# A Late Antique City Quarter in Ephesos: Social Differentiation and Functional Heterogeneity

# Helmut Schwaiger - Katharina Sahm - Jasmin Scheifinger

Many architectural structures that have been excavated in Ephesos, are generally interpreted as tabernae.<sup>1</sup> This interpretation is based on their location within the buildings and their urbanistic context along the streets (fig. 1).

So far the Ephesian tabernae have received little attention, largely because, as a building type, they appear relatively frequently, both in archaeological excavations in other cities in the west (e.g. Pompeii² and Ostia³), as well as in literary sources. Only rarely, however, have tabernae been a distinct area of research. Often the excavation ended at the facade of the insulae because the researchers were more interested in the street itself and its accompanying porticoes. In other cases, structures, which were later built within the porticoes, were frequently removed without precise documentation or were not completely excavated.

In Ephesos, among the earliest tabernae of the Imperial period, which are known so far, are those from the Terrace House 2<sup>4</sup> and the earlier structures along the Street of Domitian.<sup>5</sup> These were erected in the early first century BC. In the course of the large-scale urban transformations, which accompanied the rise of the city to a provincial capital in the Augustan-Tiberian period, tabernae arose along the streets and were integrated into the newly built insulae. These have been excavated, for example, in the two Terrace Houses<sup>6</sup> along the Curetes Street<sup>7</sup> – which were later overbuilt – and also along the South Street in the area of the Upper Agora.<sup>8</sup> When the great gymnasia – the Vedius Gymnasium and the East Gymnasium – were erected towards the end of the first until the mid-second century, tabernae along the adjacent streets were also part of the building concept.

In the third quarter of the third century, a series of earthquakes shook the city and caused immense damage to the entire urban development. For the following decades, the archaeological evidence indicates an absence of any building activity. In the middle of the fourth century, the first reconstructive measures can be observed, which – at first carried out in what appears to be haphazard fashion – reached their peak at the end of the fourth and the beginning of the fifth century. Some imperial structures were repaired or rebuilt, but there were also complexes, and even entire city quarters, which were built completely anew. 10

The majority of the tabernae visible today were built at the beginning of the late antique phase of the city; they offer a glimpse of both micro- and macro-economic activities of Ephesos. In many places, it can be observed that space, which used to be public, was turned into commercially utilized areas. The upper section of the Curetes Street can be regarded as a clear example for this development. The portico was successively walled up – a phenomenon, which occurred in other cities of Asia Minor as well.<sup>11</sup> Very often



Fig. 1: Map with the Late Antique tabernae in Ephesos.

in these commercially used spaces, a phase of destruction – frequently caused by fire – occurred in the course of the seventh century. Whereas some tabernae offer only a snapshot from said period, due to their structural configuration, other tabernae allow the reconstruction of their entire life cycle – from their initial construction and the period of their everyday use up until their destruction.<sup>12</sup>

The Ephesian tabernae of the Imperial period show a strict structural separation from the privately used areas, which are generally located behind or above them. Only in the case of residential unit 6 in Terrace House 2, there is an indication of a connection between the entry and the adjacently located tabernae;<sup>13</sup> these were located on the property of the residential unit's master. Unfortunately, the archaeological evidence does not indicate whether he rented out these commercial units or used them himself. The tabernae in the north of residential unit 7, were after the late Severan period, probably connected to the private rooms in the south. But the state of the structures does not allow definitive conclusions.<sup>14</sup>

In the course of late antique rebuilding activities of imperial structures, the tabernae of Terrace House 1 (fig. 2) were expanded northward. In addition, stairs leading to the upper floor were built, which was probably used as a living quarter for the family who worked at the tabernae.<sup>15</sup> The architectural evidence indicates that a strict separation between this area and the residential area of Terrace House 1 was maintained.<sup>16</sup>



Fig. 2: Tabernae in the front row of Terrace House 1.

