

Dr Frauke Kenkel
German Protestant Institute of
Archaeology (GPIA)
Shari‘ Al-Habbab Bin Al-Munthir Nr. 32
P.O. Box 183
11118 Amman
Jordan
Email: kenkel@bai-wuppertal.de

Frauke Kenkel

A Brief Summary of the Ceramic Lamps from Tall Zar‘ā: Tracing Influences Across ‘Transparent Borders’ from the Hellenistic to Byzantine Periods

Introduction

This paper presents the range of lamps in use at Tall Zar‘ā from around 300 BC to 700 AD in order to inform the discussion on changing economic patterns in the southern Levant during these periods. As this article is principally concerned with distribution patterns, there will be limited discussion of the individual types, their forms and dating evidence; the distribution maps represent evidence at type-level only.

The research is based on the work of Kate da Costa on the ‘economic cycles’ of lamps at Pella (da Costa 2010: 70-87). This contribution is intended to supplement her work, as the examples from Tall Zar‘ā will shed some light on the Hellenistic and Roman periods, in addition to the Byzantine period described in her article.

The material presented here derives from two of the three excavation areas and was recovered between 2004 and 2011.

Tall Zar‘ā

The *tall* is located in Wādī al-‘Arab, 4.5 km south-west of Gadara (modern Umm Qays) (FIG. 1). It rises 22 - 40 m above the *wadi*, is situated 17 m below sea level and has a summit diameter of *ca.* 160 m (FIG. 2). The

excavations cover a timespan from the Early Bronze Age to the Islamic period, with the most recent settlement being documented in 1880 by Schumacher. As mentioned above, all material derives from excavation areas I and II (FIG. 3).

Hellenistic - Roman period Area I was located at the edge of the *tall*, next to area II. The archaeological material on the site is indicative of a small settlement during this time period.

From the pottery and architectural remains, as well as by correlation with historical events, it has been established that the settlement on the *tall* was modified several times between the Hellenistic and Byzantine periods (Vieweger and Häser 2013: 34-39).

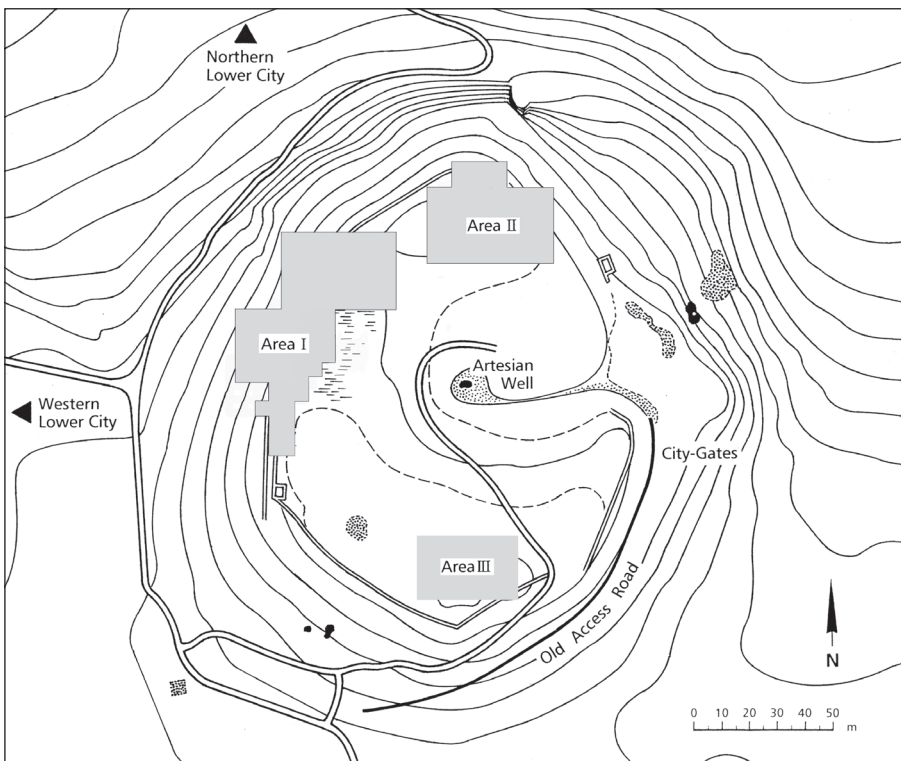
In the Early Hellenistic period, it was most likely a fortified checkpoint on one of the smaller access roads to Gadara. In the Late Hellenistic and Early Roman periods this checkpoint expanded into a part-military, part-civilian settlement. After the migration of many residents into the prosperous Decapolis city of Gadara - probably during the 3rd century AD - the settlement shrunk back to being a checkpoint. Most likely at the beginning of the 4th century AD, a planned settlement was built, which became an important agricultural center



1. Map of Jordan with Tall Zar‘ā in the north-west (© www.primap.com modified by Frauke Kenkel 2014).



2. Tall Zar'ā in Wādī al-'Arab (© BAI/DEI).



3. Plan of Tall Zar'ā showing excavation areas I - III (© BAI/DEI).

after numerous expansions and modifications (Kenkel 2012: 308-324).

Tall Zar'ā did not have its own ceramic industry during these periods, probably for economic reasons, and there was thus no separate lamp production at the site.

Material

In total, nearly 200 lamps were examined. These consisted primarily of fragments, with just a few intact examples. In order to obtain sufficient quantitative data for statistical analysis, all lamp fragments were recorded¹.

1. Full descriptions of every lamp-type found at Tall Zar'ā can be found in: F. Kenkel (2012) *Untersuchungen zur hellenistischen, römischen und byzantinischen Keramik des Tall Zar'ā im Wādī*

al-'Arab (Nordjordanien) - Handelsobjekte und Alltagsgegenstände einer ländlichen Siedlung im Einflussgebiet der Dekapolisstädte. University of Cologne dissertation.

