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New Archaeological Research in the Northwest Quarter of Jerash and Its Implications for the Urban Development of Roman Gerasa

ACHIM LICHTENBERGER AND RUBINA RAJA

The nature and extent of the urban development of Roman Gerasa (modern Jerash) has for decades been a topic of discussion among scholars studying settlement patterns as well as public and private life in the Roman empire. Research has, however, mostly focused on the development of the city along its main street. The aim of a new archaeological project, which was initiated in 2011, is to investigate the settlement history of the Northwest Quarter of Jerash through all periods. Following an architectural and geophysical survey, two excavation campaigns have been undertaken. The Northwest Quarter, the highest area within the walled city of Gerasa, is located west of the Artemision. The investigation has so far revealed that the urban situation in the Roman period in this area of Gerasa differs from what has previously been assumed. This prominently located area seems to have been sparsely occupied during Roman times; only traces of quarries and water installations can be dated to this period. Settlement in this area of the city was at its peak during Byzantine and Islamic times. The results of this project therefore change our understanding of the overall settlement history of Roman Gerasa.¹

INTRODUCTION

Gerasa, modern-day Jerash in northwest Jordan, was one of the cities of the Syrian Decapolis and a major urban center during the Roman period.² The city of the second and third centuries C.E. primarily developed along the north–south axis of the main colonnaded street (the so-called *cardo*) (fig. 1). Known remains date from the Late Hellenistic period. A small settlement from that period is attested on the “Camp Hill” in the southern part of the city, across from one of the main sanctuaries, that of Zeus Olympios, which was also founded in the Hellenistic period.³ The

¹We would like to thank the following funding bodies for supporting our research: the Carlsberg Foundation, Deutsche Forschungsgemeinschaft, and H.P. Hjerl Hansens Mindefondet for Dansk Palæstinaforskning. Thanks also to the Danish-German Jerash Northwest Quarter Project team and in particular the head of field, Georg Kalaitzoglou, and the head of registration, Annette Højen Sørensen, for their dedication throughout the 2011–2013 campaigns and for commenting on various aspects of this article. The employees of the Department of Antiquities of Jordan in Amman and Jerash facilitate our fieldwork immensely, and we would like to thank them for their collegiality. We also thank Henry Heitmann-Gordon for proofreading our text, as well as the anonymous reviewers for the *AJA* for their constructive comments. The editorial team at the *AJA* has been efficient and constructive, and we would like to thank them as well.

²For research on the site and further references, see Kraeling 1938a; Zayadine 1986; Lichtenberger 2003, 191–243; Kennedy 2007; Raja 2012, 137–89. For the most recent substantial summary of the history of the city and further references, see Andrade 2013, 160–69. See also the collection of articles in *Syria* 66 (1989) that relate to the history and archaeology of Gerasa.

³Seigne 1989, 1992a, 1992b. For the impact of the positioning of the major sanctuaries on the development of the urban center, see Lichtenberger 2008; Raja 2009, 2013.

FIG. 1. Plan of Gerasa (after Lepaon 2011; © T. Lepaon).

Hellenistic settlement, which according to legend was established by either Alexander the Great or his general Perdiccas, was more likely founded by Antiochus III or Antiochus IV and named Antiochia on the Chrysorrhoeas (the Golden River).⁴ The sanctuary of Zeus was oriented toward the Roman “Oval Piazza,” which connected the southern part of the city with the Roman-period main street.⁵ Along this street one finds the typical public monuments of any Roman-period city in the Greek East: the so-called *macellum* (termed “agora” in an inscription from the building); shops; street monuments, such as the *tetrapylon*; a

monumental *nymphaeum*; public baths; theaters; and the public markets of the city, including a large *basilica*.⁶ The second-century C.E. Sanctuary of Artemis was the most impressive urban feature of the central northern part of the city.⁷ The sanctuary was laid out on an east–west axis, and its extensive *propylaea* extended across the main street, resulting in a total size that is rarely matched in the Roman world.

The main north–south street was intersected by two main roads, one in the north and one in the south of the city, which linked the city center to the east and

⁴For this theory, see Lichtenberger 2003, 316.

⁵For the development of this part of the city as well as further references, see Raja 2012, 172–75; 2013.

⁶For the urban development in Gerasa, see Raja 2012, 137–89. The “forum” of the city remains unpublished.

⁷For the development of the sanctuary of Artemis, see Fisher 1938a; Parapetti 1989, 2002; see also Raja 2009.

west quarters. The city was laid out on both sides of the river Chrysorrhoas, today a deep wadi with little water. The modern town of Jerash covers the eastern part of the ancient city. The landscape slopes inward toward the north–south running wadi from the east as well as from the west. The city was enclosed by 4.2 km of city walls with gates at various intervals. Various dates for the city walls have been proposed by scholars, with suggestions ranging from the Early Roman period to late antiquity, but no agreement has yet been reached.⁸ The city prospered during the Late Roman, Byzantine, and Early Islamic periods as well as in the Early Mamluk period.⁹ Many churches and two mosques attest to the flourishing religious life of the city and to the continuation of private sponsorship in public space.

