

Marble Revetments of Diocletian's Palace

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MARBLE REVETMENTS OF THE DIOCLETIAN'S PALACE

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Abstract

During numerous archaeological excavations inside Diocletian's Palace, more than 1,600 marble revetment fragments were found, mostly in the southern part of the Palace, in the emperor's apartment and in the bath complexes. A few types of white marble and more than eighteen different types of coloured marble have been determined by visual observation. The fragments of revetments are mainly small and very few are found "in situ", with the exception of the well-preserved Mausoleum floor. Among the fragments of marble revetments whose shapes have been preserved, we can distinguish various elements: cornices, moulded slabs, fillets, and various slabs of different thicknesses in the shape of triangles, squares, rhombuses, trapezoids, deltoids and complex shapes. In this paper, the word "marble" will be associated with the ancient meaning of the word.

Keywords

Diocletian's palace, marble revetments, coloured marble, white marble

1. Introduction

Diocletian's Palace, which was completed in 305 AD, is one of the best-preserved imperial palaces of the Roman Empire. (Fig. 1.) It constitutes the nucleus of the medieval city of Split. There are three main reasons for the good preservation of the Palace: a) it has been continuously inhabited from the 4th century up until the present day, b) it is not located in a region of frequent devastating earthquakes, and c) it was built of a high-quality material, i.e. limestone from the island of Brač and the vicinity of Trogir. Perimetral and substructure walls, temples, pavement of the streets, arches of the Peristyle and a great number of capitals were made of the abovementioned limestone.

Since there were no quarries of white and coloured marble in Roman Dalmatia, marble of Greek, Asia Minor and Egyptian provenance was used in order to make columns, furniture, sculptures and wall and floor revetments. Among different types of white marble identified so far in the Palace, the most frequent is *marmo*

di Proconneso. Furthermore, eighteen types of coloured marble have been identified: *porfido rosso*, *porfido verde*, *porfido nero*, *granito rosso*, *granito del foro*, *granito violetto*, *granito nero*, *pavonazzetto*, *rosso cario*, *rosso antico*, *verde antico*, *giallo antico*, *marmo nero*, *fior di pesco*, *cipolino*, *alabastro*, *bigio antico* and *breccia corallina*.¹

The walls of the edifices within the Palace, with the exception of temples, were built of rough stones and bricks (*opus mixtum*), and the vaults and domes were built of calcareous tufa and brick. These masonry surfaces in the interior were treated in various ways. The interior surfaces of the vaults and domes were mostly decorated with mosaics, the walls were covered in marble revetments and frescoes and the floors were covered in mosaics and the *opus sectile* revetment. Today, after 1,700 years of continuous life within the Palace, little is preserved of the original decor. Mainly smaller fragments of the decorations were found in the archaeological layers during the research within the Palace and on the coast in front of it where demolition materials were deposited for centuries.

2. Marble revetments "in situ"

Of all marble revetments discovered "in situ", the Diocletian Mausoleum floor is the best preserved. Several marble revetment slabs have been preserved mostly in the southern part of the Palace: next to the *triclinium*, in the *portico*, on the north wall of the *tablinum* and in the eastern baths.²

2.1. *Opus sectile* in the Diocletian Mausoleum

The Diocletian mausoleum, today's Cathedral, is a well-preserved octagonal building. It was built of white limestone from the island of Brač. The *cella* of the

1 MARASOVIĆ, MATETIĆ POLJAK, GOBIĆ BRAVAR 2015.

2 *Triclinium*: HÉBRARD, ZEILLER 1912, 115; MARASOVIĆ, MARASOVIĆ 1965, 30. *Portico*: MARASOVIĆ *et al.* 2000, note 11. Central hall of the emperor's apartment: BULIĆ, KARAMAN 1927, 115; FISKOVIĆ 2005, 27. Eastern baths: MARASOVIĆ *et al.* 1972, 26; RISMUNDO 2005, 156, fig. 1.

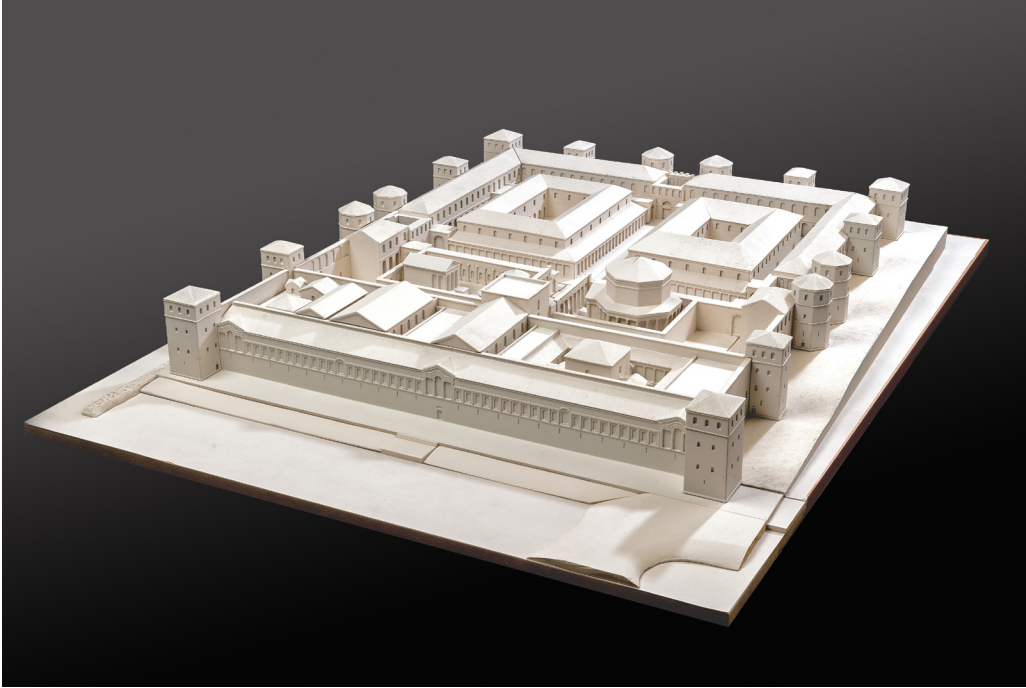


Fig. 1.
Diocletian's Palace,
reconstructed by
Jerko Marasović
(updated by Katja
Marasović 2014)

