

Ancient Marbles from the Villa in Verige Bay, Brijuni Island, Croatia

Pavletić, Mira; Gobić-Bravar, Đeni

Source / Izvornik: **ASMOSIA XI, Interdisciplinary Studies on Ancient Stone, Proceedings of the XI International Conference of ASMOSIA, 2018, 879 - 886**

Conference paper / Rad u zborniku

Publication status / Verzija rada: **Published version / Objavljena verzija rada (izdavačev PDF)**

<https://doi.org/10.31534/XI.asmosia.2015/08.07>

Permanent link / Trajna poveznica: <https://um.nsk.hr/um:nbn:hr:123:866438>

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Download date / Datum preuzimanja: **2024-11-23**



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ASMOSIA XI

Interdisciplinary Studies on Ancient Stone

PROCEEDINGS

of the XI ASMOSIA Conference, Split 2015

Edited by Daniela Matetić Poljak and Katja Marasović



Interdisciplinary Studies on Ancient Stone
Proceedings of the XI ASMOSIA Conference (Split 2015)

Publishers:

ARTS ACADEMY IN SPLIT
UNIVERSITY OF SPLIT

and

UNIVERSITY OF SPLIT
FACULTY OF CIVIL ENGINEERING,
ARCHITECTURE AND GEODESY

Technical editor:
Kate Bošković

English language editor:
Graham McMaster

Computer pre-press:
Nikola Križanac

Cover design:
Mladen Čulić

Cover page:

Sigma shaped mensa of pavonazzetto marble from Diocletian's palace in Split

ISBN 978-953-6617-49-4 (Arts Academy in Split)

ISBN 978-953-6116-75-1 (Faculty of Civil Engineering, Architecture and Geodesy)

e-ISBN 978-953-6617-51-7 (Arts Academy in Split)

e-ISBN 978-953-6116-79-9 (Faculty of Civil Engineering, Architecture and Geodesy)

CIP available at the digital catalogue of the University Library in Split, no 170529005

Association for the Study of Marble & Other Stones in Antiquity

ASMOSIA XI

Interdisciplinary Studies of Ancient Stone

Proceedings of the Eleventh International Conference of ASMOSIA,
Split, 18–22 May 2015

Edited by
Daniela Matetić Poljak
Katja Marasović



Split, 2018

Nota bene

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ANCIENT MARBLES FROM THE VILLA IN VERIGE BAY, BRIJUNI ISLAND, CROATIA

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Abstract

During many years of research of the luxurious Roman villa in Verige Bay on Veli Brijuni, Austrian conservator Anton Gnirs found the fragments of floor and wall coverings and decorations made of marble. While in the early report he indicated only the colours, in the last report he accurately determined the type of marbles. The objective of this study is to identify the remainings of marbles and complement them by materials found in the bay at the end of the last century. By determining the types of marble which decorated different buildings in the bay, we will get a complemented picture of the brilliance of this Roman villa as another confirmation of its luxurious equipment and find out with which quarry sites of the Mediterranean basin the small port in the Verige Bay was connected.

Keywords

roman villa, use of coloured marble, Anton Gnirs, historical research on marble, Brijuni island - Croatia

About the villa complex

The Roman villa in Verige Bay on the eastern coast of Veliki Brijun is the largest ancient residential complex in Istria. It consisted of several buildings for different purposes located at various positions along the bay (Fig. 1). This included: a residential-production building located on three terraces, a temple area, diaeta, palestra, thermae, a fish pond and another work area. All buildings were connected into one whole, with a system of open and closed walkways (porticos and cryptoporticus) that extended the length of one kilometre along the bay. The construction of the villa started in the 1st century BC, and some parts were still in use until the 6th century. Austrian historian, archaeologist and conservator Anton Gnirs (1873-1933) excavated the site between 1903 and 1914. During those years there were still plenty of marble decorations in the

villa¹. At that time some of the objects were already being exhibited in a small museum on the island² where they are still today, while part of the findings have been stored at the Archaeological Museum of Istria in Pula.³ The villa was also richly decorated with mosaics, fresco paintings and stucco decorations.⁴