Since the beginning of extensive excavations in the 1920s, research has focused on the major public monuments along the main streets.¹⁰ Not much is known about the development of the city outside these

central areas; in addition, excavations of domestic architecture are sparse.¹¹

THE DANISH-GERMAN NORTHWEST QUARTER PROJECT: THE 2011–2013 CAMPAIGNS

The aim of the new archaeological project, which began in 2010, is to investigate the settlement history of the Northwest Quarter of Jerash in all periods.¹² The Northwest Quarter is the area to the west of the Artemision, stretching from the sanctuary to the city walls. It is the highest area within the walled city of Gerasa, and—apart from the so-called Synagogue Church, which was excavated in only two weeks and published in a 1938 monograph edited by Kraeling¹³—it has hitherto been left largely unexplored.¹⁴ In 1983, two trenches within the area of the Northwest Quarter were excavated by V.A. Clarke and J. Bowsher. The results were presented in a short report but without sufficient publication of the finds. One of the trenches, trench NWG, was located 60 m south of the supposed Northwest Gate and, according to the excavators, revealed two walls as well as material finds that dated to the third century C.E.¹⁵ The second trench further to the northeast, their trench E, was excavated to clarify the possible continuation of the North Decumanus but did not yield conclusive results.¹⁶

Our principal reasons for exploring the Northwest Quarter in more detail are its prominent topographical location, proximity to the Artemision, relation to the city walls, and location in relation to the supposed east–west main streets on the north and south sides of the hill. The area of research covers approximately 4 ha

⁸ See Detweiler (1938a, 1938b) for the North and South Gates. See Fisher (1938b, 12–14) for a description of the visible fortifications. Kraeling (1938b, 41) was the first to advocate a first-century C.E. date for the city wall based on epigraphic evidence supposedly belonging to the Northwest Gate. This date has been questioned by Seigne on the basis of his excavations by the South Gate. Seigne argues for the erection of the city walls in this area in the late third or early fourth century C.E. (Seigne et al. 1986, 55–9; Seigne 1992a, 331). This date is disputed by Kehrberg and Manley (2001), who argue for an earlier date in the first quarter of the second century C.E. for the western parts of the city wall (followed by Lichtenberger 2003, 193; Raja 2012, 142–44). The Jarash City Walls Project headed by Kehrberg, Manley, and Kennedy excavated strategically located trenches relating to the city walls and supplied data for an early second-century C.E. dating, but without publishing all the related finds (Kehrberg and Manley 2001, 2002, 2003). In many places, it is obvious that spolia were built into the city wall, which is a clear indication that at least some parts of the walls were heavily renovated or rebuilt at later points in time. All necropoleis of the second and third centuries C.E. are located outside the course of the city walls, indicating that the limits of the city were located at the walls. For the necropoleis, see Seigne 1992a, 340–41, figs. 7–9. On city walls in general in the Decapolis region, see Smith's (2011, 501–2) summary survey of Gerasa.

⁹ For literature and further references, see, for the Late Antique to the Byzantine period, Crowfoot 1938; Wharton 1995, 64–104; March 2009; Raja (forthcoming). For the transition between Late Antique and Byzantine Palestine, see in general Avni 2014. For Early Islamic Jerash, see Walmsley and Damsgaard 2005; Blanke et al. 2007. For the post-Umayyad periods, see Pierobon 1983, 1983–1984; Tholbecq 1997–1998; see also Lichtenberger and Raja (forthcoming [a]).

¹⁰ Kraeling's (1938a) volume remains one of the standard works on Gerasa. See also Zayadine's (1986) volume as well as the collection of articles in *Syria* 66 (1989), both published by the Department of Antiquities of Jordan.

¹¹ Most excavations of recent years have also encountered some domestic architecture. However, a comprehensive study of this architecture currently remains a desideratum. See Fisher (1938c, 283–94) for domestic housing dating to the Byzantine period and Gawlikowski (1986) for an Umayyad domestic complex.

¹² For the new excavations in the Northwest Quarter of Jerash, see Kalaitzoglou et al. 2012; (forthcoming [a], [b]); Lichtenberger and Raja 2012, (forthcoming [b]); Lichtenberger et al. (forthcoming [a], [b]).

¹³ Kraeling 1938a.

¹⁴ On the Synagogue Church, see Crowfoot and Hamilton 1929; Crowfoot 1938, 234–39; Dvorjetski 2005. Some remains in this area were already described in Schumacher 1902, 121, pl. 6. See Lepaon (2011) for an updated plan of Jerash that includes some features in the Northwest Quarter. Some unpublished plans from the Yale expedition remain in the archives at the Yale University Art Gallery. Thanks to Susan Matheson, we were able to consult these in 2012 and verify that they include a sketch of the large rectangular cistern in the southern part of the Northwest Quarter.

¹⁵ Clark and Bowsher 1986, 345.

¹⁶ Clark and Bowsher 1986, 344–45. The new investigations are discussed later in this article.

and is characterized by a hill topped with a flat plateau. In some areas, the soft white limestone bedrock is very close to—and even visible on—the surface. Furthermore, collapsed structures made of this local limestone are also visible on the surface. The hill slopes to the north and south, as well as toward the east, where the Sanctuary of Artemis is situated. After the Circassian resettlement of the area in the 19th century, the Northwest Quarter was used for farming. There are, among other things, visible traces of plowing on parts of the exposed bedrock on the hilltop.

In 2011, a surface and architectural survey was undertaken alongside an extensive geophysical examination, which resulted in a detailed plan of the surface structures as well as a plan of the area's geophysical morphology.¹⁷ The architectural survey plan gives a clear impression of how the structures were built in alignment with a terrace system that extended across the hill, following the sloping topography and facilitating extensive construction (fig. 2).