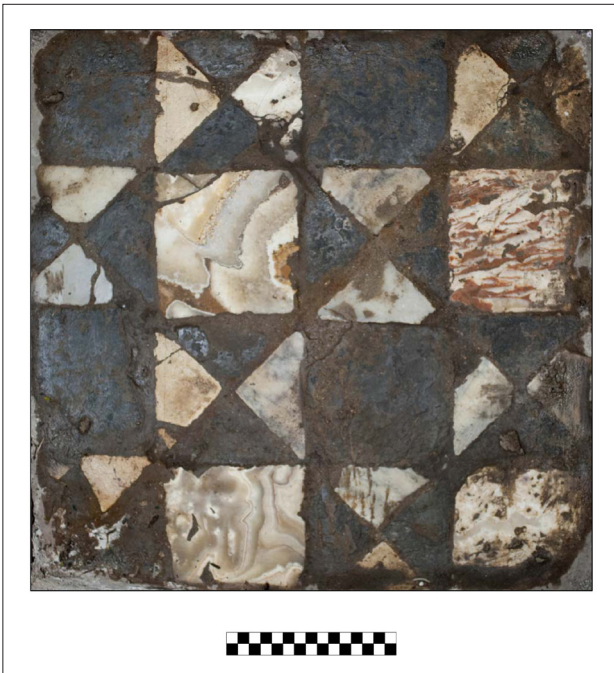


Fig. 2. The Diocletian Mausoleum floor in the *opus sectile* technique (photo: Z. Sunko)

Mausoleum has a circular shape, with a diameter of 13.30 m, and is divided by four semi-circular and four rectangular niches among which eight columns of two architectural orders are situated. The rectangular niche on the west is also the entrance of the Mausoleum. The crypt, which is perfectly preserved, is situated beneath the *cella*.

The original *opus sectile* floor is preserved 10 to 20 cm below the present pavement. (Fig. 2) The first research into that floor was carried out by A. Hauser in

1889, probing five sites beneath the pavement of the Cathedral.³ The original floor was discovered in all probes except one which was situated in the very centre of the Mausoleum.⁴ In 1890, Đ. Stratimirović suggested that the emperor's sarcophagus was situated in the central part, taking into account that no remains of *opus sectile* technique were discovered there.⁵ Don F. Bulić, some twenty years later, reopened the Hauser probes⁶ and left inspection pits with metal lids at three sites. In 1958, during research into the semi-circular niche in the southeast, C. Fisković found a floor made of large limestone slabs at the same level as the *opus sectile* floor, which proved that the *opus sectile* technique had not been employed within the niches.⁷ Research focusing on the altar of St Anastasius in the north-eastern part of the Cathedral, which was carried out during excavations in 1974 by the Office for the Protection of Cultural Monuments in Split, confirmed this conclusion; the same limestone slabs were discovered in the north-eastern niche.⁸ During these

3 HAUSER 1890, 85, fig. 17; STRATIMIROVIĆ 1890, 21-22; BULIĆ 1908, 104-105, T. 20, fig. 1; NEIMANN 1910, 63; FISKOVIĆ 1958, 81-101; IVANIŠEVIĆ 1987, 131-143, fig. 1; MIRNIK 1989, 21, fig. 2; MATULIĆ 2004, 229; MARASOVIĆ, MATETIĆ POLJAK, 2010, 95.

4 HAUSER 1889, 85.

5 STRATIMIROVIĆ 1890, 22.

6 BULIĆ 1908, 104-105, T. 20, fig. 1.

7 FISKOVIĆ 1958, 81-101.

8 IVANIŠEVIĆ 1987, 131-143, fig. 1.

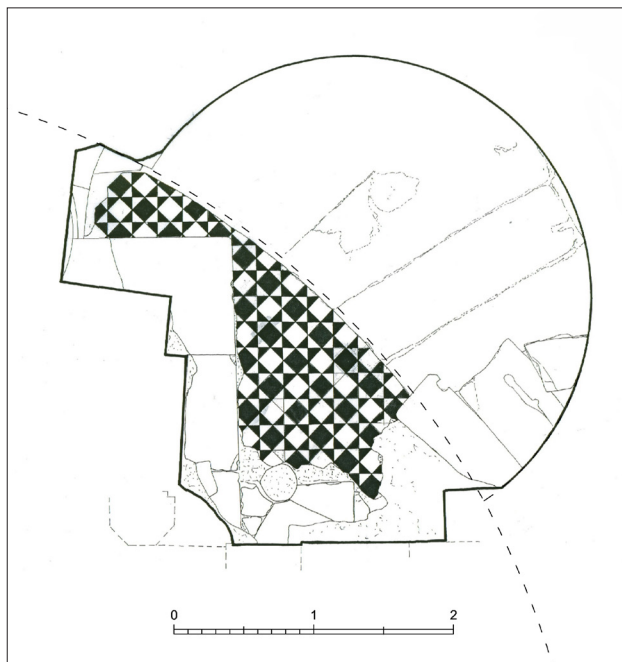


Fig. 3. The chapel housing the Altar of St Anastasius, the north-eastern niche of the Mausoleum, a rough slab pavement and the remains of the *opus sectile* pavement (Office for the Protection of Cultural Monuments in Split, 1974)

excavations, the *opus sectile* pavement, which has the same geometric pattern as the one found earlier within the Mausoleum probes, was also discovered in front of the niche, on a surface of about 1m² in area. The edge of this pavement does not reach the wall of the Mausoleum, but is placed 5 cm inwards, towards the centre.⁹ (Fig. 3)

The geometric pattern of the Mausoleum floor consists of dark and light fields in the shape of a square measuring 13 by 13 cm and of dark and light triangles which are arrayed in the form of a square of the same dimensions. These fields are randomly set.¹⁰ The marble slabs are 2 to 3 cm thick. The light fields are made of *alabastro*, *bigio antico*, *pavonazzetto*, *rosso Cario* (*Iassense*) and an unidentified bluish marble,¹¹ while the dark ones are made of black limestone of unknown origin which can be encountered in the antique mosaics in the Palace.¹²

9 A part of the floor can still be seen today beneath the gravestone.

10 BALMELLE *et al.* 1985, 183, T. 120 g; MATULIĆ 2004, 229; SUNKO, KATAVIĆ 2014, 214, fig. 12.

11 MARASOVIĆ, MATETIĆ POLJAK, GOBIĆ BRAVAR 2015.

12 A careful examination was carried out by D. Matetić Poljak, Đ. Gobić-Bravar i V. Marinković. These assumptions are a result of visual identification; therefore, a mineral-petrographic analysis should be conducted.

