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The Marble Decoration of the Presbytery of the Late Antique Basilica in Jiyeh (Porphyreon) - Lebanon

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THE MARBLE DECORATION OF THE PRESBYTERY OF THE LATE ANTIQUE BASILICA IN JIYEH (PORPHYREON) – LEBANON

Keywords: church decoration, Late Antiquity, marble, Phoenicia

Introduction

The use of marble revetments in Late Antique churches is a poorly researched subject. The source material gathered during the Polish-Lebanese excavations in Jiyeh allows for enriching the knowledge of this kind of decoration. Main aim of this article is a reconstruction of the layout of panels applied in the presbytery of the basilica in Jiyeh. The archaeological source base for this study includes fragments of marble panels, copper-alloy clasps, and holes in the walls. Reconstructed decoration was based mostly on vertically arranged rectangular panels of various size, made of white and grey marble.

Additionally, similar decorations from other Christian basilicas of the eastern Mediterranean are cited. The literary sources indicate that marble wall revetments were founded both by emperors and private individuals.

Decoration of this kind usually appears in the churches of the great urban centres. It is less frequent in rural areas, undoubtedly as a result of a different material status of the local donors.

Marble tiles

During the seasons 2004, 2005, 2008–2010, and 2012, 894 fragments of marble tiles were found, of total weight of ca. 100 kg. The majority of them are white-grey or grey. Only a small number of the tiles were made of colourful stones. The three quarters of the material come from the Late Antique basilica, while the remaining part is from the residential quarter.¹ In most of the cases the tiles were discovered in modern layers that had been formed during regular and rescue excavations previously carried out at the site. A small number of the tiles might have been elements of mosaics executed in the *opus sectile* technique, as indicated by their triangular or rounded shapes (Fig. 1). None of this fragments thus identified has clasp-holes; in

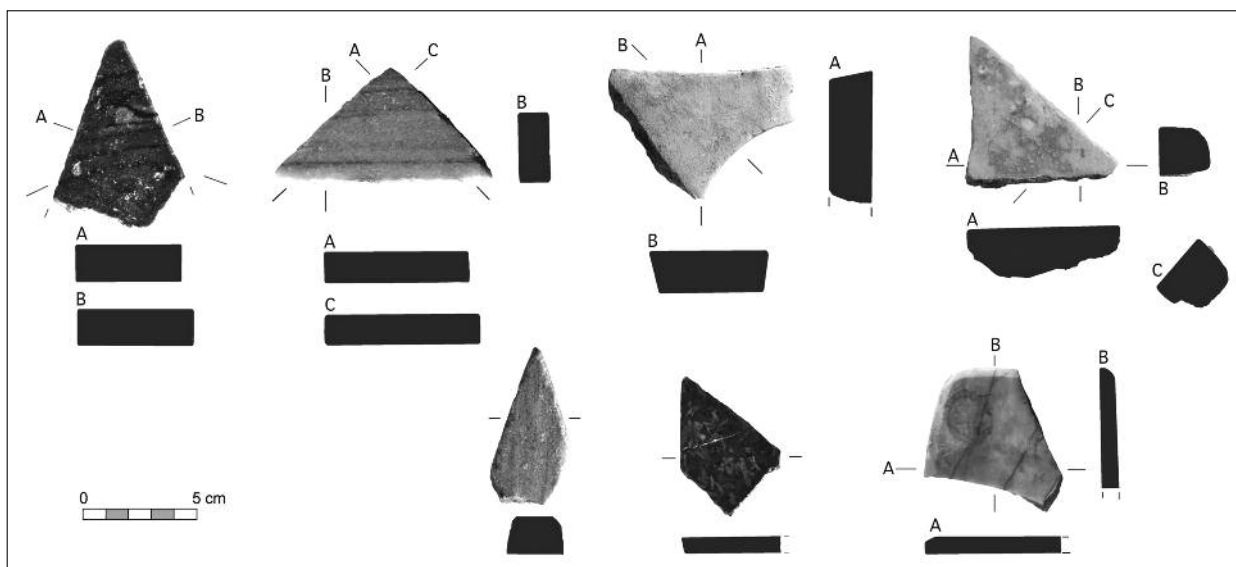


Fig. 1. Selected fragments of the *opus sectile* mosaics (Photo and drawing M. Gwiazda).

Ryc. 1. Wybrane fragmenty mozaik *opus sectile*.

¹ On the excavations in the residential quarter: T. WALISZEWSKI, K. JUCHNIEWICZ, M. GWIAZDA, *Preliminary Report on the 2008 and 2009 Excavation Seasons at Jiyeh (Porphyreon)*, "Polish Archaeology in the Mediterranean" XXI (Research 2009), 2012, 423–

439; T. WALISZEWSKI, M. GWIAZDA, *Preliminary Report on the 2010 Excavation Season at Jiyeh (Porphyreon)*, "Polish Archaeology in the Mediterranean" XXII (Research 2010), 2013, 321–333.

this manner they most probably would not have constituted elements of wall decoration.² The majority of the remaining tiles were most probably fragments of marble wall decorations, as the indisputable evidence of the group of 11 fragments with clasp-holes indicates (Table 1, Fig. 2); medium-grained white marbles are the prevailing material in this group. The preserved edges of the panels are cut slightly aslant and are approximately 1.5 cm thick. Three fragments

are considerably thicker and measure up to 3.8 cm.³ The variations in thickness of the panels are not surprising in the light of the evidence from Khirbet ed-Deir, where the adjacent panels varied in thickness up to 0.6 cm, while the differences of thickness in the whole set were even bigger.⁴ The preserved depths of the clasp-holes in the panels from Jiyeh are from 1.95 to 3.1 cm, while their diameters measure ca. 0.5 cm (from 0.45 to 0.7 cm).⁵

Table 1. List of marble revetments with preserved clasp-holes.
Tab. 1. Lista marmurowych okładzin z zachowanymi otworami na kotwy.

Inv. No.	Material	Fastening	Hole dimensions	Edge	Thickness
JY 51-10-S (Fig. 2)	marble; white, medium-grained, grey-veined	round hole	diameter – 0.5 cm; depth – 2 cm	cut slightly aslant	1.4–1.5 cm
JY 117-10-S (Fig. 2)	marble; white, fine-grained	copper-alloy clasp in a round hole	diameter – ca. 0.48 cm	cut slightly aslant	1.6 cm
JY 139-10-S (Fig. 2)	marble; white-grey, medium-grained	round hole	diameter – 0.5 cm; depth – 3.1 cm	cut slightly aslant	1.4 cm
JY 66-OP-05-B (Fig. 2)	marble; white-grey, medium-grained	copper-alloy clasp in a round hole	diameter – 0.65 cm	cut slightly aslant	2.3–2.4 cm
JY 1-OP-04-E (Fig. 2)	<i>cipollino verde</i>	round hole	diameter – 0.3 cm; depth – 2.8 cm	not preserved	3.8 cm
JY 9-OP-04-C (Fig. 2)	marble; white-grey, medium-grained	round hole	diameter – 0.64 cm; depth – 2 cm	cut slightly aslant	2.4 cm
JY 235-10-S-D	marble; white, medium-grained, grey-veined	round hole	diameter – 0.5 cm; preserved depth – 1.95 cm	not preserved	1.5 cm
JY 95-OP-05-3	marble; white, medium-grained, grey-veined	round hole	diameter – 0.55 cm; preserved depth – 1.2 cm	not preserved	1.55 cm
JY 95-OP-05-33	marble; white, medium-grained	round hole	diameter – 0.7 cm; preserved depth – 2.3 cm	not preserved	1.85 cm
JY 54-OP-05-4	marble; white, medium-grained, grey-veined	round hole	diameter – 0.6 cm; preserved depth – 2 cm	not preserved	1.65 cm
JY 13-P-A Bis	marble; white, medium-grained, grey-veined	round hole	diameter – 0.45 cm; preserved depth – 2.7 cm	not preserved	1.45 cm

² At Khirbet ed-Deir were discovered small triangular marble tiles used for wall decoration; they had holes in the edges into which clasps were inserted, which excludes the possibility of using them for floor decoration (Y. HIRSCHFELD, *The Early Byzantine Monastery at Khirbet ed-Deir in the Judean Desert: The Excavations in 1981–1987*, Qedem 38, Jerusalem 1999, 127–129, pl. 4).

³ The marble revetments from the Roman temple at Sagalassos measure up to 3.5 cm (M. WAELKENS, L. BAERT-HOFMAN, *The 1992 Excavation Season at Sagalassos*, (in:) *XV. Kazi Sonuçları Toplantısı*, vol. II, Ankara 1995, 379). In the Late Antique baths in Sardis the panels' thickness varied from 1.5 to 2 cm (F.K. YEGÜL, *The Bath-Gymnasium Complex at Sardis*, Archaeological Exploration of Sardis, Report 3, Cambridge Mass. – London 1986, 71; cf. G.M.A. HANFMANN, J.C. WALDBAUM, *A Survey of Sardis and*

the Major Monuments outside the City Walls, Archaeological Exploration of Sardis, Report 1, Cambridge Mass. – London 1975, 62, 63, 187, n. 24). In the church in Petra the thickest panels measured 4.4 cm (CH. KANELLOPOULOS, R. SCHICK, *Marble Furnishing of the Apses and the Bema, Phase V*, (in:) Z.T. Fiema et al. (eds.), *The Petra Church*, American Center of Oriental Research Publications 3, Amman 2001, fig. 50).

⁴ Y. HIRSCHFELD, *The Early Byzantine...*, 127–129, pl. 4.