Between 2011 and 2018 new excavations have taken place in the lower city of Ephesos, where an area of roughly 1800 square meters was selected based on the results of a geophysical archaeological prospection. The excavated houses were built in the late fourth / beginning of the fifth century and traces of activity here extend up to the 14th century. The prospection data shows that these structures are part of a large city quarter which was constructed in the area of the imperial Harbor Gymnasium and the xystoi in the east. This transformation of formerly public into privately used space at such an enormous scale was presumably carried out at the initiative of an urban authority. More or less simultaneously, the nearby Flavian Harbor Baths were extensively renovated.

In the late antique period the city center developed in this region: in addition to the seat of the Archbishop and Metropolite, the church belonging to this authority was also found here - the Church of St. Mary. In the course of the second half of the fourth century, an imperial basilica was transformed into an early Christian church. Originally the basilica formed the southern part of the Olympieion, a temple precinct erected under Emperor Hadrian and dedicated to Zeus Olympios. Whether it was the fact that it was a formerly pagan cult site, or whether it was the size of the building that was decisive for the choice as Episcopal Church remains an open question. Indicative of the significance of the late antique Ephesos is its infrastructure. The road to the



Fig. 3: Drone picture of the excavated Late Antique residential quarter.

south of the Church of St. Mary formed a direct connection to the northern part of the harbor, which was at this time still an important hub for a variety of goods and wares and which also served as a transit site for passengers. This latter aspect was additionally enhanced by the increasing traffic of pilgrims. This street is not much narrower than the so-called Arkadiane, the main road that connected the harbor with the theater. Its size is signifying its importance. It can, therefore, be assumed that this newly excavated city quarter (fig. 3–4) was situated in one of the best regions of the late antique city, where a huge number of visitors were to be found.

Based on the findings discovered in the first years of the excavations and also those, which were already found in the late 19<sup>th</sup> century in the nearby Harbor Gymnasium, it was until recently assumed that this complex represented a unified, large-scale city palace of prestigious character. This interpretation ought to be revised. In fact, there are three independent houses, which show considerable differences in size. These were erected in the early fifth century, and they show signs of massive destructions that occurred mainly in the second half of the seventh century. From the typology of their layouts, the westernmost house and the one in the middle conform to the tradition



Fig. 4: Map with representative and economic/commercial rooms.

of imperial peristyle houses, whereas in contrast, the easternmost house has a court without columns. These courtyards served as places of communication and also functioned as dividers. Around them were arranged, according to the possibilities of the existing building space, rooms of differing function and equipment. The courtyards could be accessed via entrance rooms in the north, which open into a portico alongside the road.

Many of the rooms did not show a specific form or interior so that their character cannot be identified properly. In other rooms, changes in function can be observed. In any case, in all three of the houses regions can be identified which, due to their floorand wall decoration as well as in part due to the preserved archaeological evidence, were clearly of prestigious, representative character. In contrast, rooms can be recognized



Fig. 5: Detail picture of the opus-sectile floor, room 1.16.

within the houses, which, due to the installations preserved within them, were used for activities associated with the household economy. This is also confirmed by the inventory excavated there.

This is very clearly indicated in the last phase of House 1: the large courtyard (1.11) was used to access the surrounding rooms, which can be divided into commercial and representative units.

The rooms of representative character were located at the south of the courtyard. To this category belonged a sequence of three rooms, which could be entered in the southwest corner of the peristyle (1.13, 1.14, 1.17); they display polychrome mosaic floors with a variety of geometric patterns. A sword and the point of the scabbard belonging to it, as well as the point of a lance, which was probably placed at the wall of 1.14 as a collection of regalia, make it likely that this space was an audience room of the master of the house. Further east, two other representative rooms with opus sectile pavements could be excavated (1.18 and 1.16). The second one (fig. 5) shows

an apsis in the south, which is elevated by a step. The walls are decorated with wall paintings, only partially preserved, carried out in imitation of marble incrustation. In the north wall two closable cupboards were set, their contents consisted primarily of objects of bronze and glass. In the destruction horizon remains of carbonized decorative elements of furniture have been preserved. This room may have served as a reception or as a dining room.

