COMPARATIVE STUDY OF ANCIENT SHOPS IN THE AGORA OF PHILIPPOPOLIS AND THE IMPERIAL ROMAN THERMAE OF ODESSOS

Nadya Stamatova, Denisa Pokorná, Ahmet Can Hasekiz

***Abstract**: This publication, based on partial surveys on two large scale ancient archaeological objects on the Balkan peninsula, aims to clarify the similarities and the differences of the shops in these large-scale ancient public buildings. Specifically, the shops approached by us were at the southern facade in the forum of Philippopolis and at the northern facade of the Imperial Roman Thermae of Odessos. From the available artefacts (for example, the stone thresholds) conclusions have been drawn about the unpreserved wooden elements. The Roman culture in the lands of contemporary Bulgaria inherited the Hellenic and the local Thracian culture. The two large-scale archaeological sites are the forum of Philippopolis (the contemporary city of Plovdiv), and the Imperial Roman Thermae in Odessos (the contemporary city of Varna). In spite of the wider cultural frame during development of the agora of the Hellenistic Philippopolis into a forum in the Roman period, the function of the public space was not changed, incl. the commercial function and the building structure of the shops, as well as the elements on their entrances, and partially the thresholds. The difference in the shape of the thresholds at both archaeological sites is not caused by the difference of their architectural schemes. The entrances of the shops in the forum are accessible from the inner space of the portico around the antique square called "area". On the contrary, the shops in the Imperial Roman Thermae of Odessos are located on the periphery of the building and are accessible from the streets surrounding the building outside. The main difference is caused by the structures of both buildings. The shops of the agora of Philippopolis lie on the ground, and during the following renovations the new elements are placed over the old ones. The thresholds of the shops of the Roman Thermae are placed over openings for ensuring a ventilation of the large structural gallery, supporting the heavy northern wall of the biggest hall of the thermae. Although focused on a limited topic, this publication gives concrete examples of how the function and construction of large ancient buildings affected their smallest architectural details.*

***Keywords**: archaeology, ancient architecture, threshold, thresholds, ancient thresholds, ancient shops, ancient doors, ancient entrances, agora, forum, thermae, Roman Thermae, Philippopolis, Odessos, Plovdiv, Varna, Bulgaria*

I. INTRODUCTION

The idea about comparing ancient shops, located in two large archaeological sites in Bulgaria, came after doing in-situ survey in 2023 on some southern shops in the agora of Philippopolis. At the same time, we have not stopped working methodically on the digital reconstruction of the Roman thermae in the ancient Odessos (the contemporary city of Varna), following the original paper sketches of Prof. Stefan Boyadjiev (1), comparing them to the produced by us photogrammetric model of the existing ruins, based on a drone and terrestrial surveys (8, 9). The goal of this publication is to compare these small parts of the two large-scale ancient sites.

II. OVERALL INFORMATION OF BOTH COMPLEXES

Odessos' thermae is a complex located in the southeastern part of contemporary Varna. The baths were constructed in the late 2nd century AD. The entire complex was built as small-size imperial type baths. The highest point of thermae reached up to 22 meters, adjacent shops had only 1 floor (height around 3 meters). The baths were designed with cardinal directions in mind. The hot room (*caldarium*) was facing the south, the entrances were located in the northeast and northwest corners. The shops

were set between the entrances on the north side of the baths and on the west and east façade. The used construction technique is *opus mixtum* – a variation of bricks and stones. A big part of the structure was built over underground spaces (*hypocaust* and galleries) (1, 10). The shops of our interest are on the north façade between both main entrances. These shops are believed to sell before- and after-bath-related items.