⁵ In the church in Petra the clasp-holes measured 0.7 cm in diameter and 1.9 cm in depth (CH. KANELLOPOULOS, R. SCHICK, *Marble Furnishing...*, 210, fig. 50); at Khirbet ed-Deir the holes were 2 cm deep and measured 0.7 cm in diameter (Y. HIRSCHFELD, *The Early Byzantine...*, 127–129, pl. 4).

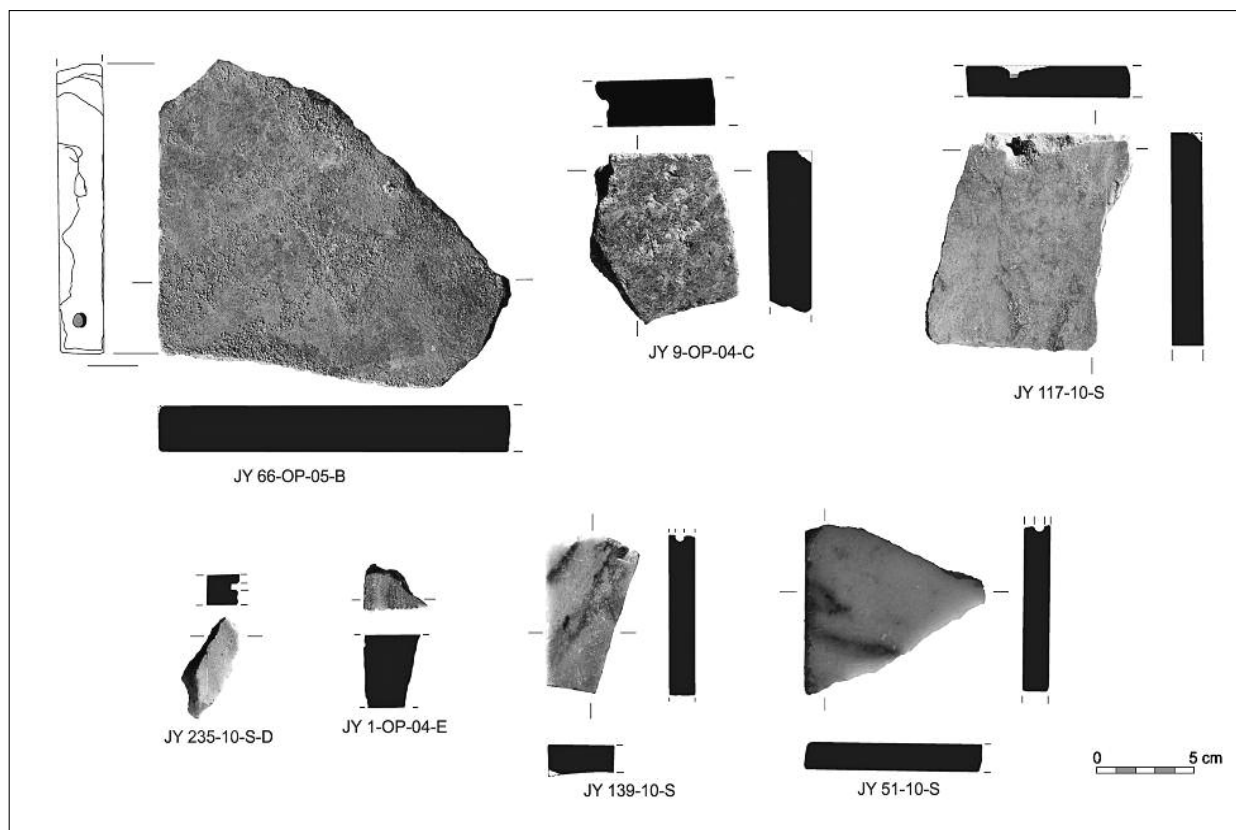


Fig. 2. Marble revetments with clasp-holes, cf. Table 1 (Photo and drawing M. Gwiżdza).

Ryc. 2. Marmurowe okładziny z otworami na kotwy, zob. Tab. 1.

Further evidence pointing to the use of marble in the decoration of the walls is a group of 37 tiles with rounded edges (Fig. 3). The majority are made of medium-grained, grey-veined white marble. Few are made also of fine-grained white marble. Nine fragments have two edges, one of which is always cut vertically. Tiles of this kind were used for making vertical and horizontal frames separating particular registers or panels of the wall revetments.⁶ The examples from Jiyeh count among the simplest forms. From other sites tiles of such type are known, with edges decorated with dentellation, cannelures, and astragal.⁷ In contrast to the rest of the panels, these were placed perpendicularly

to the face of the wall; this is confirmed by the fact that all of them are of inconsiderable width, which does not exceed 7 cm (Table 2). They measure from 1.2 to 2.5 cm in thickness.⁸

The tiles interpreted as fragments of wall revetments are smooth on both sides. A certain number of them bear traces of saw on one side, taking shape of straight grooves 0.1 to 0.15 cm wide.⁹ In the majority of cases they appear on the tiles of white grey-veined marble, less frequently on those made of grey marble, and once on a thick tile (3.8 cm) of *cipollino verde* provided with a clasp-hole. They never appear on the tiles with rounded edges.

⁶ F. MANGARTZ, *Die byzantinische Steinsäge von Ephesos*, Monographien des Römisch-Germanischen Zentralmuseums Mainz 86, Mainz 2010, 69, 70, fig. 28; J. DU PLAT TAYLOR, A.H.S. MEGAW, *Excavations at Ayios Philon, the Ancient Carpasia. Part 2: The Early Christian Buildings*, "Report of the Department of Antiquities, Cyprus" 1981, pl. 39.2.

⁷ A.K. ORLANDOS, *Η ξυλόστεγος παλαιοχριστιανική βασιλική της μεσογειακής λεκάνης*, vol. 2, Athenai 1954, figs. 200, 201.

⁸ Tiles of this type from the monastery near Shiqmona were up

to 1.2 cm thick (R. KLETTER, *Late Byzantine Remains near Shiqmona: A Monastery, a Cemetery and a Winepress*, "Atiqot" 63, 2010, 156, fig. 9).

⁹ Cf. T. KOZELJ, M. WURCH-KOZELJ, *Use of a Saw in Roman and Proto-Byzantine Period on the Island of Thassos*, (in:) A. Gutiérrez García-Moreno, P. Lapuente Mercadal, I. Rodà de Llanza (eds.), *Interdisciplinary Studies on Ancient Stone. Proceedings of the IX ASMOSLA Conference (Tarragona 2009)*, Documenta 23, Tarragona 2012, 715.

Table 2. Dimensions of marble revetments with rounded edges.
Tab. 2. Wymiary marmurowych okładzin z zaokrąglonymi krawędziami.

Inv. No.	Width	Length	Thickness
JY 50-10-S (Fig. 3)	3.3 cm	8 cm	2.2 cm
JY 90-10-S (Fig. 3)	3.7 cm	7.4 cm	2–2.2 cm
JY 152-10-S (Fig. 3)	4.8 cm	3.1 cm	1.6 cm
JY 54-P-2004 (Fig. 3)	5 cm	5.9 cm	1.8 cm
JY 55-P-2004 (Fig. 3)	3.7 cm	5.8 cm	1.9 cm
JY 56-P-2004	3.7 cm	8.4 cm	1.65 cm
JY 57-P-2004	4.2 cm	3.7 cm	1.6 cm
JY 30-OP-04-A	1.6 cm	4.2 cm	1.7 cm
JY 38-OP-05 (Fig. 3)	3.5 cm	5 cm	1.3 cm
JY 40-OP-05 (Fig. 3)	4 cm	8.3 cm	1.7 cm
JY 50-OP-05 (Fig. 3)	4.2 cm	6.5 cm	1.55 cm
JY 51-OP-05 (Fig. 3)	4.9 cm	13.8 cm	2.2 cm
JY 52-OP-05-A	5.1 cm	7.1 cm	1.7 cm
JY 59-OP-05 (Fig. 3)	3.6 cm	3.55 cm	1.9 cm
JY 62-OP-05 (Fig. 3)	4.8 cm	7.2 cm	1.35 cm
JY 66-OP-05-A (Fig. 3)	4.6 cm	6.4 cm	1.4 cm
JY 67-OP-05 (Fig. 3)	4.5 cm	8.5 cm	1.7 cm
JY 82-OP-05-A (Fig. 3)	4 cm	9.7 cm	1.6 cm
JY 103-OP-05 (Fig. 3)	4.3 cm	4.7 cm	1.5 cm

Inv. No.	Width	Length	Thickness
JY 106-OP-05-A (Fig. 3)	5.3 cm	11.8 cm	1.7 cm
JY 22-08-S	5 cm	6 cm	1.5 cm
JY 225-20-S	3.9 cm	12.8 cm	2–2.1 cm
JY 42-OP-05-C	3.3 cm	12.6 cm	1.4–1.5 cm
JY 52-OP-05-B	4.4 cm	9.3 cm	1.75 cm
JY 97-OP-05-T	5.3 cm	5.4 cm	1.5 cm
JY 105-OP-05-31	4 cm	6.3 cm	1.5–1.55 cm
JY 102-OP-05-G	6.7 cm	8.1 cm	2.5 cm
JY 25-OP-04-E	4.6 cm	4.2 cm	1.65 cm
JY 95-OP-05-15	2.7 cm	3.9 cm	1.6 cm
JY 95-OP-05-29	5.8 cm	4 cm	1.55 cm
JY 4-12-S	4.9 cm	8.8 cm	1.75 cm
JY 7-12-S	4.9 cm	7.1 cm	1.2 cm
JY 236-10-S	5.7 cm	9.1 cm	1.85–2.05 cm
JY 101-OP-05-38	1.5 cm	5.5 cm	1.6 cm
JY 101-OP-05-41	4.1 cm	5.7 cm	1.7–1.75 cm
JY 104-OP-05-17	2.9 cm	3 cm	1.3 cm
JY 79-OP-05-3	4.7 cm	6.1 cm	1.65 cm

Copper-alloy clasps

During the excavations of R. Saidah in Jiyeh in 1975 a number of copper-alloy clasps were found. The exact location of the discovery is unknown, but they come most probably from the residential quarter where the works were carried out at that time.¹⁰ However, no evidence has been found until now during the Polish-Lebanese excavations which would make probable the use of marble revetments in wall decorations in this part of the site. In the excavated houses walls no holes have been found which could have been used for installing marble panels. The walls

in this part of the site were covered with plaster occasionally bearing traces of paintings.¹¹ Thus, the provenance of the copper-alloy clasps should be considered uncertain.