The results of the geomagnetic examinations supported the initial impression gleaned from the survey—namely, that the hill showed a dense settlement pattern. Furthermore, several features not visible on the surface were detected: among these was a row of rooms lining the long southern terrace wall of the complex at the top of the hill (fig. 3). Georadar examinations were also conducted, but the results were unclear because of the similarity between the limestone of the natural bedrock and the limestone used in the architecture. Prominent features that are visible on the surface and survey plan include a large cistern, the largest known in Gerasa, as well as the remains of a monumental complex built partly of spolia, situated on the very top of the hill.¹⁸ These features were the main focus of the project in the campaigns that followed, which centered on understanding the development of this area.

In the 2012 and 2013 seasons, a total of eight trenches were excavated in different areas of the Northwest Quarter (see fig. 2 for trench locations). Most trenches were excavated either to bedrock or to virgin soil except where it was deemed necessary to preserve *in situ* installations, such as the find of a Byzantine/Early Islamic kitchen installation (trench D). The earliest finds from the excavations were stone tools from the Neolithic period (trench A), which came, however, from upper fill layers of mixed

material. This soil may have been brought from elsewhere in a later period to prepare the hill for agricultural use. Only one fragment of Early Bronze Age material (trench D) has so far been documented, and there is no Iron Age material.¹⁹ There are some sherds of Hellenistic black-glazed pottery (trenches C and H) and Hellenistic glass (trenches E and H), but these fragments do not come from undisturbed layers and cannot be associated with any built structures.²⁰ However, they do attest to some activity in this part of the city in the Hellenistic period. Early Roman material was also found, but only in sparse amounts and not in direct association with built structures (trenches A, F, G, and H).²¹ Evidence for extensive building activity, covering more or less the whole hill, is attested only from the later Roman period onward. The most prominent feature is the famous Synagogue Church, which was built as a synagogue in the fourth or fifth century C.E. and turned into a church in the sixth century C.E.²² Although synagogues in the diaspora were sometimes located outside cities, this does not seem to have been a general rule.²³ The location hence provides no information about its urban context other than that it confirms the preference for positioning synagogues at the highest point within ancient settlements.²⁴ No archaeological evidence for the presence of necropoleis, either on the hill or on the slopes of the hill within the walled city, has been detected in the extensive survey or in the following excavation campaigns in the Northwest Quarter.²⁵ There are several caves on the northern and southern slopes, but their

¹⁹ See Lichtenberger et al. (forthcoming [b], cat. no. 180) for the Early Bronze Age sherd found in a nonstratified context.

²⁰ Lichtenberger et al. (forthcoming [a], cat. no. 1; [b], cat. nos. 153, 154).

²¹ Lichtenberger et al. (forthcoming [a], cat. nos. 2, 165; [b], cat. nos. 4, 5, 7, 8, 15, 50, 97, 137).

²² See Crowfoot and Hamilton (1929) for the first publication of the synagogue in Gerasa. See Crowfoot (1938, 234–39) and Dvorjetski (2005) for further publication and analysis of the Synagogue Church.

²³ For pre-70 C.E. diaspora synagogues situated in remote areas in cities, see Levine 2000, 120. See, however, the many examples of later diaspora synagogues within the central areas of cities (Levine 2000, 232–87).

²⁴ Tosefta, Megillah 3:22; Midrash, Tanhuma 3; Dvorjetski 2005, 141.

²⁵ Seigne (1992a, 335–37) traces a pre-Hadrianic necropolis on the northern slope of the Northwest Quarter. However, on the accompanying plan, he attaches a question mark to the necropolis. So far, no tombs have been identified by the Danish-German team, either during the extensive survey or during the excavation campaigns. No human bones have been identified, either.

¹⁷ Kalaitzoglou et al. 2012.

¹⁸ Schumacher 1902, 121; Lichtenberger and Raja 2012, (forthcoming [a], [b]); Kalaitzoglou et al. (forthcoming [a], [b]).

FIG. 2. Plan of surface structures of Gerasa, with trenches (A–H) indicated as well as possible extensions of walls (Danish-German Jerash Northwest Quarter Project).

use as tombs cannot yet be verified.²⁶ A preliminary study of the bone material from our excavations has not yet yielded any human bones. This evidence calls into question whether extensive necropoleis existed in this area in the Hellenistic and Roman periods.

The Byzantine and Umayyad periods, which are often difficult to distinguish from each other by their material culture, are clearly the most prosperous phases of the Northwest Quarter of Gerasa.²⁷ During this time, the hill was densely covered with domestic and industrial installations. A complete oil press, excavated in the 2012 campaign northeast of the highest area of the quarter, attests to such industrial activities (fig. 4). Furthermore, pressure water pipes excavated on the plateau as well as on the north ridge of the Northwest Quarter during the 2013 campaign attest that this part of the city was well integrated into the water-supply system of the city from the Roman period onward.

²⁶ One cave on the northern slope was excavated in the 2014 campaign to clarify whether it could have been used as a tomb.

²⁷ See the comprehensive study by Avni (2014) for the transition from the Byzantine to Early Islamic period in this region.

Radiocarbon AMS analysis, which was undertaken on the mortar fitting the pipes together, suggests a construction date in the third to fourth century C.E.²⁸ Several earthquakes occurred in the Byzantine and Early Islamic periods, and the massive earthquake of 749 C.E. seems to have brought an end to the large-scale settlement at Jerash.²⁹ This was followed by a gap in, or at least a massive reduction of, settlement between the Abbasid (at the latest) and Ayyubid periods. However, the Northwest Quarter shows considerable evidence for settlement from the Ayyubid period well into the Mamluk period.³⁰

²⁸ Lichtenberger et al. 2015. This date provides a good fit with the date of the water pressure pipes that ran along the city wall south of the Northwest Quarter. The excavator dated the pipes to the second century C.E., but it remains unclear whether they were fed by water installations in the Northwest Quarter (Kehrberg and Manley 2003, 84–6).

