

Zbigniew T. Fiema  
Institutum Classicum PL 24,  
Unioninkatu 40a, Metsatalo,  
FIN-00014 Helsinki University,  
Helsinki, Finland  
zbigniew.fiema@helsinki.fi

Stephan G. Schmid  
Winckelmann-Institut  
Humboldt-Universität,  
Unter den Linden 6,  
D-10099 Berlin, Germany  
stephan.g.schmid@culture.hu-berlin.de

Bernhard Kolb  
Departement Altertumswissenschaft,  
Klassische Archäologie, Petersgraben 51,  
CH-4051 Basel, Switzerland  
bernhard.kolb@unibas.ch

**Zbigniew T. Fiema, Stephan G. Schmid and  
Bernhard Kolb**

## **A Palatial Quarter in Petra: Preliminary Results of the North-Eastern Petra Project**

### **Introduction**

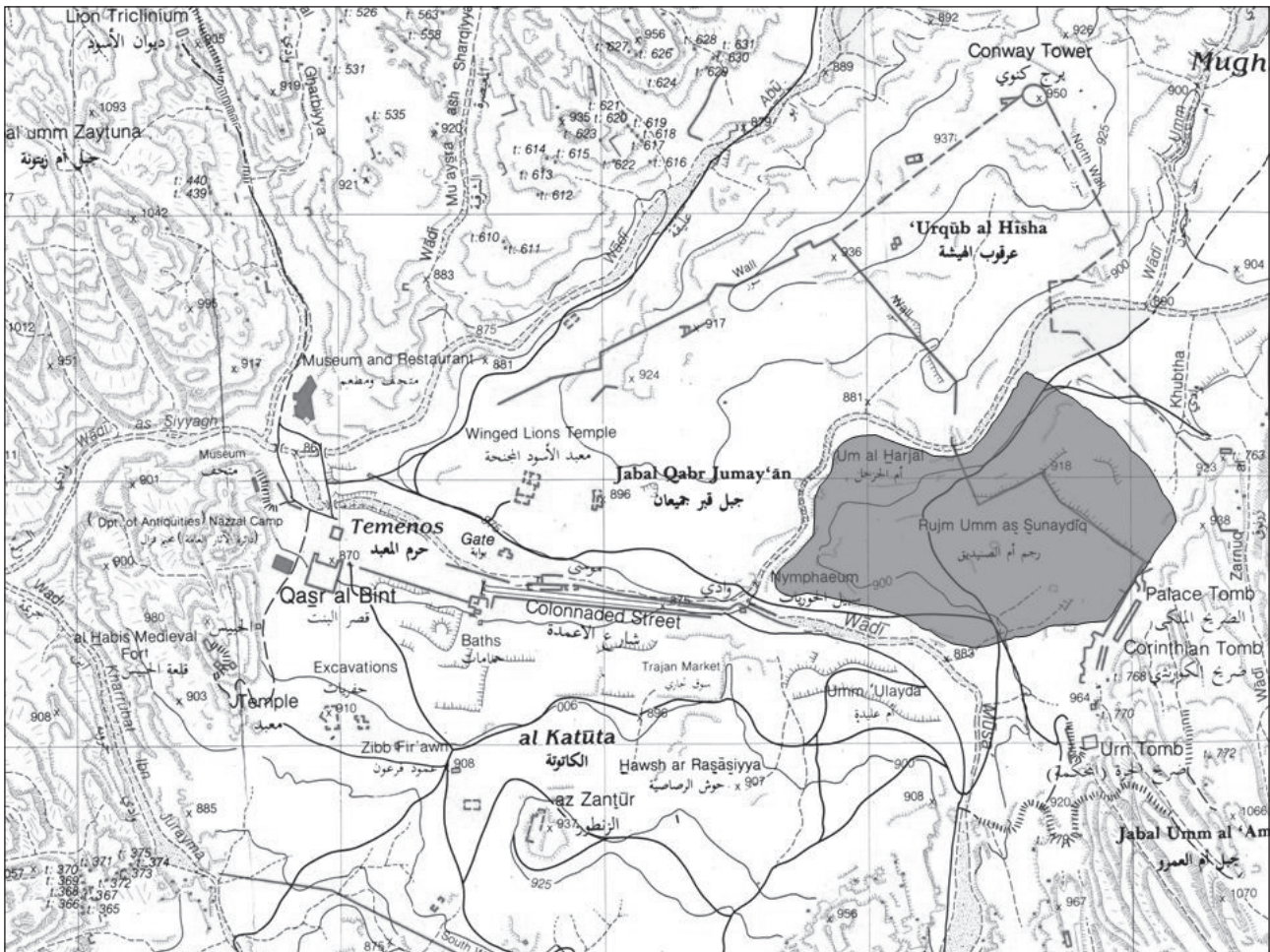
This paper presents the results and preliminary conclusions from the North-eastern Petra Survey Project (NEPP). The project is sponsored by the Deutsche Forschungsgemeinschaft, the Cluster of Excellence “Topoi” and Humboldt University in Berlin, and is co-directed by Stephan Schmid, Zbigniew T. Fiema and Bernhard Kolb. During four fieldwork seasons between 2011 and 2014 the project undertook intensive survey in northeastern Petra, including mapping of structures, surface ceramic collection and the documentation of all visible architectural fragments (see Schmid *et al.* 2012).