The clasps have the shape of flat plaques with one narrow end bent at right angles (Fig. 4). The other end is usually bent at 180°, most probably in order to obtain the desired length of the clasp. This end was inserted into a hole in the wall and subsequently blocked with a piece of marble, while the narrower end was put into a hole in the edge of a marble panel.¹² The length of the narrow ends of the clasps measures from 1.2 to 1.4 cm, and their diameter from 0.2 to 0.3 cm. The length of the whole clasps varies

¹⁰ On these excavations: R. SAIDAH, *Porphyreon: une Pompéi byzantine enfouie sous les sables*, "Archéologia" 104/mars, 1977, 38–43. The clasps are now kept in the Museum in Beirut; I would like to thank Agnieszka Szulc-Kajak for making their documentation accessible to me.

¹¹ J.-P. REY-COQUAIS, *Inscriptions grecques inédites, découvertes par Roger Saidah*, (in:) *Archéologie au Levant. Recueil à la mémoire de R. Saidah*, Collection de la Maison de l'Orient méditerranéen 12. Série archéologique 9, Lyon 1982, 385–408, figs. 3–10.

¹² More on the method of installing wall revetments: L.F. BALL,

How Did the Romans Install Revetment?, "American Journal of Archaeology" 106/4, 2002, 551–573; M.L. BRUTO, C. VANNICOLA, *Ricostruzione e tipologia delle crustae parietali in età imperiale*, "Archeologia Classica" XLII, 1990, 325–376; F. GUIDOBALDI, C. ANGELELLI, *I rivestimenti parietali in marmo (incrustationes). La tecnica di fabbricazione e posa in opera come base del progetto di conservazione*, (in:) Ch. Bakirtzis (ed.), *VIIIth Conference of the International Committee for the Conservation of Mosaics (ICCM). Wall and Floor Mosaics: Conservation, Maintenance, Presentation. Thessaloniki 29 October – 3 November 2002*, Thessaloniki 2005, 33–43.

Fig. 3. Cross-sections of marble re-
vetments with rounded edges, cf.
Table 2 (Drawing M. Gwiazda).

Ryc. 3. Przekroje marmurowych okła-
dzin z zaokrąglonymi krawędziami,
zob. Tab. 2.

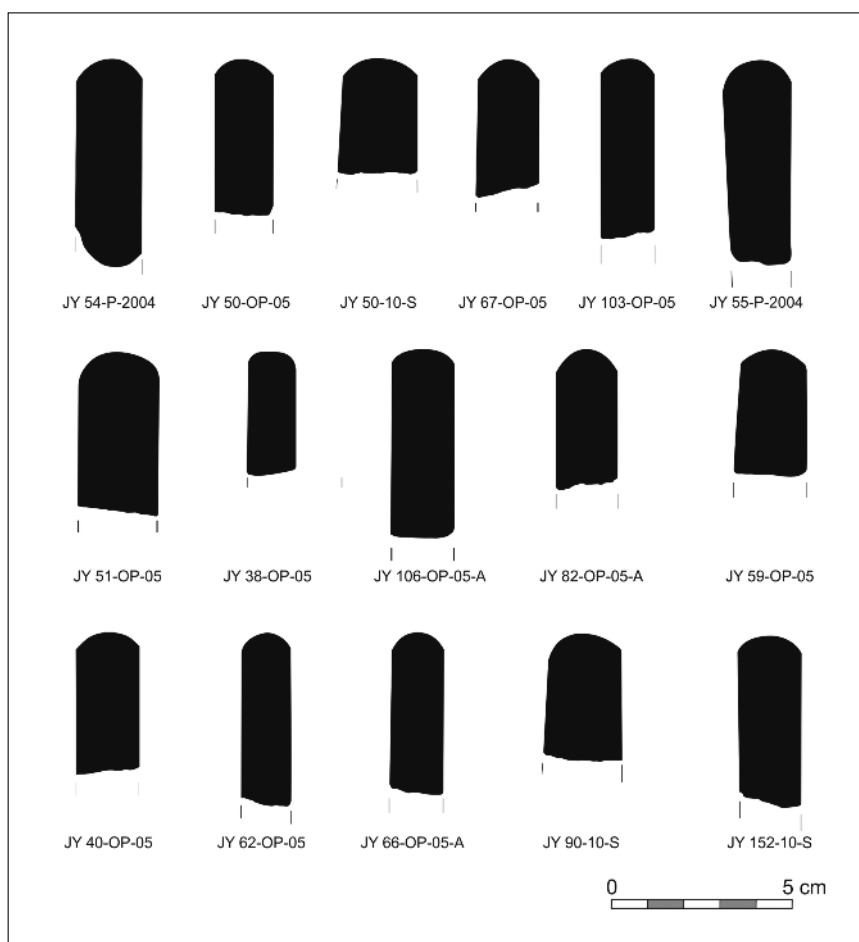
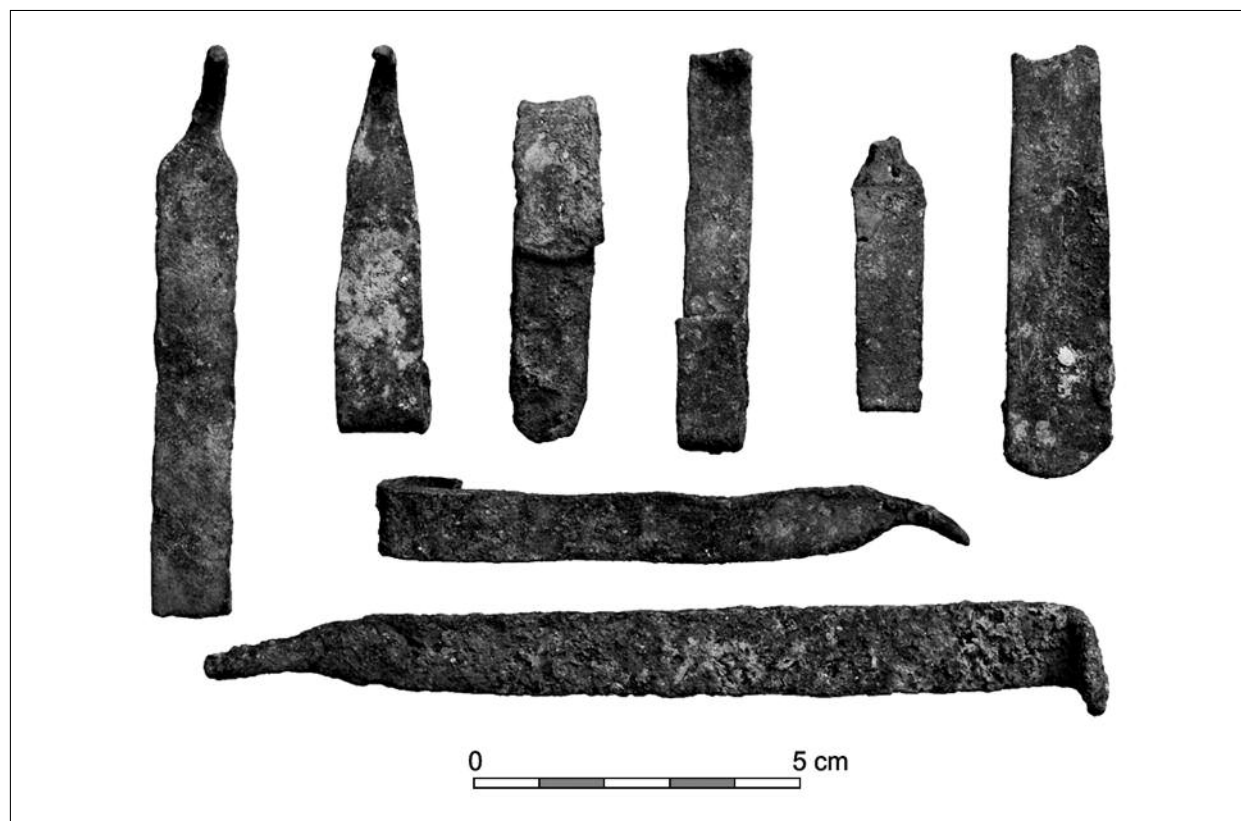


Fig. 4. Copper-alloy clasps (Photo
B. Wójcik).

Ryc. 4. Kotwy ze stopu miedzi.



