uncovered in the courtyard of the temple of Iuppiter. They are held, at present, mostly in the Museum of Srem and partly (16 altars) at various institutions and office buildings across Sremska Mitrovica. In all, there were 80 votive altars uncovered at the temple, of which 79 bore inscriptions of beneficiarii and formed the subject of the publication of M. Mirković. A single altar fragment remained unpublished, which we were not able to identify in our survey of the museum. Upon discovery, a small portion of the votive altars stood on their respective plinths in the form of stone blocks, while most were displaced and piled up one upon another as in a storeroom. This unusual fact has not yet been explained by the excavators. The altar plinths, 50 in number, are nowadays located in the park beside Sirmium’s southern defence walls that

STONE USE IN ROMAN TOWNS. RESOURCES, TRANSPORT, PRODUCTS AND CLIENTS. CASE STUDY SIRMUIM. SECOND REPORT

Abstract. – The project work in the 2007 season included the analysis of stone monuments held at the Museum of Srem and across the town of Sremska Mitrovica as well as at Site 1a - Imperial palace. Particular attention was paid to two closed groups: the monolithic altars from the temple of Iuppiter within the statio beneficiarii, made between ca AD100 and 231, and the remains of the temple known as the »Tetrapylon«, consisting of blocks of limestone. The results of the analysis show a parallel and quantitatively comparable use of limestone of Lithotypes I and II for altars dating from ca AD100 to ca 185 as well as a predominance of Lithotype II in later times. The analysis of the limestone blocks used in the construction of the »Tetrapylon«, on the other hand, has shown the material to originate from the Dardagani quarry and revealed an as yet unknown lithotype from the area.

Keywords. – Sirmium, statio beneficiarii, Tetrapylon, limestone characterisation, monolithic altars, building material.

following the results of the research in 2006 (Djurić et al., 2006; Rižnar, Jovanović, 2006), the project continued this year with the attention turned primarily to the use of limestone in Sirmium. For this reason, we chose for our analyses two homogeneous product groups that are also chronologically well determined – the first one is an extensive series of monolithic altars with their plinths, uncovered at the temple of Iuppiter within the statio beneficiarii (Site 70), while the second is the remains of the walls, constructed of large blocks, of the temple within the Imperial Palace (Site 1a), known as the »Tetrapylon«. The analyses were aimed at verifying the correctness of our findings thus far concerning the limestone used at Sirmium and, also, at obtaining a better insight into the use of different limestone types for various purposes in various periods.

Statio beneficiarii and the temple of Iuppiter (Site 70)
The statio situated near Sirmium’s western defence wall was uncovered and researched in 1988,1 but has not yet witnessed a comprehensive publication. Recently, M. Jeremić again drew attention to the statio as he presented Roman sanctuaries of Sirmium.2 Published in their entirety were only the altars uncovered in the courtyard of the temple of Iuppiter. They are held, at present, mostly in the Museum of Srem and partly (16 altars) at various institutions and office buildings across Sremska Mitrovica. In all, there were 80 votive altars uncovered at the temple, of which 79 bore inscriptions of beneficiarii and formed the subject of the publication of M. Mirković. A single altar fragment remained unpublished, which we were not able to identify in our survey of the museum.

Upon discovery, a small portion of the votive altars stood on their respective plinths in the form of stone blocks, while most were »displaced and piled up one upon another as in a storeroom«. This unusual fact has not yet been explained by the excavators. The altar plinths, 50 in number, are nowadays located in the park beside Sirmium’s southern defence walls that
incorporate one of the towers, south of Hotel Sirmium (Fig. 1).

Due to the excellent opportunity to gain insight into the material of an extensive series of products from a closed and excellently dated unit, we included into our work of stone characterisation of the monuments in the Museum of Srem also all the altars held at the museum that had not been previously analysed as well as all the altars scattered across town (see catalogue). In addition to this, we analysed also all the preserved altar plinths.

The altars, which M. Mirković was able to date precisely according to consuls (23 altars) were made between AD157 and 231. Based on a typological and epigraphic analysis, the above-mentioned author was able to tie to these most other altars and date four of them, primarily in connection to the altar of L. Cassius Praesens, into the time from the rule of Trajan up to AD157. In our own analysis, we followed the starting points and results of M. Mirković, altering only the definitions of stone of which the altars were made in accordance with the results of our analysis.

The stone analysis included all 79 identified altars, of which Table 1 presents the results of the 60 chronologically and typologically determinable altars. The analysis revealed that almost all altars were made of the Neogene limestone already established for Sirmium, mostly of its Lithotypes I in II (variant IIa predominates), while only two altars were made of Lithotype III. The ratio between Lt I and Lt II (a and b) is 1:1.6 (28:46). The ratio between Lt Iia and Iib is 1:3.2 (11:35) in favour of the former.