Fragments of wall paintings, marble incrustations and many opus sectile pieces, which were found in the destruction layers of the upper story, indicate the elaborated and preciously interior of these rooms. This house is, therefore, best to be interpreted as the residence of a family of the uppermost social class of late antique Ephesos.

On the other hand, in the north and west of the courtyard, rooms of clearly commercial and economic function can be identified. In one of these rooms (1.12) a platform and a parallel shaft were set along the entire southern side wall. This combination of platform and shaft is also encountered in other rooms of this city quarter.<sup>20</sup> The shafts could probably be covered by wooden boards and were most likely used as storage spaces. This assumption is supported by the specific archaeological evidence of room 1.12 which was used for stock-keeping.

In the north of house 1, five elongate rooms are built next to each other (fig. 6). Two of them (1.2, 1.4) could clearly be identified as tabernae based on their characteristic location in the architectonic context. They open to the street and show no direct connection to the courtyard and the residential area. In addition, findings such as installations and archaeological material were discovered, which allow the interpretation of those rooms as small facilities, which served commercial purposes.

The room between them (1.3) is noteworthy due to a large number of amphorae. Furthermore, a great quantity of large-scale utilitarian pottery was excavated from the destruction layer. From this area, a polygonal amphora stopper was discovered with negative imprints, which could have come on the one hand from coins or on the other hand from lead seals. One token displays the motif of the adoration of the Christ child by the Máyoi. None of the objects were produced in Ephesos, but instead, they were imported. Due to the finds from this room, one may also assume that it was used as a taberna, even if this space does display a direct connection to the interior of the house. The narrow chamber 1.5 was used as an entrance room.

The function of room 1.1 was more complex. A number of installations were found suggesting that agricultural products were processed and foodstuff was prepared here: Some structural features like grooves in the marble plates of the floor and a shaft with specific beam-holes, but also findings from the destruction layer – such as large burned layers which are nonetheless clearly limited, suggesting a considerable amount of burned, organic material, indicate a press facility for the production of liquids. A domed oven and a walled-in hearth, where foodstuffs could be prepared, were also found in this room. In the northwest corner the remains of an embedded pithos were discovered, which had been repaired with lead.



Fig. 6: Detail picture of the economic/commercial rooms at the front of house complex 1.

From 1.1 the rooms 1.6 and 1.7 could be entered in the south. 1.7 did not show a specific interior so that it cannot be assigned a function. But along the walls of 1.6 the remains of built-in benches and work platforms were found. Grooves cut into the floor may well have served for slip resistance, which is why it is assumed that the people worked with liquids here. This room could have been used for storage and other economic functions.

The last room in the northwestern part of the house (1.8), which was accessible through the courtyard, was also an economic area. An open slot along the northern wall was connected to a drain so that the wastewater originating here could be drained off. Originally 1.7 and 1.8 belonged together so that the other rooms in the northwestern part of the house were also connected to the residential area.

The destruction layer of the upper story in the northwestern part of the house contained a high concentration of animal bones. A total of 1905 bone fragments were analyzed, of which 1379 could be associated with a species. Amongst these, almost half – 48% – are associated with pigs, whereby small ruminants are almost equally frequently represented, with 43%. Cattle bones are present at only 9%, while dog, horse, and red deer are each represented only twice. Particularly noteworthy is the distribution of the skeletal elements, of which the main share consists of teeth. 89% of the domestic and wild pigs' teeth consist of canine teeth from the upper and lower jaw. The employment of the same technique in breaking off and removing the upper and lower teeth is remarkable, and they also display a uniform handling, which suggests that this activity was carried



Fig. 7: Three recently excavated tabernae at the upper Curetes Street.

out professionally. For the teeth of sheep and goats, a large percentage of molars from the lower jaw are present; these could have been broken off as well as hacked off, which equally applies to the molars of the upper jaw, yet these are present in much smaller amounts. Based on these materials, we can assume that a business for the processing of bones and teeth took place here, in which bone objects could have been produced and teeth could have been ground up for medicinal purposes.