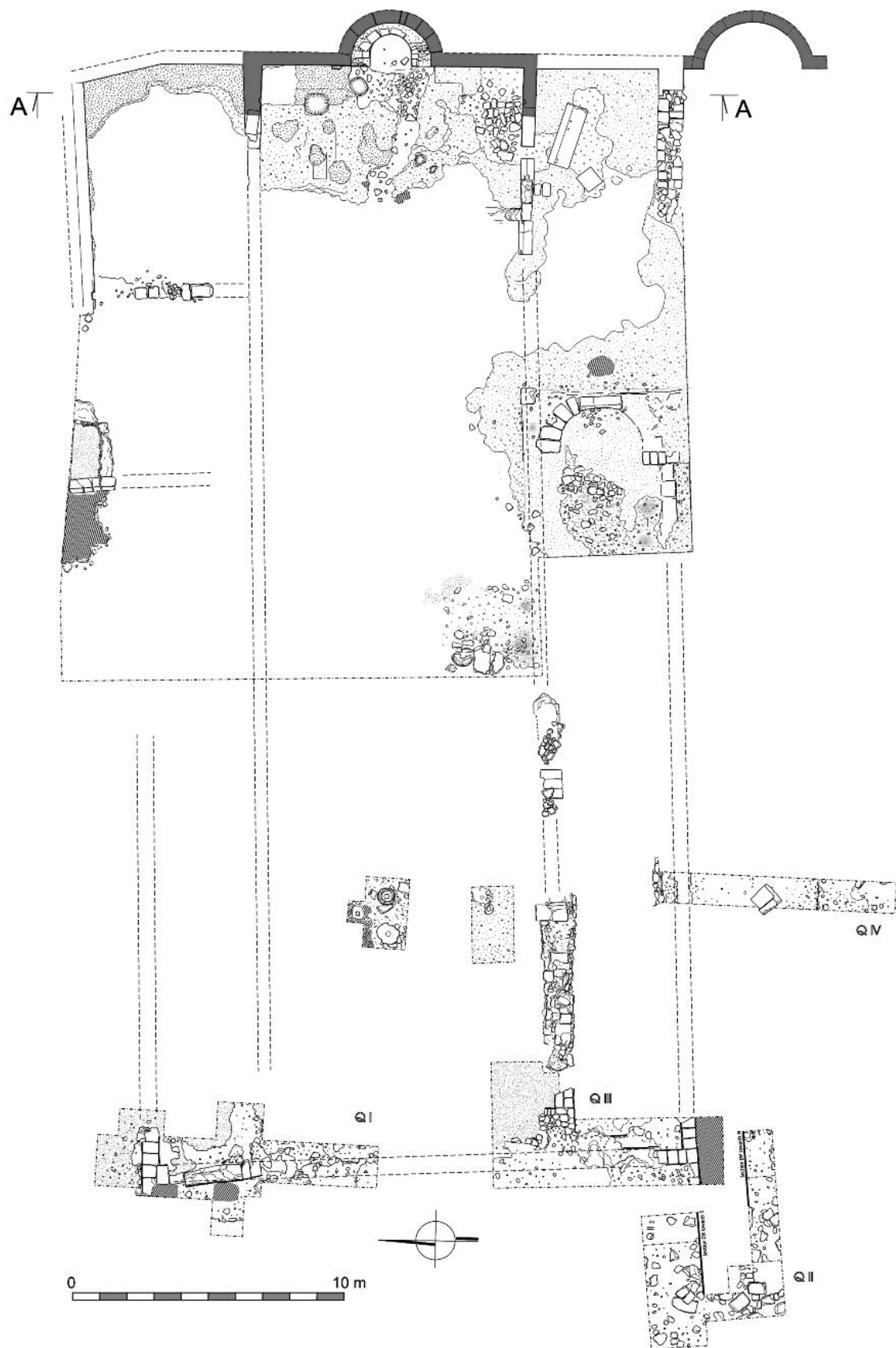


Fig. 5. Plan of the basilica in Jiyeh (Drawing M. Puzkarski). The dark-grey colour marks walls with clasp-holes for installing the revetments. Letter A marks position of cross-section, cf. Fig. 8.

Ryc. 5. Plan bazyliki w Jiyeh. Mury z otworami na kotwy okładzin zaznaczone na ciemnoszaro. Literą A oznaczono linię przekroju, zob. Ryc. 8.

from 5 to 13 cm; their maximum width is 1.5 cm. In this way they could undoubtedly fit both into the holes in the marble panels discussed above, and into the holes in the basilica walls which shall be the subject of further discussion. The dimensions of the clasps stated above are similar to those known from other Late Antique sites. At Khirbet ed-Deir the narrow ends of the clasps measure ca. 1.5 cm in length, and 0.5–0.7 cm in width.¹³ In Jerusalem they are 1–1.5 cm long and 0.2 cm wide, while in Sardis they are 2 cm long and their width does not exceed 0.5 cm.¹⁴

The basilica's presbytery and the clasp-holes

The last element testifying to the use of marble revetments are the holes in the walls of the Christian

basilica. The church is located west from the residential quarter D. On the basis of inscriptions on the mosaic floor it should be dated no later than to the 5th c. AD.¹⁵ It is a three-aisled basilica oriented eastwards, ending with a small apse (Fig. 5). On the south there is a building with a relatively big apse adjacent to the basilica. Due to the fact that only a part of its eastern wall has been excavated, its function and time of construction cannot be determined.

The major part of the church walls was covered with white plaster. In the upper part of the eastern wall of the presbytery there are poorly preserved remains of a painting with a depiction of a red Greek cross flanked by the letters *alpha* and *omega* and inscribed in a circular frame (Fig. 6). The presbytery consists of a semi-circular apse measuring 292 cm in width, with a well-preserved conch and synthronon. Adjacent to the apse are two walls oriented

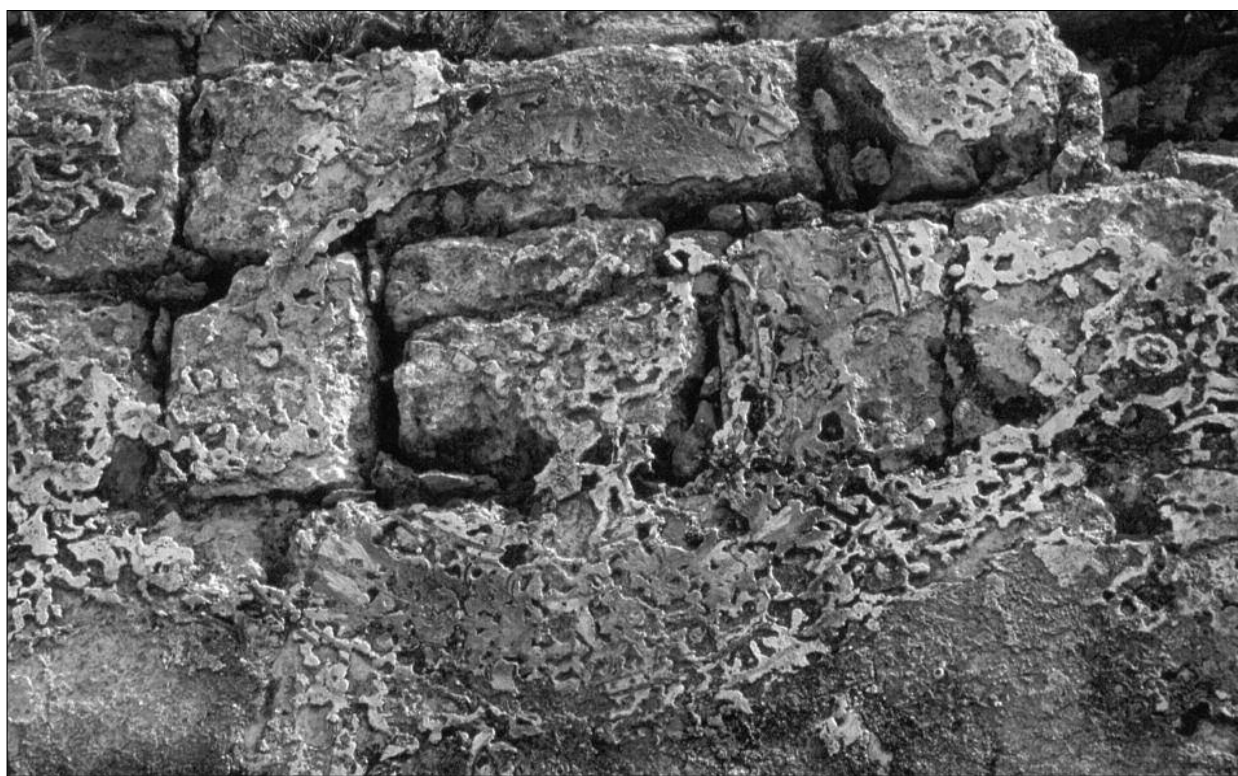


Fig. 6. The painting in the upper part of the eastern wall of the presbytery (Photo T. Waliszewski).

Ryc. 6. Malowidło w górnej części wschodniego muru prezbiterium.

¹³ Y. HIRSCHFELD, *The Early Byzantine...*, 127–129, pl. 4.

¹⁴ E. MAZAR, *The Bathhouse in Area VII*, (in:) E. Mazar (ed.), *The Temple Mount Excavations in Jerusalem 1968–1978 Directed by Benjamin Mazar, Final Reports, vol. 4: The Tenth Legion in Aelia Capitolina*, Qedem 52, Jerusalem 2011, 41, 55–56, 66, 68, 77, figs. 2.51:2,3, 2.82:2, 2.98, 2.101, 2.118:1,2; J.C. WALDBAUM, *Metalworks from Sardis: The Finds Through 1974*, Archaeological Exploration of Sardis, Monograph 8, Cambridge Mass. – London 1983, 441, figs. 101–107; K. RAFAEL, *The Metal Objects*, (in:) J. Patrich (ed.), *Archaeological Excavations at Caesarea Maritima*

Areas CC, KK and NN, Final Report, vol. 1: The Objects, Jerusalem 2008, 441, figs. 101–107.

¹⁵ Cf. T. WALISZEWSKI ET AL., *Jiyeh (Porphyreon). Hellenistic and Byzantine Settlement on the Southern Coast of Lebanon. Preliminary Report on the 1997 and 2003–2005 Seasons*, “Bulletin d’archéologie et d’architecture libanaises” 10, 2006, 33; G. ABOU DIWAN, *A propos de l’usage de l’ère sidonienne à Porphyréon (Jiyeh et Nabi Younés) à l’époque protobyzantine*, “Chronos” 30, 2014, 145–163.