### **Location and Description**

The NEPP survey area is located to the northeast of the confluence of the Wādī Maṭāḥah and the Wādī Mūsā drainages, on the high hill overlooking the eastern end of the Colonnaded Street and directly west of the Palace Tomb in Petra (FIG. 1). The site measures *ca.* 250×180 m and is generally known as Rujm Umm al-Sunaydīq. The NEPP area enjoys a unique geo-strategic location in the valley (FIG. 2). The site dominates the entire city centre and its main communication axis allowing it excellent views deep into the outer Siq, all along the Wādī Mūsā depression

and the Colonnaded Street, up to the Qaşr al-Bint and al-Ḥabīs. Likewise, the NEPP area is visible from all over the city centre and is clearly the most prominent part of it. Despite the presence of a number of large, monumental structures in the area, these were never properly documented and only briefly reported by the explorers of Petra in the early 20<sup>th</sup> century (Brünnow and von Domaszewski 1904: 318-319, nos. 412-415, Musil 1907, map following p. 343; Dalman 1908: 314-329; and Bachmann *et al.*, 1921: 32-33).

Several significant factors characterize the NEPP area. First, the Nabataean adaptation of the Petra Valley for a permanent settlement between al-Khubthah and Umm al-Biyārah necessitated the construction of a dam and tunnel diverting the Mūsā stream from the entrance to the Sīq into a side valley (the Wādī Mudhlim), that crosses the Khubthah massif (Bellwald 2008: 67-73; Petra National Trust 2004). From there the water flowed through the Wādī Maṭāḥah before returning to its original wadi bed in the city centre. A second result of the diversion project was that a separate quarter of the city (in the true sense of the word) emerged at the foot of al-Khubthah, enclosed by the Wādī Maṭāḥah and the Wādī Mūsā.



1. The location of the NEPP survey area (in dark color) on the map of Petra.

Secondly, the monumental stairway leading to the top of al-Khubthah which begins in the northeastern corner of the NEPP area, north of the Palace Tomb, provided access to the cultic installations on top of Jabal al-Khubthah (see Nehmé 1997: 1035–1036; Lindner *et al.* 1997; Dalman 1908: 332–336). But the stairway could also have served as an emergency exit from the city. To access the stairway one had to pass through the area that was topographically and architecturally separated from the rest of the city.

Thirdly, the area is directly connected to one of six fresh water aqueducts in Petra, the al-Khubthah conduit, which starts in the modern Wādī Mūsā (Bellwald 2008: 49–53, 87–90; Gunsam 1997). The aqueduct enters the city at a point in the NEPP survey area and joins with a huge cistern, which also utilizes the water catchment system of the Khubthah massif.

These two systems – aqueduct supply and runoff water collection – could be used both separately and together. This direct and exclusive access to one of the city’s aqueducts is particularly notable. Finally, it is significant that at the spot where the Khubthah massif borders the survey area, there is the so-called Palace Tomb – the largest and the most decorated façade of Petra (McKenzie 1990: 162-165).

Information entirely derived from the survey, and interpretation of the extant remains are seriously hindered by the fact that in many places wall lines are obscured by considerable stone tumble (FIG. 3). Except for the central-eastern, eastern and the north-eastern parts of the area, which are at the highest in elevation and relatively flat, the ground generally slopes down toward the surrounding wadis, featuring an uneven, disarticulated and often very steep





2. The NEPP area seen from the south. The Wādī Mūsā drainage is in the center bottom, the Wādī Maṭāḥah in the center, continuing north-eastward. The Petra Church is on the extreme left, overlooking the beginning of the Colonnaded Street (by Stephan G. Schmid).

surface. Of the ten large, ruined, multi-roomed structures, or tight clusters of rooms and walls associated with numerous architectural elements on the surface and which were mapped during the survey (FIG. 4), eight are located on these slopes. Judging from the dimensions of all the structures and their apparent architectural decoration, there is little doubt that most were buildings of monumental proportions and appearance. Significantly, there seems to be no common orientation for these buildings, rather they follow the topographical contours of the terrain, being dispersed throughout the area with little apparent functional connection between each other. Nevertheless, judging from the analysis presented above, there is good reason to treat all these structures as a meaningful architectural complex, rather than as distinct and unrelated components of the overall habitation history in this area of Petra.