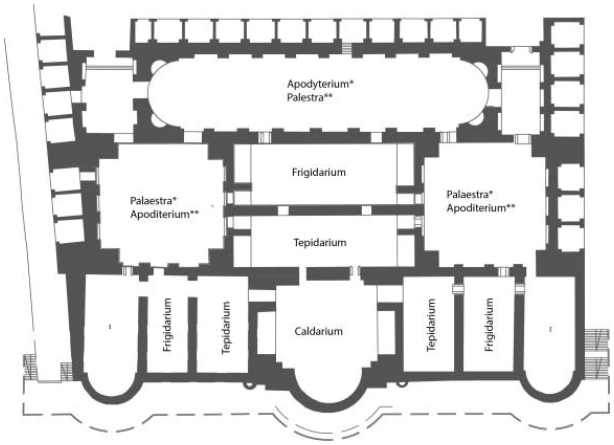

Fig. 1. Layout of the Imperial Roman Thermae (Odessos)



Fig. 2. Drone photo of the biggest hall of the Roman thermae (Odessos) with the northern shop's location (8).

The forum of Philippopolis is located in the centre of Plovdiv. It has nearly square shape layout. Whole complex was built in 1st century AD, but was renovated and rebuilt 3 times throughout the Roman era (2, 3, 4). The best- preserved ruins come from an era between 300 and 400 AD. The north side was dedicated to public buildings such as the library and Odeon. The shops are located within the forum at the east, south and west side. The shops were built in same size (5.56 x 5.92 m) and layout. The second storage floor was inside the shops. The shops were only accessible from inside the forum. The area and shops were separated by a *portico*. The complex has barely any underground construction.

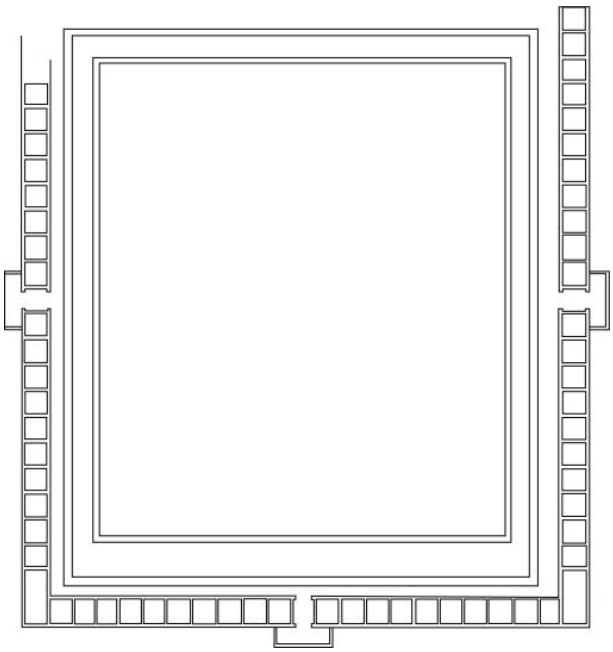

Fig. 3. Layout of the agora (Philippopolis).



Fig. 4. The western part of the agora (Philippopolis).

COMPARISON

Our study is focused on the ruins of walls and thresholds found at southern shops 4, 5, 6, 7 at the forum of Philippopolis (Fig. 3) and shops 10,11,12 (Fig. 6) in the Odessos' thermae. The approached shops' thresholds in Philippopolis' forum were originally made of rhyolite and syenite. In recent history, some lost broken parts of thresholds from 4th and 6th shops were supplemented with elements by a composite material based on a white mortar (a structural analysis was done by Prof. R. Petkova-Slipetz in the laboratory of Varna Free University). Some stone parts could be broken during the centuries, but it is possible also for

some thresholds to be made of two pieces of stone (example of this situation was found in Pompeii (5)) and it was not a work of archaeologists. The threshold from the 5th shop is in intact form from rhyolite. The 7th shop's threshold is untouched too and made of syenite. Every threshold has a groove for inserting and sliding doors.

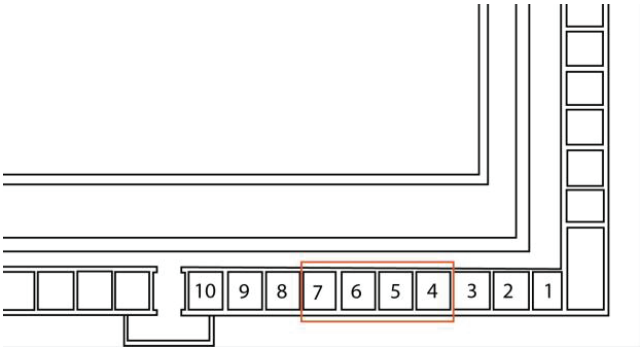

Fig. 5. Layout of the agora (Philippopolis), the southeast corner.