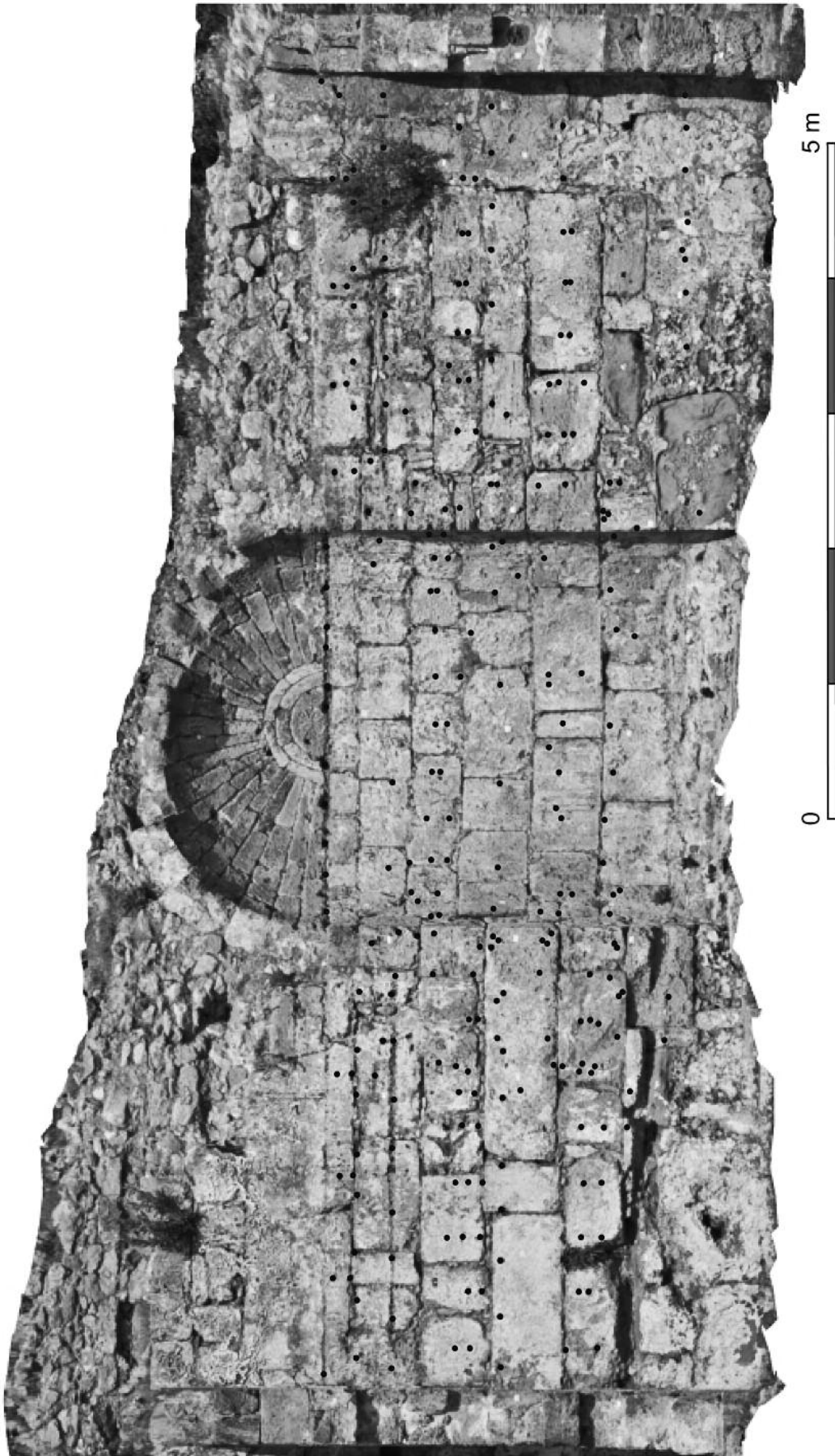


Fig. 7. Ortophotography of the presbytery; view from the west (Photo M. Bogacki). Black dots mark the positions of the clasp-holes.
Ryc. 7. Ortofotografia prezbiterium; widok od strony zachodniej. Czarnymi kropkami oznaczono położenie otworów na kotwy.

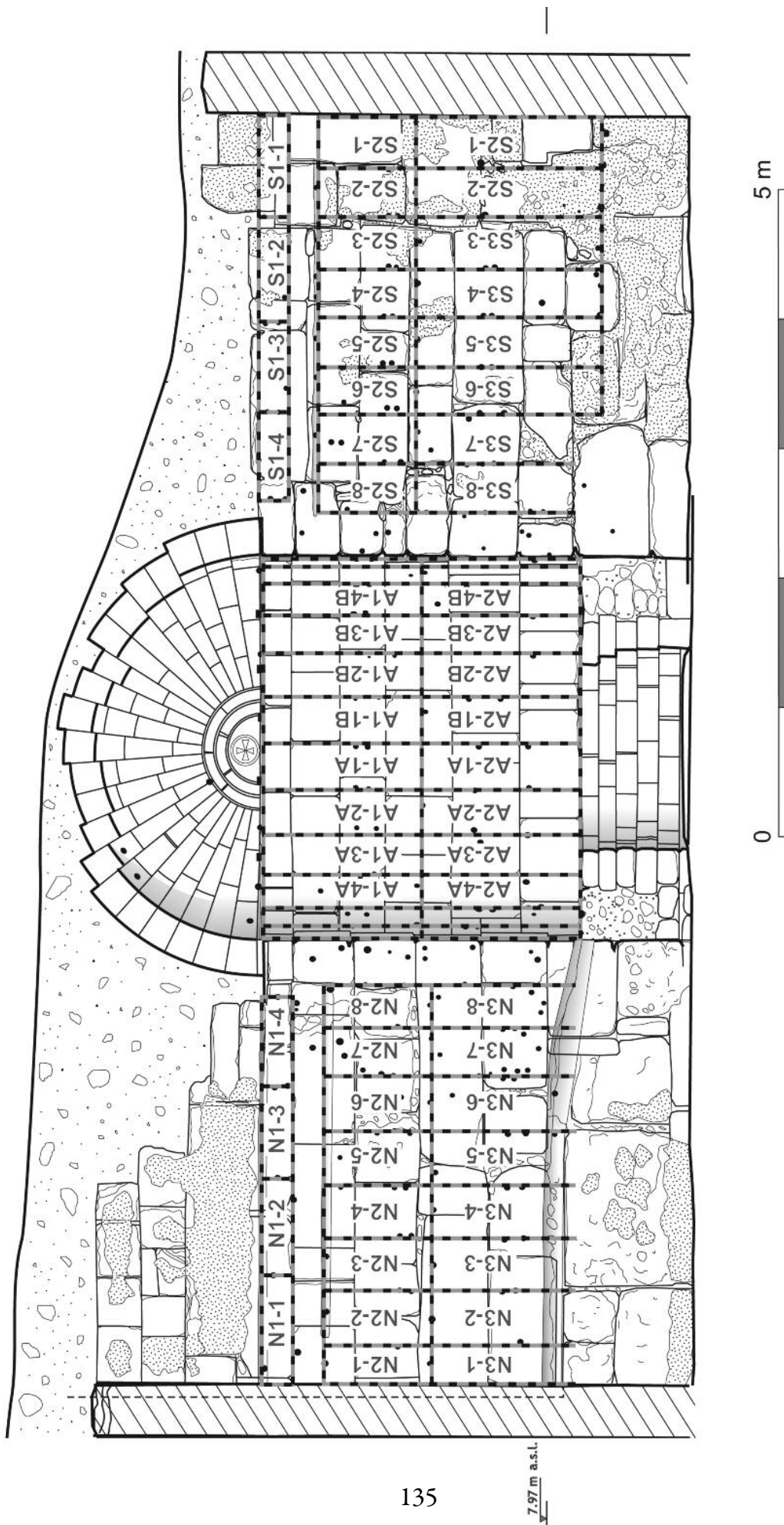


Fig. 8. View of the presbytery from the west, with numbers of panels described in Tables 4–7 (Drawing M. PuszkarSKI). For the position of this cross-section cf. Fig. 5.
Ryc. 8. Widok z zachodu na prezbiterium z zaznaczonymi numerami paneli opisanych w Tabelach 4–7. Odnośnie pozycji tego przekroju zob. Ryc. 5.

approximately along the north-south axis. The northern wall measures ca. 380 cm, the southern – 360 cm. Both are separated from the northern and southern aisles by transverse walls of the maximum preserved length of 302 cm. The eastern wall of the presbytery is preserved to a maximum height of 466 cm on the north and 388 cm on the south.¹⁶ Ca. 130 cm below the preserved topmost part of the eastern wall, in its northern section, there is a shallow incision 2–3 cm high and 1 cm deep. It runs horizontally along the whole surface of the preserved wall. Above it there is a poorly preserved layer of plaster. Ca. 50 cm below it there is another horizontal incision, starting 31 cm south from the northern transversal wall, and ending 44 cm from the apse. There is an identical incision in the southern part of the eastern wall, approximately at the same height. On the whole surface of the discussed walls, below the level where the range of the plaster ends, are visible traces of mortar, which constituted the undercoat for the marble revetments.¹⁷ The mortar in the apse has an additive of chamotte, while in the remaining walls fine gravel with crushed seashells and fragments of ceramic vessels are visible.

On the surface of all the presbytery walls there are rectangular holes measuring 2–3.5 cm in width, 2.3–5.1 cm in height and 3.8–8.5 cm in depth (cf. **Table 3**); there

Table 3. Dimensions of random chosen clasp-holes in the eastern wall of the presbytery.

