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Rhodiapolis Baths: The First Evaluation Following the Excavations and its Contribution to the Knowledge on Lycian Baths Architecture and Technique

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Asleep under the earth for at least a thousand years since the last time it was used, the Rhodiapolis Baths began to be excavated in 2006 together with the city,[1] and by 2007 the baths excavation had been completed to a great extent (Figs. 1-2)[2]. The bath building was the first structure to be excavated here and the entire indoor part has been uncovered; only some part of the texture surrounding the building has not been excavated but these unexcavated parts does not have a value that can lead to any gap in the description of the complex. At the end of this excavation work, it became possible to describe the layout of the Rhodiapolis Baths almost entirely. Anticipated gaps or possible unexpected gaps are related with the details of the interior, particularly – as is the case with all baths excavations – concerning the equipment and installations.

In addition to the baths at Trebenna[3], Typallia[4] and Gagae[5], which we had discovered during our surveys in the Bey Dağları (Bey Mountains) and published in separate articles, the baths at Kitanaura[6] and Idebessos[7], which we have explored in detail, have contributed

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The entire excavation team including the authors worked in the excavation of the baths. The fieldwork was organised by O. Tıbıkoğlu and E. Akalın and the drawings and finds inventory work was done with the help of our students H. Keskin and B. Özdilek. Our already well-advanced student A. Çakır contributed to the field drawings and to preparing them for publication. While thanking the names mentioned here as the chief responsible members of the project, we would like to extend our thanks to all our team and especially our students whose names we are not able to list here. Our thanks for the institutions go to the Ministry of Culture and Tourism, Municipality of Kumluca and the Akdeniz University Research Projects Unit for the financial support: All this work could be achieved and accomplished only with a full collaboration of all these people and institutions.

1 Çevik – Kızgut – Bulut 2006, 59 ff.; Çevik – Bulut – Kızgut 2008, 3 ff.

2 Çevik – Kızgut – Bulut 2007, 54 ff.

3 Çevik – Varkıvanç – Akyürek 2005, 46 ff. Fig. 54.

4 Çevik 2008a, 199 ff.; Çevik – Varkıvanç 2003, 127 ff.

5 Çevik – Bulut 2008, 63 ff.

6 Çevik 2008b, 331 ff.; Tıbıkoğlu – Akalın 2009.

7 Idebessos Baths: Çevik – Kızgut – Bulut, "Rhodiapolis Kazısı ve Çevresi Yüzey Araştırmaları 2008", KST 31 (forthcoming); Kızgut-Bulut-Çevik, "An East Lycian City: Idebessos", in Adalya 12, 145-172.

to the understanding of Lycian baths architecture. These examples provided us with significant information particularly about the technique, materials and planning of provincial baths[8].

The entire uncovering of Rhodiapolis Baths brought another example that will cast light on both the baths architecture and use in Lycia, and the Roman period baths[9]. In addition to a few baths almost entirely uncovered at Arykanda[10] and Phaselis[11] there are also baths at Xanthos, Patara[12] and Tlos[13], whose excavations have not yet been completed. A remarkable sampling has been formed together with those identified during surveys, but there are still only a few baths entirely exposed with their rich data. Thus, this small number is not sufficient for a comprehensive understanding of the subject matter for Lycia where there are tens of small and large settlements and where some settlements have more then one baths. Baths under excavation continuously present us with unusual details, thus indicating that there is still much more missing.

General description: This is the last public building on the eastern slope of Rhodiapolis. It measures 25.57 m. wide (east-west direction) and 40.75 m. long (north-south direction). Covering a total area of 1077 sq. m., the building rises in solitude on the sloping terrain on the eastern skirt of the site (Figs. 1-2). The southern half comprises the *palaestra* and the cisterns that form the substructure/terrace of the palaestra while the northern half comprises the baths-bathing units. Palaestra covers 58.5% of the entire area while the bathing rooms occupy the remaining 41.5%, or 446 sq. m. The entire complex extends in the north-south direction while the bathing rooms extend in the east-west direction. The east wall stands to its full height to the level of the vault. The interior was entirely full of rubble. The debris of the walls and vaults originally built with rubble and mortar have filled the interior and scattered around. In particular the debris that flowed down the acropolis hill rising on its west filled the interior, caused the rear walls to collapse and separated some of the front walls. The main units of the baths, namely *caldarium, tepidarium* and *frigidarium*, have their windows facing the palaestra on the south, thus profiting from the daylight and heat as much as possible. The only window surviving intact is that on the east wall of the caldarium. Thus it can be said that the bottom level of the windows was 1.60 m. above the floor level and that the windows themselves were 1.40 m. tall.

The baths displays several phases of construction. In addition to revision during the Roman period, radical alterations took place in the Byzantine period, during which the entire building was used down to the floor of the *hypocaust*. Thus, not much remains from the Roman baths with regard to interior architecture, installations and small finds. The palaestra ground, which forms the southern half of the complex, is larger than the bathing area and covers an area of 631 sq. m. and projects out 2.75 m. on the east. All the rooms of the baths have been identified:

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8 Not much has survived from the baths we have discovered at Corydalla, which has been entirely destroyed. Only the hypocaust buried under the ground is seen partly.

9 The authors visited the baths for the first time following the fire in 2000 and made their preliminary observations then. Çevik 2002, 124.

10 Bayburtluoğlu 1982, 277 ff.

11 Schaefer 1981, 100 ff., Pl. 39; Bayburtluoğlu 1984, 302 ff. Plan 1.

12 Çevik 1991, 393 ff. Figs. 18-20; Çevik – Kızgut 1994, 254 ff. Figs. 7-10; Işık 2000, 102 ff.; Korkut 2003, 445 ff.; Alanyalı-Şen 2007, 412 ff.

13 Gülşen 2007, 223 ff.

Room 1 (Service room) (Figs. 1, 3, 4b, 6): This room forms the northeast corner of the complex and was used independent of the other rooms. It served for heating, storage for firewood and cleaning of the substructure. Measuring 13.15x6.95 m., Room 1 is at the same level as the ground floor of the baths. It cannot be accessed from the other units of the baths and it has its own entrance from the level below the main entrance of the baths. The water pressure tower is in its southeast corner and the *praefurnium* connects to the caldarium on its south wall. Remains of a second furnace and pipes for the interior water distribution system next to it are found in the southwest corner (Figs. 24, 25, 27).

Room 1 is located to the north of the caldarium and its floor level is 1.85 m. below the main entrance. Its floor is almost at the same level as the floor of the system of *hypocaustum* (*suspensura*). It is accessed via a doorway of 1.57 m. width in its north wall and the threshold is preserved to a great extent. The *praefurnium* adjoins the water tank from its east side, which is the north rear side of the *caldarium* and the hot air canal of the *praefurnium* opens into the *suspensura* of the *caldarium* here. The rest of this room must have served as storage for firewood and service unit. Room 1 had entirely infrastructural function. The recess inside the wall right above the praefurnium was spared for the water cauldrons to be heated.

Roof tile finds provide us with clues about the superstructure of this room. The finds indicate that this room had a timber and the roof one floor below the vault level of the main bathing rooms (Fig. 26). Nails and fragments of other binders uncovered here are also related with the superstructure. Noteworthy among the small finds uncovered here are a chain of 15 rings and an iron file.

Water pressure tower (*castellum*) (Fig. 6): It is located in the southeast corner of Room 1 and measures 5.00x2.55 m. Its lower part was entirely built with rubble and mortar. It constitutes a tall base for a tank. When the area where this substructure joins the east wall of Room 1 was excavated it was a surprise to see that the tower was built directly on earth ground (without a foundation). This tower-like substructure or base supported a rectangular water tank of 3.42x1.90 m., surviving very little in its lower part but originally reaching the vault level of the caldarium.

Main furnace (*Praefurnium*) (Fig. 15): Starting from Room 1, the *praefurnium* extends southwards under the *caldarium* and measures 2.86x1.70 m. It starts with a furnace and transforms to an air canal extending underneath the *caldarium*. Its walls were built with bricks and its superstructure of brick has already caved in.

Furnace: It extends along the bottom of the west wall of Room 1. It has survived very poorly, with only a few round bricks once forming its pillars; the walls extending toward the furnace and mortared floor can be traced. A thick layer of soot is found. In the southeast corner are six water distribution pipes of baked clay, fallen side by side.

In the northeast part of Room 1 and in the lower part of the water tank is another thick layer of soot. This corresponds to where the furnace opens into the caldarium.

Room 2 (Vestibule) (Figs. 3-5, 7): The main entrance to the bathing rooms opens into this hall. It measures 3.60x4.22 m. and is located in the north part of the baths. Its upper part has fallen but its side walls and threshold stone are preserved. Although the exact width of the doorway is not known, it can be estimated to be about 1.60 m. The floor was lowered and partially paved with re-used blocks in the Byzantine period.

Just by the west side of the main entrance is a thinner wall extending parallel to the west wall of Room 5. The waste water canal, which is 0.30 m. wide, extends parallel to the wall for 6.94 m. toward Room 5 (*frigidarium*). The mouths of the canal are intact on the main entrance side and at the north wall of the *frigidarium*. The waste water outlet beneath the threshold of the main entrance is also preserved. The side walls of the canal are partially preserved and its floor and side walls are plastered. None of its lid-plaques has survived due to use in the Byzantine period. As the room also contains some construction of later periods, its function does not unveil itself at first sight; however, it is understood that it served as a small vestibule. As a pool also projects out from the north wall of Room 5 into this area, the room gets even smaller. Room 2 has a basin measuring 2.82x1.70 m. by 1.00 m. deep on its south side. It was built later using Roman spoils. These blocks with profile, which originally belonged to the Roman period basin and tombs, form the east and north walls of the rectangular basin, which is shaped in the wall on the other two sides. The floor of the basin has a regular pavement with baked clay and stone plaques. The baked clay plaques bear finger waves that facilitated binding the plaster and one of them has a curious graffiti: A male face in profile was worked very simple on an entire plaque. It appears to reflect the plaque-makers' having a little fun. In the corner of the stone pavement in the northwest corner is a strainer in the shape of six-petals[14] (Fig. 22). An opening on the west wall of Room 2 leads into Room 3.