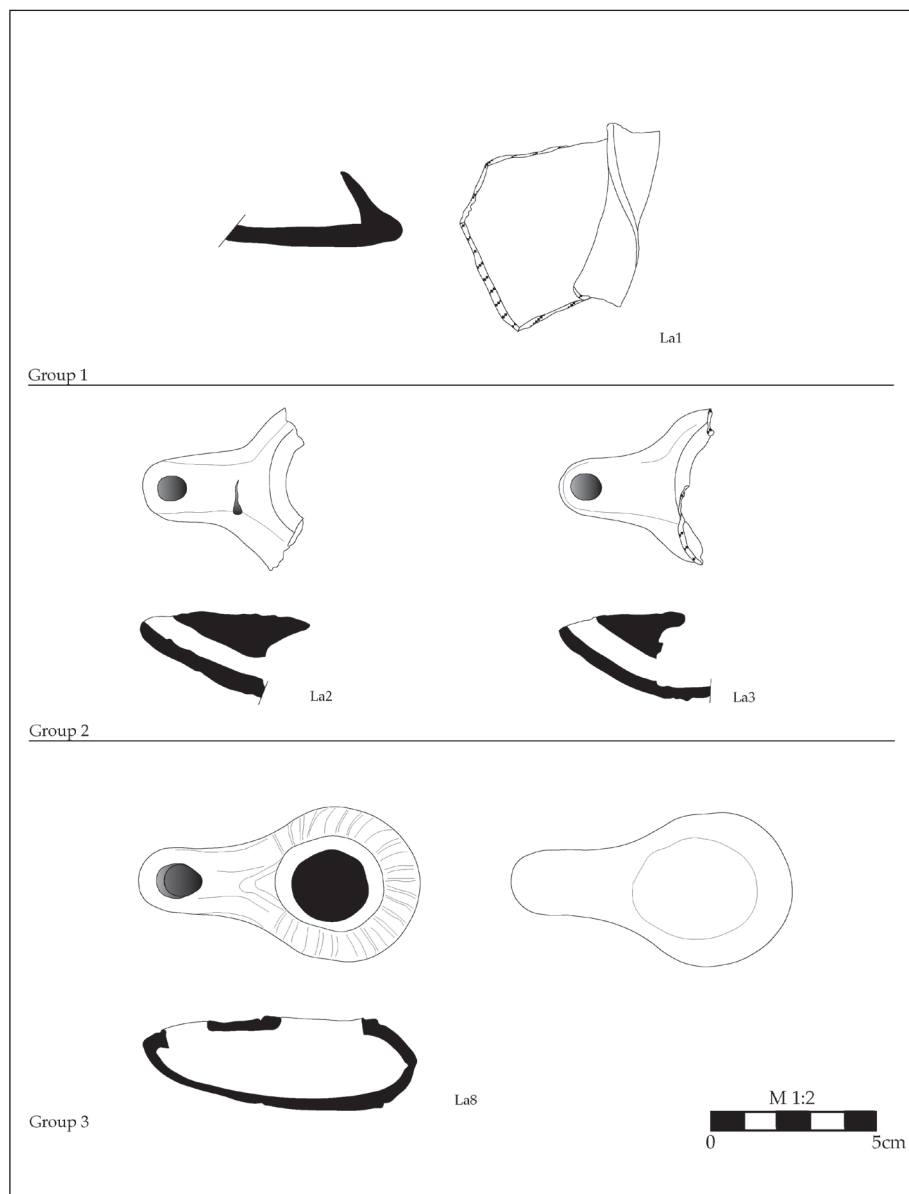
Many fragments came from contexts that had no stratigraphic integrity or significance, yet for the study of lamps they are of principal importance.

This cataloguing of the lamps from Tall Zar‘ā distinguished between (1) those which can be attributed to a type with certainty (if not a particular form or group within the type), (2) those which, owing to their fragmentary or damaged nature, can only be tentatively identified as a type and (3) those which can only be identified as the products of a certain time period.

The largest range of different lamp-types comes from the Hellenistic period of the 2nd to

1st centuries BC. Only one fragment of an Early Hellenistic so-called ‘saucer lamp’ has been identified so far (FIG. 4, La1). It is similar to examples from the 4th - 3rd centuries BC and continues the tradition of Iron Age and Persian lamps (Amiran 1969: 293, plate 100, fig. 14-10; Rosenthal and Sivan 1978: 76-77, 79; Sussman 2007: 487-490). In contrast, 22 examples belong to the 2nd - 1st centuries BC. In addition, there are 11 examples that mark the transition from the Hellenistic to the Roman period.

The Hellenistic lamps thus constitute about 20% of the total lamp repertoire on the *tall*. Altogether, the Hellenistic lamps could be divided into eight typological groups. Group 8,



4. Lamps from the Hellenistic period (© Gadara Region Project). Group 1: so-called ‘saucer lamp’ (Early Hellenistic); Group 2: local examples of Howland types 25 and 32 (3rd - 2nd to 2nd - 1st centuries BC); Group 3: ‘radial lamps’ (2nd - 1st centuries BC).

which comprised fragments that could not be more closely assigned, was not looked at for this study. As well as the singular example from Group 1 - the 'saucer lamp' (FIG. 4, La1) - the following six groups represent the Hellenistic period:

Group 2 includes eight local examples of Greek-style lamps of Howland types 25 and 32 (FIG. 4, La2-La3). They are the earliest representatives of the Hellenistic lamps and may date back to the 3rd - 2nd centuries BC rather than the 2nd - 1st centuries BC (Rosenthal and Sivan 1978: 78).

The Greek models arrived mainly from the coast, through Phoenicia and ancient Palestine, into the hinterland where they were quickly integrated into local productions (Stern 2007: 210). However, the earlier examples seem to be restricted to the north of ancient Palestine. Representatives of this type were found at Dor, Gezer, Pella and Samaria, as well as at Tall Zar'ā (Crowfoot *et al.* 1957: 366-367, fig. 85; Gitin 1990: 447, plate 31, fig. 25, plate 47 A, fig. 13-14; Kenkel 2012: plate 49, fig. La2-La7; Stern 1995: 235, fig. 5.14).

The 'radial lamps' are represented by four examples in Group 3 (FIG. 4, La8) (Crowfoot *et al.* 1957: 369, fig. 87.1; Grawehr 2006, 272, fig. 4; Hayes 1980: 68, plate 8; Kennedy 1963: 484, plate XX; Mittmann 1987: 283, fig. 261; Rosenthal and Sivan 1978: 13, fig. 22; Waagé 1941: 74, fig. 75, 13C:41; Sussman 2009: 178, fig. 178). They imitate Greek models of the 2nd - 1st centuries BC. As well as being found at numerous sites in the north, this type was also very common in the south of ancient Palestine (Kennedy 1963: 71).

The prototypes of Group 4 also arrived from Greece and were then produced in local workshops (FIG. 5, La14). Three examples of mould-made lamps with volute nozzles from the 2nd - 1st centuries BC belong to Group 4 (Bailey 1975: plate 102, Q 509; Stern 1995: 275, fig. 5.16). They are in the Attic tradition and are, for example, also known from Antioch,

Dor, Gamla and Tarsus (Goldman 1950: 7, fig. 95; Stern 1995: fig. 5.16, 5.20; Waagé 1941: 55-82). Only three specimens of the so-called 'delphiniform' lamps have been identified in the repertoire of the *tall* so far (FIG. 5, La15). These lamps were widespread over the entire eastern Mediterranean, even as far south as Petra, in the 2nd - 1st centuries BC (Walters 1914).