Tab. 3. Wymiary wybranych otworów na kotwiny okładzin we wschodnim murze prezbiterium.

Part of the wall	Width	Height	Depth
S	3.45 cm	2.3 cm	6.6 cm
S	3.5 cm	2.7 cm	3.8 cm
S	2.4 cm	2.7 cm	4.1 cm
S	3.2 cm	2.4 cm	7.8 cm
Apse	3 cm	2.3 cm	4.2 cm
Apse	2.1 cm	2.3 cm	4.2 cm
Apse	2 cm	2.3 cm	5.5 cm
Apse	2.9 cm	2.35 cm	5.95 cm
Apse	3.1 cm	3.7 cm	5.9 cm
N	3.1 cm	3.9 cm	6.1 cm
N	3.3 cm	3 cm	4.2 cm
N	3.5 cm	5.1 cm	8.5 cm

¹⁶ Its lower part rising 115 cm above the floor level had been built of big ashlar of sandstone conglomerate with limestone inclusions. Upon them elongated ashlar of sandstone are laid in courses of varied height. Considerably smaller ashlar of sandstone conglomerate laid in courses of headers and stretchers were used in the construction of the topmost part of the wall. The walls of the apse were built of blocks with curved faces laid in at least 6 courses measuring 30–60 cm in height. The lower portion

are around 300 of them. They were used for inserting copper-alloy clasps, as indicated in nine cases by the presence of green corrosion products. In eight cases there were also small fragments of marble inside the holes, used for blocking the metal clasps (**Figs. 7, 9**).

Table 4. Widths of the panels in the apse.

Tab. 4. Szerokości paneli w apsydzie.

Panel number	Width	Panel number	Width
A1-1A	36 cm	A2-1A	36.5 cm
A1-2A	36 cm	A2-2A	36 cm
A1-3A	36 cm	A2-3A	36.5 cm
A1-4A	36 cm	A2-4A	36 cm
A1-5A	36 cm	A2-5A	36 cm
A1-6A	36 cm	A2-6A	36 cm
A1-7A	36 cm	A2-7A	36 cm
A1-1B	35.5 cm	A2-1B	36 cm
A1-2B	35–36 cm	A2-2B	36–38 cm
A1-3B	36 cm	A2-3B	35–38 cm
A1-4B	35 cm	A2-4B	36 cm
A1-5B	35 cm	A2-5B	34 cm
A1-6B	35 cm	A2-6B	34.5 cm
A1-7B	38 cm	A2-7B	37 cm

Table 5. Width of the panels of the uppermost register of the northern and southern part of the eastern wall of the presbytery.

Tab. 5. Szerokości paneli w najwyższym rejestrze północnej i południowej części wschodniego muru prezbiterium.

Panel number	Width	Panel number	Width
N1-1	70 cm	S1-1	76 cm
N1-2	74.5 cm	S1-2	76 cm
N1-3	77 cm	S1-3	72 cm
N1-4	65 cm	S1-4	64 cm

of this construction is covered by a synthronon measuring 80 cm in height and 50 cm in width. The stone blocks are bond with ash mortar with an admixture of olive seeds. The joints between particular blocks are 2–6 cm wide.

¹⁷ In various Late Antique buildings in Sardis the mortar undercoat measured from 3 to 12 cm in thickness (F.K. YEGÜL, *The Bath-Gymnasium Complex...*, 71; G.M.A. HANFMANN, J.C. WALDBAUM, *A Survey of Sardis...*, 62, 63, 187, n. 24).

A reconstruction of the marble decoration of the basilica's presbytery

On the basis of the placement of the discussed holes it is possible to reconstruct partially the layout of the marble decoration covering the faces of the walls. The upper edge of the marble decoration ran ca. 336 cm above the floor level. In the apse it was marked out by the base of the conch, while on the remaining parts of the walls by the lower limit of the plaster visible on the upper portions of the walls. Above this line no holes were recorded, except in the conch of the apse. However, in this case their connection with revetments is dubious, if probable at all. The lack of the lime mortar undercoat and the presence of a depiction of an even-armed cross in relief in the central part (Fig. 7) speak against locating marble revetments in this place. On the basis of the position of the clasp-holes in the apse the marble decoration can be reconstructed as two horizontal rows of panels, each of them consisting of 14 rectangles 130 cm high and ca. 36 cm wide (cf. Table 4, Figs. 8, 9).

The northern part of the eastern wall can be divided into four registers (Fig. 8). The highest of them (N1) consisted of four rectangles, varying in width and measuring 24–25 cm in height. In the north it was limited by a transversal wall. The southern part ends ca. 44 cm from the apse. Each of the rectangles has a different width varying from 65 to 77 cm (Table 5). The next register cannot be reconstructed in a certain manner due to the lack of holes that would determine the vertical limits between particular rectangles. However, traces of the mortar undercoat point to the presence of marble decoration in this place.

The next register (N2) consisted of eight rectangles ca. 82–84 cm high. The majority of the traced rectangles are 38–42 cm wide. Only those located at the northern and southern ends are clearly narrower (Table 6).

The lowermost register duplicates the scheme of the previous one. Due to the lack of visible holes in the lower part of the wall its height is impossible to determine. The horizontal gaps between particular holes are in this case more regular and in most of the cases measure 40 cm. This pattern is repeated for all of the rectangles, except for the two extreme ones, which are clearly narrower (Table 7). Between the southern limit of the two lowermost registers (N2 and N3) and the apse there is a band measuring 34–35 cm in width, for which, in spite of the presence of the holes, the layout of the marble decoration could not be reconstructed.

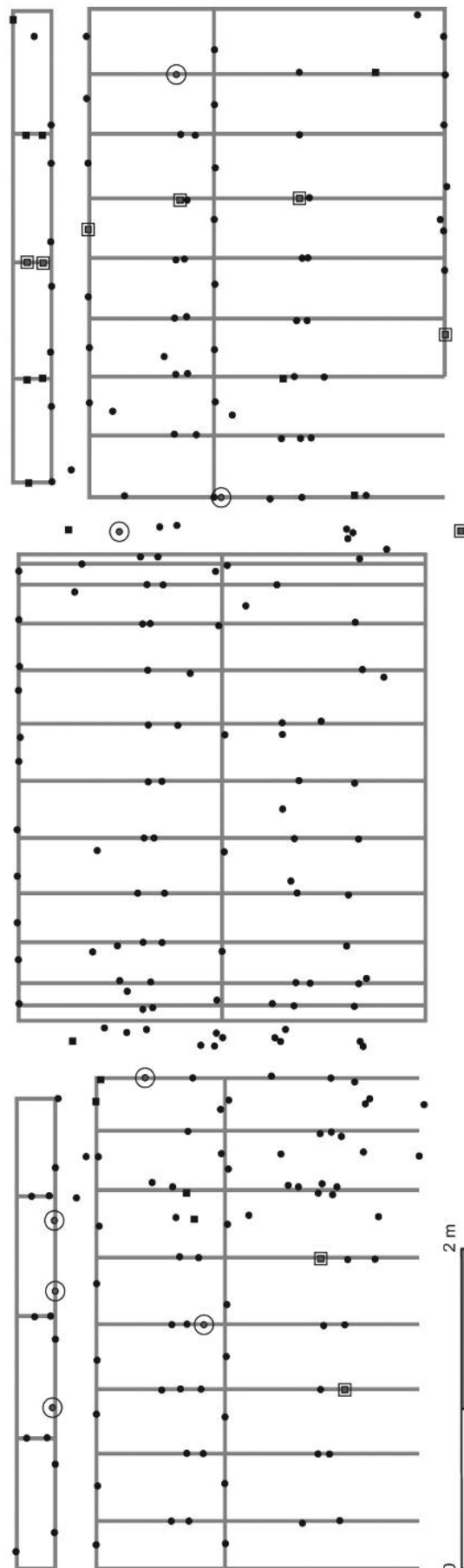


Fig. 9. Reconstruction of the layout of panels on the eastern walls of the presbytery (Drawing M. Gwiazda). Designations: dot – empty hole; square – uncertain hole; dot in a circle – hole with marble fragment; square in a square – hole with traces of copper alloy corrosion.

Ryc. 9. Rekonstrukcja rozplanowania paneli na wschodnim murze prezbiterium. Oznaczenia: kropki – puste otwory; kwadrat – niepewne otwory; kropka wpisana w okrąg – otwór z fragmentem marmuru; kwadrat wpisany w kwadrat – otwór ze śladami produktów korozji stopu miedzi.

Table 6. Widths of the panels of the middle register of the northern and southern part of the eastern wall of the presbytery.

Tab. 6. Szerokości paneli środkowego rejestru północnej i południowej części wschodniego muru prezbiterium.

Panel number	Width	Panel number	Width
N2-1	ca. 30 cm	S2-1	40 cm
N2-2	42 cm	S2-2	36–37 cm
N2-3	39.5 cm	S2-3	38.5 cm
N2-4	41 cm	S2-4	37 cm
N2-5	40 cm	S2-5	35–36 cm
N2-6	40 cm	S2-6	35.5 cm
N2-7	38 cm	S2-7	36.5 cm
N2-8	34 cm	S2-8	38 cm

The placement of the holes in the southern part of the eastern wall is identical as in the previous case; however, the rectangles from the two parts of the eastern wall differ in width (cf. **Tables 5–7**). Another difference is constituted by the fact that all registers in the southern part of the wall are shifted 30 cm upwards in comparison to their counterparts in the northern part. South to the apse there are eight holes in the lower portion of the wall; one of them bears traces of products of copper corrosion. The holes are situated approximately at the same height. It is possible that they mark the bottom limit of the lowermost register, which would have thus measured ca. 145–147 cm in height. The holes along this line are not preserved in the seventh and eighth column of rectangles counting from the southern transversal wall, where a big block of sandstone conglomerate with strongly eroded face is located. Similarly as in the case of the northern part of the eastern wall, the reconstruction of the layout of marble revetments in the 35 cm-wide band between the edge of the apse and the three identified registers proved impossible. The presence of the decoration in this place is proved by a hole with a fragment of marble used for blocking the clasp at the height of the register S2, and a hole with traces of corrosion products below the lower edge of the register S3 (**Fig. 9**).