Room 3 (*Apodyterium*) (Figs. 3-5, 8): This rectangular hall is the first main room of the baths and measures 5.20x7.13 m. It leads on to Room 4 via a doorway of 1.10 m. width in the middle of its south wall. This room has survived with very high walls. It must have been roofed over with a timber roof sloping toward north. Its west wall, originally leaning on the hillside has partially separated with the pressure of the flow-downs and slid. Its floor is entirely paved with stone plaques and has survived in very good condition other than a few cracks. The plaques of this pavement do not have a standard size but their width varies from 60 to 70 cm. and their length varies. On the west wall are holes measuring 0.13x0.20x0.35 m., 0.20x0.21x0.33 m., 0.12x0.21x0.33 m., 0.17x0.26x0.28 m., and 0.18x0.28x0.34 m. at elevations of 1.63 m., 1.84 m., 1.67 m., 1.75 m., 1.74 m. from the floor and from south to north respectively. These are the holes to fix the wooden shelves for clothes, normally found in the *apodyte*rium. According to the layout of the building and the flow of traffic, this room must be the *apodyterium*. It is located on the same axis with Room 4 to which it opens on the south.

Room 4 (Central intermediary hall and apodyterium) (Figs. 3-5, 8): This rectangular hall of 8.13x4.20 m. is at the crossing point of the traffic inside the building. It must have also served as a secondary apodyterium. It connects to the Room 3 (*apodyterium*) on its north, Room 8 (*palaestra*) on its south and Room 5 (*tepidarium*) on its east. The west side, leaning on the hillside, has slid and is about to collapse. The hall is full of massive debris of the vault. This room is in need of urgent protection measures. A fragment of floor pavement is seen *in situ* beneath the south entrance to the hall as is the case in Room 3. No other fragments of stone pavement are seen around but their marks on the mortar can be easily followed. The west wall and the wall with the doorway connecting to Room 3 are separated from each other. These walls, relieved of the pressure of the vault debris,

[14] Such strainers are used where there is a need for draining water. For a similar example at Ostia Forum Baths see Adam 1993, 262 Fig. 614.

will be preserved with a final consolidation project of the entire baths complex. There is a single small niche in the middle of the west wall and its walls are plastered. A water basin in the southwest corner of the hall was later cancelled. Measuring 2.10x1.70 m., this basin is 0.45 m. deep and its floor was paved with baked clay plaques.

Room 5 (Frigidarium) (Figs. 3-5, 9-10): The first wet hall is accessed via the doorway in the middle of the east wall of Room 4. Measuring 4.07x7.97 m., this rectangular hall is covered with a barrel vault in the north-south direction. The doorway leading from Room 4 measures 2.68 m. high and 1.65 m. wide. The window anticipated in the middle of the south wall cannot be traced due to the debris here. The floor has not caved in for the most part because it is not hollow underneath; however, it has levels. There is a bathing basin niche measuring 2.97x2.17 m. in the north wall (Fig. 9). The basin has steps on the hall and pool sides. Now in ruins, the mortar on the basin's walls, on which once the marble facing was fitted, is still seen. Here rectangular marble plaques were placed vertically side by side with thin marble strips in between. The waste water canal runs north beneath the pool and the floor, crossing the main entrance joins into the sewage in the street. There must have been a window facing over the palaestra.

What is under the floor is not seen; however, a heat canal coming from the south part of Room 6 indicates that hot air was transferred here. The presence of a single heat canal intended for the south half of the hall and the fact that the infrastructure is entirely full as seen from the canal's opening both may suggest that Room 5 was possibly heated only in the south half. The west wall is the best preserved one; however, it is also under risk due to the pressure exerted by the wall masses of Room 3, which have slid.

Room 6 (*Tepidarium*) (Figs. 3-5, 11-13): This rectangular hall measures 5.70x8.20 m., about 47 sq. m. The semicircular bathing basin and the walls have separated massively here. Two doorways, placed at equal intervals on the west wall, lead into the tepidarium from the Room 5. The southern doorway is 0.95 m. wide while the northern one is 1.00 m. wide. This hall too, like the rooms 4, 5 and 7, is covered with a barrel vault in the north-south direction. Only the springing part of the vault can be seen. The window anticipated in the middle of the south wall cannot be traced due to heavy pile of debris. Fragments of flat glass, which should have belonged to the window, were found on the floor corresponding to the bottom of the window.

A semicircular apsidal niche with a diameter of 2.75 m. in the middle of the north wall was meant for a bathing basin with the same shape (Fig. 13). Remains of *in situ* marble plaques indicate a marble facing on a mortar back. Where the marble plaques had been removed the mortar back reveals the presence and layout of the marble plaques of facing. The original flooring was entirely damaged due to natural cave-ins and Byzantine period damage.

The *pilae* of the *hypocaust* system have survived in very good condition. Along the walls are brick piers of 0.30 m. width on average, placed 0.50 m. apart. The piers project 0.30 to 0.60 m. from the walls. A total of 63 pilae have survived in their original places but to various heights. The square-shaped eight piers adjoining the west wall are the best-preserved ones. A total of 20 square-shaped piers are found along the bottom of the walls, and originally there must have been at least 34 of these. The remaining part in the middle has round pilae of 27 cm. diameter on average. 43 round pilae are extant at various heights

but there must have been at least 50 of them originally. Most of the pilae start round from the ground level while some others rest on square-shaped brick bases. Their alignment does not display the expected regularity; rather, they become closer to each other and are off their axes. The hall houses 5 or 6 pilae along its width and 9 or 10 pilae along its length. The distances between pilae vary from 35 to 65 cm. It is thought that some were added later in order to support the floor where there was a risk of collapsing. Some are placed very close while some others simply adjoin each other. There are three outlets from Room 7 (*caldarium*) to provide hot air here. It is clear that Room 6 was heated better than Room 5 which only connects to Room 6 via a single canal. These canals are 1.50 m. deep, which is deeper than the average *hypocaust* systems with a depth of 0.80 to 1.30 m. The *hypocaust* is topped with the floor pavement and traces of the flooring level are found especially in the intact areas in the southwest (Fig. 17). Three lines in plaster encircle the entire hall at three different levels – the distance between the top and bottom ones being 18 cm. in total. This was topped with a thin layer of marble.

Room 7 (*Caldarium*) (Figs. 3-5, 14-17): Located on the easternmost point of the complex, this room measures 5.43x7.35 m. (ca. 40 sq. m.) and is the hottest of all. It is accessed via a single doorway, 1.00 m. in width, located in the south of the west wall from Room 6 (*tepidarium*). This doorway is off the axis of the doorways leading into Room 6 from Room 5 in order to prevent heat loss. Its entire floor iss caved in and destroyed.

The hall extends in the north-south direction and was covered with a barrel vault in the same direction. The height of the hall is 5.25 m. and survives to the springing level of the vault. There is a rectangular niche in the middle of the east wall and a window to its north. The niche crowned with a brick semi-dome is 0.95 m. deep, 2.07 m. wide and 3.25 m. high. The wall is 1.50 m. thick where the niche is found. Unlike the 0.90 m. average thickness of the walls in this complex, this wall is much thicker the reason being that it is the last wall at the weakest point and also contains a niche. The window anticipated in the middle of the south wall cannot be traced due to a heap of rubble.

The piers along the bottom of the walls and round pilae have survived at various heights. This room is worse preserved than the tepidarium because the brick need of the Byzantine inhabitants was supplied from here. The hypocaust system consists of piers before the walls and round pilae in the middle. Before the north wall are two rows of piers different from the rest. This must have arisen from the fact that the *praefurnium* with the bathing basin on top were on this side. As the floor has entirely collapsed, there are no traces of the bathing basin here. However, the hottest bathing basin must have been located here where the heat was the highest. The furnace also warmed the water. In the north of the hall are a total of 12 piers in two rows and 9 of them have survived. In the central part were 6 pilae in 6 rows supporting the *hypocaust* system and 10 of them have survived at different positions and at various heights. Three outlets in the west wall of the *caldarium* let hot air out into the tepidarium and two of these canals are 0.50 m. and the last one closest to the *praefurnium* is 0.35 m. wide and they are all 1.50 m. tall.

A massive fragment of the collapsed floor provides us with evidence about the flooring. Almost no trace of the chimneys survives. It is clear that they were not carved in the walls or in the corners; however, based on a single piece of plaster indicating a chimney-brick placed on top of wall-plaster in the northeast corner, it can be said that *tubuli* placed on the walls were used for the chimney system. The walls have holes where the terracotta

pins (spacer pins) were fitted to fix the baked clay plaques of the wall heating system (Fig. 16). Numerous examples of two different types of terracotta pins (spacer pins) were found. In addition to the commonly known round-headed pins (Fig. 29), many more T-shaped (not cylindrical) pins were uncovered (Fig. 30). This baths has a commonly known wall heating system which comprises terracotta pins holding the terracotta plaques at a distance from the walls and thin marble facing on them.

Palaestra [Nr. 8] (Figs. 3-5, 18-19): Measuring 22.30x28.32 m. and covering an area of 631 sq. m., this section constitutes more than half (58.5%) of the entire complex. In the infrastructure of the eastern half of the palaestra is a large cistern contains 4 units. These cistern both held water and formed the substructure-terrace (Nr. 10) of the palaestra. Apart from their vaults, the cistern is extant. The cistern-side half of the palaestra rises 15 cm. above the western half. In the west half are only three vaulted units. The palaestra displays dense Byzantine constructions which damaged the Roman construction entirely. Particularly the three small units in the northwest corner were entirely altered in the Byzantine period. Yet, it can be understood that they were meant for education and preparation for training at the palaestra and their forms and dimensions can still be perceived. Placed side by side in the north-south direction in the northwest corner of the *palaestra* (Fig. 3, Nr. 9), the northernmost one adjoining the bathing rooms is the narrower. This northernmost one is 1.90 m. wide while the other two units are 2.85 m. wide. Such layout is not very common in Lycia and is found only at Arykanda's Large Baths and at a larger scale. Arykanda's Large Baths has rooms side by side along the east side of the *palaestra*[15].