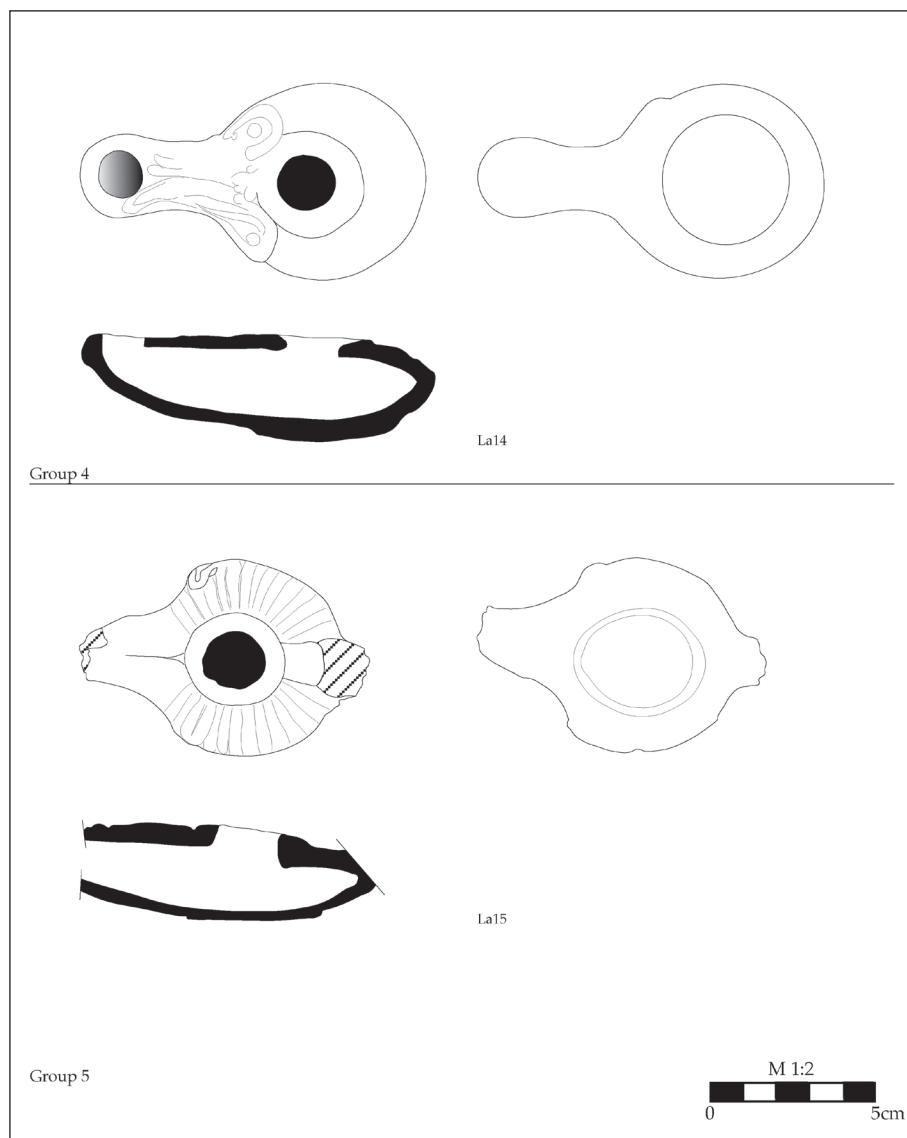
Group 6 contains the Late Hellenistic examples. Currently only two examples of Broneer Type XVIII can be assigned to that group (FIG. 6, La17-La18). They probably date to the end of the 2nd and into the 1st century BC. This type was produced throughout the eastern Mediterranean area and probably had prototypes in Asia Minor (Crowfoot *et al.* 1957: 369-370, fig. 1, 3-4).

After 200 BC a unified Hellenisation of the research area gathered pace, with the result that the influence of Greek forms was particularly strong in the 2nd - 1st centuries BC. Because the new types most likely arrived via Asia Minor and the coastal cities of the southern Levant, the influence of the new lamp-groups was stronger in the north but soon spread across the whole region (FIG. 7). By the end of the Hellenistic period, the development of lamp-types in local traditions had already occurred (Rosenthal and Sivan 1978: 75).

With the Roman impact a stronger division between different areas of influence was tangible, with Nabataean-controlled areas clearly diverging from elsewhere.

Imports decreased and more local types were produced, often with rather small areas of distribution. Imitations of Roman discus lamps and examples without discus were made throughout Transjordan (Kenkel 2012: 274-275).

At Tall Zar'ā, the Roman lamps are represented by a total of seven groups; the last group - Group 15 - consists of unattributable fragments and has therefore been excluded from this study. 83 examples, which could be divided



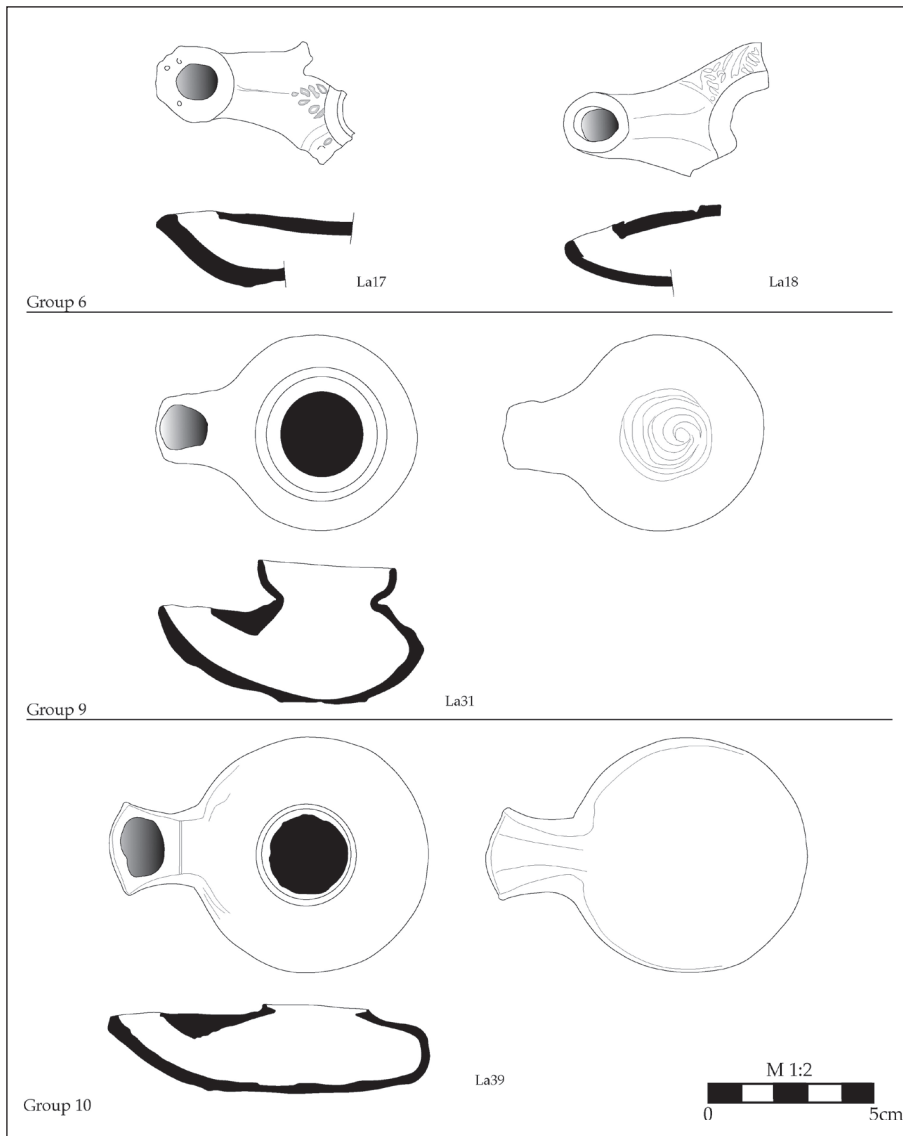
5. Lamps from the Hellenistic period (© Gadara Region Project). Group 4: mould-made lamps with volute nozzles (2nd - 1st centuries BC); Group 5: so-called ‘delphini-form lamps’ (2nd - 1st centuries BC).

into two main phases, remain. The first phase includes lamp-groups of the second half of the 1st century BC to the 2nd century AD, while the second phase dates to the 3rd - 4th centuries AD. The first phase, the Early Roman period - to which most of the examples belong, is represented mainly by the so-called ‘Herodian lamps’; it contains half of all the Roman lamps found on the *tall*.

Another Early Roman example is the so far singular representative on the *tall* of the so-called ‘northern collar-neck lamp’, which has great similarity with examples from Sepphoris (FIG. 6, La31) (Adan-Bayewitz *et al.* 2008: 74). Both the ‘northern collar-neck’ and so-called ‘Herodian lamps’, (FIG. 6, La39) were

mainly present in the north of ancient Palestine (Adan-Bayewitz *et al.* 2008: 72). Production centers for the latter were Dor, Jerusalem and Scythopolis (Adan-Bayewitz *et al.* 2008: 37). In addition to Tall Zar‘ā and the above-mentioned production centers, they are also known from Gadara, Gamla, Iotapata, Pella and Samaria, but they do not occur in Nabataean-controlled areas such as Jerash and Amman. Exceptions are the finds from Mampsis and Oboda (Negev 1986: 130-131).