The macroscopic analysis of the material of the 50 plinths has shown similar results. Of these, 45 were made of Neogene limestone, one of Cretaceous rudist limestone and four of grey-green sandstone with mica. The latter appears in large pieces here for the first time. The Neogene limestone includes only Lt I and II (a and b) in the ratio of 1:2 (15:30). The

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6 Mirković 1994a.
7 The Neogene limestone was used to make 76 altars (28 of Lt I, 46 of Lt II and 2 of Lt III), one was made of rudist limestone (Mirković 1994b, no. 61) and two of marble (Mirković 1994b, nos. 5, 65).
8 Mirković 1994b, nos. 57, 73.
9 For lithotype definition see Rižnar, Jovanović 2006.
10 It can probably be tied to altar no. 61 made of the same material.
There are further 19 monolithic altars or their fragments held at the Museum of Srem, among which only two (SRM 56, 141) can be determined chronologically and typologically. Two altars (SRM 54, 57) are determinable chronologically and five (SRM 53, 59, 63, 144, 145) typologically. As to their material, two altars or their fragments (SRM 394, 571) were made of rudist, all other of Neogene limestone. The Neogene limestone includes only Lt I and II (a in b) in the ratio of 1: 1.8 (6:11). The ratio between Lt IIa and IIb is 1: 1.75 (4:7) in favour of the former.

**Discussion**

On the basis of the 60 chronologically and typologically determinable altars from the temple of Jupiter we may conclude that Neogene limestone of Lithotypes I and II was being used to make altars contemporaneously and that the use of Lithotype III for altar production is negligible at least until the third decade of the 3rd century. We can also observe a slight predominance in the use of Lt I for earlier altars in the period between AD100 ad 185 (Lt I – 11 altars against Lt II – 10 altars), particularly for the altars with capitals with pulvini (13:10). We can also observe a complete predominance of the use of Lt II in the following period, between AD185 and 231, for all other forms, which were produced partly contemporaneously, and particularly the later forms that quantitatively predominate over the altars with pulvini (40:20) and reach temporally to the end of the altar production for the needs of the beneficiarii, that is to and including AD231. Furthermore, two specific forms of altars (forms 4 and 5) were produced exclusively of the predominant Lt II.

Concerning the basic forms of the altars and their otherwise modest decoration we may observe that there are no substantial differences among the altars made of limestone Lt I and those of Lt II. Based on the group of altars with pulvini and plant decoration made of Lt I, on the one hand, and the group of altars of the same form with the decoration of eagles and stylistically stiff plant decoration made of Lt II, on the other, we might conditionally suppose the existence of two different stone-cutting workshops that were...
using various materials. The similarities in detail with the contemporary altars with shallow acroteria made of both lithotypes, however, lead us to conclude that the hypothesis of two workshops cannot be advocated convincingly. We might sooner suppose that it is the stone-cutting quality of the material that brings about the predominance of the Lt II limestone in altar production and that we are dealing with one or more local workshops that used material available to it/them.

A cursory comparison of the capital and base mouldings on the altars also indicates their similarity regardless of the material of which they were made, which would indicate their finalisation in the same workshops, that is if we suppose that semi-products were coming from the quarries to the workshops. Altar no. 16\(^{15}\) (Fig. 2), made of Lt I, which is considered to be semi-product, would go to confirm such a two-phase production.

Certain specific details of the altar decoration also indicate that these are products of local workshops rather than imported objects; the double acroterion, characteristic of the Sirmium production and seen primarily on the sarcophagi lids from Sirmium made of Lt III\(^{16}\) (Fig. 3), can be observed in at least one example also on the altar made of Lt IIb\(^{17}\) (Fig. 4).

The presence of the blocks of Lt II limestone (altar plinth), on the other hand, indicate that large quantities of this material were available at Sirmium. In our first report\(^{18}\), this material was defined as supposedly imported from the wider area of Pannonia. Although the provenance of this limestone Lithotype remains unknown, its presence in Mursa, where it was used to build a bridge across the Drava\(^{19}\), confirms our initial supposition.

The results of the analysis of further 17 monolithic altars of Neogene limestone kept at the Museum of Srem thus in no way alter the findings obtained on the basis of the analysis of the altars from the temple of Iuppiter. To the contrary, they only serve as confirmation.

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\(^{15}\) Mirković 1994\(\text{b}\), SRM 539.

\(^{16}\) Cermanović Kuzmanović 1965, figs. 12, 25a, 28a, 30a; Dautova Ruševljan, tabs. 26.1, 27.1, 29.1, 32.2.

\(^{17}\) Mirković 1994\(\text{b}\), no. 8; SRM 472.

\(^{18}\) Djurić et al. 2006.

\(^{19}\) Pochmarski, Filipović 1997; the authors would like to thank S. Filipović, curator at the Museum of Slavonia at Osijek, for her kind permission for a more detailed inspection of the unpublished blocks of the bridge construction.
Plate I. Capitals of the chronologically and formally determinable altars from the statio beneficiarii, arranged according to their chronology, capital form and limestone (litho) type.