The villa consisted of several buildings for various purposes situated at carefully selected locations along the bay. The luxurious residential-cum-production villa, with its structures descending towards the sea shore, dominated the bay.⁵ It was architecturally designed around two peristyles at the highest point of the villa. The sea-facing front of both the production and residential architectural units was unified by a porch over 100 meters in length at the level of the lowest terrace. At the inner most point of the bay stood the temple area. This consisted of the temple of Neptune on the south, the temple of Venus on the north and probably the temple of the Capitoline Triad between them. Next to the temple area, following the sea shore, were the rooms for priests, dieta, palestra, a spa, a fish pond and another production area situated on the northern side of the bay. All the buildings were connected by an interesting system of open and closed paths that extended for a kilometre along the sea front, thus forming an architectural complex in perfect harmony with the landscape. The whole complex had a built coastline made of large stone blocks which presently stands about 1 meter below sea level.⁶ The access to the port was regulated with

1 GNIRS 1904, 131-146; GNIRS 1907, 43-58; GNIRS 1908, 167-186; GNIRS 1915, 99-163; GNIRS 1930, 177-190.

2 GNIRS 1930, 178, n. 6.

3 GIRARDI-JURKIĆ, DŽIN 2001, 33.

4 See note 2; GNIRS 1902, 44-48; GNIRS 1906, 29-48; GNIRS 1908a, 124-143.

5 JURIŠIĆ, ORLIĆ 1987, 99; JURIŠIĆ 1991, 28.

6 GNIRS 1915, 99-163; BEGOVIĆ-DVORŽAK 1990, 97-110; BEGOVIĆ-DVORŽAK 1993, 25-45; BEGOVIĆ-DVORŽAK 1995, 47-54; BEGOVIĆ-DVORŽAK 1997, 85-96; DE FRANCESCHINI 1998, 618-676.

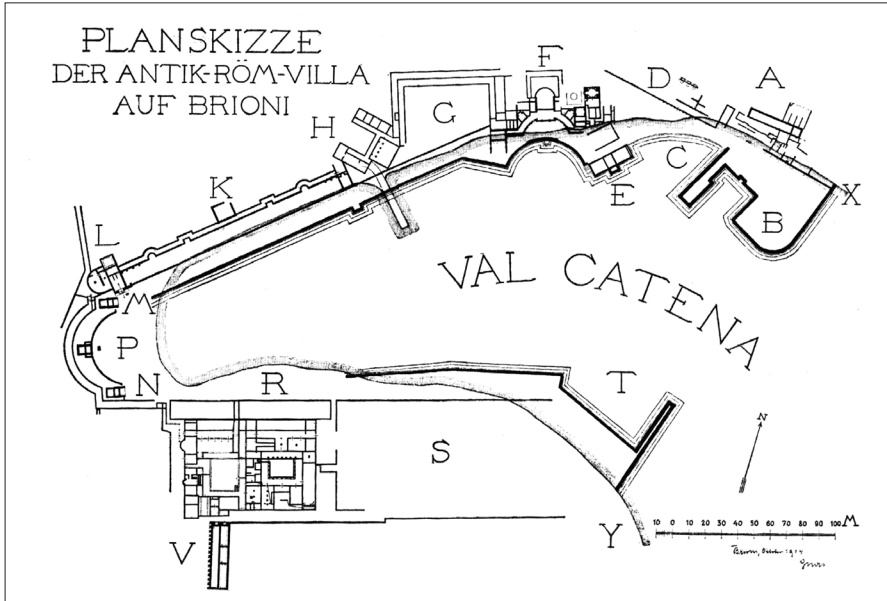


Fig. 1.
Plan of the Verige bay complex



Fig. 2.
Aerial view of the three-terrace villa and the temple area

a big chain that stretched between the two opposite shorelines, after which the bay itself was named (a chain is called *verige* in Croatian).