²⁹ On the earthquake of 749 C.E., see Tsafir and Foerster 1992. The most recent seasons of archaeological work in Jerash have shown that settlement continued on a smaller scale after the earthquake, reaching well into the Abbasid period (see, e.g., Blanke et al. 2010, 322–26).

³⁰ Lichtenberger and Raja (forthcoming [a]).

FIG. 3. Plan of Gerasa, showing the results of the geomagnetic survey (Danish-German Jerash Northwest Quarter Project).

ROMAN-PERIOD ACTIVITY IN THE NORTHWEST QUARTER

Quarry Activity: The First Traces of Human Activity in the Northwest Quarter

In most of the excavated trenches, the earliest activity consisted of quarrying (fig. 5).³¹ The quarry marks are easily visible on the surface of the bedrock in trenches D and E of the 2013 campaign. The marks cannot be securely dated, but the evidence suggests that the area was used extensively as a stone quarry before and during the Roman period. The walls of the quarry are about 0.3–0.5 m high and form a stepped surface; these were partly used as the foundations for later structures. While the quarrying cannot be dated with certainty, it is clear that beginning in the Trajanic period, major construction projects were undertaken in the city center, which continued throughout the Hadrianic and Antonine periods. In addition, the construction of the city walls (the date of which cannot be

precisely ascertained) required a considerable amount of material. It is conceivable that some of the building material for these projects came from this area.³²

The Cistern

A large rectangular cistern oriented east–west was laid out on the southern slope of the hill on one of the lower terraces (fig. 6). The cistern was carved into an area that also shows earlier quarry activity. The quarry thus predates the establishment of the cistern in the area. The cistern measured approximately 18 x 40 m and is the largest known water-supply installation in Gerasa.³³ It was used, renovated, and repaired over a longer period of time, as is clear from the multiple

³¹ See Kehrberg (2011, 17) for a schematic plan of possible quarry sites within the city.

³² See Hamarneh and Abu-Jaber (2013) on quarry activity in Jerash. They observe that the earliest quarries will usually be found close to the city center in this area (Hamarneh and Abu-Jaber 2013, 60). For a quarry dating to the first century C.E. in the region of the later Hippodrome, see Kehrberg and Ostrasz 1997, esp. 168.

³³ See Seigne (2004) for research undertaken on water management and installations in Jerash.

layers of mortar of varying quality and consistency found in it. Radiocarbon AMS analysis of mortar samples from the cistern points to the conclusion that it was in use from the Roman period onward and that one of the last restorations of the hydraulic mortar took place during the fifth or sixth century C.E., after which the water reservoir fell out of use.³⁴

Two major phases of use were detected: in the first phase, the construction was used as a cistern. In the second phase, the cistern collapsed and the construction was turned into a settlement area. The long, northern side of the rectangular cistern was cut into the rock, with the mortar-covered inner wall following the irregular outline of the natural rock (fig. 7). On the south side, toward which the terrain slopes, the cistern must have had an artificially constructed wall, since it would otherwise have been impossible to compensate for the difference in height between the north and south sides. Although several fragments of water canals were found in the area, it has as yet not been possible to locate the water inlets for the cistern in its main phase of use or to locate a possible sediment basin. However, it is very likely that the water came from higher-altitude springs outside the city (Deir al-Liyyat).³⁵ It also remains unclear how the water was distributed from the cistern to its final destinations. The latest mortar layers of the cistern were applied in the fifth or sixth century C.E. At some point, the floor of the eastern end of the cistern collapsed over a natural cave. The large cistern then fell out of use, either because of this collapse or possibly because of a decline in the public water-management system, which prevented the cistern from being properly filled.

In the second phase, the cistern was used for habitation or industrial purposes. In trench F, which crossed the cistern from south to north and was excavated in 2013, densely built structures were found that date from the Byzantine period. Fragments of mills might hint at some production activities that took place in this area. Thus, after the cistern lost its primary function as a water reservoir, the space was occupied by smaller structures. Such a transformation of public space can also be observed in other areas of Jerash in the Byzantine and Early Islamic periods, when the sanctuaries, colonnaded streets, and other public spaces were taken over for other uses.³⁶ One feature of the second phase was a smaller cistern, which was built into the natural cave below the rectangular cistern and which was accessed through a well head in

FIG. 4. Oil press in trench B, 2012 campaign (Danish-German Jerash Northwest Quarter Project).

FIG. 5. Survey plan of Gerasa, showing the locations of the trenches. Quarrying traces are marked in all trenches where they were found (Danish-German Jerash Northwest Quarter Project).

the earlier cistern's floor (fig. 8). To feed this underground cistern, canals were cut into the eastern end of the natural rock. The smaller cistern was probably mainly filled by rainwater.

The rectangular cistern and its main phases of use provide important evidence for the urban development of Gerasa in the Roman period. It can be assumed that the construction of the cistern correlates with the city's prosperity under Trajan and Hadrian.

³⁴Lichtenberger et al. 2015.

³⁵Seigne 2004, 178.

³⁶See, e.g., Gawlikowski (1986) for Umayyad houses in earlier Roman public spaces.

FIG. 6. Plan of the cistern (Danish-German Jerash Northwest Quarter Project).

The cistern followed quarry activity, which may have been related to the urban development within the city center of Gerasa. The large cistern was probably connected to a centralized water supply by aqueducts, which brought water from sources west of the city. During or after the fifth or sixth century C.E., this centralized water supply was probably no longer functional (or the cistern was inoperable as a result of the collapse). The cistern was then used as a building ground for habitation and/or production spaces, and a decentralized water supply by rainwater cisterns was established.