The most significant among these structures are briefly described here:

**Structure 1** is *ca.* 30×20 m and is located at the western tip of the area. It consists of two major rooms in alignment and abutted on the north by two smaller rooms. Inside one of the larger rooms, a column is still standing *in situ*, implying that this was a courtyard (FIG. 5). In both main rooms, architectural members of different sizes were found, indicating an upper storey, a fact supported by considerable stone tumble. It is also clear that some major decorative elements had been reused in a secondary function and location. Directly outside the southern wall of the building there are several monumental door jambs with pilasters decorated with vine-and-scroll motif (FIG. 6), yet currently there is no indication of any door in this wall. So these blocks were either reused or the door was blocked. Considering the size of





3. The NEPP area seen from the west. Structure 1 is in the center, Structure 2 in the center left. The Palace Tomb is in the upper right (by Stephan G. Schmid).

some of the elements inside or directly outside the building it is also uncertain how these could have been accommodated in the structure in its *extant* form. Therefore, Structure 1 probably underwent at least two major occupational phases and the earlier one could have ended in a significant disaster. In the first phase Structure 1 was probably a rectangular building consisting of one large rectangular hall (currently two major rooms) with an entrance presumably in the eastern wall, flanked by two smaller, tower-like rooms. The external corners were decorated with quarter columns and shallow pilasters. Another door might have been in the southern wall, flanked by large floral-decorated door jambs. Surface ceramics and stylistic dating of architectural elements indicate a date in the 1st century AD (FIG. 7). Elements from the presumed upper storey include fragments of small capitals and pilaster capitals with floral decoration and acanthus leaves. These closely

resemble similar capitals from the “Palazzo delle Colonne” in Ptolemaïs, where they were used for an *aedicula* façade in the upper storey of the palace (on similar capitals from Petra, Alexandria and Ptolemaïs, see McKenzie 1990; 2007: 80-118). The size, organization and architectural features of Structure 1 indicate an outstanding building. Whatever disaster affected the early building phase the ground plan and the decorative design were evidently changed later on. The southern entrance, if it was ever there, was abandoned and the building was divided into two main, extant rooms.

**Structure 2** measures *ca.* 40×30 m and is located in the northern part of the NEPP area, roughly parallel to the course of the Wādī Maṭāḥah. Numerous architectural blocks found at this site include column drums and door jambs, and an impressive array of decorative elements, such as triglyph and metope blocks, pilasters and other decorative elements of en-





4. The plan of the NEPP architectural complex (by Maija Holappa and Jana Falkenberg).

tablature (FIG. 8). Characteristic of Structure 2 is the consistent and unmixed use of architectural decoration. Decorative elements seem to follow the same homogeneous concept datable to the 1st century AD, with parallels easily found in the Qaṣr al-Bint temple and the luxurious villa of az-Zanṭūr IV. In order to occupy a prominent spot overlooking the Wādī Maṭāḥah, the building was constructed on a massive substructure. The main façade is located on the northern side (FIG. 9) where two entrances (one monumental) were also located. The main, central component of Structure 2 is a large, asymmetrical rectangle featuring a colonnade running north-south, which possibly turned eastward, having an L-shaped plan. The rectangular room was flanked by two large rooms or spaces and the colonnade features uniform columns crowned by Nabataean capitals. The western room was accessible through a passage

in the colonnade. The eastern room, possibly a *triclinium* or courtyard, had a black-and-white mosaic floor (FIG. 10). This combination of rooms resembles the representative banqueting halls of the Nabataean mansion on az-Zanṭūr IV (Kolb 2012: 235-236; 2007: 167-168; 2003: 234), modelled on prototypes provided by Hellenistic palaces (Vössing 2004: 101-102; Hopfner 1996: *passim*, especially 13-15) and also attested to in a slightly modified form at Masada (e.g., Netzer 1991: 145-148 and plan 17, 195 and plan 2, 336-338, 559-604). The existence of a second storey is certain, as exemplified by the different sizes of columns and numerous fragments of architectural decoration of the highest quality. A room to the south of the monumental staircase had its own staircase arranged around the central core, a type popular not only in Petra but also throughout the region, including the Hasmonean and Herodian