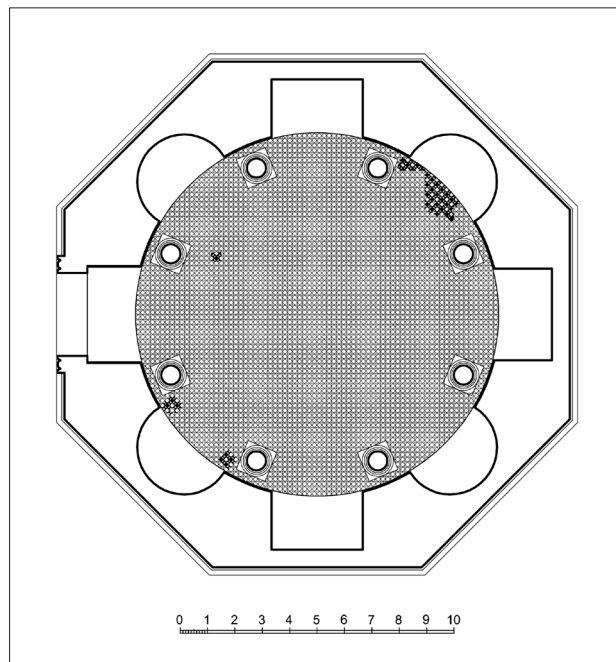


Fig. 4. The *cella* of the Mausoleum - reconstruction of the original pavement in the *opus sectile* technique with marked preserved parts (authors)

Conclusions can be drawn by analysing the results of research carried out thus far; the Mausoleum floor, which was executed in the *opus sectile* technique, covered the whole circular area of the *cella*. (Fig.4) The square grid is set at an angle of 45° with respect to the main axes of the building. Limestone slabs discovered within the niches at the same level as the *opus sectile* pavement, are roughly made and are not be seen in the lavishly decorated Mausoleum. Therefore, it can be assumed that the floor in the niches was elevated in the form of a limestone stair like the one preserved in the west rectangular niche – the entrance to the Mausoleum. The inner edge of that stair, though later moulded in the form of a mild ramp, has the circular shape of the *cella*. In contrast to this sumptuous multi-coloured floor of the *cella* and columns of two architectural orders, which are made of granite and porphyry, are the *cella* walls, made of limestone blocks, which were not additionally adorned, with the exception of stonecutter decoration. The dome constructed of bricks, thoroughly cleaned today, was covered with multi-coloured mosaics whose tesserae were discovered in the floor where the *opus sectile* pavement was damaged or repaired.¹³

13 Exhibition “New Research of the Split Cathedral” May 4, 2017, Organisers: The Roman Catholic Archdiocese of Split-Makarska and Ministry of Culture of the Republic of Croatia, Conservation Department in Split.

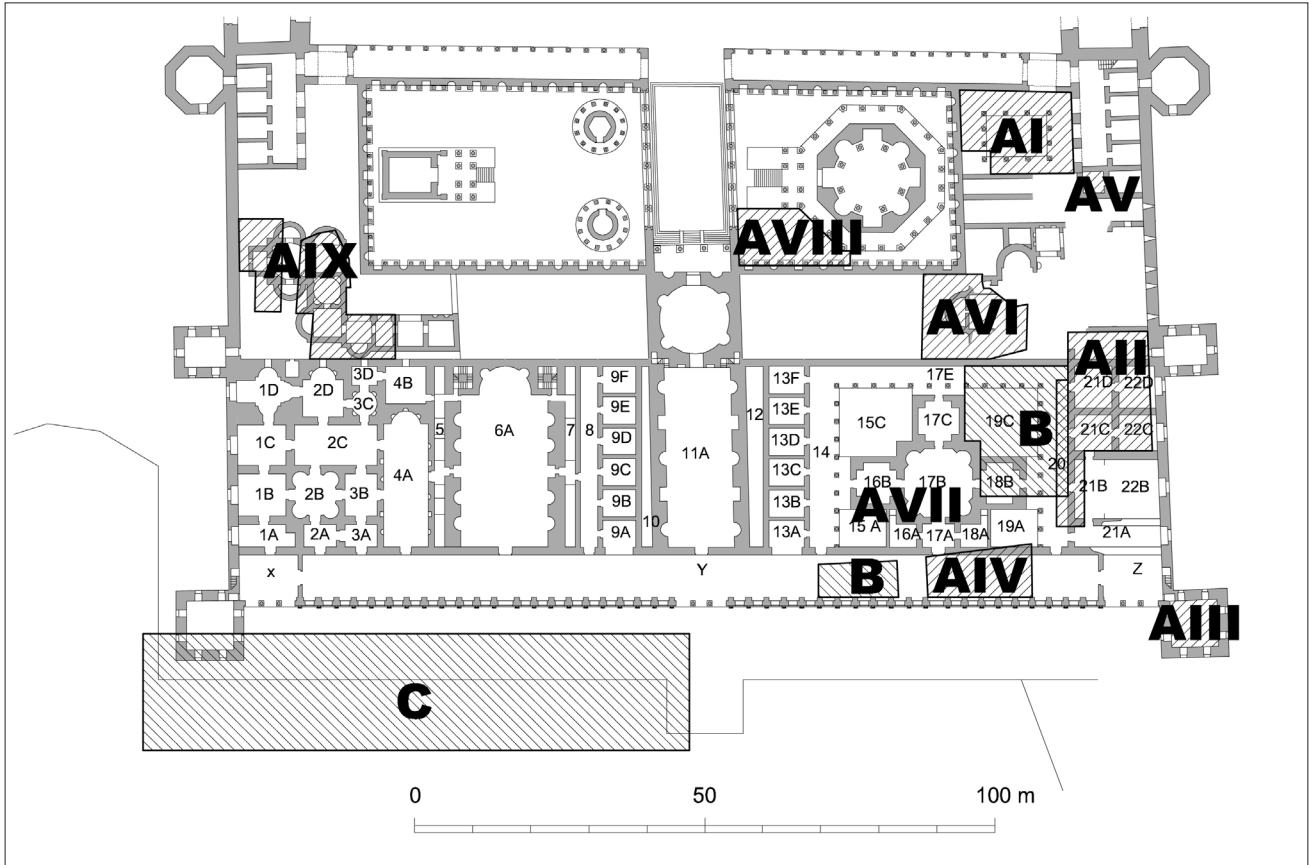


Fig. 5. Research sectors of archaeological campaigns in the south part of Diocletian's palace

3. Fragments of marble revetments discovered outside the original architectural context

Numerous fragments of marble revetments have been discovered during various archaeological excavations. These fragments are damaged and broken, and were very often discovered outside the original architectural context. The fragments can be linked to certain micro-locations of the southern part of the Palace; however, we must approach this subject with great caution. Namely, decorative stone has been reutilised throughout time, as well as ordinary limestone. This is best illustrated by the Romanesque pulpit in the Cathedral which is completely constructed of over 16 different types of Roman marble from the Palace.¹⁴ To date, the fragments of marble revetments found in the Palace and in its immediate vicinity have been visually identified and counted irrespective of their size. Based on this analysis, it can be concluded that almost one third of the total number of fragments were made of *porfido rosso*, one third of white marbles and a final third of seventeen different kinds of

coloured marble.¹⁵ The abundance of *porfido rosso* is not surprising, considering that this was an imperial palace.