Marble decorations were found in almost every part of the complex: the residential part of the villa, the temple area, the portico, the *thermae* and in the rooms for the priests. Marble was used for floor pavement and wall decoration. However, the data collected during the excavation couldn't show how richly the villa was furnished because most of the marble disappeared into the lime kiln located in the bay. Through the examination of the remains of the lime kilns, Gnirs was able to prove the existence of the remains of destroyed sculptures that

were made of the finest types of marble⁷. He found these fragments within the waste of the Byzantine and the early Venetian lime kiln. According to the stratigraphy of the ash mound, which was swept away during the time of his research, Gnirs concluded "that during the Middle Ages, the material that was first thrown into the limekiln was the valuable and easily accessible marble sculptures and architectural fragments"⁸.

Therefore, the preserved parts of marble revetment and marble decoration from the villa are even more precious. We must also take into account that, until 1915,

7 GNIRS 1930, 179-180, n. 7.

8 *op. cit.*



Fig. 3.
Pilaster made
of white marble,
from room XIII

when “giallo africano” and “pavonazzetto” were mentioned for the first time as types of marble found in the *thermae*, the descriptions of the marble material that Gnirs left us were limited to its colour and sometimes dimensions.

The three-terraced villa

Inside the complex of the three-terraced villa (Fig. 2) there were residential rooms for the owner and his guests and all the auxiliary spaces such as: summer and winter dining rooms, a hall with two rows of columns, *balneum*, a kitchen, rooms for the servants, spaces for slaves, spaces for olive oil production and storage rooms. Some of the reception spaces of the villa were paved with mosaic floors, with tiles made of marble, imported coloured limestone and local white limestone. Gnirs described the mosaic floor in room XVII as made of “black and white marble tiles of 1 cm in size.” This mosaic was divided into rectangular fields with a side length from 23 to 25 cm. In the centre of the mosaic there were polychrome scenes of fruits and flowers.⁹ Another mosaic, the one in room XIII, was made of marble tiles forming a meander and

geometric ribbon ornaments and in the middle of it there was an *emblema vermiculatum*.¹⁰ In this room, a marble architectural fragment was also found; a pilaster of white marble, measuring 10.5x6.2x30.8 cm (Fig. 3), with two sides decorated with stylized floral elements.¹¹

Other floors were made in the *opus sectile* technique. Gnirs described the floor of the *balneum*, E, as made of “black and white floor marble slabs (side length 30 cm)” (Fig. 4).¹² And the floor of room H, the so called ‘room with two rows of columns’ was “paved with large slabs of coloured marble”. The remains of some of the marble were found in the waste, such as: a square plate (side length 22 cm) made of white marble and red veined marble (Fig. 4). According to the description made by Gnirs it is possible to assume that the floors were paved in a simple, rectangular module as described by Guidobaldi (the Q module with two interchanging colours).¹³ A very similar floor was found at the Roman villa of Cazzanello¹⁴ and at the Villa dei Misteri in Pompei. There was also a find of a small white plate with a side length of 9 cm.¹⁵ And in room XIV there were “floor slabs of black and white marble” as well as “large basalt pieces”.¹⁶

The temple area

At the innermost point of the bay there was the temple area, which consisted of three temples of the tetrastylus prostylos type, of small dimensions (20x40 Roman feet according to Vitruvius).¹⁷ The three temples were surrounded from their rear side with a semicircular porch. According to the discovered sculptural remains, the southern temple was dedicated to the god of the sea Neptune, and the northern to the goddess of love and beauty Venus, who was considered the mother of the emperors from the Julius family. The central temple, set back further from the other two temples, was probably dedicated to the Capitolian triad.

Within the temple area Gnirs found fragments of small marble columns, which today cannot be located. Near the temple of Venus he found two fragments of a column with an elliptical cross-section. The column was made of white marble, decorated with laurel leaves that

10 GNIRS 1915, 104, fig. 39.

11 GNIRS 1915, 105, fig. 40.

12 GNIRS 1915, 120.

13 GUIDOBALDI 1993, 171-251.

14 AOYAGI 2005, 339-352; AOYAGI 2003, 187-244.

15 GNIRS 1906, 37.

16 GNIRS 1915, 106-107.

17 GNIRS 1904, 136-137; GNIRS 1906, 25-28; GNIRS 1908, 167-172.

9 GNIRS 1915, 109-110, fig. 43.



Fig. 4.
Black limestone
slab, and breccia
corallina slab



Fig. 5.
Part of an arm,
parts of curls and a
small *aedicula* with
holes for mounting.
White marble

overlap like scales, with a triangular space between the leaves filled with three berries on one of the fragments. He also found a twisted marble pillar with an elliptical cross-section, which was decorated with leaves on its much damaged lower part.¹⁸