5. Structure 1 seen from the east (by Zbigniew T. Fiema).

palaces (Negev 1973). The staircase probably provided access to different levels of the structure. A large room, which stretches along the entire western width of Structure 2, appears to be an open courtyard, seemingly without a colonnade. Several blocks decorated with triglyph and metope design indicate that the western wall of that room had a richly decorated façade (FIG. 11). The room also yielded a large number of door jambs, probably from doors located on both sides of the stairway, giving access to lateral rooms on different levels. In contrast to Structure 1, there is much less evidence for substantial changes, restorations or redefinition of space. If the same disaster as postulated for the demise of Structure 1 also affected Structure 2, either the impact was catastrophic and the building was never restored, or, less likely, the building was restored with a minimum of

structural and decorative changes.

**Structure 3** is situated along the Wādī Mūsā drainage, in the southern part of the NEPP area.

It is a building *ca.* 25 m long constructed on massive substructures on the steep slope overlooking the *wadi* (FIG. 12). The building consists of two levels. A long gangway is located on the higher, rear face of the structure. The lower level is occupied by a very long and relatively narrow paved space with a colonnade on the southern edge and a semi-circular niche at the eastern end of the space. The large number of marble slabs found on the surface (both white and polychrome) highlight the representative character of Structure 3 (FIG. 13). Structure 3 is clearly an integral component of a larger architectural entity, probably a monumental, representative façade for the eastern part of the NEPP architectural complex, facing the Wādī





6. Decorated door-jambs of Structure 1 (by Marco Dehner).

Mūsā, where the main communication axis of the ancient city was located.

**Structure 9** was already described by early explorers of Petra and interpreted as a “small theatre” but this interpretation is not supported by the NEPP investigations. Instead, Structure 9 appears to be a lavishly decorated, leisure-related pavilion (FIG. 14). The structure is located exactly at a point in Petra’s topography where the north-south approach axis from

the outer Siq is dramatically changed into a more east-west axis of the center of the city, as represented by the orientation of the NEPP area and the Colonnaded Street. Therefore, the main function of Structure 9 was to visually ease the change in the axiality of the area. The visually pleasing transition from the straight into the perpendicular perspective is furthermore underlined by the overall design of the building, its elegant internal appearance and