The palaestra is accessed via the 1.35-meter-wide doorway from Room 4 (intermediary hall). The small units are each covered with a barrel vault in the east-west direction and have a stone pavement similar to that in Room 3. Their front sections were altered and damaged in the Byzantine period and a level difference formed between the Roman and Byzantine period floors. Thanks to the impossibility of preserving Roman and Byzantine remains altogether, the excavations could not continue down to the Roman floor level. Only the front part of the first vaulted unit was excavated down to the floor level and original flooring was reached. The vaulted units open to the palaestra on their east sides.

The Byzantine period constructions included not only alterations in the roofed-over parts but also building new units employing Roman materials. Starting from the south side of the southernmost vaulted unit, the entire palaestra is covered with Byzantine buildings side by side. Most of these were arranged as work-areas and food storage pithoi were uncovered with their bottoms. The construction materials used here were simply obtained from the south and west walls of the palaestra.

15 Bayburtluoğlu reports that finds that could cast light on the function of these rooms were not uncovered, that these rooms lost their original interior textures due to late period use but that the first chamber in the corner could be a room for oiling: Bayburtluoğlu 1982, 280 ff. Fig. 1.

The large cistern beneath the east half of the palaestra is the last cistern of the city at the lowest level and supplied the water storage demand of this side of the city maybe of the baths. These cistern also provided a total area of 343 sq. m. (4x22.90x15.00 m.) for the palaestra as well. The units of this cistern vary from 4.45 to 4.80 m. in width from 11.70 to 12.28 m in length. The wall thicknesses are 1.00 m. in between the units, 1.15 m. on the south and 1.50 m. on the east where they do not rest on any other structure due to the sloping terrain. The units interconnect with each other with three arches, each of which is 2.50 m. wide. Their floors are not visible but from what can be seen and from calculations on the arch piers, the estimated height of the units was about 8 m. All the walls are coated with thick layers of plaster. Each cistern has an area of 54 sq. m. and, by subtracting the vaults and considering that the water level could reach a depth of 5 m., it may be calculated that each one could hold about 270 cubic meters (i.e. tons) of water. Thus, the total system could store at least 1,000 tons of water. It was supplied via the canal coming from Building G (Asklepeion); however, there is no indication that this water reserve was used in the baths. It was rather used as a complementing structural element for the substructure of the palaestra. In the Byzantine period the cisterns served various functions. Especially the crosses and other graffiti incised on the plaster of the south wall of the middle cistern indicate such functions (Fig. 28). Such signs on the walls indicate that these cisterns had become just regular rooms.

There must have been another entrance to the baths complex from the palaestra (south) side, i.e. from the stepped street ascending to the city from the south; however, due to total destruction of this part, no evidence has been attested for such an entrance.

Construction technique and materials: Three different materials and techniques are observed in the construction of the complex: cut stones on the doorways and windows as well as some corners; bricks for arches and some of the vaults; and roughly shaped stones and mortar for the walls. Large cut stones are seen especially on the palaestra side and some of them were brought from the necropolis. In addition, door and window lintels and jambs were built with cut stones. Most of them were re-used in the Byzantine period. All the materials are local. Local stones are usually small, rough shaped, very hard and heavy. Gaps in the walls' courses and elsewhere were filled with rubble and mortar. Thus, the walls were affected by earthquakes and slides, and massive separations are observed.

As the hillside descends from west toward south, the baths complex rises very tall on the east side. The east side of the palaestra, which forms the southern half of the complex, is formed on a terrace of cisterns while the bathing rooms area on this side rests on its own high substructure. The long east wall of the baths is thicker and stronger than the other walls in order to be able to bear the load rising from the sloping terrain. The wall here is 1.50 m. thick while the rest are an average of 0.90 m. thick.

Hypocaust system: The heated rooms of the baths are heated from under the floor and walls from the main furnace (*praefurnium*) in Room 1 and extending into the *caldarium* (Figs. 11-12). Although there is a heat canal between Rooms 5 and 6, it is possible to say that Room 5 was either not heated or little heated only in the south part. As its intact floor could not be removed, no other evidence indicating any heating in Room 5 could be obtained. Only two rooms (Nrs. 6 and 7) of the baths have under-the-floor heating and Room 5 was possibly partially heated. Rooms 6 and 7 also have indications of wall heating. There are holes for terracotta pins for spaces between plaques and the walls (Fig. 16).

T-shaped (Fig. 30) and round-headed terracotta pins (spacer pins) (Fig. 29) for holding the wall facing plaques were uncovered in large amounts. Mostly T-shaped pins were used.

The space between the walking floor level and the ground of the *suspensura* is 1.30 m. tall in the *caldarium*. In the intact plastered areas are lines indicating the floor levels (Fig. 17). Three such lines have a total level difference of 18 cm. The only mass belonging to the walking floor that was found in the debris collapsed in the *hypocaust* has the same thickness of 18 cm. This was topped with a thin marble facing. There are four hot-air channels in the west wall of the caldarium, three of them are standard but one is narrower. With their minimum widths that can allow a man to pass through with some difficulty, these canals were placed at an angle in the wall in order to direct the hot air coming from the *praefurnium*. Not much is extant regarding the chimneys; however, it is clear that they were not embedded in the walls or corners. But it is understood that this mandatory function was realised with tubuli placed before the wall-corners. The only evidence extant is found in the northeast corner of the *caldarium*. Here the marks on the plaster that was once under the chimney-bricks give us information.

In the middle of the north wall of the *caldarium* is a gap with no wall, 1.55 m. wide and rising to the ceiling (Fig. 14). This gap has the *praefurnium* beneath the walking level. Its upper part possibly served the water heating system.

The other furnace used for heating the water was uncovered partially preserved before the west wall of the first room. Here were round pilae bricks and traces of extensively burnt floor. Thin terracotta pipes used for water distribution within the complex were also found here.

Water supply: Considerable evidence has been obtained regarding the water supply system of the baths. In the upper part of the west exterior of the complex, two pools (Figs. 20-21), one small and one large, were partly uncovered; in addition, terracotta pipes and elbows coming from these pools were uncovered *in situ*. This water supply system entered the baths premises via Room 3 (*apodyterium*). An *in situ* terracotta elbow with an inner diameter of 8.7 cm. suggests that water was conveyed to the *castellum* via the baths (Fig. 25). A room with dual functions of water distribution within the baths and water pressure regulation is located in the northeast corner. The tower-like square-shaped room with a high base is a reservoir-pressure room- (*castellum*). The water tanks behind the west side of the baths supply water here through the equal vessels principle and pressurised water was distributed to the complex from here. Six thinner pipes meant for distribution of hot and lukewarm water within the complex were found in the southeast corner of Room 1 (Fig. 24). The quadruple-reservoir in the substructure of the palaestra was supplied possibly from Building G's reservoirs via the water canal (Fig. 21), which was partially exposed in the southwest corner of the baths. These reservoirs were certainly fed by rain water collected from their own areas.

Regarding the waste water, only a drainage canal beneath the floor at the bottom of the east wall of Room 2 has been found (Fig. 3). The canal measures 0.58x6.94 m. and its lid-plaques had been long ago removed. The canal extends under the south wall of Room 2 (vestibule), flows into the frigidarium, then under the threshold of the main entrance on the north and out to the street. Extensions of the waste water system could not be found due to heavy destruction of the floors.

Small finds: As the complex was used with all its rooms and usually down to its original floor level in the Byzantine period, Roman finds are very limited. Yet, some Roman finds were uncovered in some units that had fallen down before the Byzantine period. These are usually potshards from the Late Roman period. Most of the pottery finds date to the Byzantine period. The shards from Room 4 were put together and six *amphoriskoi* were completed from these pieces. Only one fragment belonging to a Rhodian amphora has a stamp on its handle and the stamp features a Helios head and the illegible name of the manufacturer. The Byzantine pithoi surviving intact only in their lower halves were found *in situ* in the units of Room 8 converted to a Byzantine house. In addition to the daily use wares of the Roman period, unusual finds for a bathhouse such as fragments of a *kernos* were also uncovered. Fragments of common wares constitute the majority. In the baths rooms and especially in the *palaestra*, fragments of sculpture, which somehow managed to escape the lime kilns of the Byzantines, were also encountered.

Small finds related with the architecture and technical infrastructural systems of the baths as well as functional finds are the most important: pilae of the hypocaust, terracotta pins of the wall heating system, water pipes and marble revetments; these help us understand the functioning system of the baths. About 30 very small fragments of flat glass belonged to the windows. Glass fragments with a flat surface, belonging to the windows and found under the window area of the south wall of the tepidarium are noteworthy.

Inscribed blocks and fragments were also found in the course of the excavations. All of them were re-used in the Byzantine period; thus, they were not *in situ*. In Room 8, an inscribed block was found embedded in the Byzantine wall and removed by the excavations team. Another inscription was found under a large block re-used in the Byzantine period in the middle of the south wall of the *palaestra*. A Byzantine period inscription was found on a wall block of the water pool in Room 2 (vestibule).

Evaluation: Detailed evaluation and complementary final descriptions of the Rhodiapolis Baths will be published as a monograph after the missing small points are also completed in the excavations. The following preliminary evaluations can be proposed for this complex:

1. A new example of baths excavated to a great extent is added to the already existing two examples, namely Phaselis and Arykanda. When the excavations initiated in the baths in Patara and Tlos are completed in the future, entirely exposed baths examples will increase in number adding to the information available.

2. The Rhodiapolis Baths has shown that good quality baths could be expected even in medium-size cities. Certainly the lifestyles of the local administrators and their political attitude toward the city's inhabitants played a role. Furthermore, the high percentage of people who had adopted the Roman way of life in the city in question must have had an influence. Indeed Rhodiapolis had reached her highest period during the 2nd century A.D. Thus, the city must have had her largest population at that time as well as a social structure that required a developed bathhouse.

3. The fact that the Rhodiapolitans did not abstain from building baths despite having no water supply via aqueduct has shown that the baths were an indispensable part of urban life.

4. This complex with its palaestra larger than the covered rooms conforms to the "Small Baths of Roman Imperial Period" classification by Krencker[16]. This design is in full conformity with the basic character of Anatolian baths-gymnasium complexes.