The correctness of the proposed reconstruction is confirmed by the fact that all the holes bearing traces of corrosion products and containing fragments of marble

used for blocking the clasps can be inscribed into the layout scheme of the panels (**Fig. 9**). On the other hand, there is a considerable number of holes which do not fit into this scheme. Their number is smallest in the apse and biggest in the northern part of the eastern wall, within the 124 cm wide space stretching from its southern edge. These holes do not form any regular plan and are not numerous enough to prove the presence of marble revetments datable to another phase. The presence of additional clasp-holes is attested also at other archaeological sites, but as yet it still awaits explanation.¹⁸

The marble panels with rounded edges also need to be included in the proposed reconstruction. Due to the fact that they were not installed by means of clasps, it is difficult to determine their precise position on the walls. It is possible that they were located in the place of the horizontal incisions at the height of the upper edges of registers N1, N2, and S2, separating in this manner the different parts of the presbytery decoration (**Fig. 7**).¹⁹

Table 7. Widths of the panels of the lowermost register of the northern and southern part of the eastern wall of the presbytery.

Tab. 7. Szerokości paneli najniższego rejestru północnej i południowej części wschodniego muru prezbiterium.

Panel number	Width	Panel number	Width
N3-1	ca. 30 cm	S3-1	40 cm
N3-2	41 cm	S3-2	39 cm
N3-3	40 cm	S3-3	39 cm
N3-4	40 cm	S3-4	36.5 cm
N3-5	40 cm	S3-5	38.5 cm
N3-6	40 cm	S3-6	35 cm
N3-7	40 cm	S3-7	37.5–38 cm
N3-8	33 cm	S3-8	37 cm

No evidence is available which would allow for any reconstruction of the part of the marble decoration touching the presbytery's floor. It is possible that in this place only lime mortar was used instead of clasp-holes.

¹⁸ M.L. BRUTO, C. VANNICOLA, *Ricostruzione e tipologia...*, figs. 19, 23, 35.

¹⁹ Cf. M. PICCIRILLO, *The Mosaics of Jordan*, Amman 1993, fig. 714.

In case of the transversal walls their state of preservation and the smaller number of holes do not allow for reliable reconstruction.²⁰ However, also there the decoration consisted most probably of vertically placed panels, as indicated by the position of the preserved holes.

It is possible to observe some repeatable schemes in the layout of particular panels. In the topmost registers of the eastern wall, on the joints of particular rectangles, a scheme of four holes is repeated resembling the letter T turned upside down. On the joints of the majority of the rectangles which delimit the lateral edges of particular marble panels there are at least two holes; on this basis it is possible to conclude that single clasps with one end were inserted into them. The examples of the use of T-shaped clasps with two ends to which the edges of two adjacent panels were fastened are known from other archaeological sites.

The intervals between the holes delineating the width and height of particular rectangles do not find their equivalents in the Graeco-Roman systems of measurement. It is also difficult to find modules or repeated proportions of height to width which would appear not only within each of the walls, but also within particular registers. Only the intervals between the holes delimiting top and bottom edges of the rectangles within singular registers are repeatable; in these cases occasional variations appear, measuring 1–2 cm. However, the differences are not considerable, for they do not exceed the dimensions of the holes in the walls. The widths of the adjacent rectangles of the registers N2–N3, A1–A2, and S2–S3 also repeat themselves; it comes as no surprise, for otherwise the marble decoration would have been chaotic. The apse constitutes the only clear testimony of planned divisions of the wall-faces into rectangles. It was divided into two equal parts at half-height; the curve of the wall was subsequently divided into an even number of segments of equal width. This indicates that the building material in the form of marble panels must have been cut in answer to the particular needs of this foundation. The difference in length of the northern and southern parts of the eastern wall, measuring up to 20 cm, also confirms this thesis. In order to obtain more or less symmetrical layout of the decoration on both sides of the apse, on the northern side it was necessary to use slightly wider panels to cover the whole face of the wall (cf. **Tables 6, 7**). The southern part of the wall, where the layout of the panels is more consistent, should be used in this case as a reference point. This is indicated by the dimensions of the rectangles S1-1, S1-2, and S1-3, of a very similar width as the pairs of rectangles

placed in the registers below. In this case maximum deviations amount to 1.5 cm. Thus the edges of the rectangles of the upper register are located approximately on the same axes as the edges of the lower registers. On the other side of the apse this scheme could not have been fully repeated, for reasons unknown. The differences in width between the rectangles of the uppermost register and the respective pairs of rectangles of the lower registers amount to 10 cm. The shift of the axes which were marked out by the edges of the panels could have been of the same scale.

Marble revetments were also present in the apse of the building located south from the discussed church (**Fig. 5**), as suggested by the presence of clasp-holes in the walls. The reconstruction is in this case impossible due to the fact that the construction still remains largely covered with sand and rubble.

Marble wall revetments in the Late Antique churches of the Levant

There are few Late Antique examples from the eastern Mediterranean with which the layout of the decoration from Jiyeh could be compared. This is due both to the state of preservation of the churches of this period, and to the poor quality of publications of such decorations. In the Justinianic church in the monastery of St. Catherine in the Sinai a decoration of this type is completely preserved in the apse. It covers the wall up to the height of the base of the conch. Similarly as in Jiyeh, the surface has been divided at half-height into two equal parts, and the lateral parts were covered with tall and narrow panels arranged in two registers. The main difference lies in the presence of two arched windows in the middle of the apse, which imposed the use of panels of different size and horizontal orientation in the central part of the apse. Additionally, above the windows there is a depiction of a Latin cross with widening arms made of properly cut marble tiles.²¹ In the apse of the martyrion in the basilica of Salamis the preserved decoration indicates that the walls were covered – at least in their lower portion – with vertical panels measuring 40.5 cm in height.²² These two examples indicate that in the apse decoration there was an inclination towards the use of vertical panels. However, this does not necessarily testify to a common tradition in decoration. It is more probable that this preference was a result of the very shape of the apses which did not allow for the use of horizontal layout of panels.

²⁰ T. WALISZEWSKI ET AL., *Jiyeh (Porphyreon)...*, fig. 35.

²¹ M. PICCIRILLO, *The Mosaics of Jordan...*, fig. 714.

²² G. ROUX, *La basilique de la Campanopetra*, Salamine de Chypre XV, Paris 1998, 149, fig. 205.

Numerous Christian basilicas are known from the Syro-Palestine in which marble wall revetments were used. The evidence in form of marble panels preserved on the walls or of clasp-holes attests that this kind of decoration appeared most often in the main apses of the churches.²³ It also appeared in other parts of the churches.²⁴ At Pella and Abila marble revetments were present not only in the interiors, but also on the exterior walls of the buildings.²⁵

The marble revetments appear both in the imperial and private foundations. The monastery of St. Catherine in the Sinai and the church of St. Stephen in Gaza are examples of the former circumstance.²⁶ The evidence of the latter possibility comes from Khirbet Makkus near Ashkelon, where an inscription on a mosaic floor testifies to such a donation.²⁷ Marble revetments appear both in cathedrals and other urban churches.²⁸ Examples of such decorations are known also from rural areas, such as Jiyeh and Khan Khalde.²⁹ Thus, the marble decorations reflect the status of churches only to a certain extent; undoubtedly, they were not reserved for imperial foundations.

Conclusions

In most of the known cases, the marble panels covered the walls only in the apses of the churches. However, in the basilica in Jiyeh a decoration of this kind had much larger extent and included all the surfaces of the presbytery walls.³⁰ The reason for it should be connected with the architectural arrangement of the church, whose sanctuary encompassed not only the apse but the whole eastern part of the main aisle. On the faces of both transversal walls from the presbytery side there are vertical rectangular incisions measuring 8.5–9.5 cm in width, 10 cm in depth, and stretching approximately 130 cm above the floor level. They constituted most probably the construction element of a screen separating the presbytery from the rest of the church. The negative of the screen was also discovered on the floor during the excavations in 2005.³¹ This construction was demarcating the western end of marble wall decoration. Such an extensive use of marble in the discussed place was undoubtedly caused also by economic factors. Jiyeh is located directly on the Levantine coast, on one of the main trade routes of the East (*Via Maris*)

²³ Mons Admirabilis: W. DJOBADZE, *Archaeological Investigations in the Region West of Antioch on-the-Orontes*, Forschungen zur Kunstgeschichte und christlichen Archäologie 13, Stuttgart 1986, 79, 80; Bosra: P.-M. BLANC, P. PIRAUD-FOURNET, *La grande église à plan centré du quartier est de Bosra*, (in:) M. AL-Maqdissi, F. Braemer, J.-M. Dentzer (eds.), *Hauran 5: La Syrie du sud du néolithique à l'antiquité tardive. Recherches récentes. Actes du colloque de Damas 2007*, vol. 1, Bibliothèque archéologique et historique 191, Beyrouth 2010, 279; Beth Shean: G.M. FITZGERALD, *Beth-Shan Excavations, 1921–23: The Arab and Byzantine Levels*, Publications of the Palestine Section of the Museum of the University of Pennsylvania 3, Philadelphia 1931, 22; Khirbat al-Karak: P. DELOUGAZ, R.C. HAINES, *A Byzantine Church at Khirbat al-Karak*, Oriental Institute Publications 85, Chicago 1960, 15; Gerasa: C.H. KRAELING, *Gerasa, City of the Decapolis*, New Haven 1938, 253, 261; Khirbat Makkus: S. GIBSON, F. VITTO, L. DI SEGNI, *An Unknown Church with Inscriptions from the Byzantine Period at Khirbet Makkus near Julis*, "Liber Annuus" 48, 1998, 332; Elusa: H. GOLDFUS, B. ARUBAS, K. BOWES, *New Excavations in the East Church at Halutza (Elusa): Preliminary Report*, "Journal of Roman Archaeology" 13/1, 2000, 333.