Табла I: Горњи закључни кронолошки и формално одређених ара из статио beneficiarii, раздробени хронолошки, њо облицима и њо (лийо) Јишовима кречњака.
The votive altars kept in the stone collection of the Museum of Srem include also one, from the temple of Iuppiter (SRM 393), and two other fragments (SRM 393 and 571) made of white to light grey tectonized limestone with large rudists (shells), which may even exceed 15 cm in size. The samples taken from two altars (SRM 393 and 394) have shown that the stone in both cases is heavily tectonized, containing only crystals of calcite with several (at least three) tectonic phases. The structure of the fossils in the samples is recrystallized and a single example of a rudist remained well preserved on the surface of one of the altars (Fig. 5). Deposits of rudist limestone closest to Sirmium can be found on the left bank of the river Drina, in the area of the town of Kozluk and the river of Kozlučka rijeka, approximately 6 km north of the Dardagani quarry, while there are no outcrops of rudist limestone to be found further to the south along the Drina river basin (Mojsilović et al., 1976).

**Site 1a, temple known as the Tetrapylon**

The remains of the architectural unit of square ground-plan (10.60 × 10.60 m) uncovered in the area of the Imperial Palace were recently interpreted as the remains of a temple from the Palace’s first building phase, constructed at the end of the 3rd century at the latest. The unit is preserved in the segments of ca 1.3 m thick walls, built of stone blocks (Fig. 6), above which rose approximately 0.70 m thick walls made of bricks. The interior reveals the remains of four 1.5 × 1.5 m large pedestals, also of stone blocks, which gave the name to the entire unit — Tetrapsylon. The stone walls of the temple were positioned against the inner rim of a 2.5 m wide square foundation ring that provided also a 1.17 m wide ambulatory surface. A column base, made of Lt II limestone, is located on the outer edge of the latter, more precisely at its south-eastern corner. However, neither its appurtenance to the building in question nor its part within the building’s possible peripteral colonnade can as yet be confirmed. Furthermore, a fragment of a column shaft was uncovered at the northern edge of the building, measuring 51 cm in diameter and made of marmor thessalicum (verde antico); this shaft

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25 Lazzarini 2007, 223–244.
Fig. 6 Remains of the »Tetrapylon« within the Imperial Palace (Site 1a), in the summer of 2007

Сл. 6 Осъществиха »Тетрапилон« унутар империалната вилата (Site 1a) у лето 2007 године

Fig. 7 Walls of the »Tetrapylon« built of limestone blocks

Сл. 7 Блокови кръгове у базата зидови »Тетрапилон«
possibly represents one of the four columns of the interior.

The lower walls and the pedestals were made of a considerable number of up to 0.2 m³ large blocks of Neogene limestone laid in two horizontal rows (Fig. 7). The building was undoubtedly made in a single campaign and within a short space of time, which allows for the supposition that the blocks used in construction came from a single quarry. It is therefore reasonable to assume that these blocks are homogeneous as to their provenance and thereby useful for determining the possible limestone lithotypes from the same source. Furthermore, they enable a verification of the connections with the types of the Neogene limestone established in the analysis of the monuments kept at the Museum of Srem.26

In order to obtain a comprehensive and credible result, we sampled all the preserved blocks. Due to a heavily weathered surface of the building blocks, the latter were sampled with the aid of a core drill. In all, 70 core samples were taken. The macroscopic analysis of the samples pointed to only two variants of the Neogene limestone. The predominant variant is a white to yellowish limestone with lithothamnian algae (1), while the variant of the yellowish fine-grained limestone with grains of extrusives (2) is considerably less well represented. Of the 66 analysed samples, 48 (73%) belong to the yellowish limestone with lithothamniae and 17 (26%) to the yellowish fine-grained limestone with grains of extrusives; one sample even shows characteristics of both lithotypes.

1- White and yellowish limestone with lithothamnian algae (lithothamnian limestone)

Porous fine-grained detritic limestone with spherical (rounded) to oblong fragments of lithothamnian algae (rodoids), which measure up to 0.5 mm in diameter and up to 10 mm, rarely up to 20 mm, in length, contain also fragments of briozaos and large benthic foraminifers (nummulites), which are often imbricated, and rare fragments of mollusc shells. The imbrication of the foraminifers and the roundedness as well as the concentration of the rodoids points to the fact that the rock is actually a resediment. The limestone has a fine-grained (0.2 to 0.5 mm) white to yellowish detritic matrix. The depositional texture is mud- (grains of the allochems float in the matrix) to grain-supported, where the allochems are more numerous and touch each other. Red algae (lithothamniae) in the rock appear partly as rodoids, which are rounded, well sorted and thus clearly transported, while they partly appear also as the encrusting type, stabilizing the matrix, so that according to Dunham’s classification of carbonates three types of limestone are represented: floatstone, rudstone and bindstone, among which no sharp boundary exists in our case. These types of limestone are composed of the same allochems of comparable sizes and the difference between them is only in the ratio between the matrix and the allochems. They are, in fact, variants of limestone that were formed in environments so close to one another that we may expect all the described types to be present in the same quarry one above the other. Besides the described allochems, the white limestone with lithothamniae often includes also grains of transparent hypidiomorphic crystals of quartz. The grains measure up to 1 mm in size. Also present in the limestone, although rarer, are grains of biotite. It was also observed that the cores of rodoids are mostly yellowish and, in roughly 20 % of the examined samples, completely white.