5. When the size of the bathing rooms area totalling 446 sq. m. is compared with that of other Lycian baths, it can be proposed that Rhodiapolis Baths is a medium-size baths and even bigger than some examples like Xanthos B (ca. 420 sq. m.) and Apollonia (ca. 200 sq. m.).

6. On the other hand, although both cities are about the same size, the Idebessos Baths has a covered room of about 645 sq. m., which is bigger than that of Rhodiapolis; thus it can be said that the size of a city does not necessarily reflect on the size of its baths. Yet, it is usual that the number of baths and their dimensions are bigger in bigger cities. For example, the covered rooms of Myra Baths are about 1100 sq. m.

When we compare the number of covered rooms, it is seen that most of the baths have four main rooms and this is a mandatory reflection of bathing tradition onto architecture and thus does not vary very much. Differences in design are related with the topographic conditions, dimensions and shape of the site where the baths are built[17]. The relationship between the size and number of the Rhodiapolis Baths and its site conform to the principles of Weber[18].

It is also observed that some of the rectangular rooms are also more or less the same size but indeed, the parallelism is especially valid for the arrangement of the rooms, not their number or dimensions[19] because the number of main units is almost the same in all the Roman baths. In fact, this arrangement is not peculiar to Lycia only for it is also seen in phases III-IV of Pompeii Stabiana Baths (2nd century B.C.)[20], Central[21] and Herculaneum Forum Baths[22], first phase of Silchester Baths (mid-1st century A.D.)[23], and in the second phase of Glanum (1st century A.D.)[24], as well as some later North African examples[25]. This model is seen most frequently in Lycia outside Rome. The earliest example of this type comes from Pompeii and dates to the 2nd century B.C. This plan type is known as "Pompeii/Campania Type" in archaeology and its most important characteristic is that the rectangular rooms are arranged side by side[26]. The rectangularity of the rooms is just a technical preference due to easy employment of barrel vault.

7. The closest parallel to the arrangement of the three main rooms of Rhodiapolis Baths is found at Oenoanda. Curiously, their dimensions are about the same as well. The bathing

16 Krencker 1929, 174-187.

17 For factors that affect the baths structures and techniques see Boersma 1999, 191 ff.

18 Weber 1992, 2 ff.

19 For the origins of this plan type commonly seen in Lycian baths see Farrington 1992, 41 ff.; Çevik – Varkıvanç 2003, 127 ff.

20 Yegül 1992, 61 Figs. 59-60.

21 ibid, 1992, 63 Fig. 63.

22 ibid, 1992, 65 Fig. 66.

23 DeLaine – Johnson 1999, 260 Fig. 162 ff.

24 ibid, 1999, 260 Fig. 162 ff.

25 Yegül 1992, 235 ff. Figs. 273, 276.

26 Yegül 1992, 66.

rooms of MI 1 Baths at Oenoanda cover an area of 483 sq. m.[27]. The plan[28] and orientation of Mk 1 Baths at Oenoanda are also about the same.

8. The three rectangular units placed side by side in the northwest corner of the palaestra constitute another example in Lycia for such units known only from Arykanda[29] in Anatolia. These units must have served the needs arising during activities in the palaestra. They, in their present state, look like a Roman interpretation of the *ephebeia* seen in the Hellenistic gymnasia.

9. Room 4 with its junction-function has a special position administering the interior traffic of the baths (Fig. 3). This room provided access not only between the palaestra and the bathing rooms but also between the *apodyterium* and bathing rooms and between the *apodyterium* and the *palaestra*. The positioning of this room had a great share in the balanced layout of the baths architecture with organic and strong solutions. In addition, owing to the location of this room, it is anticipated that it might have assumed a secondary function as an *apodyterium*.

10. The masonry technique of the Rhodiapolis Baths has the workmanship widely used in Cilicia and also seen in Lycia. This is not a regional feature but rather related with the materials available at hand. The walls were built with rubble while the corners, entrances and windows were built with cut stone. All the interior walls feature amorphous rubble bound with mortar.

11. The main rooms 4 to 7 were roofed over with a barrel vault that was further topped with a timber and tile roof (Fig. 5). Although few in number, some roof tiles were uncovered in the tepidarium, frigidarium and caldarium (Fig. 26). A timber and tile roof topping a vault is a common implementation for which examples can be cited: e.g. all the rooms of the Sardis baths-gymnasium complex[30] and Hierapolis baths-gymnasium[31] in Anatolia, the military baths at Exeter, UK[32] and some baths in North Syria[33].

12. Some novelties are observed at Rhodiapolis Baths, perhaps peculiar to it or possibly just firsts to be seen among many in future. These are important for their contribution to the understanding of this and all the Lycian baths. A somewhat oblong room extending along the easily-identified three main units, which is usually seen in the baths, has been interpreted as a room with incoming and outgoing traffic. However, the Rhodiapolis example has shown that some of such rooms served for the infrastructure, and are not related to the bathing traffic. Indeed, such rooms would be anticipated as a necessity.

13. Very few remains indicating the presence of a *castellum* (water pressure chamber) in a baths have been attested in Anatolia but there is one here at Rhodiapolis Baths. The tower rising in the southeast corner of Room 1 supported the water pressure tank. The water supply to the *castellum* came from the slope to the west of the complex. The arrangement just out of the west side of Room 4 is the water supply system providing the

27 Farrington 1995, 155 ff. Fig. 6.

28 Yegül 1992, 298 Fig. 388.

29 Bayburtluoğlu 1982, 280 ff. Fig. 1.

30 Yegül 1992, Fig. 298.

31 ibid, Fig. 345.

32 Henderson 1999, 165 ff. Figs. 5, 7.

33 For example Babishka and Serdjilla: Yegül 1992, 331 ff. Fig. 416b.

castellum. Thus we are able to clearly see the water supply system of the baths. A very similar arrangement is also found at the military baths at Exeter, UK, which houses a reservoir next to the *praefurnium* connecting to the *caldarium*, within the series of service rooms encircling the bathing units[34]. One of the many examples outside Anatolia is the tall water tank in Pompeii Forum Baths. This tank provided pressurised water to the water heating system to be distributed to the baths[35]. One possible example for water towers is the northeast room at Arykanda Baths[36]. The two holes at the bottom of the chamber must be related with water distribution.

14. The waste water drainage systems retain their vagueness in the unexcavated baths of the region. In addition to the already known examples of Patara Harbour Baths uncovered in 1990, the two discharge canals of the *frigidarium* pool connecting to the waste water canal extending along the west wall of Arykanda Baths[37] and the original drainage system uncovered at Tlos Baths' *frigidarium* pool[38], the Rhodiapolis example also provides us with some clues. The canal coming from underneath the large bathing unit in the frigidarium (Room 5), extending along the south wall of the vestibule (Room 2) and flowing out of the complex under the entranceway was used for the waste water. As the street has not been excavated yet, it is not yet known what kind of system this canal adjoins. It is plausible that it turns toward the valley via a canal. As the floors of the *tepidarium* and *caldarium* have collapsed entirely, we are unable to understand the waste water drainage system.

15. The *palaestra* with a substructure of cisterns is the only one hitherto known.

16. The height of the *hypocaust* is 1.30 m. and this is close to the Gagae Baths published before[39]. Curiously enough, the maximum height of *hypocaust*, which is 1.30 m. in large baths, is also implemented in such smaller baths.

17. The *hypocaust* system of Rhodiapolis Baths conforms to the arrangement and technique very well-known in archaeology. It is important for the information it provides about the repair of the piers and additional supports that constitute the suspensura (Fig. 12). The diagonal positioning of the air canals beneath the floor between the rooms should be considered a difference. This advanced technical implementation facilitated a fast and rightly-directed flow of hot vapours coming from the *praefurnium*. Other baths have these canals built perpendicularly. The *hypocaust* system is built on a network of square piers adjoining the walls and round pilae in the central areas. Based on the data from the *tepidarium*, where the system has survived intact, there were 10 pilae lengthwise and 7 across the width. However, there are many other piers not conforming to the overall arrangement because they were added later as a result of repair and to provide extra support. The bricks have a diameter of 27 cm. and a thickness of 4–5 cm. The carrier square-shaped bricks placed at the bottom and top of the piers have a side length of 31 cm.

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34 Henderson 1999, 165 ff.

35 Heinz 1983, 148 Fig. 152.

36 Bayburtluoğlu calls this room "caldarium cubicle": Bayburtluoğlu 1983, 176.

37 Bayburtluoğlu 1982, 278.

38 We would like to thank F. Gülşen for the information on the example at Tlos which he is currently excavating.

39 Çevik – Bulut 2008, 63 ff.

18. The wall heating system was implemented with a technique that is well known and widely used in Anatolia and the Mediterranean: terracotta plaques were placed on the wall with terracotta pins (spacer pins), creating a gap along the surface of the wall through which the hot air circulated. The excavations at the Rhodiapolis Baths brought to light numerous examples of such pins and holes on the walls. The round-headed pins (Fig. 29), the fewer of the two types uncovered, are also known from Lycian cities like Patara[40], Tlos[41], Balboura[42], Kadyanda and Phaselis[43] as well as from west Anatolia as is found in the Pergamum East Baths[44]. This system cost less than the tubuli and the *tegula mammatae* (lugged tiles) and thus much widely used.

19. The wall heating system at Rhodiapolis is implemented with a very strong, reasonable and alternative method, which is known in the region only from the Typallia Baths[45] and Andriake[46]. This involves use of an angled plaque holder (Fig. 30). Based on the density of finds at Rhodiapolis, T-shaped pins were used the most. These T-shaped terracotta pins have grooves for fitting the plaques in place. Its metal parallel is known[47]. However, with metal studs one can hold the plaque on the outside but a terracotta reel/spacer underneath is necessary to hold it in place. But the T-shaped fixer from Rhodiapolis can hold the plaques on both sides. Measurement of sample terracotta pin holes on the east wall of the caldarium where the system can be observed the best indicated that in each one of 6 rows there are 9 holes set almost equidistant from each other. It was calculated that the terracotta plaques measured 70-75 cm. vertically and 50-55 cm. horizontally. Taking into account the examples both from Rhodiapolis and Typallia, it is seen that the T-shaped holders were used both on the vertical and horizontal sides. The other two sites with this type of fixers are Typallia and Andriake, both in Lycia; thus, it is highly likely that such pins were used more commonly in Lycia and we have not been aware of it; it will become clearer as more are uncovered in new excavations. No parallel is known from the rest of the Roman world, therefore suggesting that this was a reasonable local solution for the Lycian baths.