The rooms 1.2–1.4 have in common that they were used for commercial or economic purposes and are situated at the front of the building. For those, which were separated from the living area, an interpretation as tabernae seems clear from the building evidence. For which purposes the tabernae were used cannot be determined precisely. Based on the enormous amount of excavated coins, which cannot be associated with other findings, that could have been traded here, a broad range of activities seems possible.

Whether room 1.1, in which agricultural products were produced, represents a taberna as well, cannot be precisely answered. In this context, the connection to other rooms in the interior of the house seems noteworthy, which suggests a direct interaction between the inhabitants and the employees. It is also conceivable that here, goods were processed, which were closely connected with the function or situation of the master of the house. This would not have been in the context of the practice of a small business, as would be common for tabernae.

The fact that the archaeological material allows a substantially nuanced interpretation of the function of tabernae is revealed by the recently excavated structures in the northern colonnade of the upper Curetes Street, where tabernae were constructed which, based on a series of coins beneath the loam floor, could not have occurred before the middle of the sixth century (fig. 7). During the reign of Heraklios, the space was destroyed by a massive conflagration, suggested by freshly minted coins of 40 nummi.<sup>22</sup>

The findings and evidence from the eastern taberna allow a detailed reconstruction of the room's interior. Shelves, tables, walled-in benches, as well as storage spaces, can be reconstructed accurately from the evidence. The cups and bowls were found where they fell, and a row of wine amphorae found in situ, give an impression of activities just before the destruction. The disposal-system could be reconstructed and worked as follows: via an opening in the floor, food remains could be quickly and efficiently disposed of in the drainage system. The neighboring taberna was a place of production, in which individual objects of wood were manufactured. In addition to carbonized remains of the stored wood, tools such as a saw were also preserved.<sup>23</sup>

It is – at least for now – not possible to reconstruct all the economic processes in Ephesos from the perspective of the small business units, which were located in the tabernae, given the lack of evidence. Measured by the existing archaeological evidence, there are only very few tabernae, whose findings and installations allow an unambiguous assignment of function, and even then, one can just get a fragmentary picture, which can only be transferred to the whole city in a very general and limited way. The majority of the excavated tabernae reveals a very indifferent picture and cannot be precisely identified in terms of their function. Characteristic equipment, as in the Curetes Street, is lacking, as is specific archaeological evidence which might point to commercial activities. In order to be able to comprehend the entire range of variation of the "types of the taberna" characterized in archaeological research, an avoidance of a sweeping attribution and also an attention to detailed evidence and its careful interpretation are required.

### Notes

<sup>&</sup>lt;sup>1</sup> see e.g. recently Scheifinger 2016; Scheifinger 2018, 421–426.

 $<sup>^2</sup>$  see Packer 1978; Gassner 1986; Ellis 2004, is speaking about shops and bars in general and does not use the Latin synonym taberna. MacMahon 2005; De Felice 2007, esp. 478; see most recently Ellis 2018, 18–24 with Pompeii as a case study and taberna in general.

<sup>&</sup>lt;sup>3</sup> see Girri 1956; Packer 1971; Meiggs 1977.

<sup>&</sup>lt;sup>4</sup> Thür 1995, 93; Ladstätter 2000, 373; Thür 2009, 18; Waldner 2009a, 101–103. 108; Waldner 2009b, 294.

<sup>&</sup>lt;sup>5</sup> Vetters 1972–1975, 323–327.

<sup>&</sup>lt;sup>6</sup> Terrace House 1: Lang-Auinger 1996, 119–135.