The above-described limestone variants that belong logically to a single lithotype may very easily be classified into Lithotype I as defined in our research thus far.27 An almost identical type of limestone can be found in the part of the Roman quarry at Dardagani (Sige) near Zvornik.

2- Yellowish fine-grained detritic limestone with grains of extrusives

The second limestone variant is represented by a porous yellowish detritic limestone of the packstone type, which is composed of medium sorted poorly rounded oblong and very thin fragments of lithothamnian algae of the branching type. There is ~20 % of the described fragments in the stone, which measure 0.3 × 1 mm on average. Rodoids measuring up to 5 mm in diameter, represent less than 5 % of the rock mass, such as can be found in the above-described Type 1. Nummulitinae, miliolidae and other benthic foraminifers appear frequently in this limestone. The matrix is micritic, porosity is inter- and intrafossil. Besides the described allochems, the limestone includes also fragments of echinoderms, individual < 1 mm leaves of biotite as well as black grains of an as yet unidentified mineral, possibly Fe silicate. The yellowish colour of the stone is due to reddish and

26 Rižnar, Jovanović 2006.
27 Rižnar, Jovanović 2006.
Fig. 8 Plan and elevations of the preserved »Tetrapylon« blocks made of limestone, Lithotypes Ib and Id. Drawing A. Maver, digital rendering G. Bajc, M. Erčić.

Сл. 8 Тлоирт и накриви очуваших блокова »Тетрапилон« израђених из кречњака Јовинашова Ib и Id. Цртала А. Мавер, компјутерска обрада Г. Бајц и М. Ерич.
brownish poorly rounded grains of extrusives measuring up to 1 mm in size. The presence of tuff grains and minerals of the extrusives represents the main criterion for separating the samples into two types.

**Discussion**

The macroscopic analysis of the sampled blocks of the Tetrapylon walls leads us to the conclusion that we are dealing with two types of limestone. The first type can easily be classified into the already established Lithotype I, more precisely into Ib. The second type of limestone, which is composed of foraminifers, but also extraclasts (tuff and other silicate grains), differs from Lithotype I only in the presence of the latter, since the other allochems can also be found in the variants of Lithotype I. It is our supposition that this type of limestone could represent the upper part of the basal layers in the Roman Dardagani quarry. According to the Basic Geologic Map of Yugoslavia 1:100 000, sheet Zvornik, extrusives make up the base of the Neogene carbonates. It is reasonable to assume that grains of extrusives were redeposited into the basal limestone layers.

The walls of the so-called Tetrapylon are constructed of limestone blocks of Lithotype I and of an as yet unknown variant of the Neogene limestone with lithothamniae and foraminifers, which includes also grains of extrusives. Considering that the material is of the same origin, we suppose that another limestone subtype is (was) present at the Dardagani quarry. According to the classification given in the first phase of research, it would be sensible to set the type of limestone with lithothamnian algae, foraminifers and grains of extrusives into Lithotype I and formally name it Lithotype Id.

The unsystematic distribution of blocks of subtypes Ib and d (Fig. 8) supports the initial supposition that this part of the building was made in a single campaign, which used blocks of various subtypes, but of same origin, in a random manner.

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**CATALOGUE OF MONUMENTS**

**Limestone**

**SRM 326 (LT IIa)**

Cornice, fragment. The moulding is decorated with egg-and-dart, the consoles contain rosettes. H. 25; W. 81; D. 47.


References: Unpublished.

**SRM 327 (LT IIa)**

Altar, dedicated to Jupiter (the inscription field is now missing). Decorated with stylized leaf ornament. H. 100; W. 49; D. 30.5. Dated to around AD 224.


References: Mirković 1994b, 399, no. 74.

**SRM 328 (LT IIa)**

Altar dedicated to Jupiter. Decorated with schematized corner acroteria and central pediment. H. 97; W. 45; D. 44.5. Dated to 185–202.


References: Mirković 1994b, 388, no. 52.

**SRM 329 (LT III)**

Altar dedicated to Jupiter, upper part. Decorated with volutes in relief. H. 32; W. 29; D. 19.5.


References: Mirković 1994b, 398, no. 73.