20. The holes for the terracotta pins have been found only on the long east and west walls of Rooms 6 and 7 (*tepidarium* and *caldarium*). The other rooms, including Room 5 that is thought to have been partially heated from under the floor, do not have any traces of a wall heating system.

21. It was avoided to place the doorways on the same axis in order to keep the hot air indoors (Fig. 3). Thus, the doorway leading into the *caldarium* was placed on the south end, the furthest from the *praefurnium*.

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40 Korkut 2003, 453 ff. Fig. 10.

41 Gülşen 2007, 223 ff. Figs. 39-49.

42 Coulton 1986, 171 ff.; Farrington – Coulton 1990, 55 ff. Pl. 5a Figs. 2-4.

43 Farrington 1995, 105 Tab. 14.

44 Radt 1999, Fig. 88.

45 For more information on Typallia Baths, see Çevik – Varkıvanç 2003, 91 ff. After the publication of this article, the authors visited Typallia and noted "T" shaped pins in the pit dug by treasure hunters.

46 We found one sample on the surface during our exploratory visit to Myra and Andriake for the preparations for excavations there.

47 Yegül 1992, 364 Fig. 455d.

22. The bathing basins were usually placed in the north parts of the units (Fig. 31). These basins were either semicircular or rectangular in shape. The basins in Rooms 2 and 4 were added much later, but it is plausible to expect such basins at the same spots in the Roman period as well. The biggest basin is the rectangular one in the caldarium, extending all along the top side of the *praefurnium*. The hypothetical attempt by Farrington regarding the basin positions is faulty on this point[48]. In fact, placement of a basin before the south wall of the caldarium is entirely wrong for there is the doorway right there. The main basin in the caldarium is right above the praefurnium. The full circular basin foreseen for the apse of the tepidarium is also not correct because there is a semicircular basin here following the shape of the apse. Placement of the basin all along the south wall of Room 4 is also wrong because here there is a smaller basin due to the doorway leading out to the palaestra; it was placed in the space before the wall, created by placing the doorway somewhat eastward. Farrington was not able to see the large basin niche in the north of Room 5 (*frigidarium*) and thought it as an entranceway connected with the service areas; however, this alcove had a cold water basin that occupied it entirely.

23. Rhodiapolis Baths' sketch plan was published by Farrington based on his survey[49]. Naturally, important mistakes could be expected in layout and identification of the units. The excavations here have shown that identification from the surface, as done by Farrington and others, can lead to wrong identifications.

24. Only Farrington has made a suggestion about the date of Rhodiapolis Baths. He dated the building as "Post-Severan, third century (?) (water supply independent of aqueduct)"[50]. Our main criticism for Farrington's dating covers two points: (1) 3rd century A.D. is a late date for Rhodiapolis, which experienced its peak in the 2nd century, and (2) "Water supply was independent of aqueduct" was shown as the reason. In fact the most basic connection is the relation of the baths with the city. This relation becomes an organic part as the water supply of the baths came from the agora's reservoir at a higher altitude. Thus, it was not possible to supply water to the baths without the agora's reservoirs, which must have existed in the 2nd century. In fact, neither the city nor the baths was ever supplied with water via aqueducts[51]. Furthermore, it is not determinative for the dating of a baths to have dependent or independent water supply system.

As most of the finds uncovered in the excavations dated to the Byzantine period, it is understood that all the rooms of the baths served mainly as work areas during the Byzantine period. Byzantine finds date from the Early Byzantine to the 11th century and the latest find is a coin of Basileus II; thus, having lost its Roman baths identity the building stayed in use for different purposes for about 600-700 years more and this is why there are so few finds from the Roman period. The earliest finds mainly came from the bottom of the castellum but they are very mixed as if at a *bothros* and thus not helpful for understanding the Roman period. Of the 54 finds coming from the Roman period 34 are potshards and the rest consist of such things as glass, terracotta, metal, arrowhead, seal,

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48 Farrington 1995, Fig. 196. Farrington complemented his suggestions with a (?), however.

49 Farrington 1995, 160 Fig. 9.

50 Farrington 1995, 160.

51 The reasons for Farrington's comment on building the agora reservoirs before or after the baths and dating to the 2nd or the 3rd century remain obscure for us because there is no aqueduct in the city. Farrington 1995, 109 Tab. 16.

loom weight, altar mould, lamp, earring and ring. None of the datable finds helps us with the dating of the baths because almost all came from the flow down the slope and filled in the baths. Moreover, as the baths stayed in use during the Byzantine period these finds do not constitute data regarding the Roman phases of the building. Thus, the dating of the baths is mainly based on not small finds but on urban texture, history of the city and her environs and other baths in nearby cities.

In addition to the points indicated by the find, the dating is also related to the city's peak period. It is not possible not to expect a Roman baths in an entirely developed and built Roman settlement. Rhodiapolis had her highest period from the 1st to the 3rd centuries A.D. and the peak point in this period is the first half of the 2nd century when Opramoas refurbished the entire city. Opramoas, who financially supported the construction of many buildings in all the Lycian cities and who also had baths built in the nearby Gagae and Corydalla, contributed greatly to the increase in construction activities in his region. Within the context of such developments he could not have left his own city without baths. It is known that he had the baths (*balneion*) in Gagae built by paying 18,000 denarii[52]. The Gagae Baths, which resembles greatly the Rhodiapolis Baths in terms of construction material and technique, was dated to mid-2nd century A.D. based on the latest epigraphic evidence[53]. As Rhodiapolis was the hometown of Opramoas, Rhodiapolis Baths must have been built earlier than that at Gagae, or mid-2nd century A.D. at the latest. In fact, it would have been very difficult without a palaestra adjoining the baths to organise the panegyric festival[54] including sports like wrestling and boxing, known to have been organised at Rhodiapolis. The Oenoanda Baths, which Rhodiapolis Baths resembles in layout, is dated to the late 2nd century at the latest based on an inscription[55].

The complex displays aspects of the second century A.D. at the earliest. It is understood that it underwent revisions in the 3rd and 4th centuries. The last constructions were done in the Byzantine period, during which almost all the rooms of the baths were used at different floor levels for other purposes.

25. Inscriptions mention a gymnasium in Rhodiapolis in addition to the baths (TAM 2, Nrs. 910, 924). Encountered in other cities too, this should be a mistake because Roman period baths could be mentioned using both terms together. Indeed, the term "baths-gymnasium" is more suitable for the Anatolian baths. The Rhodiapolis Baths should better be called a "baths-gymnasium" owing to its large *palaestra*.

26. In regard to the overall layout, this complex conforms to the Anatolian baths-gymnasium characteristics. More than half of about 1,000 sq. m. in total was spared for the palaestra. The bathing rooms were arranged in the fashion generally encountered in Lycia: The main rooms of *apodyterium, frigidarium, tepidarium* and *caldarium* with their rectangular plans are aligned along the same axis.

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52 E. Kallinka, TAM Vol. 2 (1920) Nr. 905 XII F 1-3, XVII E 7-8, XIX D 1-3; Kokkinia 2000, 103; Çevik 2008, 27.

53 Çevik – Bulut 2008, 63 ff.

54 Çevik – Bulut 2008, 70.

55 Yegül 1992, 299.

27. In order to facilitate the debate among scholars exploring in this area, the following is a list of points on which we have difficulty to explain or evaluate with regard to the Rhodiapolis Baths. Above were the preliminary evaluations and evidence available. Moreover, these points will be investigated more deeply in a monograph on the complex and possibly will be explained.

a. The overall waste water system inside the baths and its exterior connections. Evidence has been uncovered only in Room 2, none in other rooms.

b. Why and how did the narrow alcove in Room 2 form?

c. Was the water in the cisterns/reservoirs used for the baths? If it was, then how was this achieved?

d. Why was Room 5 heated only partially? Any suspensura here?

e. What was the exact function of the three units in the northwest corner of the palaestra? The floors could not be reached in order not to remove the Byzantine level.

f. Was there an entrance into the palaestra on the south? If yes, where? As the outer walls in this area were destroyed no evidence could be found.

g. Where were the basins, which are not extant today, located in the tepidarium and caldarium? As the floors have entirely collapsed, no evidence has survived for basins other than those inside the niches.

h. How was the ground level difference in the palaestra overcome? The ground of the palaestra should have been of pressed earth and no such filling has been attested. The rear wall projection of the reservoirs caused a 15 cm. level difference in the palaestra plane.

As the Rhodiapolis Baths has been uncovered almost entirely, it has presented us with important novelties and differences mentioned above and thus will contribute greatly to the understanding of Lycian baths; it will present other scholars studying the Lycian baths with new ways to identify their examples and finds.

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Öz

Rhodiapolis Hamamları

Rhodiapolis'in doğu sınırındaki son kamu yapısıdır. Toplam 1077 m^2'lik bir alanı kaplayan yapı kompleksi akropolün doğu eteğindeki eğimli arazide inşa edilmiştir. Yapının güney yarısını (%58,5) palaestra ve palaestranın terasını oluşturan sarnıçlar, kuzey yarısını (%41,5) da hamam oluşturmaktadır. Doğu duvarının tümü tonoz örtünün başlangıcına kadar ayakta olan hamamın içi ve çevresi kazı çalışmaları öncesine kadar moloztaş ve harçla örülen duvarların ve tonozların yıkıntısından oluşan moloz dolgu ile kaplamıştır.