<sup>&</sup>lt;sup>7</sup> Thür 1995, 84–95; Quatember 2005, 271–278; Thür 2009, 9–28; Iro et al. 2009; Fildhuth 2010, 137–153.

- <sup>8</sup> Eichler 1963, 59; Eichler 1965, 96 f.; Eichler 1966, 8 f.; Eichler 1967, 21; Jahresbericht 2009, 16 f.
- $^9$  Foss 1979, 188–191; Ladstätter 2002, 25–29; Ladstätter 2011, 3. 6; see more detailed Ladstätter Pülz 2007, 391–433.
- <sup>10</sup> Ladstätter 2011, 6–12; for more detailed explanations about further steps after the earthquake and the changes of the Imperial townscape see Pülz 2011, 53–73.
- <sup>11</sup> see e.g. Saradi 2006, 190 f. fig. 26–28; 271 f. 282.
- <sup>12</sup> This life cycle is e.g. traceable for the tabernae at the upper Curetes Street, which were excavated in 2015. In the course of a project funded by Stadt Wien, MA7 Wien Kultur and Gesellschaft der Freunde von Ephesos in cooperation with 7reasons the life of this tavern from its construction period until the destruction was visualized as a film; Schwaiger Scheifinger 2019.
- <sup>13</sup> Tabernae T II S, T III, T III. UG: Thür Rathmayr 2014, 116–120; Rathmayr 2016, 770.
- <sup>14</sup> Rathmayr 2016, 770 f.
- <sup>15</sup> Lang-Auinger 1996, 119, 131; Rathmayr 2016, 766.
- <sup>16</sup> Lang-Auinger 1996, 131–135.; Rathmayr 2016, 770.
- <sup>17</sup> Schwaiger 2012, 192–200; Schwaiger 2017, 87 f.; Jahresbericht 2011, 23–25. 52 f.; see additionally Jahresbericht 2012, 23–27; Jahresbericht 2013, 21–24; Jahresbericht 2014, 14–18; Jahresbericht 2015, 5–11; Jahresbericht 2016, 6–15; Jahresbericht 2018, 7–15.
- <sup>18</sup> Benndorf 1898, 62–65; Heberdey 1898, 71–73; Heberdey 1904, 39–41; Foss 1979, 60; Pülz 2011, 62 f. 67; Schwaiger 2012, 191–198 fig. 2–5; Schwaiger 2017, 87.
- <sup>19</sup> Karwiese 1989; Ladstätter 2011, 12 f.
- <sup>20</sup> E.g. 1.8, 2.10-11, 3.2, 3.14.
- <sup>21</sup> Jahresbericht 2015, 41; Unpublished analysis of G. Forstenpointner (University of Veterinary Medicine, Vienna, Institute of Topographic Anatomy) based on preliminary results.
- <sup>22</sup> Unpublished analysis of N. Schindel (Austrian Academy of Sciences, Vienna, Institute for the Study of Ancient Culture) based on preliminary results.
- <sup>23</sup> Jahresbericht 2015, 14–16.

# **Image Credits**

All images by ÖAI – ÖAW.