The most significant fragments of marble sculptures that Gnirs found (Fig. 5) were located in the area of the temples in Verige Bay. These were small fragments, such as the thumb of a female hand, folds of clothes and curls of hair (Fig. 5). However the most important object discovered was part of a *hydria* (Fig. 6), a vessel with three handles for the transportation of water. It was found in 1907.¹⁹ It was richly decorated with palmettes and antithetically placed flying swans made of white fine-grained marble. These finds helped him to recognize a Roman copy of the famous Praxiteles statue of Aphrodite from the island of Cnidus.²⁰



Fig. 6. Hydria, part of a sculpture, in white marble, from the temple area

18 GNIRS 1906, 39.

19 GNIRS 1907, 50; GNIRS 1930, 178-181, fig. 82, 84; BEGOVIĆ-DVORŽAK 1993, 28-29, fig 2.

20 GNIRS 1930, 180.



Fig. 7.
Fragments of giallo antico, probably wall and/or floor decoration



Fig. 8.
Thick and thin fragments of pavonazzetto marble

In the nearby so called “Priest’s apartments” Gnirs noted “numerous marble slabs of different types and colours indicate that the walls had incrustations.”²¹

Close by was a portico (150 m long by 10 m wide) with semi-circular and rectangular niches that were once decorated with sculptures. It is here that the marble fragments of a head probably belong.²² Today only the positions of their pedestals, once coated with marble slabs, are visible.²³

The thermal area

A full range of porticos and cryptoporticus allowed for a pleasant walk, sheltered from the elements, from the villa located on the terraces on the south side of the bay to the buildings located on the northern coast, which included the baths, or *thermae*. The baths consisted of a series of functionally arranged rooms. Along with the *apoditerium*, or the dressing room, there was the *frigidarium*, *tepidarium*, *caldarium*, and the *laconicum*. The bath

complex was adorned with a monumental façade that rose above the semicircular beach area.²⁴ The *thermae* were also richly decorated with mosaics, fresco paintings, stucco decorations and marble slabs.

In hall G Gnirs states: “a large amount of fragments of thin plates of precious kinds of marble were found in this room. These include yellow *giallo africano* (Fig. 7) with bright veins and the colourful *pavonazzetto* (Fig. 8), as well as white marble profiles that originate from incrustrated parts of the hall.”²⁵

The fragments of giallo antico (Fig. 7) are the thinnest of the marble fragments found. It is thus possible that they formed part of the wall revetment, even with elaborated designs.

The description of the *caldarium* MN is: “Finds of marble fragments that coated the bathtub, while the opening for the heating was coated with large basalt blocks. A mosaic was composed of small marble tiles (dim. 1 cm) with a motif of a black meander on a white background.”²⁶

21 GNIRS 1904, 141.

22 GNIRS 1904, 139.

23 GNIRS 1908, 172-173.

24 GNIRS 1915, 131-145.

25 GNIRS 1915, 142.

26 GNIRS 1915, 139.



Fig. 9.
Cube made of cipollino verde



Fig. 10.
Molded block
and plinth in fine
grained white
marble



Fig. 11.
Small column of
africano marble;
a twin is stored at
the Archaeological
Museum of Istria
in Pula