**SRM 339 (LT Ib)**

Acroterial termination with a pair of lions and a block with a dolphin, depicted in relief on the front with its head facing downwards. H. 195; W. 73; Th. 23.


References: Gavela 1954–55, 44, fig. 5.

**SRM 356 (LT Ib)**

Corinthian capital. It has a reduced structure: the kalathos has four contiguous leaves underneath the corner volutes. The latter grow from a stem placed centrally between two leaves. Helices and both rows of acanthus leaves are missing. H. 45; W. abacus 44; diag. abacus 79; lower Ø 37. Beginning of the 4th century.

F: unknown. K: MS.


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29 Mojsilovic et al. 1976.
SRM 393 (rudist limestone)
Altar, lower part. Inscription and side fields within a moulded frame. H. approx. 150; W. 84.5; D. 68. Dated to 157–185.
References: Mirković, 1994b, 392, no. 61.

SRM 394 (rudist limestone)
Altar (?), fragment. Fields within a moulded frame. H. 35; W. 29; D. 22.5.
References: Unpublished.

SRM 472 (LT IIb)
Altar dedicated to Iuppiter with double corner acroteria. H. 90; W. 46; D. 33. Dated to AD 202 (Mirković).
References: Mirković 1994b, 364, no. 8.

SRM 473 (LT IIb)
Altar dedicated to Iuppiter, made together with the hypobasis, with undecorated pulvins and a small pediment between them. H. 82.5 (119.5 at the foundations); W. 39.5 (51 at the foundations); D. 35.5. Dated to 157–185.
References: Mirković 1994b, 397, no. 70.

SRM 474 (LT Ia)
Altar, upper part is damaged. H. 112.5; W. 57; D. 48.
References: Mirković 1994b, 398, no. 72.

SRM 475 (LT IIa)
Altar dedicated to Iuppiter, with schematic corner acroteria. H. 111.5; W. 57; D. 37.5. Dated to AD 207 (Mirković).

SRM 476 (LT Ia)
Altar, fragment. H. 45; W. 43; D. 29.
References: unpublished.

SRM 477 (LT Ia)
Altar dedicated to Iuppiter with pulvins. H. 60; W. 33.5; D. 29. Dated from Trajan to 157.
References: Mirković 1994b, 385, no. 46.

SRM 478 (LT III)
Altar dedicated to Iuppiter with pulvins and pediment. H. 68; W. 39; D. 29.5. Dated to 157–185.
References: Mirković 1994b, 390, no. 57.

SRM 479 (LT IIa)
Altar dedicated to Iuppiter with pulvins and centrally placed leaf. H. 79; W. 42; D. 34. Dated to 157–185.
References: Mirković 1994b, 392, no. 60.

SRM 480 (LT III)
Altar dedicated to Iuppiter with pulvins and a centrally placed rosette. H. 56.5; W. 37; D. 22.5. Dated from Trajan to 157.
References: Mirković 1994b, 386, no. 49.

SRM 481 (LT IIb)
Altar dedicated to Iuppiter with corner acroteria and pediment. On top is a round focus. H. 77; W. 35; D. 32. Dated to 157–202.
References: Mirković 1994b, 386, no. 48.

SRM 482 (LT Ib)
Altar dedicated to Iuppiter with corner acroteria and a leaf at each acroterion. H. 77.5; W. 41; D. 37. Dated to 185–202.
References: Mirković 1994b, 393, no. 63.

SRM 483 (LT IIa)
Altar dedicated to Iuppiter. H. 106; W. 44; D. 46.
References: Milošević 2001, 78, fig.

SRM 484 (LT IIa)
Altar dedicated to Mars with corner acroteria. H. 98; W. 43; D. 43. Dated to 185–202.
References: Mirković, 1994b, 390, no. 56.

SRM 485 (LT IIb)
Altar dedicated to Iuppiter and Silvanus with corner acroteria and centrally placed rosette. H. 102.5; W. 54; D. 36.5. Dated to AD 199 (Mirković).
References: Mirković 1994b, 363, no. 7.
SRM 486 (LT IIa)
Altar dedicated to Iuppiter with corner acroteria. H. 88.5; W. 46.5; D. 44. Dated to 185–202.
References: Mirković 1994b, 389, no. 55.

SRM 487 (LT IIb)
Altar dedicated to Iuppiter with stylized leaf ornament, upper part is damaged. H. 98; W. 52.5; D. 33. Dated to 212–231.
References: Mirković 1994b, 378, no. 32.

SRM 488 (LT Ia)
Altar dedicated to Iuppiter with pulvins and leaf ornament between them. H. 99; W. 56; D. 41. Dated to 157–185.
References: Mirković 1994b, 394, no. 64.

SRM 489 (LT IIa)
Altar dedicated to Iuppiter with pulvins and centrally placed eagle. H. 97; W. 55; D. 53. Dated to 157–185.
References: Mirković 1994b, 395, no. 66.