A Monumental Architectural Block: A Roman-Period Sanctuary?

The large Artemision was constructed in the Hadrianic period. However, there are inscriptions relating to the cult of Artemis that date to the later first century C.E.³⁷ It is a matter of debate whether an earlier Artemision was therefore located in the area of the

Hadrianic sanctuary, covered by the wide terraces and deep substructures of the later second-century monumental construction.³⁸ What we do know is that several other sanctuaries existed in this area of Gerasa, one of which was the so-called Temple C, which dates to the early second century C.E. The remains of a second temple's foundations were found under the cathedral and dated to the first century B.C.E.³⁹ These two sanctuaries can be linked to cults and deities that were rooted in local traditions. Temple C has architectural features that point to north Syrian or Mesopotamian influences, and the temple under the cathedral can be associated with Theos Arabikos/Pakeidas.⁴⁰ Furthermore, it is generally agreed that even in the Roman period Artemis was an *interpretatio*

³⁸ Gawlikowski 1986; Blanke et al. 2007.

³⁹ For Temple C, see Fisher and Kraeling 1938; Lichtenberger 2003, 238–41. For the remains of the temple under the cathedral, see Brenk et al. 1995, 1996; Lichtenberger 2003, 221–25.

⁴⁰ For the architecture of Temple C, see Fisher and Kraeling 1938; Lichtenberger 2003, 238–41. For inscriptions relating to Pakeidas and Theos Arabikos, see Welles 1938, 383–86, nos. 17–22.

³⁷ Welles 1938, 388–90, nos. 27–9. Inscription no. 28, dating to 79/80 C.E., mentions the stoas and *lakkos* of Artemis. See Spijkerman (1978, 158–59, no. 3) for a coin relating to the pre-second-century C.E. cult of Artemis.

FIG. 7. The northern side of the more than 3 m tall cistern, which consisted of mortared bed-rock (Danish-German Jerash Northwest Quarter Project).

Graeca of a local goddess.⁴¹ The way in which she is named in inscriptions and depicted in reliefs and on a gold medallion underlines her local Near Eastern traits.⁴² In view of these considerations and the fact that the Northwest Quarter was the area with the highest elevation within the walled city, the project also aimed to investigate whether further evidence for sanctuaries might be found in the area.

During the surface survey of 2011, a large limestone block was discovered that showed iconographic elements apparently characteristic of an altar (fig. 9).⁴³ In 2012, trench B was laid out around this block and along some well-preserved walls. The block turned out to be not an altar but a monumental architectural block carrying altar iconography. It was found in secondary use in a Late Roman/Byzantine oil press, where it functioned as one of the two towers flanking the press bed (see fig. 4).⁴⁴ Trench B also gave light

FIG. 8. The cistern interior, showing the well head and rock-cut east short side, 2013 campaign (Danish-German Jerash Northwest Quarter Project).

FIG. 9. Architectural block with altar iconography, from trench B, 2012 campaign (Danish-German Jerash Northwest Quarter Project).

to a second, smaller block, which had originally been the top of the larger block.

The reconstructed architectural element has an almost central niche with pilasters on the front side (fig. 10). It carries horns on three corners, the front corners and the right corner of the left short side. On the left short side, a deep offering bowl has been carved in relief. This block belonged to a building structure of the Graeco-Roman period. The total height of the block, including its top, was approximately 2.70 m. An accurate dating of the block is not possible. It can be assumed that it originates from the Late Hellenistic or Roman period. Judging from the material (soft, whitish limestone), one might suggest that the element did not belong to one of the monumental second-century

⁴¹ Lichtenberger 2003, 200–8 (with further references).

⁴² Kraeling 1938a, pl. 55b.

⁴³ Lichtenberger and Raja 2015.

⁴⁴ The photograph (see fig. 4) shows the structure after the removal of the monumental block.

FIG. 10. Reconstruction of architectural block, 2012 campaign, with find numbers indicated (Danish-German Jerash Northwest Quarter Project).

C.E. buildings within the city center, since they predominately consist of harder, reddish limestone. The visual vocabulary of the block—the horns and offering bowl on the right side and the horns and the niche on the front—implies altar iconography. However, the shape of the block indicates that it was not an altar but was used as part of an architectural framework, flanking a doorway or gate. The right side, which had anathyrosis, was connected with a wall. It is likely that the entrance was covered by an arch or a lintel (fig. 11). Therefore, it must be assumed that it had a counter piece. In its original state, the long side with the niche was the front view, and the left side with the stylized basin/bowl topped with a rectangular niche faced into the passageway.

Niches at the front of an architecturally framed entrance or passage are well attested in the architecture of the southern Levant and occur in monumental form in the Artemision in Jerash and in the Syrian sanctuary of Hōsn Soleiman.⁴⁵ Such framing features were particularly common in entrances to sanctuaries. The altar elements (horns and basin) are common on Roman altars in Jerash, but they seem to be specifically restricted to altars. Other architectural elements did not adopt such altar motifs. This makes the monu-

⁴⁵ Freyberger 2004.