Birkaç yapısal evrenin izlenebildiği Roma Dönemi hamamındaki köklü yapısal değişiklikler Bizans Dönemi'nde gerçekleşmiştir. Yapı genelinin Bizans Dönemi'nde hypokaustumun zeminine kadar kullanılması nedeniyle iç mimaride, donanımlarda ve küçük buluntularda Roma Dönemi hamamından geriye çok fazla bir şey kalmamıştır. Bizans Dönemi'nin değişikliklerine karşın hamamın tüm bölümleri tanımlanabilmektedir: 1 nolu bölüm içinde ocaklar içeren ve yakacaklar depolanan "servis odası", 2 nolu bölüm "giriş odası", 3 nolu bölüm "Apoditerium", 4 nolu bölüm "merkezi geçiş odası ve Apoditerium", 5 nolu bölüm "Frigidarium", 6 nolu bölüm "Tepidarium", 7 nolu bölüm "kaldarium", 8 nolu bölüm ise "Palaestra"dır.

%95'i kazılmış olan hamamla Lykia'da, bugüne dek bilinen hamamlar içerisinde kazıları tamamlanmış olan 2 hamama (Phaselis, Arykanda) yeni bir örnek daha eklenmiştir. Rhodiapolis örneği, orta ölçekli kentlerde de nitelikli hamamlar beklenebileceğini göstermiştir. Aquadükt vasıtası ile beslenen bir su temin sistemi bulunmadığı halde hamam yapmaktan geri kalmamış olmaları, kentlerde hamamın ne denli vazgeçilmez olduğunu bir kez daha göstermiştir. Tasarım Anadolu'daki hamam-gymnasium komplekslerinin temel karakteriyle tam bir uygunluk içerisindedir. Bu hamamların bazı dikdörtgen birimlerinin ölçülerinin yaklaşık aynı olduğu görülür. Yerel yaygınlığı olan, birimlerin sayısı ve ölçüsündeki benzerlikten çok, diziliş biçimidir. Rhodiapolis Hamamı, üç ana mekanın dizilişinde en yakın benzerlerini Oinoanda'da bulur. İlginç bir biçimde ölçüleri de yaklaşık aynıdır. Palaestranın kuzeybatı köşesinde yan yana dizili 3 dikdörtgen birim, Anadolu'daki hamamlardan sadece Arykanda'dan bilinen bir düzenlemenin bölgedeki diğer bir örneğidir. Bu birimler palaestral faaliyetlerde, eğitim gibi tamamlayıcı fonksiyonlar üstlenmiş olmalıdır. Hamam içi trafiğin çözüldüğü bir kavşak-oda işleviyle 4 nolu oda özgün bir konumdadır. Bu oda palaestra ile yıkanma bölümleri arasında geçişi sağladığı gibi apoditeriumla palaestra ve apoditeriumla yıkanma birimleri arasındaki geçişleri de sağlamaktaydı. Hamam mimarisinin çok organik ve güçlü bağlantılarla dengeli olarak çözülmüş olmasında bu birimin yerleştirilişinin büyük önemi bulunmaktadır. Ayrıca bu odanın konumunun sağladığı avantajla, ikinci bir Apoditerium işlevi de yüklenmiş olması beklenir. Rhodiapolis

Hamamı duvarlarında moloz taşlar, köşe, giriş ve pencere açıklıklarında blok taşlar kullanılmıştır. İç duvarların tamamı biçimsiz moloz taşlar ve harç yardımıyla düzensiz biçimde örülmüştür. Tepidarium, frigidarium ve kaldariumda, az da olsa ele geçen kiremit parçalarından hamamın 4-7 nolu mekanlar arasındaki ana bölümlerinin, beşik tonoz üzerinde kırma çatı ile örtülü olduğu anlaşılmaktadır.. Hamam içlerinde bir kastellum (su basınç odası) olduğuna ilişkin Anadolu'da tanımlanabilen çok az kalıntıdan biri burada ele geçmiştir. 1 nolu bölümün güneydoğu köşesinde yükselen kule üstünde hamama ait bir su basınç deposunu taşımış olmalıdır. Kastelluma gelen suyun kaynağı ise hamamın batısındaki yamaçtadır. 4 nolu birimin hemen arkasındaki bu düzenleme, kastelluma gelen suyun kaynağına ilişkin bir sistemidir. Yapıda atık su sisteminin anlaşılmasını sağlayacak kanallar da vardır. Rezervuarlardan elde edilmiş bir alt yapı üzerine kurulu palaestrası bilinen tek örnektir. Boşluk yüksekliği 1,30 m. olan Hypokaustum sistemi, geleneksel düzen ve tekniğe uymaktadır. Sadece suspensurayı taşıyan ayakların onarım ve ek desteklerinin nasıl yapıldığı konusunda bilgiler vermesiyle önemlidir. Bölümler arasında bulunan duvar altı hava kanallarının eğri kesimli olması da bir farklılık sayılmalıdır. Bu gelişkin teknik uygulama farkı sayesinde praefurniumdan çıkan sıcak gazların daha doğru ve hızlı bir biçimde diğer bölüme geçmesi sağlanıyordu. Sağlam ele geçen tepidarium verilerine göre uzunlamasına 10, enine 7 ayak sırasından oluşmaktadır. Ancak arada düzeni bozan pek çok ayağa rastlanmaktadır. Bunlar, sonradan eklenen onarım ve destek amaçlı ayaklardır. Duvara sokulan terrakotta çiviler yardımıyla yerleştirilen pişmiş toprak levhalarla oluşturulan boşluk sıcak havanın duvar içinde dolaşımını sağlamaktaydı ve Rhodiapolis Hamamı kazılarında bu çivi yuvalarından ve çivilerden çok sayıda örnek bulunmuştur. Kazılarda bulunan bir tip köşeli levha tutamağı duvar içi ısıtma sistemine farklı bir alternatif ve çok akılcı, sağlam bir yöntem sunmaktadır. Buluntu yoğunluğuna bakıldığında en çok "T" tipi köşeli çivi kullanılmıştır. Duvar ısıtma sistemlerine ilişkin çivi yuvaları sadece 6 ve 7 numaralı tepidarium ve kaldariumda ele geçmiştir. Bu bölümlerin de doğu ve batı uzun duvarlarında bulunmaktadır. Diğer bölümlerde herhangi bir iz bulunmamaktadır. Zeminden kısmen ısıtıldığı düşünülen 5 nolu bölümün duvardan da ısıtıldığına ilişkin herhangi bir iz yoktur. Yıkanma birimleri arasında bulunan kapıların karşılıklı gelmemesine dikkat edilmesi sıcak havayı koruyucu bir önlem olarak düşünülmüştür. Bu nedenle, kaldariuma giriş kapısı, praefurniuma en uzak olan güney uçtan bırakılmıştır. Yıkanma tekneleri, bölümlerin daha çok kuzey taraflarına yerleştirilmiştir. Yarım yuvarlak ve dikdörtgen formlardadır. 2 ve 4 nolu bölümlerde bulunan tekneler geç dönemde yapılmışlardır. Rhodiapolis Hamamı'nın daha önce A. Farrington tarafından yüzeyde görülen haliyle bir krokisi yayınlanmıştır. Yüzey çalışması olması nedeniyle, planında olduğu gibi bölüm tanımlamalarında da büyük yanlışlar ve eksikler vardır. Rhodiapolis hamamında yapılan bu doğrulama gösteriyor ki Farrington ve diğerlerinin yüzeyden yaptıkları tanımlamalarda çok önemli hatalar olabileceği varsayılmalıdır.

Rhodiapolis Hamamı'nın tarihi konusunda bugüne dek sadece Farrington'un bir önerisi bulunmaktadır. Kendisi hamamı İ.S. 3. yy.'a tarihler. Bu tarih, İ.S. 1. ve de özellikle 2. yy.'daki olgun kent kimliğindeki Rhodiapolis'in bir hamama sahip olması için oldukça geç bir zamandır. Hamam suyunun daha üst kottaki agora rezervuarlarından beslenmesi nedeniyle, İ.S. 2. yy.'da kesinlikle var olması gereken agora rezervuarları olmadan hamama su temin edilmesi mümkün değildir. Ne kente ne de hamama hiçbir zaman bir aquadükt ile su taşınmamıştır. Zaten bir hamamın su sisteminin bağımlı ya da bağımsız olması tarihlemede belirleyici de değildir. Hamam kazılarında ele geçen bulguların çoğunlukla

Bizans Dönemi'nden olması hamamın tüm bölümlerinin Bizans Dönemi'nde, özellikle işlik işlevinde yoğun olarak kullanılmış olduğunu göstermektedir. Bizans bulguları Erken Bizans Dönemi'nden 11. yy.'a kadar çıkmaktadır. En geç buluntu II. Basileus'a ait bir sikkedir. Bu durum Roma Dönemi hamamının, özgün işlevini yitirdikten sonra yaklaşık 600-700 yıl boyunca farklı amaçlarla kullanım gördüğünü belgelemektedir. Roma Dönemi'nden çok az buluntu olmasının nedeni de budur. Erken buluntuların çoğunluğu da kastellum tabanından çıkmıştır. Ancak bunlar bir bothros benzeri içerikte karışıktır: Roma Dönemi'nin anlaşılmasına katkı verecek nitelikte değildir. Roma Dönemi'nden ise, formu belirlenebilen toplam 54 buluntu çıkmıştır. Bunların çoğunluğu (34 adet) seramik kap parçalarıdır. Geri kalanı ise cam, terrakotta, metal, ok ucu, ekmek damgası, mühür, ağırşak, altar kalıbı, kandil, küpe, yüzük gibi farklı nesnelerdir. Tarihlenebilir buluntuların hiçbiri hamamın tarihlenmesinde güvenilir bir destek verememektedirler. Çünkü neredeyse tamamı yamaç akıntısından gelmiş ve hamama dolmuştur. Ve zaten hamamın neredeyse tamamı Bizans Dönemi'nde kullanıldığı için hamamın Roma Dönemi kullanım evreleriyle ilgili bir veri anlamına gelememektedirler. Dolayısıyla hamamın tarihlenmesinde buluntulardan çok şehircilik, çevre ve kent tarihi ve yakın kentlerdeki hamamlar yardımcı olmaktadır.