This paper will focus on the geometric shapes of the marble revetment fragments discovered during the three most significant archaeological campaigns carried out inside the Palace and in its immediate vicinity. (Fig 5) These archaeological campaigns were:

- A) American-Yugoslav archaeological campaign conducted from 1968-1974¹⁶
- B) Archaeological research into the south-eastern part of the Palace, 1992¹⁷
- C) Archaeological research in front of the western half of the southern Palace facade, 2006-2007.¹⁸

14 MARASOVIĆ, MATETIĆ POLJAK, GOBIĆ BRAVAR 2015, 1017-1018.

15 MARASOVIĆ, MATETIĆ POLJAK, GOBIĆ BRAVAR 2015, 1017-1018.

16 MARASOVIĆ *et al.* 1972; McNALLY *et al.* 1977.

17 DELONGA, MANDINIĆ 2005; DELONGA 2014.

18 DELONGA 2008.



Fig. 6.
Moulded cornices
(photo: Z. Sunko)

3.1. American-Yugoslav archaeological campaign 1968-1974

During the large-scale American-Yugoslav archaeological campaign conducted from 1968-1974, that covered nine sectors in the southern part of the Palace (Fig. 5, under A), 524 revetment fragments were found.¹⁹ Most of the marble materials were discovered in sectors AI, AV, (east of the eastern *temenos*), AVI (Eastern bath) and AVII (*triclinium*).²⁰ The material is stored in the Split City Museum.

3.1.1. Cornices

It is worth highlighting a group of moulded cornices among the fragments examined. This group can be classified as cornices or bases of marble wall revetments due to their shape and the dimension of the cross section

(maximum 7 by 9 cm). Most of the cornices discovered can be associated with the architectural context of the Diocletian Palace *triclinium*.²¹

Nine cornices which have different mouldings were discovered (Fig. 6 and 7); one made of *giallo antico* (no 2), five made of *pavonazzetto* (no 3, 4, 5, 8, and 9) and three made of white marble (no 1, 6, and 7). The cornices made of *pavonazzetto* were more carefully processed than the others, and at the price of 200 denars per cubic foot, this marble, according to Diocletian's Price Edict, was one of the most expensive antique marbles.²² The front side of the cornices is polished to a high gloss while saw cut marks can be seen at their backs²³ as well as the characteristic thickening detail at the top which is

19 MARASOVIĆ, MATETIĆ POLJAK, GOBIĆ BRAVAR 2015.

20 MIRNIK 1989, 21-24.

21 *Ibid.*

22 GIACCHERO 1974, 305.-306.

23 Hard stone was cut mainly with the saw without teeth, with the use of water and sand, KESSENER 2010, 283-285; KESSENER 2012, 197.

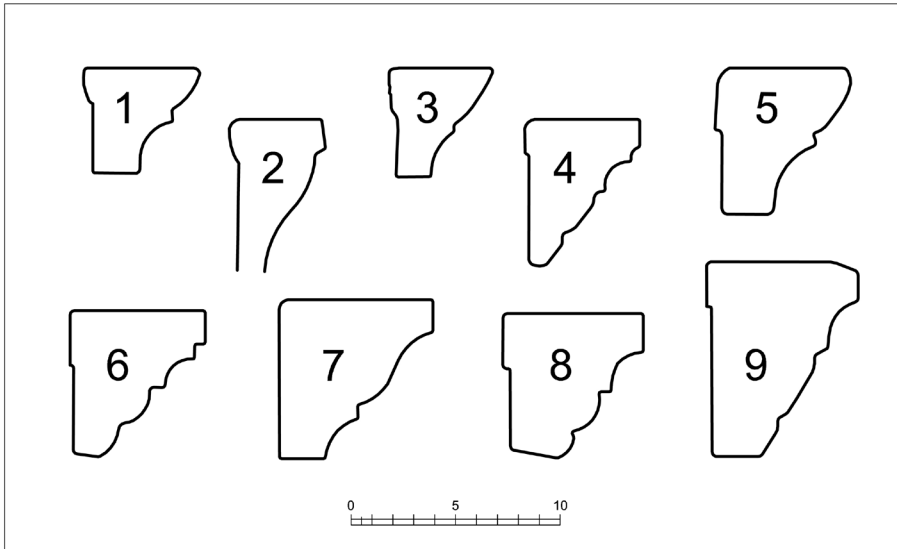


Fig. 7.
Moulded cornices (authors)



Fig. 8.
Moulded slab made of
giallo antico marble
(photo: Z. Sunko)

result of them being broken away from the stone block. Fragment no 4 represents a corner element which is cut in plan at an angle of 45° . On the upper surface, fragment no 5 has a hole for a metal pin for fastening to the wall. Traces of lead were found in this hole. Fragment no 7 differs from the rest because its back and upper surface are not cut with a saw, but are roughly carved. In some cornices, the original plaster was preserved and shows how deep they were inserted into the wall.

3.1.2. Moulded slabs

A slab which is moulded in the shape of a cornice can be found among those described. The slab is carefully made of *giallo antico* marble (1.6 by 7 cm cross section, 55.5 cm long). (Fig. 8) Its front moulded side is polished, while a flat surface covers the back. Saw cut marks can be seen on this flat surface as well. It extends on both ends at an angle of 66° and is cut in plan at an angle of 45° on both sides, which means it served as a revetment for a pilaster. A plug hole



Fig. 9. The fragment of a moulded slab (*giallo antico*) (photo: Z. Sunko)



Fig. 10. The fragments of moulded slabs (*pavonazzetto*) (photo: Z. Sunko)



Fig. 11. Fillets made of different types of marble (photo: Z. Sunko)

which is situated in the middle of its shorter side proves that this is a lower element, i.e. the base of pilaster revetment.