### References

### Benndorf 1898

O. Benndorf, I. Vorläufige Berichte über die Ausgrabungen in Ephesus, ÖJh Beibl. 1, 1898, 54–71.

### Daim – Ladstätter 2011

F. Daim – S. Ladstätter (eds.), Ephesos in byzantinischer Zeit (Mainz 2011).

### De Felice 2007

J. De Felice, Inns and Taverns, in: J. J. Dobbins – P. W. Foss (eds.), The World of Pompeii (London 2007) 474–486.

#### Eichler 1963

F. Eichler, Die österreichischen Ausgrabungen in Ephesos im Jahre 1962, AnzWien 100, 1963, 45-59.

### Eichler 1965

F. Eichler, Die österreichischen Ausgrabungen in Ephesos im Jahre 1964, AnzWien 102, 1965, 93–109. **Eichler 1966** 

F. Eichler, Die österreichischen Ausgrabungen in Ephesos im Jahre 1965, AnzWien 103, 1966, 7–16. **Eichler 1967** 

F. Eichler, Die österreichischen Ausgrabungen in Ephesos im Jahre 1966, AnzWien 104, 1967, 15–28. **Ellis 2004** 

S. J. R. Ellis, The Distribution of Bars at Pompeii: Archaeological, Spatial and Viewshed Analyses, JRA 17, 2004, 371–384.

#### **Ellis 2018**

S. J. R. Ellis, The Roman Retail Revolution. The Socio-economic World of Taberna (Oxford 2018).

### Fildhuth 2010

J. Fildhuth, Die Kuretenstraße in Ephesos während der Spätantike, in: N. Burkhardt – R.H.W. Stichel (eds.), Die antike Stadt im Umbruch, Kolloquium in Darmstadt, 19. bis 20. Mai 2006 (Wiesbaden 2010) 137–153.

### Foss 1979

C. Foss, Ephesus after Antiquity. A Late Antique, Byzantine and Turkish City (Cambridge 1979).

#### Gassner 1984

V. Gassner, Zur Terminologie der Kaufläden im Lateinischen, MBAH 3, 1, 1984, 108–115.

#### Girri 1956

G. Girri, La taberna nel quadro urbanistico e sociale di Ostia (Roma 1956).

# Heberdey 1898

R. Heberdey, II. Vorläufige Berichte über die Ausgrabungen in Ephesus, ÖJh Beibl. 1, 1898, 72-82.

#### Heberdey 1904

R. Heberdey, Vorläufiger Bericht über die Grabungen in Ephesus 1902/03, ÖJh Beibl. 7, 1904, 37–56.

# Iro et al. 2009

D. Iro – H. Schwaiger – A. Waldner, Die Grabungen des Jahres 2005 in der Süd- und Nordhalle der Kuretenstraße. Ausgewählte Befunde und Funde, in: S. Ladstätter (eds.), Neue Forschungen zur Kuretenstraße von Ephesos. Akten des Symposiums für Hilke Thür vom 13. Dezember 2006 an der Österreichischen Akademie der Wissenschaften, AF 15 (Wien 2009) 53–87.

### Jahresbericht 2000

Österreichisches Archäologisches Institut (ed.), Jahresbericht 1999 des Österreichischen Archäologischen Instituts, ÖJh 69, 2000, 363–397.

### Jahresbericht 2009

Österreichisches Archäologisches Institut (ed.), Wissenschaftlicher Jahresbericht des Österreichischen Archäologischen Instituts 2009, <a href="https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI">https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI</a> Jahresbericht 2009.pdf> (12.10.2018)

### Jahresbericht 2011

Österreichisches Archäologisches Institut (ed.), Wissenschaftlicher Jahresbericht des Österreichischen Archäologischen Instituts 2011, <a href="https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI">https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI</a> Jahresbericht 2011.pdf> (12.10.2018)

### Jahresbericht 2012

Österreichisches Archäologisches Institut (ed.), Wissenschaftlicher Jahresbericht des Österreichischen Archäologischen Instituts 2012, <a href="https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI\_Jahresbericht\_2012.pdf">https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI\_Jahresbericht\_2012.pdf</a> (12.10.2018)

# Jahresbericht 2013

Österreichisches Archäologisches Institut (ed.), Wissenschaftlicher Jahresbericht des Österreichischen Archäologischen Instituts 2013, <a href="https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI\_Jahresbericht\_2013.pdf">https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI\_Jahresbericht\_2013.pdf</a> (12.10.2018)

# Jahresbericht 2014

Österreichisches Archäologisches Institut (ed.), Wissenschaftlicher Jahresbericht des Österreichischen Archäologischen Instituts 2014, <a href="https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI\_Jahresbericht\_2014.pdf">https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI\_Jahresbericht\_2014.pdf</a> (12.10.2018)