FIG. 11. Reconstruction of possible use of the architectural block in an entrance, 2012 campaign (Danish-German Jerash Northwest Quarter Project).

ment exceptional in its eclecticism. Some remote comparanda for altar iconography reduced to an element or motif of architectural decor can be found in local sanctuaries in Jordan, Lebanon, and Syria. One example comes from the citadel in Amman, where monumental blocks have aediculae decorated with shell motifs and flanked by small horns.⁴⁶ It is most likely that these blocks were once set in the facades of the temenos wall of one of the large sanctuaries on the Roman citadel, none of which has been ascribed to a deity with any certainty.⁴⁷ In the Early Islamic period, these blocks were reused in the extensive Umayyad palace on the citadel. Two examples of a different nature are found at Burj Baqirha and at close-by Khirbet el-Khatib in the Syrian limestone massif.⁴⁸ Here, altar reliefs frame the lintels of the entrances to the sanctuaries. This comparison, however, has to be put into perspective, since a Zeus Bomos (Zeus Altar) was venerated at Burj Baqirha, rendering the depiction of altars on the lintels a matter of course. Two other examples of altar depictions framing a doorway are found at Sfire in northern Lebanon and Sabsaba in the Hauran.⁴⁹ There, two altars, depicted on either side of the temenos wall, frame the entrance to the sanctuary court. In Sfire, no actual temple stood within the

⁴⁶ Northedge 1992, figs. 30–4.

⁴⁷ For an attribution to Herakles, see Lichtenberger 2003, 275.

⁴⁸ Kreuz 1999, 24–5, pls. 43, 44; Steinsapir 2005, 50–1, 126. There may be an altar on the portal at Harab Sams (Tate 1992, 119, fig. 173).

⁴⁹ Sfire: Steinsapir 2005, 70, 134–35. Sabsaba: Barkay et al. 1974, 183, pl. 37B.

court, as the main focus of the cult was a large altar. Again, as can probably be said of the limestone massif, we have a correlation between the depiction of an altar at the front and the nature of the cult.

From the comparanda one might suggest that the large block discovered in trench B was part of a monumental entrance to a building with a sacred function. Because of its eclectic composition and the material, one has to consider whether it belonged to a pre-Hadrianic sacred building; however, the exact date and function remain unclear. The site of its primary use also remains obscure. One might suggest that such a large block would not have traveled far to be reused in a Late Roman/Byzantine oil press and that it came from somewhere close-by. The comparanda show that the architectural block found in Gerasa conforms to the local traditions of the region in its formal iconographic language and that the eclecticism of the block's visual language is very different from what is seen in the Roman-period Sanctuary of Artemis in Gerasa, which adhered much more closely to a canonical Roman iconographic language. The size and iconography of the block indicate that it might have formed part of one of the sanctuaries, known or unknown, which were located in this area of the city and which seem to have been influenced more by local traditions than by Graeco-Roman ones, such as the temple under the cathedral or Temple C.

Local Sculpture

Two fragments of sculptures were discovered during the 2011 survey and the 2013 excavation campaign. They attest local sculptural workshops in Roman Gerasa about which little is known at present.⁵⁰ Both sculptures were dressed as building blocks for secondary use in later periods. The torso of a slightly under-life-sized marble statue of Artemis was excavated in trench D in a Mamluk domestic context (fig. 12). The sculpture is of the Rospigliosi type known from Roman copies, but with Hellenistic forerunners.⁵¹ It depicts the goddess in a short chiton in a forward-striding pose with bow, quiver, and dog. Numerous replicas of the Rospigliosi type are found all over the Mediterranean world. Another copy is also known from Gerasa.⁵² Further replicas are known from close-by Caesarea Philippi (Paneas) and probably also from Pella.⁵³ The sculpture fragment is preserved from below the neck to above the navel. Both

FIG. 12. Fragment of Artemis Rospigliosi, 2013 campaign (Danish-German Jerash Northwest Quarter Project).

arms are missing. The surface of the front is damaged, and the back side is cut vertically to fit its secondary use as a building block. The torso is wearing a chiton with a belt knotted under the breasts in a badly damaged Herakles knot. On the left side, a fold of thick drapery hangs over the belt, which is a significant feature of the Rospigliosi type. Between the breasts, a rich asymmetrical but schematized drapery falls toward the knot of the belt. The sculpture is carved in low relief, and the folds are very schematized. The product, with its crude style, most likely stems from a local workshop of the second or third century C.E.

As is well known, marble was not a local stone in the Near East, and all marble had to be imported.⁵⁴ It has been discussed whether pieces were imported in a finished or semifinished condition or even crafted solely in local workshops. It has recently been acknowledged that local workshops indeed existed, and the newly found Rospigliosi Artemis from Gerasa now further underlines the fact that local workshops existed in the region.⁵⁵ At present, it is unfortunately not possible to say whether a local workshop in Gerasa produced this piece or whether it was produced in another workshop in the region. Further studies of the Gerasa marble sculpture might clarify which scenario is more likely.

Stones do not seem to have been a scarce commodity in the post-Roman periods in the Northwest Quarter, and the statue fragment was found on the top of the hill in secondary use. Therefore, it probably did not come from far away and may derive from a complex in the vicinity—for example, the Artemision, where it may have formed a dedication.

⁵⁰ Lichtenberger et al. (forthcoming [a], addendum, inv. no. B01; [b], cat. no. 146).

⁵¹ *LMC* 2:808, no. 35a–i, s.v. “Artemis-Diana.”

⁵² Weber 2002, 486, no. C3, pl. 121E.

⁵³ Caesarea Philippi: Friedland 2012, 110–13, no. 15, figs. 50, 51. Pella: Weber 2002, 483, no. B1, pl. 118A–C.

⁵⁴ Fischer 1998.

⁵⁵ Foerster 2008, 72 (with reference to Fischer 1998, among others).