7. The capital of Alexandrian Type 1 from Structure 1 (by Marco Dehner).

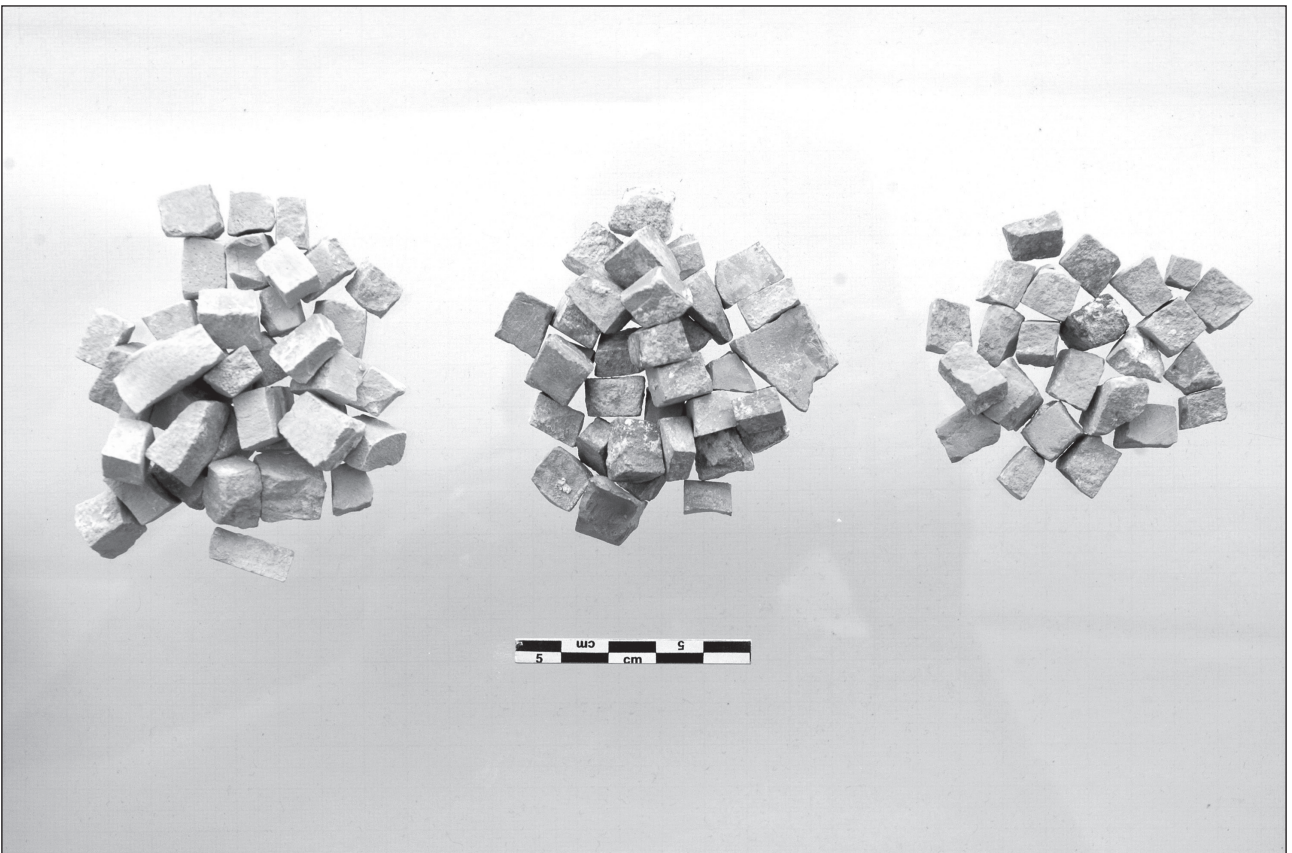


8. Internal corner block featuring a double semi-colonette, in the stone tumble of Structure 2 (by Marco Dehner).





9. The monumental façade of Structure 2. View from the north-west (by Stephan G. Schmid).



10. The black and white mosaic tesserae from Structure 2 (by Stephan G. Schmid).



the decoration. Unlike conventional theaters, Structure 9 appears to have been open in the front. The stylobate, which encloses the front, presumably carried a row of columns with a continuous architrave on the top. The building itself is not a perfect semicircle, as previously reconstructed, but rather appears as a ‘teardrop’ in shape, with the northwest half being a full quarter-circle but the southeast half being somewhat ‘flattened’ and elongated – again an intentional visual effect. No elements, such as steps, seats, *cunei*, which could indicate a theatrical function, were noticed during the survey. Rather, the interior was divided into two zones: the lower zone, which occupies the largest space, and the upper zone, which appears as a rounded walkway along the external wall. Some 3-dimensional decorative elements, such as semicircular niches (FIG. 15) and water

basins, were inserted into the inner wall of the structure. It is apparent that in addition to the interplay of light and shadow, water also played an important decorative role in the building. Collected surface finds include a number of thin (*ca.* 0.7-1.2 cm) marble fragments, which must have formed decoration attached to the walls of the structure.

As mentioned above, the NEPP area was well supplied with water, and the water-related installations such as basins, cisterns and channels, are well evidenced in the architectural remains. For example, installation WS1 is a well-defined water distributor (*castellum divisorum*) located in the south-central part of the area (FIG. 16). It features two major phases: in the first phase, water was channelled into a large basin, probably a settling tank, from where it was distributed elsewhere through a single outlet;



11. The metope with the plain disk from Structure 2 (by Stephan G. Schmid).





12. Structure 3 seen from the south (by Marco Dehner).

in the second phase, two well-built masonry water channels were inserted into the basin, with outlets conducting water in two different directions. The entire installation is a very good example of water distribution methods in an urban area. W2 is a water installation located on a steep slope in the western part of the NEPP area. It consists of two large basins located one next to each other but on different levels. Both basins feature waterproof mortar. Apparently, the upper basin served as a settling tank for the rainwater.