With a total of 21 examples, Groups 11, 12 and 13 also belong to the Early Roman period. The Group 11 lamps in FIG. 8 represent examples from the 1st century AD, which are wholly in the Hellenistic tradition



6. Lamps from the Hellenistic and Early Roman period (© Gadara Region Project). Group 6: Broneer type XVIII (end of the 2nd and into the 1st century BC); Group 9: 'northern collar-neck lamp' (Early Roman); Group 10: so-called 'Herodian-lamps' (Early Roman).

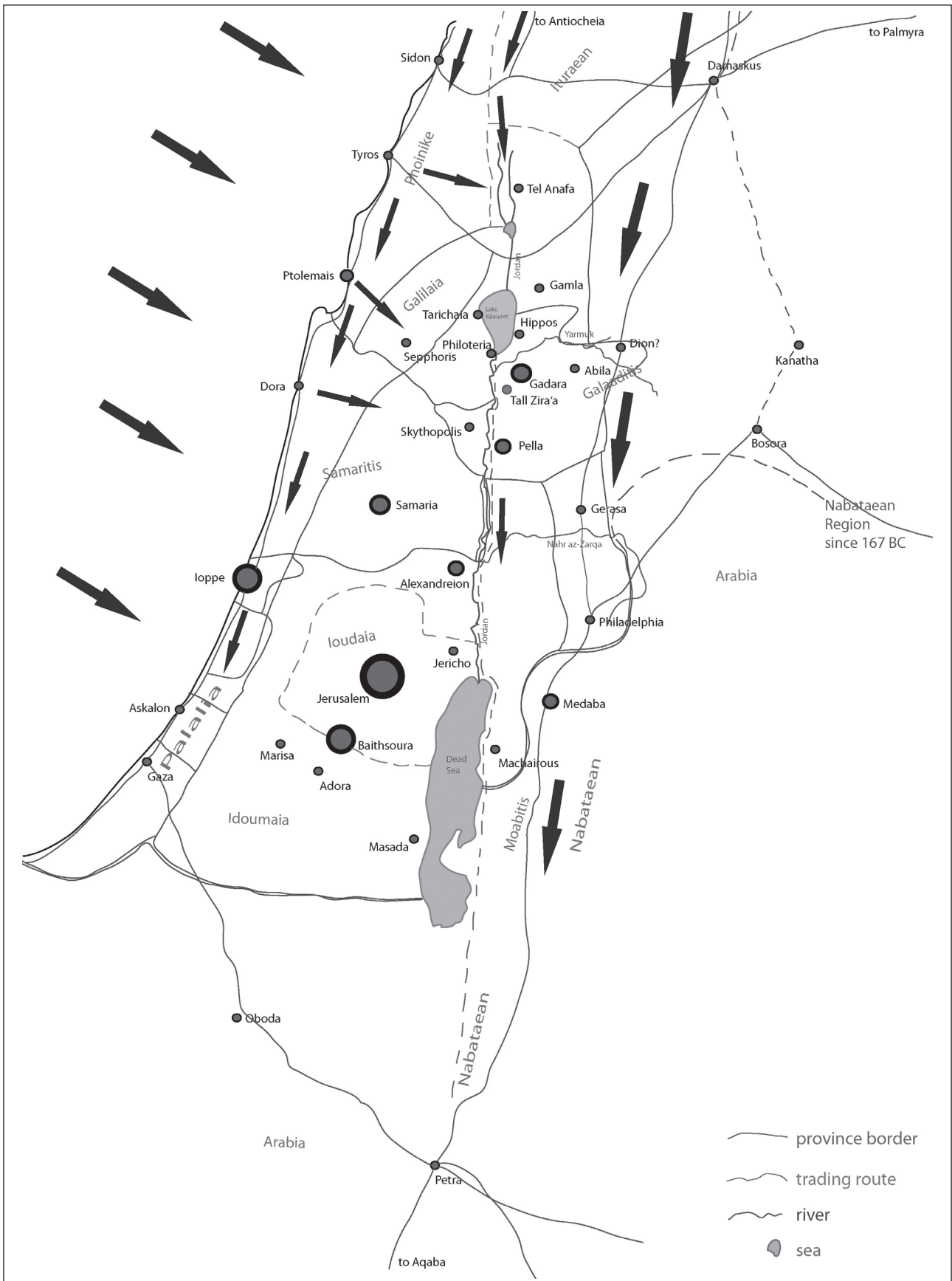
(Kenkel 2012: 279-280). Group 12 contains five examples of 'Transjordanian mould-made lamps' (FIG. 8, La44) and wheel-made specimens, predominantly from the last quarter of the 1st century AD (FIG. 8, La47-La48). They are considered a northern variant of the 'southern-lamps' and were produced in different production centers, including Jerash (Hadad 2002: 148; Lapp 1997: 45; Rosenthal and Sivan 1978: 82).

The locally manufactured, round-bodied Roman lamps with and without discus of Group 13 are represented by 14 examples dating from the second half of the 1st to the 2nd - 3rd centuries AD (FIG. 9, La54, La58). They reflect the strong Roman influence in this period and

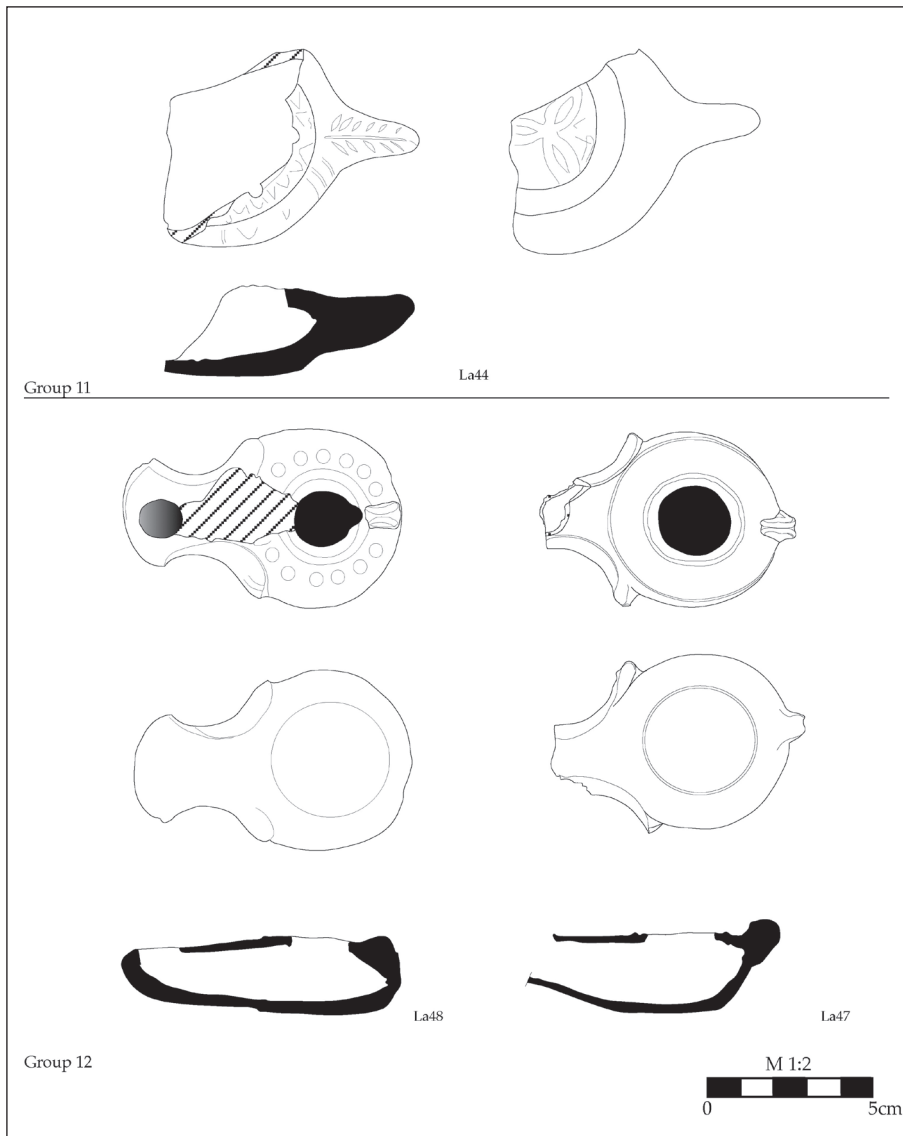
were widespread in the southern Levant and Nabataean territory (Bailey 1980: 56-85; Rosenthal-Heginbottom 1981: 132).