SRM 490 (LT Ia)
Altar, upper part is damaged. H. 80; W. 63; D. 44. Dated to 157–185.
References: Mirković 1994b, 400, no. 77.

SRM 491 (LT IIa)
Altar dedicated to Iuppiter, Iuno, Minerva and other divinities, with corner acroteria and a centrally placed stylized rosette. H. 111.5; W. 56; D. 41. Dated from Trajan to 157. August
References: Mirković 1994b, 360, no. 7.

SRM 492 (LT IIa)
Console, fragment. Decoration is prepared but not carved. H. 24; W. 26.5; L. 61.
F: SM, ?. K: MS, no inv. no.
References: Unpublished.

SRM 493 (LT Ia)
Normal Corinthian capital. The kalathos has two rows of independent acanthus leaves. Corner volutes and helices are flattened against the kalathos and stylized, they grow from organic cauliculi. Palmettes grow on top of the apices of the second-row leaves. The abacus is decorated with a double saw teeth ornament. H. 63; lower Ø 48. Trajanic date.
F: SM, probably from the hypothetical Forum. K: MS.

SRM 494 (LT IIa)
Altar dedicated to Iuppiter, fragment. H. 68; W. 49; D. 46.
References: Mirković 1994b, 401, no. 78.

SRM 495 (Ic)
Altar dedicated to Iuppiter with pulvins. H. 60; W. 36.5; D. 26. Dated from Trajan to 157.
References: Mirković 1994b, 380, no. 37.

SRM 496 (LT IIb)
Altar dedicated to Iuppiter and Genius Loci Patriae Suae with corner acroteria. H. 67.5; W. 33.5; D. 29. Dated to AD 208 (Mirković).

SRM 497 (LT Ia)
Altar, upper part is missing. H. 36.5; W. 28; D. 24.
References: Unpublished.

SRM 498 (LT IIa)
Ossuarium receptacle, undecorated. H. 50; W. 118; D. 60.
References: Unpublished.

SRM 499 (LT IIa)
Ossuarium receptacle, undecorated. H. 47; W. 113.5; D. 47.
References: Unpublished.

SRM 500 (LT IIa)
Ossuarium lid with corner acroteria, decorated with a leaf in relief in each acroterion. H. 24.5; W. 114; D. 49.
References: Unpublished.
SRM 501 (LT IIa)

SRM 502 (LT Ia)
Sarcophagus receptacle, eight fragments. H. 66; W. 133; Th. 14.5. Dated to end of the 2nd, beginning of the 3rd c.
References: Mirković 1990, 633–636, fig. 2.

SRM 503 (LT III)
Plain shaft, fragment. H. 51; Ø 19.
F: SM, ?. K: MS, no inv. no.
References: unpublished.

SRM 504 (LT IIb)
Plain shaft with base, fragment. H. 47; Ø 18; W. plinth 15.5.
F: SM, ?. K: MS, no inv. no.
References: unpublished.

SRM 505 (LT III)
Plain shaft with base, fragment. H. 51; Ø above 23; W. plinth 15.5.
F: SM, ?. K: MS, no inv. no.
References: unpublished.

SRM 506 (LT IIa)
Base, consisting of a bevelled drum on a plinth, fragment. H. 18.5; upper Ø 29; W. plinth 35.
F: SM, K: MS, no inv. no.
References: unpublished.

SRM 507 (LT Ia)
Plain shaft, fragment. Upper part with astragalus and fillet. H. 75; Ø 28.
F: SM, ?. K: MS, no inv. no.
References: unpublished.

SRM 508 (LT Ia)
Plain shaft, fragment. H. 119; lower Ø 28.
F: SM, ?. K: MS, no inv. no.
References: unpublished.

SRM 509 (LT Ia)
Pilaster drum. H. 30; W. 59; Th. 44; Ø 48.

F: SM, ?. K: MS, no inv. no.
References: unpublished.

SRM 510 (Ia)
Capital, semi-product. H. 27; upper W. 41; upper D. 38; lower Ø 31.
F: SM, ?. K: MS, no inv. no.
References: unpublished.

SRM 511 (LT III)
Sarcophagus receptacle, two fragments. Decorated with vine in relief. H. 39 and 41; W. 39.5 and 34; Th. 10–14.
References: unpublished.

SRM 512 (LT Ia)
Semicircular upper termination of a wall, fragment. H. 23.5; L. 50; Th. 54.5.
F: SM, ?. K: MS, no inv. no.
References: unpublished.

SRM 513 (LT Ia)
Altar dedicated to Iuppiter and Genius Loci, fragment. H. 45; W. 33; D. 25.
References: Mirković 1994b, 376, no. 28.

SRM 514 (LT IIa)
Altar dedicated to Iuppiter and Genii Augustii. H. 105; W. 50; D. 40. Dated to AD 204.
References: Mirković 1994b, 365, no. 10.