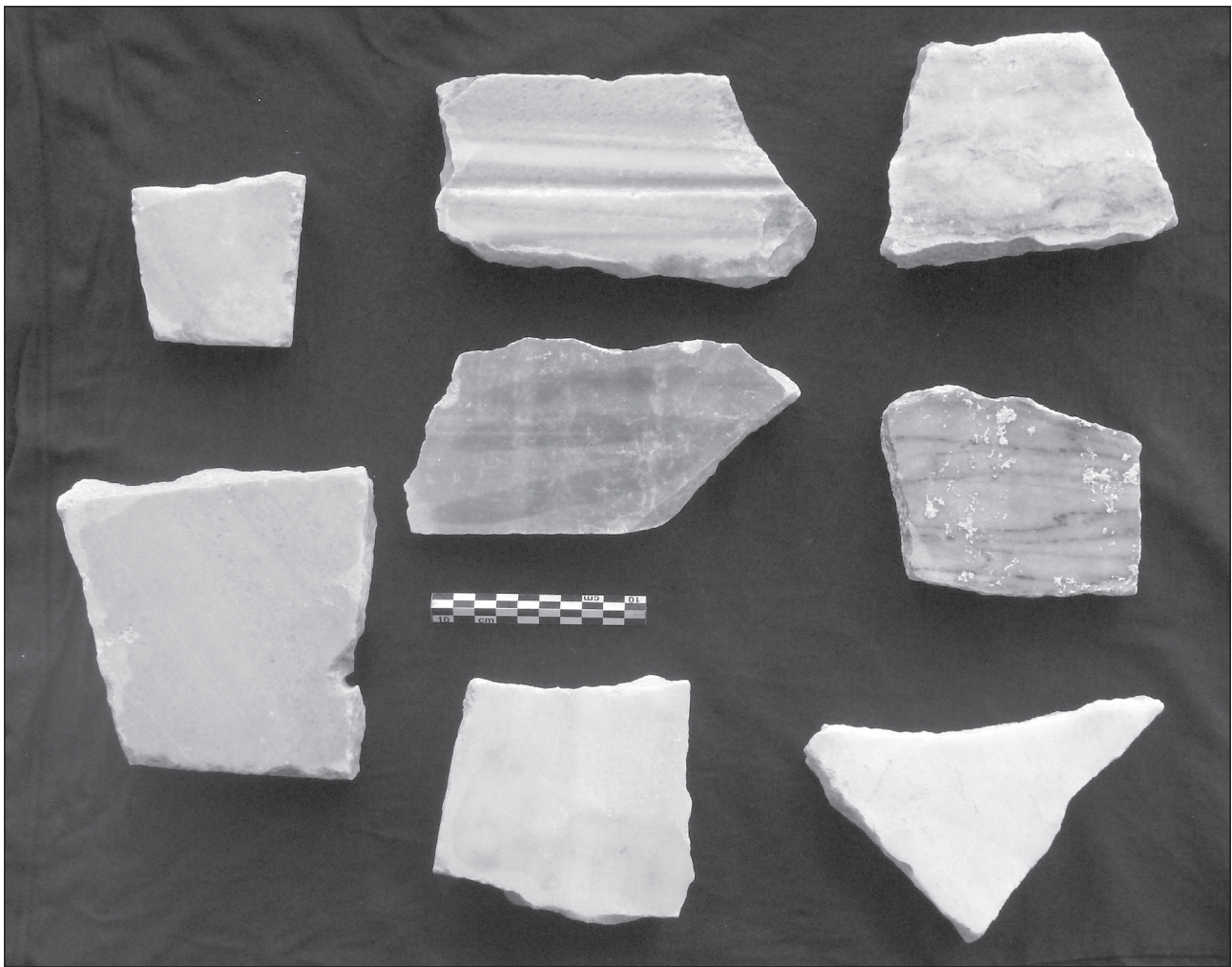
All NEPP ceramics were surface collected and thus the reliability of this material for reconstructing the overall chronology of the area must necessarily remain tentative. The vast majority of sherds date to the Nabataean period, that is, the later 1st century BC to the 1st century AD. Structure 1 provided the latest datable ceramics, which may date to the 4th or even the early 5th century. Combined with the stylistic dating of many of the architectural

decorative elements found on the surface it is reasonable to presume that the construction and main occupation phase of structures in the NEPP area should be dated between the late 1st century BC to the end of the 1st century AD. The presence of imported ceramics, such as Eastern *terra sigillata* (FIG. 17) is also notable, especially in terms of the relatively large quantities of the collected material.

### Analysis

The unique characteristics of location, the apparent monumentality of the extant structures, the high quality architectural decorative elements and the abundance of luxurious ceramics imply that the NEPP architectural complex may be interpreted as a spectacular palatial quarter, not improbably of the Nabataean monarchs. Surprisingly, the royal residences of Petra have not been a major focus of recent research (see Schmid *et al.*, 2012 for update), although Flavius Josephus (*JA*14, 4 [16], *BJ*