The shops in Odessos are not the same as those in Philippopolis. The ones located near both entrances are smaller than rest of shops. These shops are 2.8 x 5.85 m, the size of the remaining shops varies from 3.8 meters up to 4.6 m. As the sizes of shops vary, the sizes of their thresholds vary too. Thresholds of interest were found in the area of 10th, 11th and 12th shops (Fig. 6). Their materials do not vary as in Plovdiv. The found in-situ thresholds are made of limestone. Limestone was the most common material for thresholds due to the easy splitting. The 10th shop's threshold is cracked, but not recently modified in any way. The threshold is preserved with a groove for door manipulation.

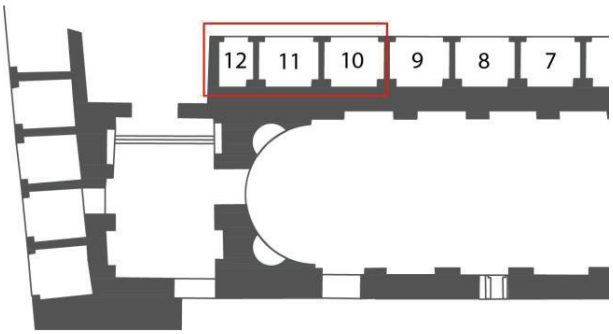

Fig. 6. Layout of the Roman thermae (Odessos), the northwest corner.

The typical Roman doorway for dwellings (5) had 4 main parts: threshold, two jambs, and lintel. Normal hinges were not common for door hanging, but pivot hanging was frequently used – a cylinder-shaped hinge out of hard wood (e.g. oak wood) ending with pivots above and under door. The pivots end in sockets made in the threshold and lintel. The axis of door rotation was on the left or right side of the door and allowed door opening as we know today. Another type of door was used for the *taberna* (Roman pub with hot and cold meals). In some cases, a pivot type was used with single or double-leafed doors (double-leafed was more common), and even a double-folding door technique was used (6). The grooves in both Plovdiv and Varna's examples indicate similar manipulation as in Pompeii and Herculaneum. In Pompeii, a door was made from individual wooden planks that were slipped into the grooves in the threshold and lintel. On one of the edges of the threshold, a rectangular deepening was made to easier plank manipulation (5). A small door (usually on the right side of doorway) had hinges and was opening inward was called "night door". The "night door" was a smaller door used to enter a property when the main door was shut. In Pompeii and Ostia, some metal rings and locks were found, and the locking system was reconstructed using them. The planks had a metal ring on them so two horizontal bars could pass through them and locked shutters in places (7). The owner had to lock the bars with a padlock to complete the closing of the *taberna*. Another locking system consisted of an iron socket for lock pin, a lock pin, and raised outer edges of the threshold to secure its locking.

No raised edges were found on Plovdiv and Varna's thresholds. The outer edges have the same height as the inner edges, which indicate the first method for a completely different locking system.

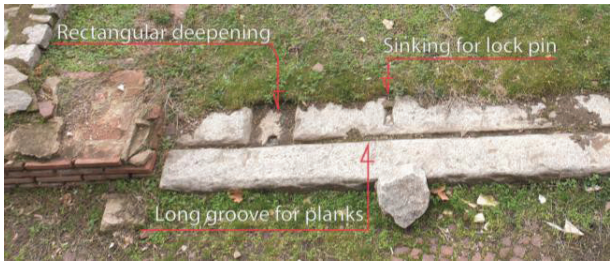

Fig. 7. 7th threshold's groove and recesses (Philippopolis).



Fig. 8. The 4th shop's threshold (Philippopolis).



Fig. 9. The 5th shop's threshold (Philippopolis).



Fig. 10. The 6th shop's threshold (Philippopolis).