Group 14 is one of the Late Roman and Early Byzantine occurrences. It includes lamps with bow-shaped nozzles, known mainly from the north between the 3rd and 5th centuries AD (FIG. 9, La63). Because of the numerous product groups, it can be assumed that there were several production centers that produced this type of lamp (da Costa 2010: 75; Hadad 2002: 61; Lapp 1997: 67; Rosenthal and Sivan 1978: 104-108).

The following narrative for Roman-period lamps can be reconstructed. First, there was a greater frequency and diversity of lamps in



7. Distribution map of Hellenistic oil lamps, with arrows showing the main directions from which different influences arrived. (© Frauke Kenkel 2014, GPIA Amman)



8. Lamps from the Roman period (© Gadara Region Project). Group 11: lamps influenced by the Hellenistic period (Howland type 50 C) (1st century AD); Group 12: ‘Transjordanian mould-made lamps’ (La48) and wheel-made examples (La47) (predominantly from the last quarter of the 1st century AD).

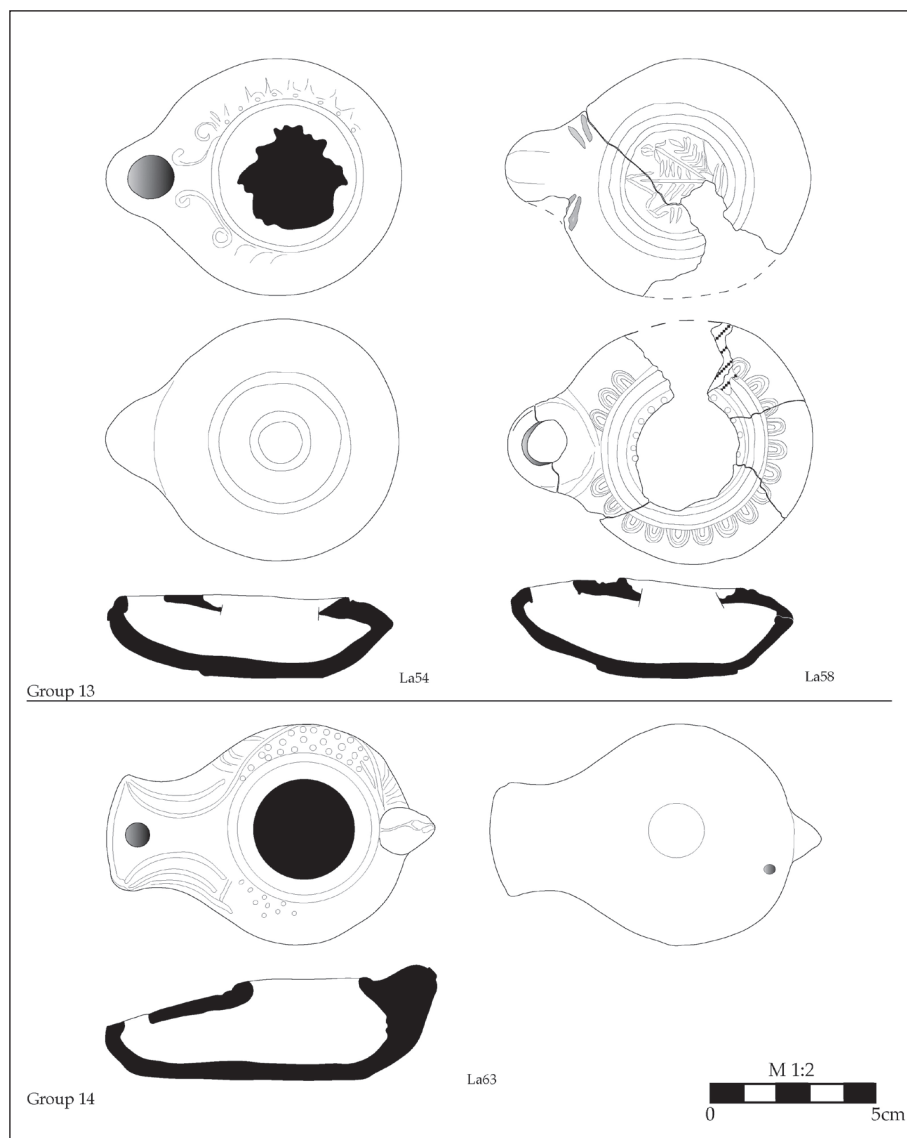
the Early Roman period, which decreased considerably in the Late Roman period (Kenkel 2012: 289-290). There were also locally produced lamp-types that were restricted to the north, with Wādī Zarqā’ forming a natural geographical boundary (MacAdam 1992: 32). Within the locally produced types, a north-south and east-west divide can be identified, reflecting the borders of the Nabataean kingdom until 106 AD (Watson 2008: 453-454). There is some evidence to suggest that the establishment of the Decapolis region resulted in a rejection of Nabataean influence. Imitations of Roman discus lamps were, however, found throughout the southern Levant (Zanoni 1996: 319).

The influence of Galilee and Judea,

especially in the Early Roman phase, can also be seen in pottery, particularly cooking wares (FIG. 10) (Kenkel 2012: 190).

In the Byzantine period, a significant reduction in the frequency and diversity of lamps can be seen. Only four different groups have so far been identified on the *tall*, with a total of 15 examples; two groups are represented by just one example each.