13. Fragments of marble slabs found in the area of Structure 3 (by Stephan G. Schmid).

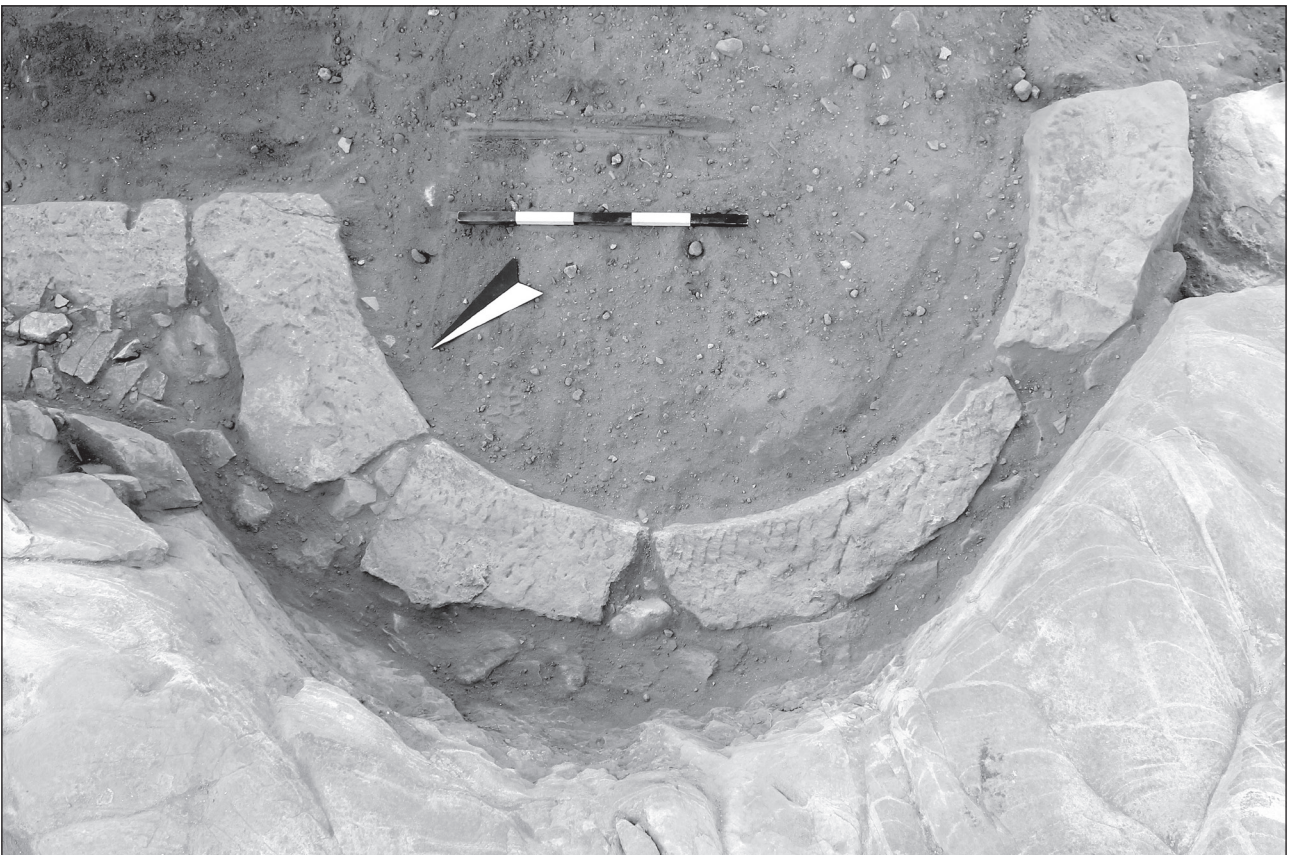
1, 2 [125]) implied that by the mid-1st century BC, Petra was considered a capital city where their kings resided. Recently, several scholars have proposed that the complex in the centre of Petra, formed by the so-called “Great Temple” and the “Paradeisos” (a luxurious garden and water installation), is part of the official Nabataean royal residential suite, and leisure complex (Kropp 2009; Bedal 2003: 171–185; Schluntz 1999: *passim*). This hypothesis may need to be reconsidered, however, in light of the NEPP fieldwork results. Notably, the term *τα βασιλεια*, used by Josephus, does not only designate a ‘palace’ where the king resided, but also implies the existence of an entire area of a city where the royal quarters, administration, cultic installations etc. were concentrated. This is especially, although not exclusively, true

concerning the residences of the Hellenistic rulers in the eastern Mediterranean and the Near East (Funck 1996, and esp. Nielsen 1994). Furthermore, the results of the International Wādī Farasah Project (IWFP), which is exploring the so-called Soldier’s Tomb complex in Petra, convincingly demonstrated that the appearance and the functioning of these funerary complexes must be closely related to the luxury architecture of the Hellenistic and Roman Mediterranean, that is, to the rich *villae* and palaces (Schmid 2009). It is therefore logical to assume that the examples of opulent and monumental residences of the Ptolemies, Seleucids and Romans would be mirrored not only in the Nabataean funerary architecture but also in the residences of the Nabataean elites, including the royal family.