Among the studied material, a smaller fragment of a moulded slab was discovered (1.1 by 5 cm in cross section, 10 cm long) carved in a manner similar to that of the abovementioned fragment and also made of *giallo antico* marble. (Fig.9) This element also represents a corner element which is at the point of connection cut in plan at an angle of 45°. Two fragments (1.7 by 5.5 cm cross section) with a semi-circular moulding in the centre (Fig. 10) can be connected to the same type of moulded slab. The first is 7 cm long, and the second is 10 cm long. Both have one original side-edge: one is cut at a right angle and the other at an angle of 97°. These fragments are made of *pavonazzetto* marble.

3.1.3. Fillets

It was common practice to separate wall revetment fields made of different materials by horizontal and vertical fillets (ca. 2 cm thick) which were applied perpendicularly to the wall plane. These strips protruded 1 to 2 cm from the revetment face. Such strips 3 to 7 cm wide were found in Diocletian's Palace. These fillets of larger widths entered the thick layer of mortar because the mortar behind the slabs of wall revetments in Diocletian's Palace was very thick, up to 7 cm. Most of these fillets are made of white marble; however fillets made of other materials have also been discovered. (Fig. 11 and 12). Most of them are just rounded in the front; however, fillets of triangular profile have also been found. A

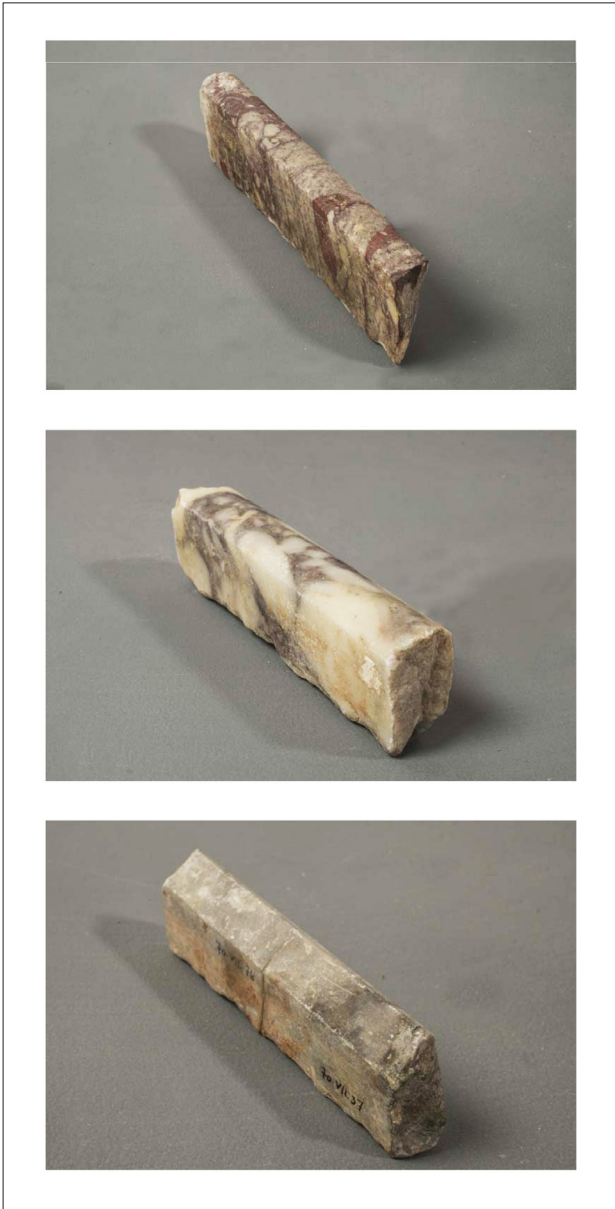


Fig. 12. Fillets with different profiles (photo: Z. Sunko)

small fragment of a fillet with a dentil motif stands out among them. This fragment is made of white marble and is currently the only one of its kind found in the Palace. (Fig. 13)

3.1.4. Slabs of different geometrical shapes

Among the marble revetment fragments, the most frequent are slabs of different thicknesses and materials. Among them, we can distinguish: thin (0.4-1.7 cm) and thick (2-5 cm) slabs. (Fig. 14 and 15) Slabs made of *porfido rosso* and *alabastro* are 1 to 5 cm thick, and among them, slabs which are 3 to 5 cm thick are more frequent. The distinctive features of these slabs are their edges, which are not carefully cut. There are only few slabs which have preserved their geometrical shape.



Fig. 13. Fillet with a dentil motif (photo: Z. Sunko)

Slabs of from 0.4 cm to 1.7 cm thick are characterised by their fine processing. (Fig. 16) Various shapes can be distinguished: triangles, squares, trapezoids and rhombuses. Slabs that are from 0.4 to 0.7 cm thick are rare, and among this group of slabs of smaller thickness and finer structure, the most frequent ones are 1, 1.5 and 1.7 cm thick. Within the studied material several small fragments made of *porfido verde* were recorded. These fragments are extremely thin, cut with a saw, and carefully processed. The finest fragment is only 0.4 cm thick and it represents the finest fragment found so far in the Diocletian's Palace. The remaining fragments made of *porfido verde* are 0.5 cm, 0.7 cm and 1.2 cm thick. A fragment which is 2.5 cm thick has also been recorded. These fragments of the highly prized decorative stone, which were carefully processed, were mostly used for making borders of more complex geometric motifs and details.

3.2. Archaeological research of the south-eastern part of the Palace 1992

In 1992, archaeological research were carried out in the imperial apartment east of the *triclinium* and on the site of a demolished house attached to the southern wall of the Palace (Fig. 5, under B) at the site of the Roman portico. The 8-meter-layer of rubble in the Roman substructures was explored and yielded a total of 53 fragments of decorative stones. The material is preserved in the Museum of Croatian Archaeological Monuments.²⁴

Taking into consideration the stone processing methods, the morphology and the thickness of fragments, they can be roughly divided into: the remains of furniture or sculptures, moulded slabs, fillets and cornices. Most fragments made of *porfido rosso* are more than 3 cm thick, while certain fragments are up to 10 cm thick. Taking into consideration their thickness and extremely

24 DELONGA, MANDINIĆ 2005, 7; DELONGA 2014.



Fig. 14. Alabaster triangles, front and back side (thick slabs) (photo: Z. Sunko)



Fig. 15. Thick slabs (*porfido rosso*, *rosso antico* and *breccia corallina*) (photo: Z. Sunko)

irregular shape, the fragments can be attributed to furniture or, perhaps, sculpture remains.²⁵ The trimming of the two *porfido rosso* fragments is even and regular; these are slabs that were certainly a part of the floor or wall revetment. (Fig. 17) The first fragment has the shape of

an equilateral triangle and is 2.5 cm thick. The second fragment is oblong and 1.1 cm thick. Taking into account the appearance and the thickness, it can be concluded that these fragments represent the border of a decoration.