Group 16 is represented by nine lamps of the so-called ‘balanceolate’ type, dating to the 3rd - 5th centuries AD (FIG. 11, La82). Like Group 14, this group represents the transition from the Roman to the Byzantine period. The manufacturing center for northern examples was probably near Scythopolis. The distribution



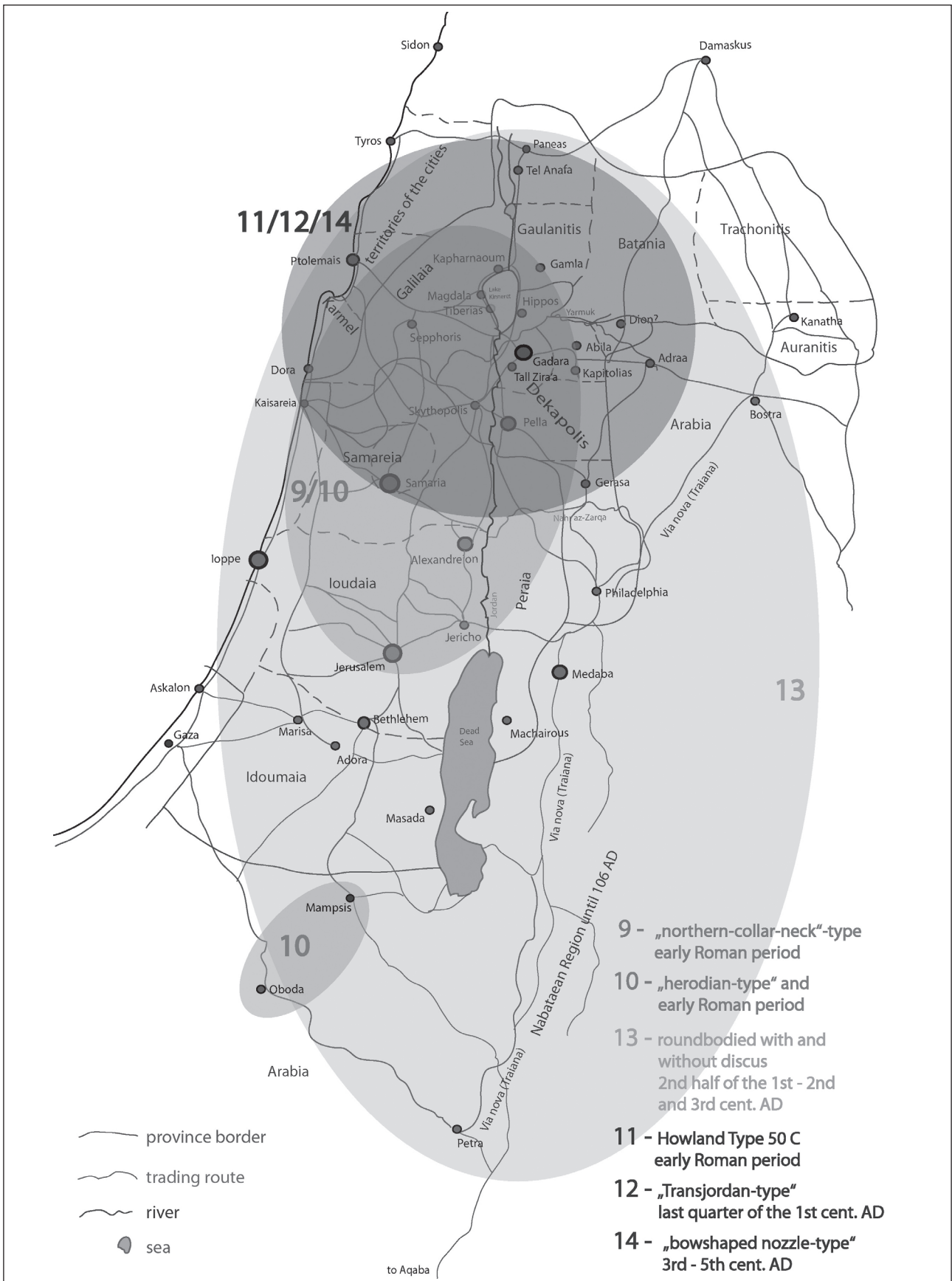
9. Lamps from the Roman and Early Byzantine periods (© Gadara Region Project). Group 13: Round-bodied Roman lamps with and without disc (mainly second half of the 1st to the 2nd century AD); Group 14: lamps with bow-shaped nozzles (3rd to 5th centuries AD).

of this type is mainly restricted to *Palestina Secunda* (da Costa 2010: 73; Hadad 1997: 154, 2002: 148; Kennedy 1963: 77-78; Lapp 1997: 54; Rosenthal and Sivan 1978: 111).

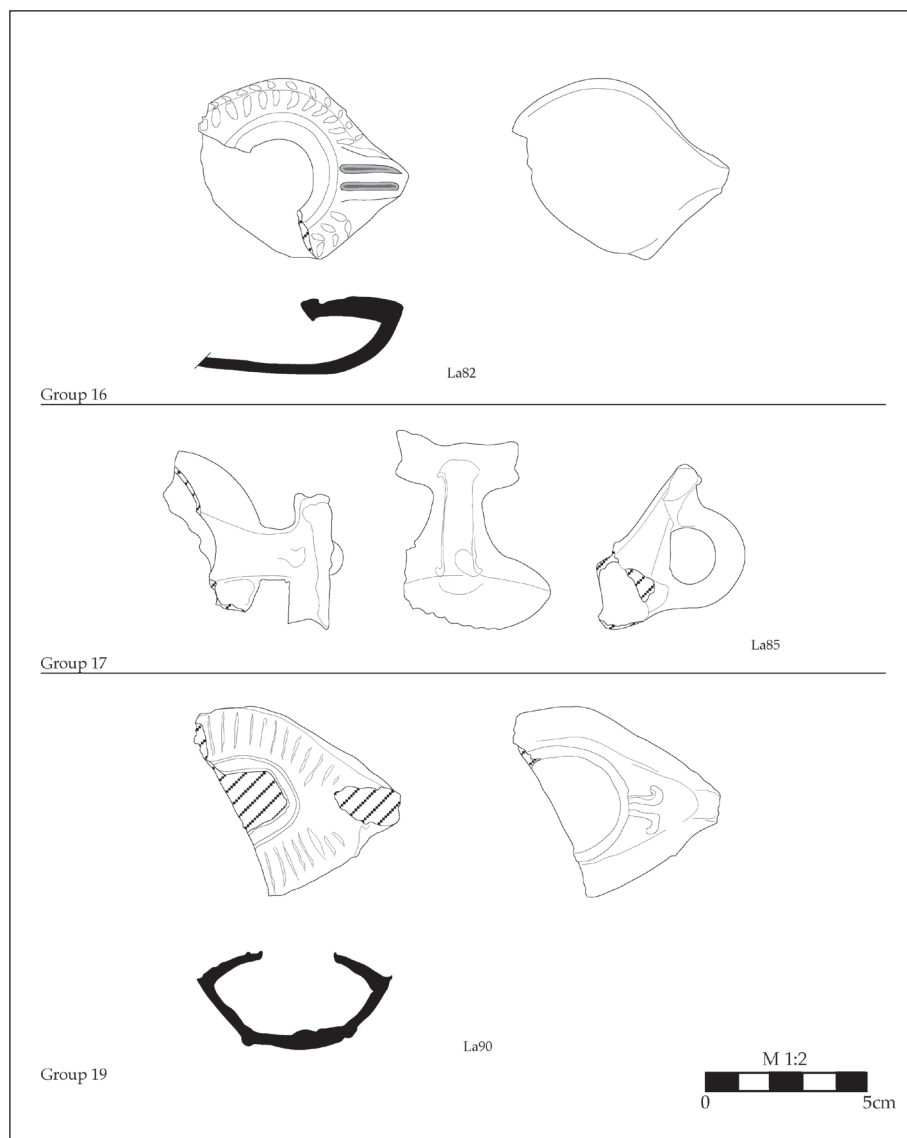
Group 17 is represented by only one example, of which only the back part survived (FIG. 11, La85). The remnants of the handle can be reconstructed into a cross. Examples of this form can be found in Jerusalem, where they date from the middle of the 6th to the 7th century AD (Bailey 1996: 65-67, plate 81; da Costa 1988: 58-59, plate 42; Hirschfeld 2000: 156; Magness 1993: 251, form 3).