²⁴ Khan Khalde: N. DUVAL, J.-P. CAILLET, *Khan Khalde (ou Khaldé III). Les fouilles de Roger Saidah dans les églises, mises en œuvre d'après les documents de l'auteur*, (in:) *Archéologie au Levant...*, 376, 382, fig. 45; Resafa: TH. ULBERT, *Die Basilika des Heiligen Kreuzes in Resafa-Sergiupolis*, Resafa 2, Mainz am Rhein 1986, insets 9, 10, 12; Hippos: C. EPSTEIN, *Hippos (Sussita)*, (in:) E. Stern (ed.), *The New Encyclopedia of Archaeological Excavations in the Holy Land*, vol. 2, Jerusalem 1993, 635; Gadara: M. AL-DAIRE, *Die fünfschiffige Basilika in Gadara – Umm Qais, Jordanien: Studien zu frühchristlichen Sakralbauten des fünfschiffigen Typus im Orient*, Marburg 2001, 58, 59, 71, 72; Pella: R.H. SMITH (ed.), *Pella of the Decapolis, vol. 1: The 1967 Season of the College of Wooster Expedition to Pella*, Wooster 1972, 229, pl. 14, 28; Gaza: H. MAGUIRE, *The 'Half-Cone' Vault of St. Stephen at Gaza*, "Dumbarton Oaks Papers" 32, 1978, 320, 325; Shivta: A. SEGAL, *Shivta – a Byzantine Town in the Negev Desert*, "Journal of the Society of Architectural Historians" XLIV/4, 1985, 327.

²⁵ R.H. SMITH, L.P. DAY (eds.), *Pella of the Decapolis, vol. 2: Final Report on the College of Wooster Excavations in Area IX, The Civic Complex, 1979–1985*, Wooster 1989, 43, 44; C. MENNINGA, *Unique Church at Abila of the Decapolis*, "Near Eastern Archaeology" 67/1, 2004, 43.

²⁶ G.H. FORSYTH, *The Monastery of St. Catharine at Mount Sinai: the Church and Fortress of Justinian*, "Dumbarton Oaks Papers" 22, 1968, 12; M. PICCIRILLO, *The Mosaics of Jordan...*, fig. 714; H. MAGUIRE, *The 'Half-Cone'...*, 320, 325.

²⁷ S. GIBSON, F. VITTO, L. DI SEGNI, *An Unknown Church...*, 332.

²⁸ In Gerasa there were marble revetments in at least four churches (C.H. KRAELING, *Gerasa...*, 243, 247, 253, 261).

²⁹ N. DUVAL, J.-P. CAILLET, *Khan Khaldé...*, 376, 382, fig. 45.

³⁰ The entire surface covered with marble panels measured ca. 50 m².

³¹ T. WALISZEWSKI ET AL., *Jiyeh (Porphyreon)...*, 30.

between the commercial ports in Sidon and Beirut. For this reason the cost of transporting the imported marble was much lower than in the case of settlements located further inland.³² One also needs to emphasise that the majority of marble panels discovered in Jiyeh are made of medium-grained white or grey marble which came most probably from the Proconnesian quarries. This marble was one of the cheapest available on the market³³ – a fact which gave the possibility of using it on a larger scale. The inflow of large amounts of Proconnesian marble to Phoenicia is

attested by e.g. the sarcophagi discovered at the necropolis in Tyre, whose number surpasses the number of sarcophagi made of marbles and granites from other parts of the Empire.³⁴

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³² Cf. M. GWIAZDA, *Marble Vessels from Jiyeh (Porphyreon)*, “Polish Archaeology in the Mediterranean” XXIII/1 (Research 2011), 2014, 527–541.

³³ *Edictum Diocletiani de pretiis rerum venalium* 33.1.

³⁴ J.B. WARD-PERKINS, *The Imported Sarcophagi of Roman Tyre*, “Bulletin du Musée de Beyrouth” XXII, 1969, 113–123, 132–145.

MARUROWA DEKORACJA PREZBITERIUM PÓŹNOANTYCZNEJ BAZYLIKI W JIYEH (PORFIREON) – LIBAN

Podczas wykopalisk w Jiyeh natrafiono na dowody wskazujące na wykorzystanie kamiennych okładzin ściennych do dekoracji murów późnoantycznego kościoła. Są to znaleziska marmurowych płytek, kotew ze stopu miedzi służących do ich mocowania oraz otwory na kotwy w murach prezbiterium bazyliki. Niniejszy artykuł ma na celu prezentację tego materiału oraz próbę rekonstrukcji tej dekoracji.

Wśród marmurowych płytek wyróżniono cztery grupy. Pierwsza, ze względu na trójkątne i zakrzywione kształty (**Ryc. 1**), powinna być wiązana z mozaiką w technice *opus sectile*. Kolejna grupa, w której skład wchodzi 11 płytek, posiada na krawędziach okrągłe otwory (**Ryc. 2, Tab. 1**). W przypadku kilku egzemplarzy odnotowano obecność śladów po kotwach służących do przytwierdzenia paneli do ścian. Trzecia grupa to płytki o wyraźnie zaokrąglonych krawędziach (**Ryc. 3, Tab. 2**). Płytki tego typu wykorzystywane były do tworzenia pionowych i poziomych ram oddzielających poszczególne rejestry lub panele okładzin ściennych. Przy ich mocowaniu nie wykorzystywano metalowych kotew. Czwarta, najliczniejsza grupa to płytki bez zachowanych krawędzi. Większość z nich została znaleziona podczas prac odczyszczających prowadzonych w bazylice, co wskazuje na to, że powinno wiązać się ich wykorzystanie z tym budynkiem.

Kolejnym elementem związanym z marmurowymi okładzinami, pochodzącym z wykopalisk w Jiyeh, są kotwy ze stopu miedzi. Mają one formę płaskich płytek z wąskim i zagiętym pod kątem prostym jednym końcem i przeciwnym końcem zagiętym pod kątem 180 stopni (**Ryc. 4**). Ich szersza część była wsuwana w otwory znajdujące się w murach i blokowana marmurowym guzikiem. Cieńszy koniec natomiast był wprowadzany w otwory na krawędziach marmurowych płytek.

Najważniejszą podstawą dla rekonstrukcji marmurowej dekoracji ściennej stanowi natomiast ok. 300 otworów znajdujących się na licach wszystkich murów prezbiterium (**Ryc. 5**). Ich pozycja w apsydzie wskazuje, że okładziny ścienne zostały przymocowane w dwóch poziomych rzędach, z których każdy składał się z 14 prostokątów o wysokości 130 cm i szerokości ok. 36 cm (**Tab. 4, Ryc. 8, 9**).

Północną i południową część wschodniego muru można podzielić na cztery rejestry. Najwyższy z nich składał się z horyzontalnych paneli o wysokości 24–25 cm. Kolejnego rejestru nie da się zrekonstruować w sposób pewny ze względu na brak otworów, które wyznaczałyby pionowe granice między poszczególnymi prostokątami. Poniżej niego znajdowały się dwa rzędy wertykalnych paneli (**Tab. 6, 7, Ryc. 8, 9**). Potwierdzeniem poprawności zaproponowanej powyżej rekonstrukcji jest fakt wpisania się w rozplanowanie płyt wszystkich otworów zawierających ślady produktów korozji oraz fragmenty marmurów do blokowania kotew (**Ryc. 9**). Z drugiej strony, istnieje znaczna liczba otworów, które nie mieszczą się w tym schemacie. Nie tworzą one regularnego planu i jest ich za mało, aby mogły być świadectwem obecności marmurowych okładzin pochodzących z innej fazy. Ich funkcja nie jest znana.

Zaproponowana rekonstrukcja powinna być uzupełniona o marmurowe płytki z zaokrąglonymi krawędziami. Ze względu na to, że nie mocowano ich przy użyciu kotew, trudno jest z całą pewnością określić ich pozycję na murach. Najprawdopodobniej tworzyły one poziome pasy oddzielające od siebie poszczególne rejestry. Brakuje także jakichkolwiek śladów, które pozwoliłyby na odtworzenie części marmurowej dekoracji stykającej się z podłogą prezbiterium. Możliwe że w tym przypadku nie wykorzystano otworów z kotwami, a wyłącznie zaprawę wapienną.

Jedynym wyraźnym świadectwem zaplanowanego podziału lic murów na prostokąty jest apsyda, którą podzielono w połowie wysokości muru na dwie równe części. Następnie krzywizna muru została podzielona na parzystą liczbę segmentów o równych szerokościach. Wskazuje to, że materiał budowlany w postaci marmurowych płyt musiał być przycinany specjalnie na potrzeby tej inwestycji.

Niewielka liczba kościołów wczesnobizantyjskiego Bliskiego Wschodu dostarcza analogiczne przykłady rozplanowań marmurowych dekoracji w tego rodzaju budynkach. Jednakże niekoniecznie jest to świadectwo wspólnej tradycji dekoracyjnej. Bardziej prawdopodobnym wydaje się, że podobieństwa w tej kwestii należy raczej wiązać z samą formą architektoniczną, która stanowiła punkt wyjścia dla takiego kształtu dekoracji marmurowych okładzin.