Three interesting fragments made of *granito del foro* can be singled out from the studied material. (Fig. 18) Two fragments are 2 cm thick, while the third is 3.4 cm thick. All fragments are roughly cut and irregular in shape; however, relatively simple, geometric shapes (circle, irregular triangle) can be distinguished. Due to the thickness of the fragments, it is very likely they were originally a part of the *opus sectile* pavement.

25 In the existing literature on the topic, most of the decorative stone fragments are often attributed to marble revetments. However, decorative furniture and sculptures were also present inside the Palace; therefore, thicker and very irregular fragments could be linked to these elements.



Fig. 16.
Thin slabs of different
geometrical shapes
(photo: Z. Sunko)

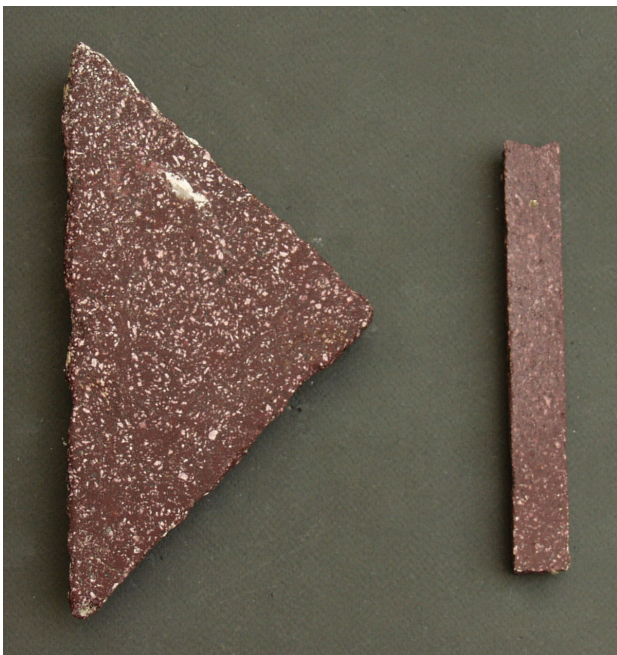


Fig. 17. A triangle and a ribbon (*porfido rosso*) (DELONGA 2014)



Fig. 18. Fragments (*granito del foro*) (DELONGA 2014)



Fig. 19. A fragment of a cornice (DELONGA 2014)



Fig. 20. Fillet (white marble) (DELONGA 2014)



Fig. 21. A triangle made of porphyry, 4 cm thick, edges are roughly broken (photo: Z. Sunko)

The fragment of the cornice (probably made of *greco scritto* marble) (Fig. 19) belonged to the base or the cornice of the marble revetment of the wall. This fragment, which was also discovered close to the *triclinium*, is carefully carved, just like the cornices from the 1968-1974 research.

A 2-cm-thick fillet of white marble has also been recorded among the fragments. (Fig. 20) The front side is characterised by a simple semi-circular moulding. This element is also similar to those found between 1968 and 1974 in the area of the *triclinium*.

3.3. Archaeological excavations in front of the western half of the southern Palace facade

Within renovation works on the Split seafront (Riva), extensive archaeological excavations in front of the western half of the southern Palace facade were carried out in 2006 and 2007.²⁶ (Fig. 5, under C) This is when the original Roman seafront was found. The embankment of the medieval and Venetian seafront yielded 780 fragments of Roman marble revetments. The material is preserved in the Museum of Croatian Archaeological Monuments.

The majority of fragments discovered are made of *porfido rosso* (50%); however there are quite a lot of fragments made of *granito del foro* (16.2%) and of white marble (15.6%).²⁷ The large amount of porphyry fragments indicates the possibility that these fragments were used to decorate the grand rooms of the emperor's apartment.

Deltoid and triangular slabs stand out among the fragments made of porphyry. (Fig. 21, 22 and 23) Their length rarely exceeds 10 cm, while their thicknesses range from 1.9 to 4.7 cm. An interesting fact is that many slabs are not uniformly thick, i.e. the thickness changes by up to 1 cm from one end of the slab to the other. The edges of the slabs are made by breaking and are extremely imprecise just like the fragments discovered during the American-Yugoslav research (1968 - 1974). Other geometrically shaped slabs of white and coloured marble were found during the same research. (Fig. 24 and 25)

The slab fragment, which has a complex shape, is the only one of its kind discovered in Diocletian's Palace so far. It has curved edges which form the shape of single-bitted axe. This fragment is made of *biggio antico* marble and is 1.4 cm thick. Its dimensions are 8.7 by 8.1 cm. It is carefully cut; however, a breakage indicating that the fragment originally had the shape of a double-bitted axe can be noticed on the narrow side. The motive of the

26 DELONGA 2008, 513-517.

27 MARASOVIĆ, MATETIĆ POLJAK, GOBIĆ BRAVAR 2015, 1013-1014.

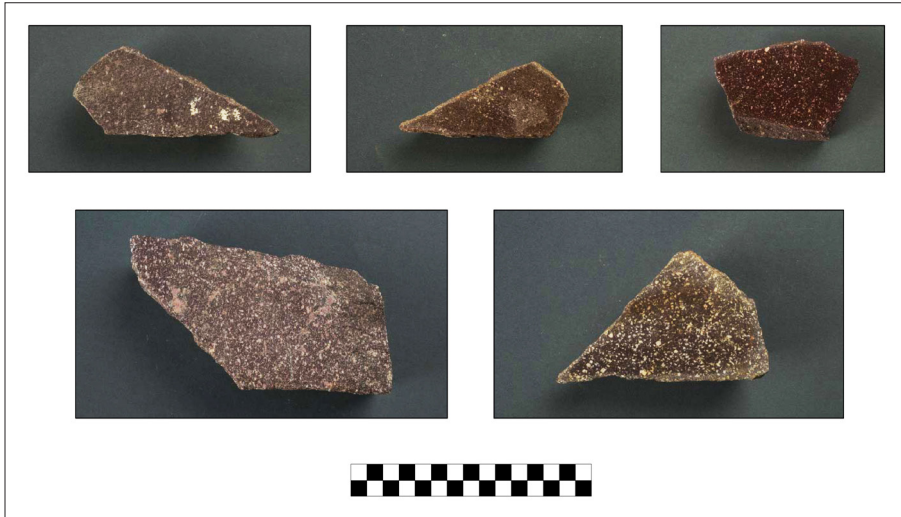


Fig. 22.
Deltoids made of porphyry
(photo: Z. Sunko)