14. Structure 9 seen from the south-west. The stylobate is visible in the center (by Marco Dehner).



15. A decorative niche in the inner wall of Structure 9 (by Marco Dehner).





16. The water distribution installation in the south-central part of the NEPP complex (by Marco Dehner).



17. Sherds of Eastern terra sigillata ware found in the NEPP area (by Stephan G. Schmid).



Hellenistic urban royal residences seem to follow certain rules, as demonstrated by the examples from the Seleucid kingdom (Held 2002). The *basileia* quarters usually occupy around 1/4 of the space of the city, they are built in a location peripheral to the city centre and are surrounded by water (sea, rivers, artificial channels) on at least two sides. Finally, besides the royal residence, they contain administrative and infrastructural installations, sanctuaries, gardens and parks as well as tombs or *heroa* of the founders of the dynasty and/or the city. These criteria fit not only the *basileia* of the Seleucid kings in Antioch, Seleucia, Babylon or Aï Khanoum, but apparently also in Alexandria in Egypt (McKenzie 2007: 32-146, especially 66-71; Hoepfner 1999, especially 462-464; Nielsen 1994: 130-133, 280-282). The locational characteristics and the description presented above, indicate that these criteria will easily apply to the NEPP area.

On the other hand, one must acknowledge the dispersed location of the structures in the NEPP area, an apparent lack of symmetry in the overall design of the complex and the presence of seemingly unoccupied spaces within the area. All these factors are in contrast with the official residences of Hellenistic kings of the *basileia*-type, which display a strong tendency for orthogonal organization and well-defined axiality, influenced by Hippodamean urbanistic concepts. This is also true for the official imperial residences in Rome, such the palaces on the Palatine, which follow a more compact spatial development, including garden areas.

Therefore, if the dispersed organization is intentional and thus less compatible with the layout of Hellenistic royal urban quarters, it is practical to also consider the influence of other types of luxurious palatial residences of the Hellenistic-Early Roman period, among which are the Hasmonean-Herodian countryside residences and the late Republican-early Imperial Roman palaces and villas of *otium* type. Elements of the dispersed internal organization

are featured in the Hasmonean Winter Palace complex in Jericho (Netzer 2001) and, to a lesser extent, the Herodian Western Palace at Masada. The lower complex at Herodium features a cluster of seemingly dispersed reception halls, pavilions, service wings and living quarters, yet these were all apparently designed according to a single architectural grid system with the well-defined architectural axes (Netzer 2009, 174). There are no traces of an overall design plan in the NEPP area.

There are other types of luxury architecture that could be considered as providing inspiration for the NEPP complex, for example the imperial *villae* outside Rome. In particular, Domitian's *villae* at Castel Gandolfo and at Sabaudia show the same dispersed organization, abundant use of water installations, portico-like structures shaping the landscape, and theatres or *odeia* (Hesberg 2009; Hesberg 2005; Liverani 2008). The huge Villa Pausilypon near Naples, built by P. Vadius Pollio in the late 1st century BC and later inherited by Augustus, features similar elements (e.g., Varriale 2007; Günther 1913). Presumably, one may envisage the parallel temporal development of the same characteristics in luxurious palatial residences of *otium* type in Italy, in Judaea and, probably slightly later in time, in Nabataean Petra.

## Conclusions

At our current state of understanding, it appears that the architectural complex surveyed by NEPP combines the functional and locational aspects of Hellenistic *basileia* with some elements of luxurious Herodian residences and Early Roman structures of *otium*-type. The NEPP complex not only represented royal power, utilizing fashionable Hellenistic-Early Roman architectural designs and was obviously meant to impress, but it can also be understood as a virtual microcosm of the Nabataean world, combining official and utilitarian elements with fashionable, leisure-related and traditional aspects.



Although the conclusions presented here are preliminary, they demonstrate a feasible indication of the existence of a royal residence in Petra, spectacularly located, and of the design and affluence undoubtedly reserved for the highest level of Nabataean society. Further NEPP exploration should hopefully illuminate patterns within the political geography of Petra during the Nabataean period. Finally, the project opens a new avenue for research in Petra, that is, the comparative study of the Nabataean royal quarters within a larger framework of similar structures in the Hellenistic and Roman worlds.

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