Corridor 25, which in the late Roman period was still the main access to Courtyard 19. On the other hand the cheap lamps with handles were used in the smaller Corridor 11 and in Room 16, as already mentioned in last year's preliminary report (Kolb and Keller 2000: 366-367) as well as — according to new finds — in the adjoining Rooms 12 and 35 (FK 3240 and FK 3265). The difference in importance between the main Corridor 25 and the adjoining Corridor 11 is not only visible in the architectural features, but also in the more luxurious interior decoration of Corridor 25, with the two identical expensive imported glass lamps with blue

15. The questions of how exactly these glass lamps were installed and which material was used for the collar and the lamp-hanger still remain unanswered (Kolb and Keller 2000: 368). As there were no remains of any kind of metal lamp-hangers, the use of lamp-hangers and collars made of organic material is a likely possibility.

16. This confirms the earlier suggestions that two different

qualities of glass can be distinguished among the glass finds from the fourth century AD in Petra, and that the difference between the high quality nearly colorless glass and the cheap greenish or bluish glass can be explained by a separation into imports of luxury glass and local production of cheaper glass (Kolb *et al.* 1998: 268 n. 6 with further references).

blobs compared to the cheap locally made glass lamps with handles found in Corridor 11.

Catalogue

1. EZ IV 87/AO Abs. 2 FK 3047 and EZ IV 88/AO Abs. 4 FK 3154 (Room 9): whole profile of a glass lamp with cracked-off everted rim, slightly curved body tapering to a narrow base with a dark blue knob, horizontal band of two large dark blue blobs alternating with two groups of six small dark blue blobs arranged in a triangular pattern. Almost colorless glass with a very pale green tint (Fig. 15).
Diameter = 11cm; height = 11.1cm; wall thickness = 0.2-0.3cm
2. EZ IV 89/AM Abs. 3 FK 3374 (Room 25): two rim and two body sherds of a glass lamp with cracked-off everted rim, slightly curved body and a group of six small dark blue blobs arranged in a triangular pattern. Very pale green glass.
Diameter = ca. 11cm; height = 4.8cm; wall thickness = 0.15-0.3cm.

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