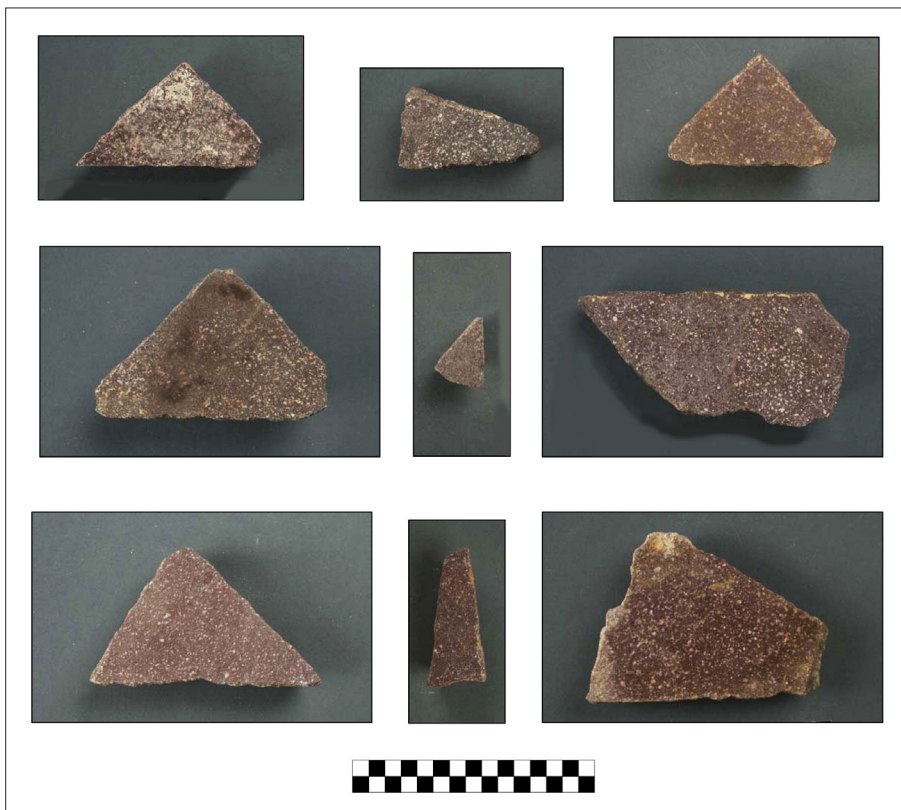


Fig. 23.
Triangles made of porphyry
(photo: Z. Sunko)

double-bitted axe or the so-called Boeotian shield was common in Roman times, and its use in different variations on floor mosaics is extremely common.²⁸ Within Diocletian's Palace, it appears on the southwest mosaic carpet of the Late Antique building in today's Arhida-konova Street and on the southern mosaic of the Late Antique building in Bulićeva Street.

A teardrop-shaped fragment, which is roughly carved and made of white marble (6 by 4.4 cm cross

section, 12 cm long), stands out in the material studied. (Fig. 27) A notch is visible on the side. For now, it is not clear what kind of element it represents.

4. Conclusion

This paper presents the analysis of marble revetments found in Diocletian's Palace during major archaeological excavations. The original Mausoleum floor was the only one preserved *in situ* with the exception of several smaller, sporadic remains in the southern part of the Palace. The floor was executed in the *opus sectile*

28 BALMELLE *et al.* 1985, 281, T. 221c.

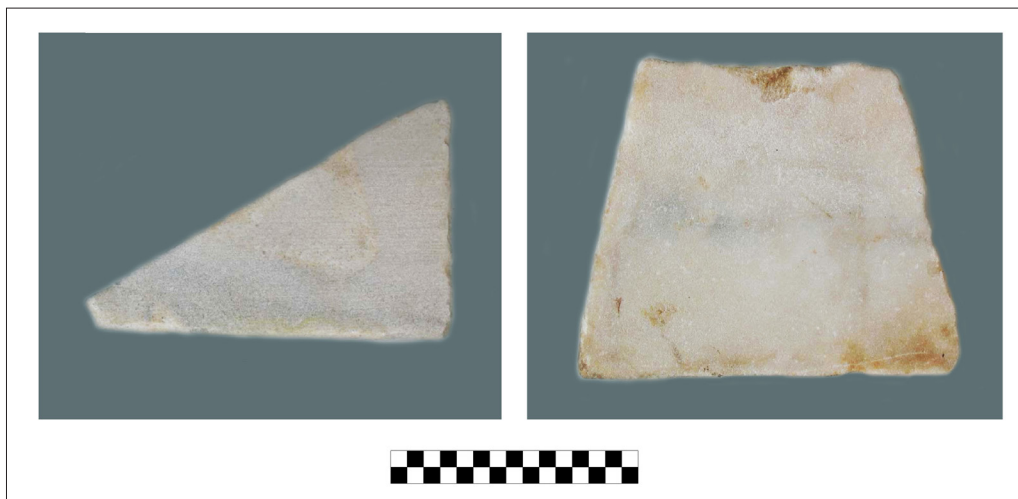


Fig. 24.
Slabs of different
geometrical shapes
(white marble and
pavonazzetto)
(photo: Z. Sunko)



Fig. 25.
Slabs of different
geometrical shapes
(*porfido verde*, *cipollino*,
granito violetto,
granito del foro)
(photo: Z. Sunko)

technique (nowadays covered with a contemporary pavement). The rest of the Roman marble material was found generally outside of the original architectural context. The reasons for this are: numerous reconstructions, adaptations and demolition of the original Roman edifices throughout the 1,700 years of continuous life within the Palace. There are more than 1,600 mainly small-sized fragments which are mostly in poor state of preservation. A large number of slabs (of which relatively few have a geometric shape), wall cornices, moulded slabs and fillets have been recorded by analysing the material. By looking at the slab fragments, it has been concluded that it is very difficult to determine which slabs covered the floors, and which the walls. Their thicknesses range from 0.4 to 5 cm; therefore, we can distinguish thin (0.4-1.7 cm) and thick (2-5 cm) slabs. Thin slabs most likely decorated the walls, and thick were most likely placed on

the floor, however exceptions exist. A very large number of thick slabs are made of *alabastro*, *porfido rosso* and *granito del foro*. The revetment fragments show saw cut marks (hard stone was cut mainly with a saw without teeth). The edges of the thick slabs are roughly trimmed by breaking while the edges of the thin slabs are carefully cut. An interesting fact is that certain slabs are not of uniform thickness, i.e. the thickness changes from one end of the slab to the other, which is a sign of sawing imprecision. The slabs have various shapes: triangle, square, trapezoid, rhombus, and deltoid. Only one fragment of a more complex form (in the shape of a double-bitted axe) was found. In the material studied, on the basis of the stone processing method, fragments of moulded cornices, moulded slabs and fillets found in the area of the *triclinium* stand out. Unfortunately, it is still not possible to reconstruct geometric patterns of the marble revetments