### Jahresbericht 2015

Österreichisches Archäologisches Institut (ed.), Wissenschaftlicher Jahresbericht des Österreichischen Archäologischen Instituts 2015, <a href="https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI">https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI</a> Jahresbericht 2015.pdf> (12.10.2018)

# Jahresbericht 2016

Österreichisches Archäologisches Institut (ed.), Wissenschaftlicher Jahresbericht des Österreichischen Archäologischen Instituts 2016, <a href="https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI\_Jahresbericht\_2016.pdf">https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI\_Jahresbericht\_2016.pdf</a> (12.10.2018)

### Jahresbericht 2018

Österreichisches Archäologisches Institut (ed.), Wissenschaftlicher Jahresbericht des Österreichischen Archäologischen Instituts 2018, <a href="https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI\_Jahresbericht\_2018.pdf">https://www.oeaw.ac.at/fileadmin/Institute/OEAI/pdf/Kommunikation/Jahresberichte/OeAI\_Jahresbericht\_2018.pdf</a> (11. 10. 2019)

# Karwiese 1989

S. Karwiese, Die Marienkirche in Ephesos. Erster vorläufiger Grabungsbericht 1984–1986, DenkschrWien 200 (Wien 1989)

# Ladstätter 2002

S. Ladstätter, Die Chronologie des Hanghauses 2, in: F. Krinzinger (ed.), Das Hanghaus 2 von Ephesos. Studien zur Baugeschichte und Chronologie, DenkschrWien 302 = AF 7 (Wien 2002) 9–40.

### Ladstätter 2009

S. Ladstätter (ed.), Neue Forschungen zur Kuretenstraße von Ephesos. Akten des Symposiums für Hilke Thür vom 13. Dezember 2006 an der Österreichischen Akademie der Wissenschaften, DenkschrWien 382 = AF 15 (Wien 2009).

### Ladstätter 2011

S. Ladstätter, Ephesos in byzantinischer Zeit. Das letzte Kapitel der Geschichte einer antiken Großstadt, in: F. Daim – S. Ladstätter (eds.), Ephesos in byzantinischer Zeit (Mainz 2011) 3–29.

#### Ladstätter - Pülz 2007

S. Ladstätter – A. Pülz, Ephesus in the Late Roman and Early Byzantine Period. Changes in Its Urban Character from the Third to the Seventh Century AD, in: A. Poulter (ed.), The transition to Late Antiquity on the Danube and beyond, Proceedings of the British Academy 141 (London 2007) 391–433.

### Lang-Auinger 1996

C. Lang-Auinger, Hanghaus 1 in Ephesos. Der Baubefund, FiE VIII, 3 (Wien 1996).

#### MacMahon 2005

A. MacMahon, The taberna Counters of Pompeii and Herculaneum, in: A. MacMahon – J. Price (eds.), Roman Working Lives and Urban Living (Oxford 2005) 70–87.

## Meiggs 1977

R. Meiggs, Roman Ostia <sup>2</sup>(Oxford 1977).

#### Packer 1971

J. E. Packer, The Insulae of Imperial Ostia, MemAmAc 31 (Rom 1971).

#### Packer 1978

J. E. Packer, Inns at Pompeii: A Short Survey, CronPomp 4, 1978, 5-53.

#### Pülz 2011

A. Pülz, Das Stadtbild von Ephesos in byzantinischer Zeit, in: F. Daim – S. Ladstätter (eds.), Ephesos in byzantinischer Zeit (Mainz 2011) 51–81.

### Quatember 2005

U. Quatember, Zur Grabungstätigkeit Franz Miltners an der Kuretenstraße, in: B. Brandt – V. Gassner – S. Ladstätter (eds.), Synergia. Festschrift Friedrich Krinzinger I (Wien 2005) 271–278.