Tarihlemede buluntuların gösterdiği izler dışında kentin en parlak günlerinin ne zaman olduğunun da önemi vardır. Tüm yapılarıyla imar olmuş bir Roma Dönemi yerleşiminde hamam olmaması beklenemez. Rhodiapolis 1.-3. yy.'lar arasındaki dönemde en güzel günlerini yaşamıştır. Bunun içinde de doruk noktası, Opramoas'ın şehrin çehresini değiştirdiği 2. yy.'ın 1. yarısıdır. Tüm Lykia kentlerinde pek çok yapının ortaya çıkmasında mali katkısı olan ve en yakınındaki Gagai ve Korydalla'ya da hamamlar yaptırmış olan Opramoas, kendi kentindeki yapılaşma faaliyetlerinin artmasına büyük katkı vermiştir. Bu gelişmeler içerisinde kendi şehrini hamamsız bırakmış olamazdı. Gagai'de 18.000 dinar vererek hamamı (balneion) yaptırdığını bilinmektedir. Yapı malzemesi ve inşa tekniği Rhodiapolis hamamıyla çok benzeşen Gagai hamamı bu epigrafik belgeyle en geç İ.S. 2. yy.'ın ortaları olarak tarihlenmiştir. Opramoas'ın kendi şehri olması nedeniyle Rhodiapolis Hamamı'nın Gagai'den daha erken, en azından en geç 2. yy.'ın ortasında yapılmış olması gerektiği anlaşılmaktadır. Zaten, aksi taktirde Rhodiapolis'te de yapıldığını bildiğimiz, güreş, boks gibi sporları içeren panagyrik festivalin de yapılması hamama bağlı bir palaestra olmaksızın zorlaşacaktır. Bu hamamdan başka, yazıtlarda Rhodiapolis'te bir de gymnasium olduğu anılmaktadır. Başka kentlerde de karşılaşılan bu durum aslında bir yanılma olmalıdır: Çünkü Roma Dönemi hamamları hem hamam hem de gymnasium kavramlarıyla anılabilmektedir. Ve zaten, "hamam-gymnasium" kavramının kullanılması Anadolu hamamları için daha doğru bir seçenektir. Palaestra ağırlıklı bu yapısıyla Rhodiapolis hamamına da "hamam-gymnasium" demek en doğrusudur.

Fig. 1 General view from northeast.

Fig. 2 General view from north.

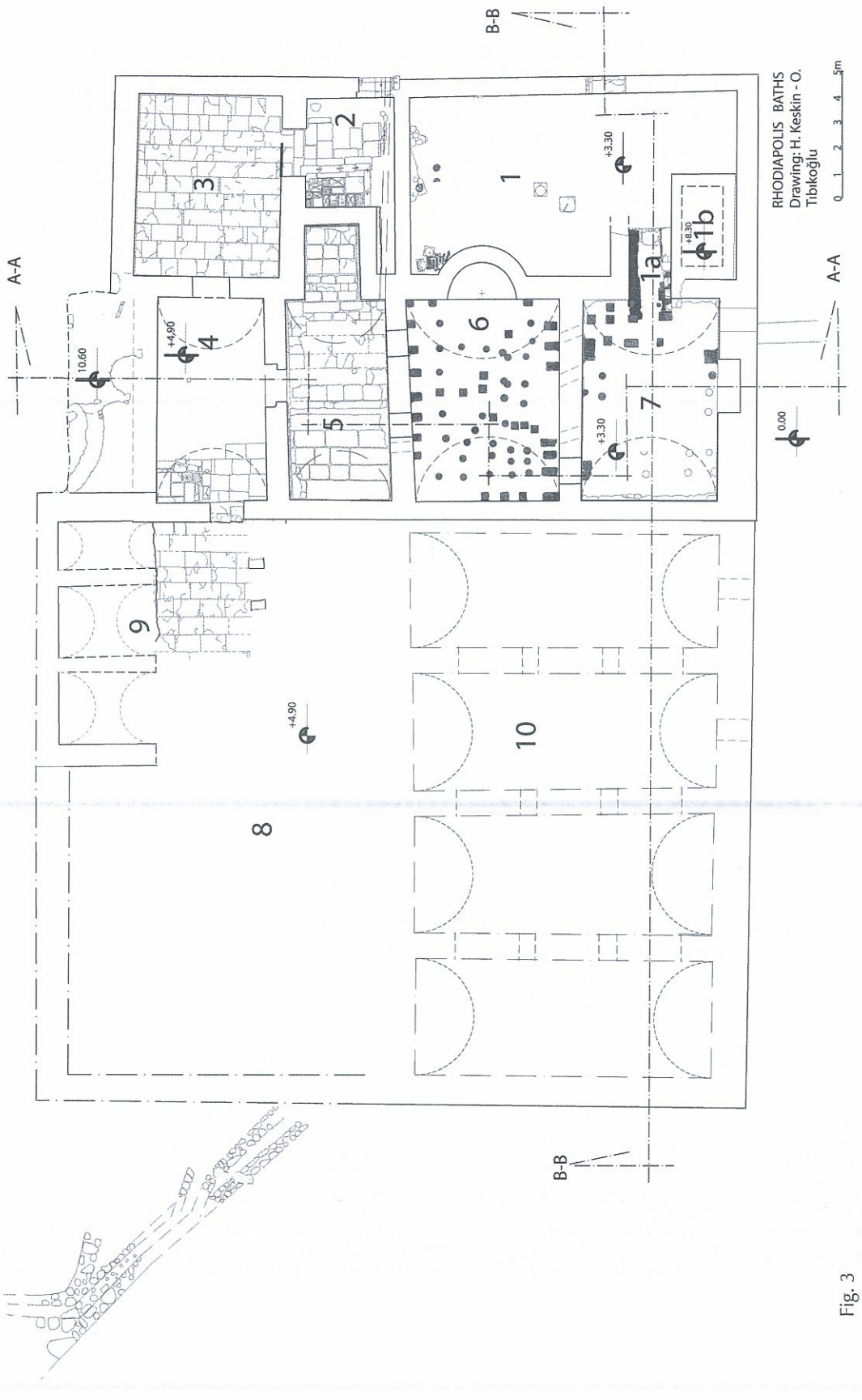

Fig. 3
General plan.

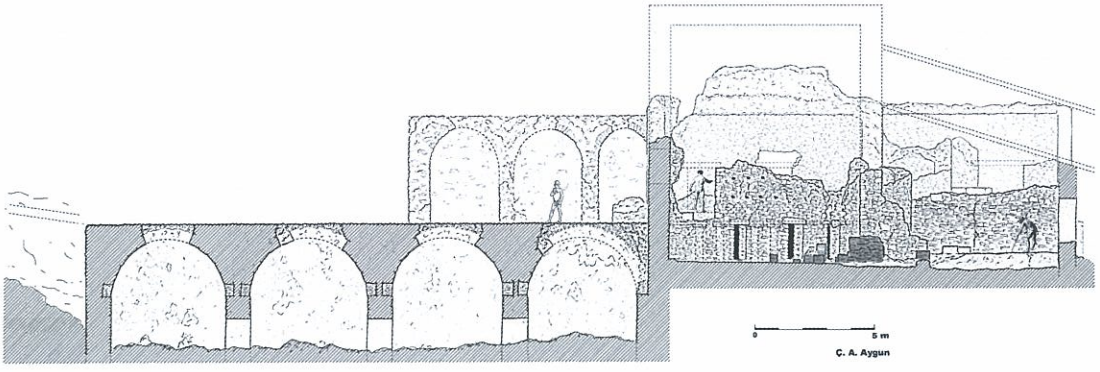

Fig. 4 Cross-section B-B.

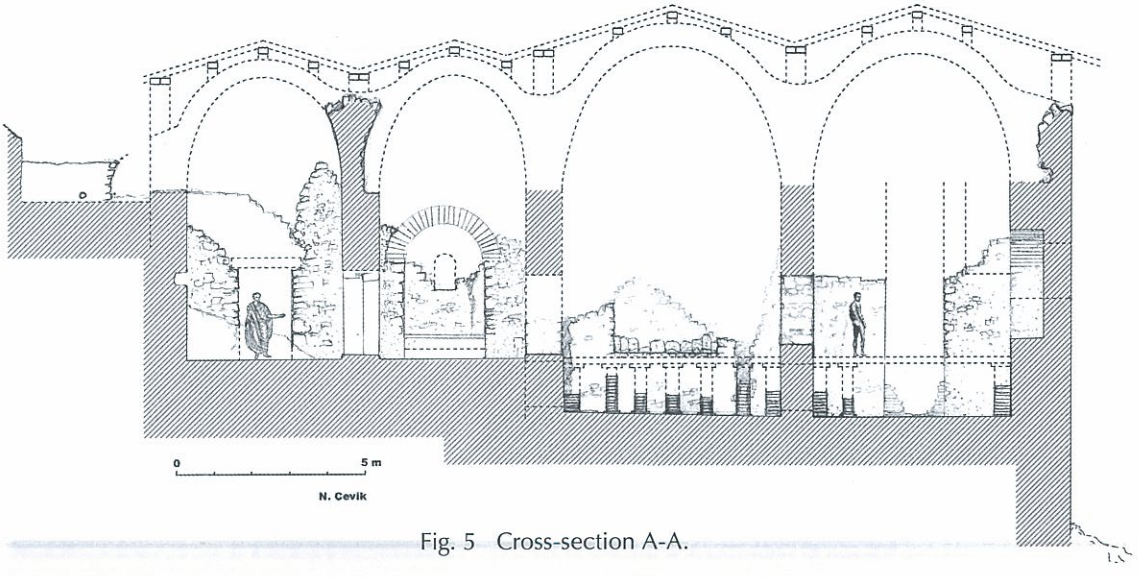

Fig. 5 Cross-section A-A.

Fig. 6
General view
from southeast.