Figure 26. A fragment in shape of a single-bitted axe (*biggio antico*) (photo: Z. Sunko)



Fig. 27. Teardrop shaped fragment (white marble) (photo: Z. Sunko)

in Diocletian's Palace based on the analysis of the material discovered. The only known pattern is the well-preserved original *opus sectile* pavement of the Mausoleum floor. However, despite the poor state of preservation of marble revetments, the variety of materials (marble) and the quality of stone carving of the individual elements clearly demonstrate the extraordinary splendour of the interior of Diocletian's Palace.

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BIBLIOGRAPHY

- BALMELLE C. *et al.* 1985: Le décor géométrique de la mosaïque romane. Répertoire graphique et descriptif des compositions linéaires et isotropes, Paris.
- BORGHINI G. (ed.) 2004: Marmi antichi, Roma.
- BULIĆ F. 1908: "Aggiunta di alcuni oggetti antichi trovati nelle indagini di Palazzo di Diocleziano", in *Bullettino d'Archeologia e Storia Dalmata* XXXI, Split, 188-189.
- BULIĆ F., KARAMAN LJ. 1927: Palača cara Dioklecijana u Splitu, Zagreb.
- DELONGA V., BONAČIĆ MANDINI M. 2005: 17 u 8, arheološka istraživanja u jugoistočnom dijelu Dioklecijanove palače 1992. godine, Split.
- DELONGA V. 2008: Split-Riva (južno pročelje Dioklecijanove palače), *HAG* 4/2007, 513-517.
- DELONGA V. 2014: Prije sjećanja: arheološka istraživanja u jugoistočnim dijelima Dioklecijanove palače u Splitu 1992. godine 1-2 dio., Split.
- GIACCHERO M. (ed.) 1974: "Edictum Diocletiani et Collegarum de pretiis rerum venalium", Genova.
- FISKOVIĆ C. 1958: "Novi nalazi u splitskoj katedrali", in *Bulletin Instituta za likovne umjetnosti JAZU* 6, Zagreb, 81-101.
- FISKOVIĆ C. 2005: Dioklecijanova palača: prilog proučavanju i zaštiti, Split.
- HAUSER A. 1890: "Die Restaurierungs-Arbeiten im Dome zu Spalato", *Mitteilungen der K. K. Central-Commission* 1890, Wien.
- HÉBRARD E., ZEILLER J. 1912: Spalato. Le palais de Dioclétien, Paris.
- IVANIŠEVIĆ M. 1987: "Stari oltar svetoga Staša u splitskoj prvostolnoj crkvi", *Starohrvatska prosvjeta* III. ser. 17, Split, 131-143.
- KESSENER P. 2010: Stone Sawing Machines of Roman and Early Byzantine Times in the Anatolian Mediterranean, *Adalya* 13, Turkey, 283-285.
- MARASOVIĆ J., MARASOVIĆ T. 1965: "Pregled radova Urbanističkog biroa na istraživanju, zaštiti i uređenju Dioklecijanove palače od 1955 do 1965", *URBS* 4/1961-1962, Split, 23-54.
- MARASOVIĆ J., MARASOVIĆ T., MCNALLY S., WILKES J. 1972: Diocletian's palace - Report on Joint Excavations in Southeast Quarter, Part One, Split.
- MCNALLY S., MARASOVIĆ J., MARASOVIĆ T. 1977: Diocletian's palace - Report on Joint Excavations, Part Two, Split.
- MARASOVIĆ J., BUBLE S., MARASOVIĆ K., PEROJEVIĆ S. 2000: "Prostorni razvoj jugoistočnog dijela Dioklecijanove palače u Splitu", *Prostor* vol. 8, 3(20), Zagreb, 175-238.
- MARASOVIĆ K. 2009: "La mensa antica dal palazzo di Diocleziano a Spalato", *Histria Antiqua* 18-1/2009, Pula, 481-486.
- MARASOVIĆ K., MATETIĆ POLJAK D. 2010: "Upotreba dekorativnog kamena u Dioklecijanovoj palači u Splitu", *Histria Antiqua* 19/2010, Pula, 89-100.
- MARASOVIĆ K., MATETIĆ POLJAK D., GOBIĆ BRAVAR Đ. 2015: "Coloured marbles of Diocletian's Palace in Split in Interdisciplinary Studies on Ancient Stone", *ASMOSIA X*, Rome, 1003-1019.
- MATULIĆ B. 2004: "Mozaički nalazi u perimetru Dioklecijanove palače", *Kulturna Baština* 32, Split, 227-246.
- MIRNIK I. 1977: "On some Architectural Fragments from Diocletian's Palace at Split", *Archeologia Jugoslavica* XVIII, 45-56.
- MIRNIK I. 1980: "Obloga zidova Dioklecijanove palače", *Vijesti muzealaca i konzervatora Hrvatske* god XXIX, br.1 Zagreb, 8-13.
- MIRNIK I. 1989: "Roman architectural fragments, Diocletian's palace", *American-Yugoslav joint excavations, Volume Six, Minneapolis*, 5-56.
- NIEMANN G. 1910: *Der Palast Diokletians in Spalato, Wien*.
- RISMONDO 2005: "Unutrašnja dekoracija istočnih termi Dioklecijanove palače u Splitu", *Arheološka istraživanja* 2002. godine. *Vjesnik za arheologiju i povijest dalmatinsku*, vol. 1 No. 98, Split, 151-158.
- STRATIMIROVIĆ D. 1890: "Pločnik stolne crkve Spljetske", *Bullettino di archeologia e storia dalmata* 13, Split, 121-122.
- SUNKO KATAVIĆ A. 2014: Antički kameni spomenici, u: *Prije sjećanja* 1. Dio, Split, 237-245.
- WARD PERKINS J. B. 1992: *Marble in Antiquity, Collected papers of J.B. Ward Perkins, edited by J. B. Ward-Perkins and H. Dodge, Rome*.