Group 18 includes four examples of the ‘northern Jordan-type’ (FIG. 12, La86, La89), which can be divided in two variants with

different decoration patterns and nozzles. As the name suggests, these were particularly common in northern Transjordan (Kenkel 2012: 293-295). To date, this type is not known south of Jarash. It has been identified at Abila, Pella and Gadara (Fuller 1987: 125-126; Houston Smith 1973: plate 65, fig. 225, 239/255, 253). At Gadara, it makes up 30% of the identified oil lamps (Hoffmann and Weber 1990: 335). This group was in use from the 5th to 6th centuries AD, and partly into the 7th century AD (da Costa 2010: 75-76; Hoffmann and Weber 1990: 336). As well as Jerash, Kapitoliás may have been another production center, as moulds of this type were found there (da Costa 2010: 75-76). The proportion of ‘northern Jordan-type’



10. Distribution map of Roman oil lamps, with arrows showing the main directions from which different influences arrived. (© Frauke Kenkel 2014).



11. Lamps from the Late Roman and Byzantine periods (© Gadara Region Project). Group 16: so-called ‘bilan-ceolate lamps’ (3rd to 5th centuries AD); Group 17: ‘cross-handle lamp’ (mid-6th to 7th centuries AD; Group 19: so-called ‘Jerash lamps’ (second half of the 6th to the mid-8th century AD).

lamps at Pella is just 2.1%. From this one can conclude that they had a relatively restricted distribution, limited to north of the Decapolis/Palaestina Secunda. Stronger regionalization can be also seen in the everyday pottery (Kenkel 2012: 243-247).

Group 19 (FIG. 11, La90) includes only one example of the so-called ‘Jerash lamps’, which date from the second half of the 6th century until the middle of the 8th century AD. The name refers to the origin of these lamps, which were common in northern Transjordan (da Costa 2010: 78-79; Hirschfeld 1997: 325; Kehrberg 1989: 85-97).

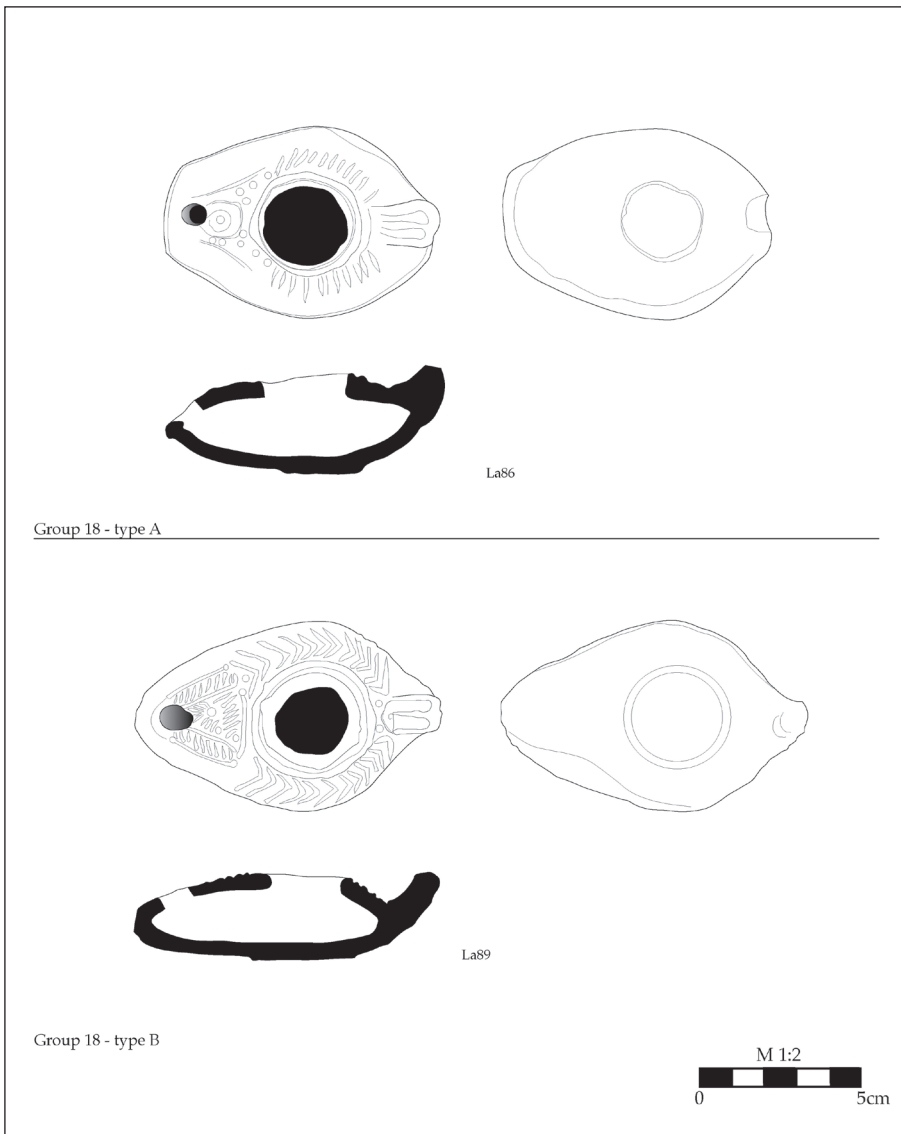
Since the Byzantine examples account for only 15% of the total number of lamps

recovered, it can be assumed that these were increasingly made from other materials such as glass and bronze (Groh 1997: 229).

The distribution of lamp-groups in the Byzantine period reinforces the narrative of increasing regionalization evidenced by study of pottery vessels (Watson 2008: 453-454). The different types are distributed over smaller areas, but concentrate mainly in northern Transjordan (FIG. 13).

Conclusion

The distribution patterns of ceramic lamps excavated at Tall Zar‘ā will shed light on only part of the trading network with which they were associated. A proper understanding of that