Fig. 12.
Two parts of a thick hexagonal floor slab



Fig. 13. Floor slabs of rosso antico marble

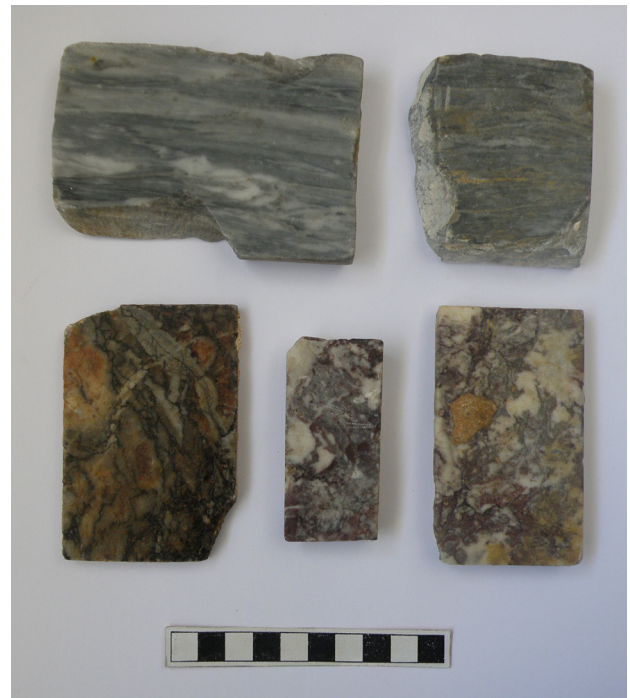


Fig. 14. Rectangular marble slabs, probably floor slabs

In the villa complex there are two *balnea*, but the existence of a separate thermal complex is rare in the villas of the X Regio²⁷, and this further confirms the luxurious fitting out of the villa.

Other marbles found in the complex

All the mentioned marbles from the villa were identified in the different parts of the complex with the help of Gnirs' notes. However, in the stores of the museum in Brijuni National Park there are many other marble fragments coming from Verige Bay. It has not been possible to determine where these marbles were used in the villa. The different types of marble that could be identified are: cipollino verde, giallo antico, bardiglio marble, Africano, breccia corallina, Proconnesian marble, rosso antico, breccia di settebasi, marmo portasanta, pavonazzetto marble, rosso di Verona marble and white, fine grained marbles²⁸.

Today the decorative marbles that remain of the villa complex are smaller architectural decorations like a cube (maybe a base) of cipollino verde (Fig. 9), a moulded block of white marble and moulded cornices (Fig. 10). A small column of Africano marble (Fig. 11) is a very nice example of the richness of the decorations. Two fragments of Proconnesian marble (Fig. 12) which were originally of hexagonal shape, with the side length



Fig. 15. Thin slabs of elaborate design, marmo africano

of 10 cm. These are *opus sectile* tiles, probably part of a small module with hexagonal tiles.²⁹ There are other remains that point to the existence of *opus sectile* and wall revetment decorations. Some marble slabs due to their thickness (of up to 6.7 cm) (Fig. 8) were probably used as floor slabs (Figs. 13, 14). Others just 0.5 cm thick (Fig. 15) were more probably used as wall revetment. Just a small number of slabs remain, and their shapes indicate elaborate designs made of marble.

27 DE FRANCESCHINI 1998, 675.

28 LAZZARINI 2004, 74-100; PENSABENE 1998.

29 GUIDOBALDI 1993, 171-251.

Although the amount of coloured marble fragments found at the Verige Bay villa is not large, it must be noted that some of the most important types of coloured marble have been recognized. The spoliation of ancient marbles is a well known act, for the production of lime as well as for reutilisation in other buildings. It is thus concluded that the amount of marble at the villa was surely important at the time of the flourishing of the site. So the results of this re-elaboration of the Gnirs findings provide new information on the circulation of marbles and in particular of coloured marbles in the north Adriatic region.

LIST OF ABBREVIATIONS

APreg – Arheološki pregled, Beograd, Ljubljana
Izdanja HAD-a – Izdanja Hrvatskog arheološkog društva, Zagreb
JAK – Jahrbuch für Altertumskunde, Wien
JÖAI – Jahreshefte des Österreichischen Archäologischen Instituts, Wien
MZK – Mitteilungen der K.K. Zentralkommission für Denkmalpflege, Wien
Obavijesti HAD-a - Obavijesti Hrvatskog arheološkog društva, Zagreb
VAMZ – Vjesnik Arheološkog muzeja u Zagrebu, Zagreb