SRM 515 (LT Ia)
Corinthian capital, fragment. It shows a reduced structure: the kalathos probably has four acanthus leaves underneath the corner volutes. The latter grow from a stem placed centrally between two leaves. H. 40; lower Ø 32. Probably beginning of the 4th c.
F: SM, the hippodrome ? K: MS, no inv. no.

SRM 516 (LT Ia)
Base, consisting of a bevelled drum on a plinth, fragment. H. 34.5; upper Ø 46.5; W. plinth 58. First quarter of the 1st century.
F: SM, the hippodrome. K: MS, no inv. no.

SRM 517 (LT Ia)
Base, consisting of a bevelled drum on a plinth, fragment. H. 34; upper Ø 48; W. plinth 56. First quarter of the 1st century.
F: SM, the hippodrome. K: MS, no inv. no.
References: Popović, Ochsenschlager 1976, 170; Jeremić 1995, 145, Fig. 35; Ertel 2005; 314, Abb. 6.

SRM 518 (LT Ia)
Pilaster drum. H. 44; W. 59; Th. 47; Ø 48.5.
F: SM. K: MS, no inv. no.
References: unpublished.

SRM 519 (LT Ia)
Pilaster drum. H. 29; W. 64–66; Th. 66; Ø 47.
F: SM. K: MS, no inv. no.
References: unpublished.

SRM 534 (LT Ia)
Altar dedicated to Iuppiter. H. 85; W. 40; D. 40.
References: Mirković 1994b, 359, no. 1.

SRM 535 (LT Ia)
Altar dedicated to Iuppiter. H. 99; W. 44; D. 40.
References: Mirković 1994b, 360, no. 3.

SRM 536 (LT Iib)
Altar dedicated to Iuppiter. H. 113; W. 55; D. 45.
References: Mirković 1994b, 362, no. 6.

SRM 537 (LT Iib)
Altar dedicated to Iuppiter and Genius Dominorum. H. 106; W. 50; D. 42.
References: Mirković 1994b, 365, no. 9.

SRM 538 (LT Iib)
Altar dedicated to Iuppiter. H. 86; W. 42; D. 36.
References: Mirković 1994b, 368, no. 15

SRM 539 (LT Ia)
Altar dedicated to Iuppiter and genio ?. H. 79; W. 38; D. 28.
References: Mirković 1994b, 369, no. 16.

SRM 540 (LT Iib)
Altar dedicated to Iuppiter (?) and Genius (?) Imperatoris, diagonally broken. H. 67; W. 65; D. 40.
References: Mirković, 1994b, 369, no. 17.

SRM 541 (LT Iib)
Altar dedicated to Iuppiter and Genius Imperatoris. H. 96; W. 42; D. 33.
References: Mirković 1994b, 370, no. 18.

SRM 542 (LT Iib)
Altar dedicated to Iuppiter and Genius Loci. H. 60; W. 32; D. 23.
References: Mirković 1994b, 371, no. 20.

SRM 543 (LT Iib)
Altar dedicated to Iuppiter. H. 88; W. 35; D. 34.
References: Mirković 1994b, 373, no. 22.

SRM 544 (LT Ia)
Altar dedicated to Iuppiter. H. 107; W. 47; D. 30.
References: Mirković 1994b, 373, no. 23.

SRM 545 (LT Ia)
Altar dedicated to Iuppiter. H. 92; W. 48; D. 45.

SRM 546 (LT Ia)
Altar dedicated to Iuppiter. H. 55; W. 40; D. 30.
References: Mirković 1994b, 374, no. 25.

SRM 547 (LT Ia)
Altar dedicated to Iuppiter. H. 83; W. 40; D. 35.

SRM 548 (LT Ic)
Altar dedicated to Juppiter. H. 83; W. 40; D. 35.
References: Mirković 1994b, 376, no. 29.

SRM 549 (LT Ia)
Altar dedicated to Juppiter and Genius Imperatoris.
H. 77; W. 33; D. 30.

SRM 550 (LT Ila)
Altar dedicated to Juppiter. H. 81; W. 37; D. 29.
References: Mirković 1994b, 379, no. 34.

SRM 551 (LT Ila)
Altar dedicated to Juppiter. H. 97; W. 54; D. 37.
References: Mirković 1994b, 380, no. 36.

SRM 552 (LT Ila)
Altar dedicated to Juppiter. H. 81; W. 37; D. 29.
References: Mirković 1994b, 381, no. 38.

SRM 553 (LT Iib)
Altar dedicated to Juppiter. H. 111; W. 54; D. 36.
References: Mirković 1994b, 341, no. 41.

SRM 554 (LT Ia)
Altar dedicated to Juppiter. H. 95; W. 44; D. 44.
References: Mirković 1994b, 383, no. 42.