### Rathmayr 2006

E. Rathmayr (ed.), Hanghaus 2 in Ephesos. Die Wohneinheit 7. Baubefund, Ausstattung, FiE VIII, 10 (Wien 2016).

## Saradi 2006

H. G. Saradi, The Byzantine City in the Sixth Century. Literary Images and Historical Reality (Athen 2006).

# Scheifinger 2016

J. Scheifinger, Tabernen in Ephesos. Mit Schwerpunkt auf die Tabernen der spätantiken Residenz südlich der Marienkirche (Masterarbeit University of Vienna 2016).

# Scheifinger 2018

J. Scheifinger, Tabernen in Ephesos, in: G. Schörner – K. Meinecke (eds.), Akten des 16. Österreichischen Archäologentages am Institut für Klassische Archäologie der Universität Wien vom 25. bis 27. Februar 2016 = Wiener Forschungen zur Archäologie 17 (Wien 2018) 421–435.

### Schwaiger 2012

H. Schwaiger, Comparing Houses. Domestic Architecture in Ephesos from the Mid Imperial Periode to Late Antiquity, in: A. Anguissola (ed.), Privata Luxuria – towards an Archaeology of Intimacy: Pompeii and beyond. International Workshop Center for Advanced Studies, Ludwig-Maximilians-Universität München, 24–25 March 2011, Münchner Studien zur Alten Welt 8 (München 2012) 187–209.

### Schwaiger 2017

H. Schwaiger, Domestic Architecture in Ephesus from the Hellenistic Period to Late Antiquity, in: S. R. Huebner – G. Nathan (eds.), Mediterranean Families in Antiquity. Households, Extended Families, and Domestic Space (Oxford 2016) 79–91.

## Schwaiger - Scheifinger 2019

H. Schwaiger – J. Scheifinger, Ergo bibamus! Alltag in einer spätantiken Taberne in Ephesos, AW Sonderheft 1, 2019, 110–113.

#### Thür 1995

H. Thür, Die Ergebnisse der Arbeiten an der innerstädtischen Via Sacra im Embolosbereich, in: D. Knibbe – H. Thür, Via Sacra Ephesiaca II. Grabungen und Forschungen 1992 und 1993, BerMatÖAI 6 (Wien 1995) 84–95.

#### Thür 2009

H. Thür, Zur Kuretenstraße von Ephesos. Eine Bestandsaufnahme der Ergebnisse aus der Bauforschung, in: S. Ladstätter (ed.), Neue Forschungen zur Kuretenstraße von Ephesos. Akten des Symposiums für Hilke Thür vom 13. Dezember 2006 an der Österreichischen Akademie der Wissenschaften, DenkschrWien 382 = AF 15 (Wien 2009) 9–28.

# Thür - Rathmayr 2014

H. Thür – E. Rathmayr (eds.), Hanghaus 2 in Ephesos. Die Wohneinheit 6. Baubefund, Ausstattung, Funde, FiE VIII, 9 (Wien 2014).

### Vetters 1972-1975

H. Vetters, Domitiansterrasse und Domitiansgasse, ÖJh Beibl. 50, 1972–1975, 311–330.

#### Waldner 2009a

A. Waldner, Keramische Evidenzen zur Baugeschichte des unteren Embolos von Ephesos (Diss. University of Vienna 2009).

### Waldner 2009b

A. Waldner, Heroon und Oktogon. Zur Datierung zweier Ehrenbauten am unteren Embolos von Ephesos anhand des keramischen Fundmaterials aus den Grabungen von 1989 und 1999, in: S. Ladstätter (ed.), Neue Forschungen zur Kuretenstraße von Ephesos. Akten des Symposiums für Hilke Thür vom 13. Dezember 2006 an der Österreichischen Akademie der Wissenschaften, DenkschrWien 382 = AF 15 (Wien 2009) 283–315.