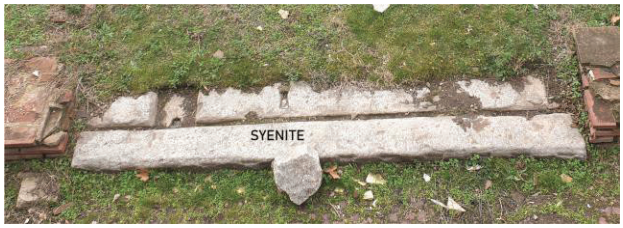

Fig. 11. The 7th shop´s threshold (Philippopolis).

The approached thresholds in Plovdiv were made of rhyolite and syenite, local stones from Plovdiv's surroundings. The thresholds were found with a sliding groove, rectangular depression in one quarter of threshold length and lock pin socket (Fig.7–10).

Compact thresholds have untouched grooves. A long parallel groove for a sliding door is around 5 cm wide and is visible on all examined thresholds. Three out of the four examined thresholds have rectangular f l a t sinking for easier plank manipulation. Even fewer still have lock socket or circular depression for securing doors.

The thermae's thresholds are made of limestone. The Roman thermae ruins provide us less examples of thresholds with carvings than Philippopolis' agora.

The threshold from 10th shop is 43 cm high, 75 cm wide and 369 cm long. It has a groove for





Fig. 13. Threshold groove and recesses (Odessos).
Fig. 14. Threshold grooves (Odessos).



Fig. 15. An opening under the threshold in the corner of 10th shop (Odessos).

door sliding, a rectangular depression, one recess in the rectangular depression and one next to it. The most probable way of using the groove in the middle of the threshold was for lock pin and the other, in the rectangular depression, was used for locking the "night door".

Presently, the shop floors are collapsing into the underground gallery. Due to this situation, we can obtain new perspectives. These thresholds look like architraves for the

underground construction, which could be true, if the height of threshold was significantly bigger than height of thresholds found in Plovdiv. The height of Plovdiv's thresholds ranges between 30 and 35 cm, Varna's threshold is 43 cm. These measurements are quite same, so the thresholds serve only as thresholds.

The holes in the floors of the shops under the thresholds are for ventilation of the underground gallery. The function of this gallery probably is only structural because there is not any normal access. It is considered that its function is to support (like a buttress) the heavy northern wall of the biggest hall of the thermae (10). The function of this hall according to Prof. Stefan Boyadzhiev is *Apodyterium* (marked by us with the sign * on Fig.1) and *Palaestra* according to Assoc. Prof. Krasimira Vacheva (marked by us with the sign ** on Fig.1).

CONCLUSION

After gathering information from different sources, incl. the done by us in-situ surveys, we conclude the following differences between both types of shops:

1) The shops in Philippopolis are accessible from the inner space of the forum; in Odessos they are accessible from the streets outside.

2) The shops of the forum of Philippopolis are built on the ground, using the foundations of the shops of the agora; the shops in Odessos are built over a substructure – a gallery.

3) The thresholds in Philippopolis have finer detail than those in Odessos.

4) Both stone materials for the thresholds are local, for Philippopolis they are rhyolite and sienite, and in Odessos limestone is used.

5) The shops in Philippopolis are built on stages; in Odessos, especially for the northern shops, there are no additional construction stages.

Overall comparing table:

References:

Бояджиев, С., 2006, Римски терми на територията на България през *II-III В.*,*Roman Baths (Thermae) in Bulgarian Lands II-III C.A.D.*, Археология на Българските земи, том II, ИВРАЙ-София 2006, Archaeology of the Bulgarian Lands, volume II, IVRAY-Sofia 2006, ISBN 954-9388-02-6

Боспачиева, М., Коларова, В., 2014, Пловдив - град върху градовете, Филипопол-Пулпудева-Пълдин, Тола – Живка Гинчева, Sofia, ISBN 978-954-92990-5-2

Ivanov, R. T. (ed.), Topalilov, I., 2012, *The Roman and Late Roman cities in Bulgaria*, chapter Philippopolis during I – beginning of VII c., Prof. Marin Drinov Academic Publishing House, Sofia, vol. 1, ISBN 978-954- 322-507-1

https://www.researchgate.net/publication/32041 7114_%27Philipopol_during_I_-_beginning_of_VII_c_The_Roman_and_Late_R oman_cities_in_Bulgaria_vol_1_ed_Ivanov_The_Bulgarian_Academy_of_Science_Publishing_ House_Sofia_2012_363-437