BIBLIOGRAPHY

- AOYAGI M., ANGELELLI C., IMAI FUJISAWA S. 2003: "Lo scavo della villa romana in loc. Cazanello, presso Tarquinia. Nota preliminare", *Rendiconti della Pontificia academia romana di archeologia*, vol LXXV, 187-244.
- AOYAGI M., ANGELELLI C. 2005: "Sectilia pavimenta e mosaici dalla villa romana di Cazzanello (Tarquinia, VT)", in *Actes de IX Colloque de l'Association Internationale pour l'Étude de la Mosaïque Antique (AIEMA)*, Roma, 339-352.
- BEGOVIĆ-DVORŽAK V. 1990: "Antička vila u uvali Verige na Brijunima (Roman Villa in Verige Bay, Brijuni Islands)", *VAMZ* 23, 97-110.
- BEGOVIĆ-DVORŽAK V. 1993: "Rezidencijalni kompleks u uvali Verige na Brijunima – Hramovi", *VAMZ* 26-27, 25-45.
- BEGOVIĆ-DVORŽAK V. 1995: "Rezidencijalni kompleks u uvali Verige na Brijunima: primjer ekstrovertirane maritimne vile harmonično uklopljene u krajolik", *Histria antiqua* 1, 47-54.
- BEGOVIĆ-DVORŽAK V. 1997: "Utvrđivanje cjelovitog areala ranocarorskog rezidencijalnog kompleksa u Uvali Verige na Brijunima", *Izdanja HAD-a* 18, 85-96.
- DE FRANCESCHINI M. 1998: "Un esempio della villa marittima", in *Le ville romane della X.regio, (Venetie et Histria), Catalogo e carta archeologica dell'insediamento romano nel territorio, dell'età repubblicana al tardo impero*, Roma, 618-676.
- GIRARDI-JURKIĆ V., DŽIN K. 2001: *Voda kao izvor života antičke Pule (Water as a Source of Life in Ancient Pula)*, izložba/Exhibition, Katalog 61, Arheološki muzej Istre, Pula, 1-40.
- GNIRS A. 1902: "Bauliche Überreste aus den römischen Ansiedlung von Val Catena auf Brioni grande", *MZK* 28, 44-48.
- GNIRS A. 1904: "Antike Funde aus Pola und Umgebung, I. Vorläufiger Bericht über die Ausgrabungen in Val Catena auf Brioni grande", *JÖAI* 7, 131-146.
- GNIRS A. 1906: "Forschungen im südlichen Istrien, I. Ausgrabungen in Val Catena auf Brioni grande", *JÖAI* 9, 29-48.
- GNIRS A. 1907: "Forschungen in Istrien, I. Grabungen in Val Catena auf Brioni grande", *JÖAI* 10, 43-58.
- GNIRS A. 1908: "Forschungen im südlichen Istrien: I. Grabungen in Val Catena auf Brioni grande, II", *JÖAI* 11, 167-186.
- GNIRS A. 1908a: "Istrische Beispiele für Formen der antik-römischen villa rustica", *JAK* 2, 124-143.
- GNIRS A. 1915: "Forschungen über antiken villenbau in Südistrien, I. Die Grabung in der antiken Villenanlage von Val Catena", *JÖAI* 18, 99-163.
- GNIRS A. 1930: "Paralipomena aus Istrien und Aquileia", *JÖAI* 26, 177-190.
- GUIDOBALDI F. 1993: "Pavimenti in opus sectile di Roma e dell'area romana: proposte per una classificazione e criteri di datazione" in *Marmi antichi, problemi d'impiego, di restauro e d'identificazione*, Roma, 177-251.
- JURIŠIĆ M. 1991: "Istraživanja podmorskih arheoloških lokaliteta u Hrvatskoj tijekom 1990. godine", *Obavijesti HAD-a* 23/1, 26-28.
- JURIŠIĆ M., ORLIĆ M. 1987: "Brijuni, Uvala Verige; Antička luka (Roman Harbour)", *APreg* 28, 98-99.
- LAZZARINI L. 2004: *Pietre e marmi antichi*, Padova, 2004, 74-100.
- PENSABENE P. (ed.) 1998: *Marmi antichi II*, Roma, 1998.
- PENSABENE P., BRUNO M. 1998: *Il marmo e il colore*, Roma, 1998.