SRM 555 (LT Ia)
Altar dedicated to Juppiter. H. 88; W. 45; D. 39.
References: Mirković 1994b, 383, no. 43.

SRM 556 (LT Ia)
Altar dedicated to Juppiter. H. 75; W. 40; D. 35.
References: Mirković 1994b, 384, no. 45.

SRM 557 (LT Ia)
Altar dedicated to Juppiter, Juno, Minerva, Mars and all other gods. H. 85; W. 40; D. 36.
References: Mirković 1994b, 385, no. 47.

SRM 558 (LT Ila)
Altar dedicated to Juppiter. H. 99; W. 55; D. 37.
References: Mirković 1994b, 387, no. 50.

SRM 559 (LT Ila)
Altar dedicated to Juppiter. H. 91; W. 43; D. 33.
References: Mirković 1994b, 387, no. 51.

SRM 560 (LT Ila)
Altar dedicated to Juppiter. H. 86; W. 36; D. 24.
References: Mirković 1994b, 388, no. 53.

SRM 561 (LT Ila)
Altar dedicated to Juppiter. H. 64; W. 26; D. 25.
References: Mirković 1994b, 389, no. 54.

SRM 562 (LT Iib)
Altar dedicated to Juppiter and Genius Coloniae Sirmii. H. 120; W. 57; D. 47.
References: Mirković 1994b, 391, no. 58.

SRM 563 (LT Ia)
Altar dedicated to Juppiter, broken off. H. 81; W. 43; D. 39.
References: Mirković 1994b, 391, no. 59.

SRM 564 (LT Ila)
Altar dedicated to Juppiter. H. 116; W. 50; D. 47.
References: Mirković 1994b, 395, no. 67.

SRM 565 (LT Ia)
Altar dedicated to Juppiter. H. 88; W. 37; D. 27.
References: Mirković 1994b, 396, no. 68.

SRM 566 (LT Ib?)
Altar dedicated to Iuppiter, with damaged right side. H. 128; W. 45; D. 32.
References: Mirković 1994b, 396, no. 69.

SRM 567 (LT IIb)
Altar dedicated to Iuppiter, with upper part damaged. H. 90; W. 47; D. 35.
References: Mirković 1994b, 397, no. 71.

SRM 568 (LT Ic)
Altar dedicated to Iuppiter, fragmented. H. 80; W. 45; D. 45.

SRM 570 (LT Ia)
Altar dedicated to Iuppiter and Genius Loci, with upper part broken off. H. 76; W. 33; D. 35.
References: Mirković 1994b, 400, no. 76.

SRM 571 (rudist limestone)
Altar fragment. H. 29; W. 61; D. 52.
References: Unpublished.


Две хомогене целине производа од кречњака — аре пронађене у оквиру statio beneficiarii и темељни блокови светилишта званог „тетрапилон“ биле су анализирани у смислу материјала како бисмо потврдили предходне закључке о присутности литотипова кречњака у Сирмијуму.

Поред 79 вотивних ара из statio beneficiarii насталих између Трајановог доба и године 231 било је посебно анализирано још 50 блокова база на којима су те аре стајале. Показало се, да је од неогенског кречњака било израђено 76 ара, док је једна израђена од рудистног кречњака, а две од мермера. Размера литотипова неогенског кречњака — LT I (каменолом Дардагани) и LT II (каменолом у широј Панонији) јесте 1:1,6 (код LT II преовладава LT II у размери 1:4), а LT III (каменолом Дардагани) појављује се само у два примерка. Хид блокова база показала се слична ситуација. Размера LT I и LT II јесте 1:2 (код LT II преовладава LT II у размери 1:4) док се LT III не појављује, а рудистни кречњак јавља се само код једног примерка.

У хронолошком смислу показује се истовремена употреба кречњака литотипова I и II све од почетка док је употреба литотипа III све до 30-их година 3. века запаметирана. У типолошком смислу међу производима израђених од кречњака LT I и LT II нема битних разлика што све показује да су радионице употребљавале материјал који је био доступан. Поједини специфични елементи украса ара као што је нпр. дупли акротериј типичан за поклонце сирмијумских саркофага указују на домаћу сирмијумску производњу.

Зид „тетрапилона“ израђен од блокова неогенског кречњака омогућио је увид у материјал који је хипотетички дошао из истог каменолома па је као такав послужио за проверу хипотезе о каменолому Дардагани као главном сирмијумском каменолому кречњака. Седамдесет анализираних блокова показало је присуство кречњака LT I варијанти Ib и Ic као и једног новог типа кречњака са литотаминским алегама, фароминиферама и зрними предорнинама, којег бисмо могли означити као варијанта Id. Измешана дистрибуција блокова израђених од појединих варијанти LT I унутар зида указује на исти извор материјала — каменолом Дардагани, а нова варијанта кречњака литотипа I на његову још неоткривену делове.