Definitely from a local workshop at Roman Gerasa comes a deep limestone relief that was found in the 2011 surface survey on the southern slope of the Northwest Quarter, close to the city walls (fig. 13). The relief was dressed as a building block for secondary use. The object is a fragment of a larger relief and measures 0.51 m wide x 0.30 m high x 0.42 m deep. It is made of whitish/yellowish limestone. The sculptured relief is of considerable depth and measures 27 cm in the deepest preserved place, which suggests that it was sculpted in the round. Because of the fragility of the limestone, protruding body parts were only partly undercut, and major parts were left connected to the stone, thus creating several layers of straight backgrounds. Preserved on the relief is the middle part of a draped human figure, from below the neck to under the knees. To the right of the human torso, an animal is partly preserved. Drapery is visible behind the left leg and left part of the body of the figure. The frontal human figure is standing upright and stepping forward with the right leg. The figure is wearing a tunic/chiton that ends just below the knee. Three clear-cut folds fall from the right shoulder downward to the left side of the waist, while the hem falls slightly in the opposite direction. The drapery in the background belongs to the long himation worn by another figure.

On the right side of the human figure, there is a badly fragmented animal. The left leg is placed in front of the right leg, which is straight. The relief's poor state of preservation unfortunately prevents identification of the species. The position of the animal in the relief indicates either a quadruped or an eagle. The back side of the relief is roughly worked but straight.

The poor state of preservation limits a conclusive interpretation of the iconography. It is impossible to determine whether the figures formed part of either a two-figure relief or a larger relief involving more figures. However, the motif—the animal is positioned as an attribute to the human figure—indicates that we are dealing with a male or female divine figure and not a mortal.

The provenance and primary function of the relief remain obscure. It might stem from the Northwest Quarter but may also have been brought from another area of the city for reuse as a building block in the city walls.

An Early Roman Stone Vessel

In the 2013 campaign, a fragment of a limestone vessel was found in trench H (figs. 14, 15).⁵⁶ It comprises part of the flat base as well as part of the body

FIG. 13. Fragment of limestone relief sculpture, 2012 campaign (Danish-German Jerash Northwest Quarter Project).

of a hand-carved mug. It has characteristic elongated straight chisel traces on the outside. Such limestone vessels are found mainly in pre-70 C.E. Jewish contexts in Judaea, Samaria, and Galilee.⁵⁷ They are regarded as ethnic markers for Jewish populations. Such vessels have also been found east of the river Jordan but mainly in Peraea, which was known for major Jewish settlements.⁵⁸ Outside Peraea, such vessels have hitherto been found only at Tell Zira'a, in the *chora* of the Decapolis city of Gadara.⁵⁹

Several cities of the Decapolis have provided substantial evidence for a Jewish population in the first century C.E.⁶⁰ This is also the case at Gerasa. Josephus mentions that the city was attacked by Jewish rebels (*BJ* 2.458) but that the people of Gerasa seem to have refrained from violent countermeasures against their Jewish fellow citizens, reporting that “the people of Gerasa not only abstained from maltreating the Jews who remained with them, but escorted to the frontiers any who chose to emigrate” (Joseph., *BJ* 2.480).⁶¹ It is also noteworthy that Gerasa seems to have produced a prominent rebel fighter in the Jewish War—namely, Simon, son of Giora (Joseph., *BJ* 4.503).⁶²

It is plausible that the fragment of the vessel found in the 2013 campaign attests to the existence of a Jewish community at Gerasa in the pre-70 C.E. period. However, such stone vessels are also occasionally found

⁵⁷ Deines 1993; Magen 2002; Gibson 2003; Magness 2011, 70–4.

⁵⁸ Deines 1993, 154–61; Sagiv 2003.

⁵⁹ Vieweger 2003, 214; Vieweger and Häser (forthcoming).

⁶⁰ Schürer 1979, 127–60; Goodman 1992; Dvorjetski 2005, 142–44.

⁶¹ Translated by Thackeray 1927, 509.

⁶² Goodman 1992, 55. Rigsby (2000) discusses the evidence for Theon, a Gerasene who dedicated large sums toward the construction of the Temple of Zeus, its decoration, and a cult statue and who he believes may have been a local Jew.

⁵⁶ Lichtenberger et al. (forthcoming [b], cat. no. 137).

FIG. 14. Fragment of limestone vessel, 2013 campaign (Danish-German Jerash Northwest Quarter Project).

that date to the second century C.E.⁶³ From the fill of the Arch of Hadrian, dated to 130 C.E., several architectural fragments were recovered in 1931, probably originating from a synagogue.⁶⁴ This early synagogue, which may have been destroyed during the Jewish War, attests to a Jewish community of that period. It is, however, also conceivable that the vessel belonged to a later period, since the existence of a synagogue in the Northwest Quarter attests a Jewish community at Gerasa by the fourth century C.E. at the latest.⁶⁵ It is tempting to connect the synagogues with the stone vessel, since it was found in fairly close proximity to the Synagogue Church. Nonetheless, no direct relation between these pieces of evidence can yet be established. The limestone vessel (the first of its kind published from the region) and its implications have to be considered with due caution, since it is unclear to what extent such vessels may have been overlooked so far in the archaeological record of Gerasa and the Decapolis region.