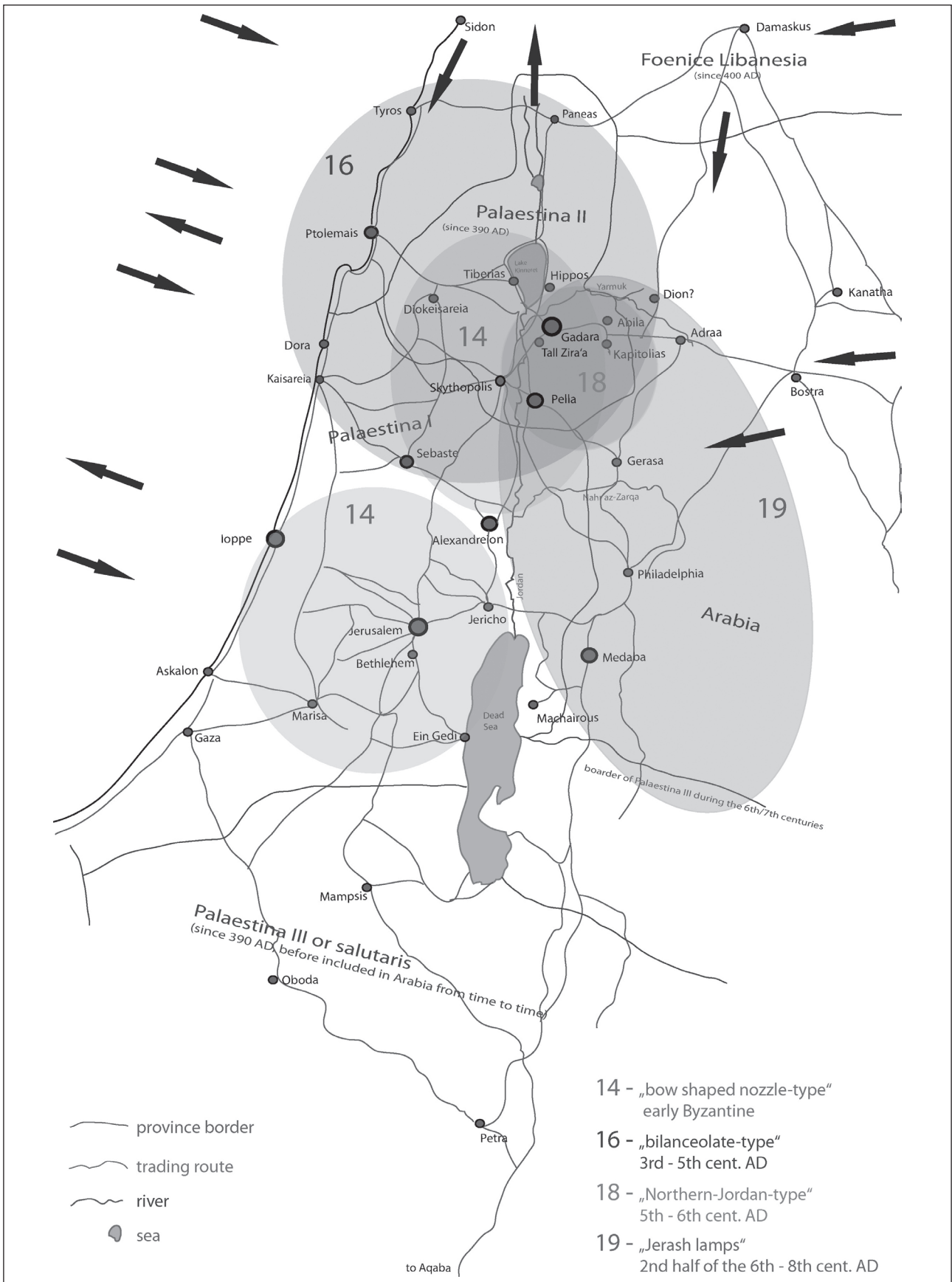
12. Lamps from the Byzantine period (© Gadara Region Project). Group 18: 'Northern Jordan-type' (both types [A and B] from the 5th - 6th and partly into the 7th centuries AD).

network will only be possible when more artifact classes have been studied. Artifact distributions also need to be linked with historical or political trends; the data presented here are therefore too narrow to support a full discussion (da Costa 2010: 79).

During the 2nd to 1st centuries BC a wide range of Greek-influenced lamp-shapes found their way across Asia Minor or via the sea route to Transjordan, and thence to Tall Zar'ā. The campaign of Alexander the Great encouraged the Hellenization that can be seen in locally made imitations of Greek prototypes, which were found across the eastern Mediterranean (Rosenthal and Sivan 1978: 75). The material suggests that they spread from north to south,

with provincial boundaries being no obstacle to the wide distribution of Hellenistic forms. At the end of the Hellenistic and beginning of the Early Roman period, the development of lamp-types within local traditions already existed. This change is evidenced in the Early Roman period by a greater number and variety of lamps, which then decreased again towards the end of the Roman period. There were locally produced types restricted to the north of Transjordan, which are often associated with a Jewish population, such as the so-called 'Herodian lamps'. Within the forms produced in local traditions, a clear north - south divide can be seen.

Imitations of Roman discus lamps and their



13. Distribution map of Byzantine oil lamps, with arrows showing the main directions from which different influences arrived. (© Frauke Kenkel 2014).

locally produced 'sisters' without discus are found throughout ancient Palestine. They tend to be associated with pagan populations.

The influence of Galilee and Judea can also be seen in pottery, especially the cooking ware of the Late Hellenistic and Early Roman periods (Kenkel 2012: 190). From the 4th century AD onwards, a general decline in the material remains can be seen, along with stronger regionalization, which is probably linked to lamp-types being locally manufactured (da Costa 2010: 80).

For Pella, da Costa has established that most lamps arrived via the Decapolis city of Scythopolis (da Costa 2010: 80). The same most likely applies to Gadara and Tall Zar'ā, as one of the routes from Scythopolis to Umm Qays passed the *tall* (FIG. 13). A close connection of the *tall* with the nearby city of Gadara has already been established on the basis of the pottery vessels, so it is not surprising that a similar variety of lamp-types is seen there (Kenkel 2012: 308-326).

It is likely that trade relations were mainly restricted to the provinces of the southern Levant, especially Palaestina Secunda, as few examples from Jerash and the Hauran have been found at Gadara, Pella or Tall Zar'ā (da Costa 2010: 81; Kenkel 2012: 295-296). Nevertheless, the provincial boundaries must have had an impact on trade, because crossing them would have incurred customs duty, taxes and fees. For example, lamps made in Jarash only appear at Pella at the end of the 6th century AD, even though a good road connected the two cities. Customs duty was payable at major provincial boundaries, e.g. between Palaestina and Arabia, into the 6th century AD. Additionally, changes in various Late Antique economic, political and military structures can be seen from the 5th and into the 6th centuries (da Costa 2010: 82).

Because our dating evidence is so imprecise for lamps (and indeed for most other ceramic classes) it is difficult to judge when the phenomenon of multiple manufacturing centers

reached the level we see in the 5th century AD.

The process began in the 4th century AD, with stability in the southern Levant contributing to the improving economic situation. Reorganization in the province under Diocletian meant that traditional trade routes were interrupted by customs regulations at provincial boundaries. Therefore, less profitable items such as lamps were only distributed within their province of manufacture from the 4th century AD onwards (Sussman 2009: 2).

In the 5th century AD prosperity increased significantly, reinforced by the construction of numerous churches and the developing oil and wine industry. The west was lost, and with the fading of western influence the development of local forms was favoured (da Costa 2010:83).

During the 6th century AD, the economic situation and administrative conditions changed again. The reorganization of the empire by Justinian, plagues and earthquakes, the threat from the east and the decline of Antioch certainly affected market structures in the southern Levant. Also, a decline in the strict observance of provincial boundaries can be detected in the 6th century AD. This meant that there were fewer, but more widespread, types between the 6th and 8th centuries AD.

Da Costa has established that Pella was now at the center of distribution areas. Presumably, the trade was now tied to Pella and other former Decapolis cities, with the result that lamps were now crossing the Palaestina - Arabia and Palaestina - Phoenicia borders. Although pottery came from the west and was strongly influenced by this up to the 6th century AD, the pottery of the 7th century AD came mostly from local workshops such as Jerash. The regional networks seem to have been orientated more east - west. From the middle of the 7th century AD, trading areas reduced and shifted from the west to the east. This reorientation can also be seen in the pottery vessels (Magness 2010: 131-138; Watson 1992: 246). It appears that between the 4th and 6th centuries AD more workshops produced lamps,

a development which was probably linked both to a general rise in prosperity and the effects of provincial administrative changes (da Costa 2010: 86). “Over the course of the second half of the 6th century there was an economic downturn. Small lamp makers went out of business and only the very large centers survived in the 7th century, each distributing more widely” (da Costa 2010: 86). It is also certain that some of these later types were made at more than one site.

The distribution of certain lamp-groups over the centuries was partly influenced by the changing of provincial borders, but also by the development of different cultural environments and their ‘transparent borders’ (da Costa 2009: 731-736). This is especially true in the case of examples that were produced within and influenced by local traditions. At the same time, the most widely-imported forms succeeded in crossing all borders.

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