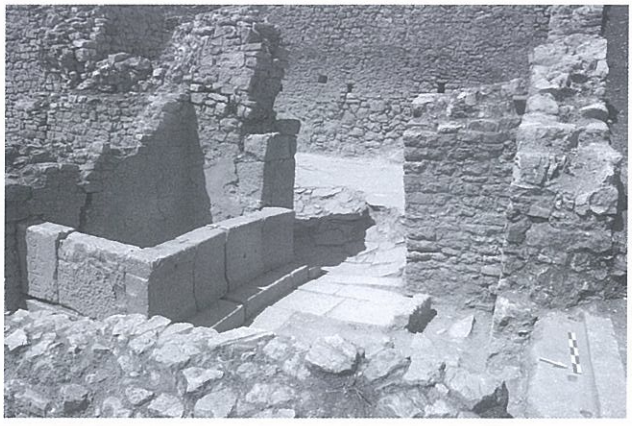

Fig. 7 Room 2: vestibule and late period basin.

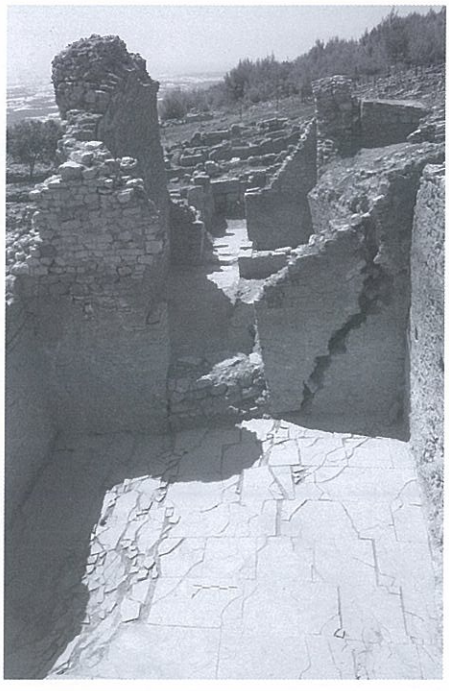

Fig. 8 Room 3: apodyterium.

Fig. 9 Room 5: cold water pool.

Fig. 10 Room 5: frigidarium.

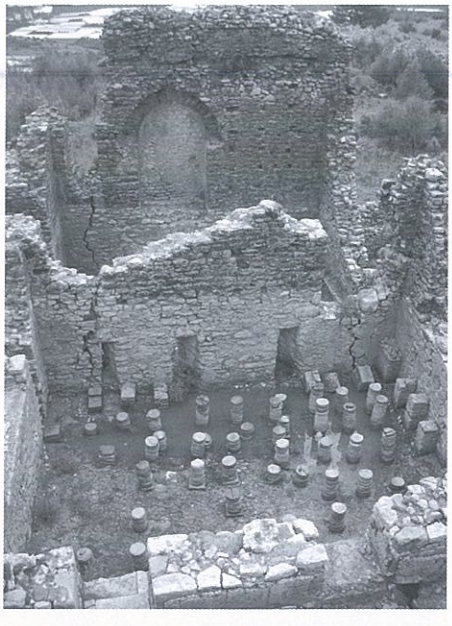

Fig. 11 Rooms 6 and 7: tepidarium and caldarium in the background.

Fig. 12 Room 6: tepidarium, hypocaust.

Fig. 13 Room 6:
tepidarium, lukewarm water basin.

Fig. 14 Room 7:
caldarium, hypocaust.

Fig. 15 Room 1: praefurnium and castellum.

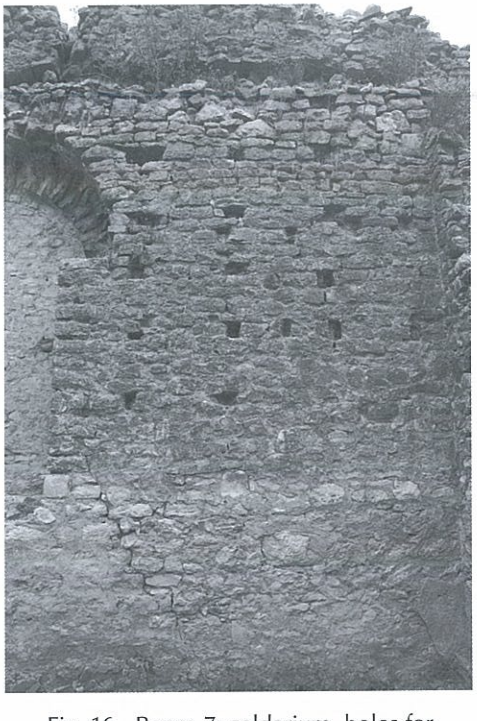

Fig. 16 Room 7: caldarium, holes for terracotta pins of the wall heating system.

Fig. 17 Room 6: tepidarium, lines of floor level indicating level of the suspensura.

Fig. 18 Rooms 8-10: palaestra and the reservoirs in the substructure.

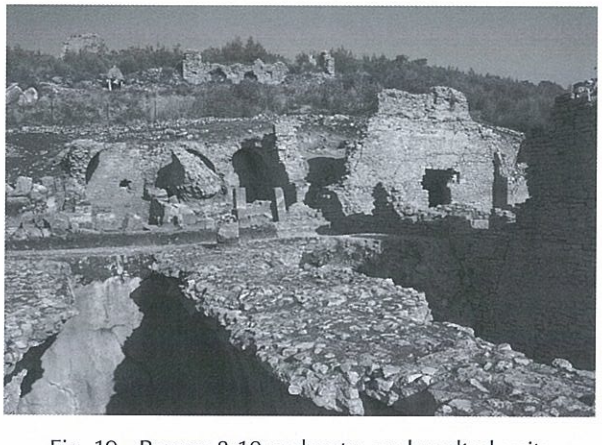

Fig. 19 Rooms 8-10: palaestra and vaulted units side by side.

Fig. 20 System supplying water to the castellum.

Fig. 21 Canal conveying water to the reservoirs.

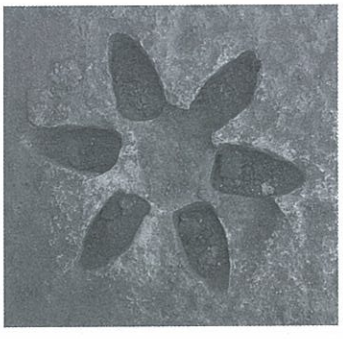

Fig. 22
Room 2:
pool strainer.

Fig. 23
Fountain
fed from the
reservoir.

Fig. 24 Room 1: pipes for interior water distribution.

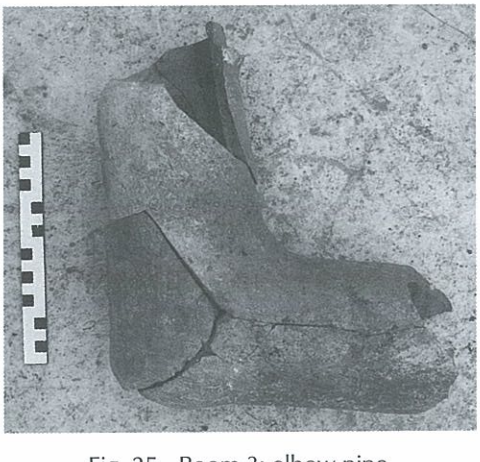

Fig. 25 Room 3: elbow pipe.

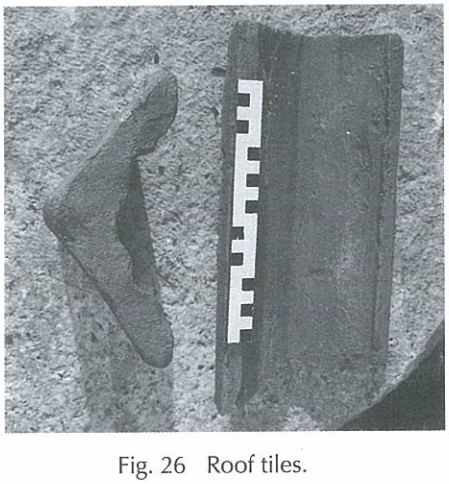

Fig. 26 Roof tiles.

Fig. 27
Water pipes
for interior
distribution.

Fig. 28 Byzantine graffiti in the reservoirs.

Fig. 29 Round-headed terracotta pins belonging to the wall heating system.

Fig. 30 T-shaped terracotta spacer pins.

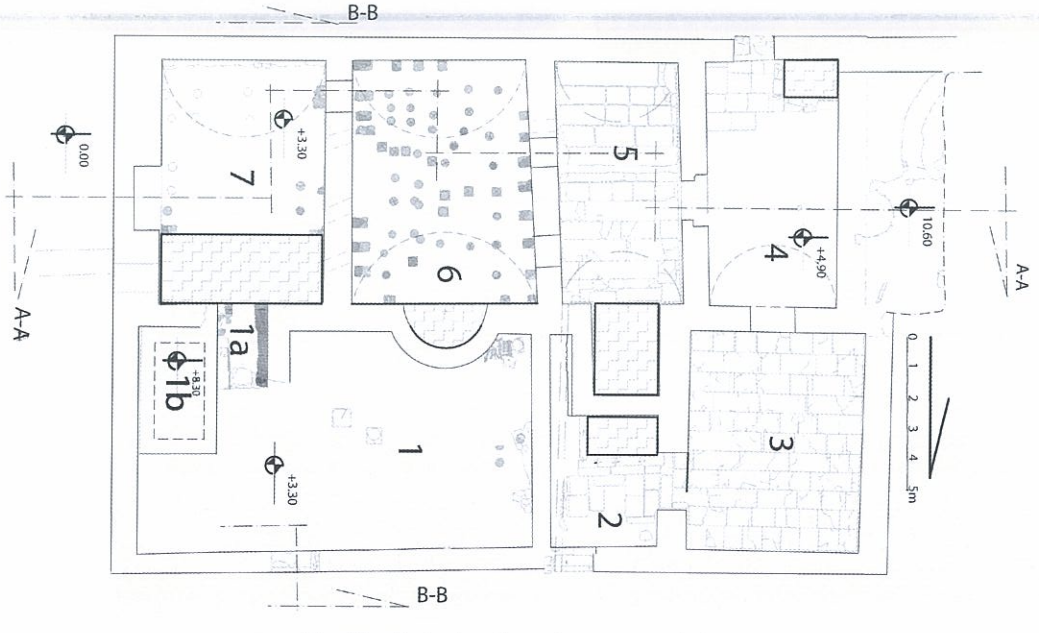

Fig. 31 Basin locations known precisely.