Kisyov, K. *The Agora of Philippopolis /* Агората на Филипопол, Годишник на археологически музей Пловдив, Annual of the Regional Archaelogical Museum – Plovdiv, chapter, Regional Archaeological Museum – Plovdiv, vol IX/2, 2004

Lauritsen, M., 2011, *Doors in Domestic Space at Pompeii and Herculaneum:*

A Preliminary Study, Theoretical Roman Archaeology Journal 2010, 59-75

https://www.academia.edu/962060/Doors_in_Do mestic_Space_at_Pompeii_and_Herculaneum_A_Preliminary_Study

MacMahon, A., 2003, *The Taberna Structures of Roman Britain*, charter - Taberna Doorways, British Archaeological Reports British Series 356. Archaeopress, John and Erica Hedges, Oxford, ISBN 1 84171 343 0

https://www.academia.edu/26900465/Taberna_ Doorways_Chapter_VII_2003_in_The_Taberna_Structures_of_Roman_Britain_British_Archaeo logical_Report_British_series_356_John_and_E rica_Hedges_Oxford_91_100

Michielin, L., 2019, *Fores et Fenestrae: A Computational Study of Doors and Windows in Roman Domestic Space*, University of Edinburgh, thesis

https://www.academia.edu/91351477/

Overall comparing table:

Complex	Imperial Roman Thermae of Odessos	Agora of Philippopolis
Date	End of 2nd and beginning of 3rd century AD	1st century AD
Area	7 000 m2	200 000m2
Location	Southeast area of Varna	Centre of Plovdiv
Height	±22 m	±10 m
Substructure	Deep (underground gallery)	Ground with layers of older construction
Style	Small-sized imperial bath	Hellenic
Construction technique	Opus mixtum	Opus incertum
Shops		
Size	2.8–4.6 x 5.85 m	5.56 x 5.92 m
Number	of studied shops	4
Location	North	South
Floors	One floor	Additional floor inside shops
Entry	From street	From portico within forum
Threshold		
Size	369 x 75 x 43 cm	294–351 x 60–64 x 30–35 cm
Material	Limestone	Rhyolite, syenite; composite material substituting the missing original
Groove	Long parallel with longer side, two rectangular	Long parallel with longer side, one rectangular
Other		
Door manipulation	Sliding planks via groove	Sliding planks via groove
Locking system	Lock pin with padlock	Lock pin and padlock
Ventilation	At both corners at entry side for underground air circulation	N/A

Fores_et_ Fenestrae_A_Computational_Study_ of_Doors_a nd_Windows_in_Roman_Domestic_ Space?fbcli d=IwAR2IrDelcmnwruDDUWgUfs xh1ZhG6wJl Iuz1AZoSfxD6AsQR-TiK356j3IE

Stamatova N., 2019, *Digitization of the Archaeological Site of the Imperial Roman Thermae of the Ancient Odessos – Part I,* journal Digitization of Cultural-Historical Heritage, v.2, , National Center of Digitization of the Balkans, Black Sea Region and Caucasus, Sofia, DOI: 10.13140/rg.2.2. 14563. 91683

Stamatova N., 2019, *Digitization of objects of cultural heritage of Varna*, *produced in the studio Architectural Spies in the period 2013-2019*, Cultural Heritage of Varna and Black Sea Region, Union of Scientists Varna, September 25, 2020, Varna, 2019-09-27 | Conference paper, Part of ISSN: 2738-7372

Vacheva K., Vaulted galleries in the foundations of the Roman thermae in Bulgaria, Annuary of the Department of Archaeology, NBU, v.I, Sofia, 1994, p. 86-87

Contacts:
Dr. Nadya Stamatova orcid.org/0000-0002-5265-7958
e-mail: nadya.stamatova@gmail.com

Denisa Pokorná
e-mail: denisa.poky@seznam.cz

Ahmet Can Hasekiz
e-mail: canhasekiz@hotmail.com