THE SO-CALLED NORTH DECUMANUS AND THE URBAN DEVELOPMENT OF ROMAN GERASA

Roman Gerasa was laid out on a grid system with one main street running north–south and two streets cutting across it from east to west (see fig. 1).⁶⁶ The

FIG. 15. Drawing of fragment of limestone vessel, 2013 campaign (Danish-German Jerash Northwest Quarter Project).

intersections of the three main roads were marked with street monuments, which allow the streets to be traced to the east and the west. The western section of the so-called North Decumanus would have been the northern border of the Northwest Quarter and would have provided the area's crucial link with the civic center. The importance of the North Decumanus can also be seen in the urban function it had immediately west of the intersection: it led to the North Theater and also allowed access to the large "forum" square with the basilica. Beyond the basilica the presumed course of the North Decumanus led to the traces of a gate in the city walls, which strongly suggests that this street led out of the city. This is further corroborated by the existence of a Roman necropolis immediately outside the gate, since the tombs necessarily lined a road.⁶⁷

There is some discussion about the presumed western course of the North Decumanus, since the terrain rises steeply to the west (ca. 40 m between the North Theater and the walls) and stairs or ramps would have been necessary to bridge the extreme difference in elevation. In 1982, Clark and Bowsher tried to trace the

⁶³ Gibson 2003, 302.

⁶⁴ Detweiler 1942; Dvorjetski 2005, 143.

⁶⁵ *Supra* n. 22.

⁶⁶ See Raja (2012, 140–43) for a discussion of the layout and

dating of the street grid.

⁶⁷ For the city's necropoleis, see Seigne 1992a, 340–41, figs. 7–9.

North Decumanus, in an area approximately 160 m east of the city walls (their trench E). Although they found an east–west colonnade, their interpretation of it as part of the street remained inconclusive, because they did not find street paving in the trench. In the excavation of 2013, trench G was laid out 100 m farther west, in the direct projection line of the assumed course of the street (fig. 16). This line also runs through the trench excavated by Clark and Bowsher. Even if the street deviated slightly north or south from this ideal line before reaching the projected area of “the Northwest Gate,” it would have been located in trench G. The trench was excavated down to virgin soil, but no traces of a street were found. Apart from some terrace walls, hardly any built structures were encountered. The lack of built structures gives the impression that this area was not architecturally developed at any time in the history of the Graeco-Roman, Byzantine, or Islamic settlement in Gerasa. Instead, the many preserved olive kernels and other organic material hint at farming activities in this area within the walled city. The evidence from trench G points to the conclusion that the North Decumanus did not extend far beyond the North Theater. It may have extended into the area excavated by Clark and Bowsher, although even there the evidence for a north decumanus was inconclusive. In any case, it seems unlikely that it ever reached the walls and the potential Northwest Gate as a Roman colonnaded street.⁶⁸ It must therefore be concluded that a supposed north decumanus was not the crucial link between the Northwest Quarter and the civic center.

This conclusion is supported by another observation made in trench H, which was excavated in the 2013 campaign. This trench was laid out on the northern ridge of the Northwest Quarter, where the modern terrain slopes gently toward the north. The trench was excavated along the vertically cut bedrock to a depth of 7 m before it reached a floor. The conclusion, which can be drawn on the basis of these results, is that in antiquity a steep ridge, forming a wadi that probably hindered communication between the Northwest Quarter and the area immediately north of it, characterized the northern side of the Northwest Quarter in this area.

CONCLUSION

The 2011–2013 campaigns have brought to light only sparse traces of settlement in the Northwest Quarter of Jerash during the Roman period. However, it must be emphasized that only a small portion of the Northwest Quarter has been excavated so far. The pottery and circumstantial evidence, such as the

architectural block, the large cistern, and later also the Synagogue Church, indicate that the Northwest Quarter was a semiurban space in the Roman period, one characterized by scattered structures. It was integrated into the urban system of Gerasa but functioned as a zone that was not fully part of the settled city. However, it is also clear that the Northwest Quarter was not extraurban, as no graves have yet been detected in the area.

The so-called North Decumanus cannot currently be traced in the architectural evidence beyond the height of the North Theater, which may suggest that the monumental urban expansion of the Roman period ended there. The layout of the Roman-period cistern is a clear indication that this part of the city was used for common public projects, such as communal water supply, which may have been preceded by communal quarrying for the second- and third-century C.E. building projects in the city center.

These indications point to the conclusion that the Northwest Quarter was exploited so that the city center could be developed as the city underwent significant expansion. The Northwest Quarter must thus be viewed as an integrated part of the expanding city. For the time being, it is not possible to say whether the Northwest Quarter was also already conceived as an area for potential future habitation in the Roman period. If so, Gerasa would not be the only city in the Roman empire where urban planning of new quarters for habitation was never fully realized. This question also affects the problem regarding the dating of the city walls. If the Northwest Quarter was already planned in the Roman period, then the course of the city walls had probably also been planned at that point, but the work was not necessarily carried out. This observation is supported by the location of Roman-period tombs, which are at present found only outside the city walls in the area of the Northwest Quarter.

What implications does the research in the Northwest Quarter have for the general picture of the urban development in Roman Gerasa? It is clear that domestic occupation in the Roman-period city of Gerasa did not cover the entire area enclosed by the city walls. This hypothesis was suggested already by Seigne, who has argued that the city of the second and third centuries C.E. mainly developed along the main street.⁶⁹ However, as was shown above, agricultural activities as well as stone quarrying may have taken place within the boundaries of the city in the Roman period. On the basis of what we see in the archaeological record in the Northwest Quarter, we have to consider that

⁶⁸ Clark and Bowsher 1986, 343–45.

⁶⁹ Seigne 1992a, 340–41, figs. 7–9.

FIG. 16. Plan showing projection of the possible North Decumanus (Danish-German Jerash Northwest Quarter Project).

urban development on the eastern side of the wadi Jerash, the ancient Chrysorrhoeas, may likewise have been initiated already in the Roman period but that the expansion there may have been similar to that reflected in the archaeological record of the Northwest Quarter.

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