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## MONETARY CIRCULATION OF LATE ANTIQUE NAISSUS

### ABSTRACT

*The subject of the paper is the analysis of the monetary movements of late antique Naissus. The research is limited to the period from the end of the 3rd to the middle of the 5th century. The numismatic material comes from 13 locations, from the sites: Mediana, King Milan Square and Liberation Square, Niš fortress and Gradsko Polje, Jagodin Mala necropolis, Gorča, Ambassador, Obrenovićeveva Street, and Vuk Karadžić elementary school. The mentioned localities are positioned both in the urban city centre and on its outskirts. Also, the context of the found coinage is different and diverse, coming from the city necropolis, hoards, the fortress, a residential villa, etc. Such a rich sample provides a detailed and comprehensive insight into the monetary movements of late antique Naissus and a good sample for comparison with sites in neighbouring provinces (Dacia Ripensis and Moesia Prima).*

**KEYWORDS:** NUMISMATICS, NAISSUS, LATE ANTIQUITY, COINS, MONETARY CIRCULATION.

### INTRODUCTION

Ancient *Naissus* was formed in the Nišava river valley and is known as the birthplace of the Roman emperor Constantine the Great. It represented an important crossroads of military and trade routes that led throughout the Roman Empire (Petrović 1979: 37; Vasić 2008: 9). The city experienced its economic and political prosperity at the end of the 3<sup>rd</sup> and the beginning of the 4<sup>th</sup> century. The most archaeologically researched parts of *Naissus* belong to this period, located within the city ramparts (the forum with the civil basilica, the main city street, and parts of the impressive villa with the octagon on Gradsko Polje). *Extra muros*, the researched sites included a residential villa on *Mediana*, public baths, smaller necropolises on the left bank of Nišava, as well as the main city necropolis on Jagodin Mala, which began to form and expand in Late Antiquity (Jeremić 2014: 8). It is particularly significant to discover the monetary flow in *Naissus* in the turbulent period of Late Antiquity, when the city reached its heyday

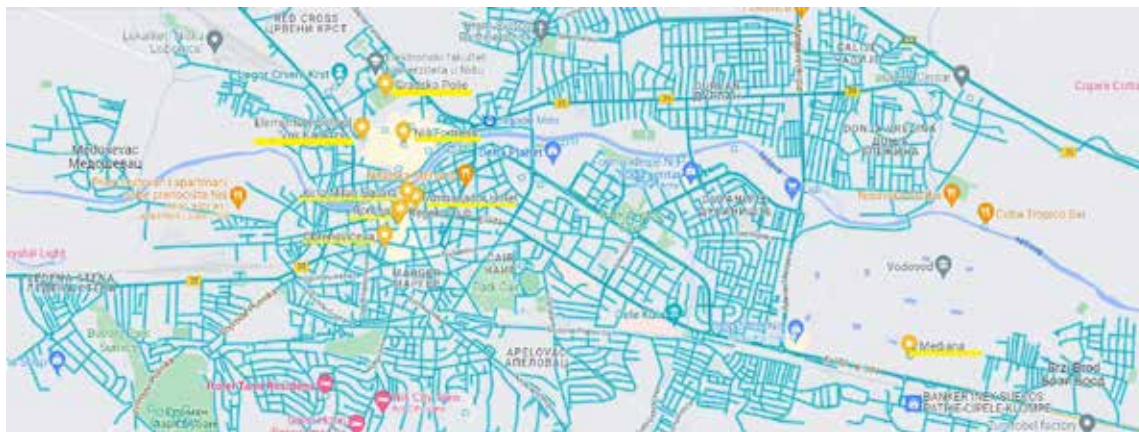
during the reign of Constantine the Great and his successors and collapsed as a result of the Hunnic invasion.

In order to gain a complete picture of the monetary flow of late antique *Naissus*, the research included all processed coins from 13 locations, from the city centre and from the outskirts of the city. The chronological range is limited to the period from the end of the 3<sup>rd</sup> to the middle of the 5<sup>th</sup> century, i.e., the moment when the city was devastated by the Hun invasion. All coinage is divided into two categories based on the context in which it was found: group and individual finds (Map 1).

Group finds of coins include units such as hoards and safes in which coinage was successively collected. This type of find is significant because it gives us a picture of the monetary circulation over a certain period of time. The coins found on Liberation Square and Obrenovićeveva Street, on Gradsko Polje, Vuk Karadžić elementary school, part of the “Maćedonci” hoard, and the hoard from *Mediana* fall under this category. (Table 1).

Square Oslobođenja			Obrenovićeva			Gradsko polje			Primary school Vuk Karadžić		
Period	Pcs.	Mint	Period	Pcs.	Mint	Period	Pcs.	Mint	Period	Pcs.	Mint
317-320	1	Aquileia	294	2	Aquileia	312-313.	1	Cyzicus	257-259.	1	Aquileia
320-321	3	Alexandria	295	4	Alexandria	312-320.	2	Siscia	295-299.	1	Antiochia
321	2	Antiochia	295-296	5	Antiochia	318-319.	7	Thessalonica	308-310.	1	Arelate
321-323	1	Arelate	296	1	Heraclea	319.	14		312.	5	Cyzicus
323-324	1	Heraclea	296-297	8	Carthago	321-324.	2		312-313.	4	Mediolanum
324	3	Cyzicus	297-298	6	Nicomedia	325-326.	1		313.	32	Nicomedia
324-327	2	Constantinopolis	297-299	7	Roma	326-327.	2		313-315.	3	Roma
324-330	53	Nicomedia	298-299	3	Serdica	328-329.	1		314.	5	Siscia
326-330	1	Roma	299	1	Siscia	Total:	30		314-315.	2	Thessalonica
330-335	129	Siscia	299-300	1	Thessalonica				315-316.	2	Ticinum
330-337	18	Thessalonica	299-303	2	Ticinum	<b>Mediana</b>			319.	3	Treveri
334-335	1	Ticinum	300	5		Period	Pcs.	Mint	337-341.	1	
		Treveri	300-301	4		330-335.	2	Aquileia	346-350.	2	
Total:			301	1		335-341.	1	Alexandria	361-363.	2	
			302	3		337-341.	2	Antiochia	?	3	
			302-303	7		341-346.	8	Arelate	Total:		67
			303-305	2		351-361.	4	Heraclea			
			303/4-305	2		355-360.	1	Cyzicus			
			304-305	13		355-361.	9	Constantinopolis			
			305-306	15		364-365.	1	Nicomedia			
			305-307	1		364-367.	5	Roma			
			306-307	1		367-375.	25	Siscia			
			307	1		375-378.	1	Thessalonica			
			307-308	2		378-383.	3				
			308	1		383.	18				
			308-309	14		383-387.	1				
			308-310	39		383-392.	57				
			309-310	8		383-395.	14				
			310	16		383-408.	9				
			310-311	2		387-388.	2				
			311	1		388-395.	1				
			?	3		388-402.	4				
			Total:			393-395.	7				
				181		394-402.	1				
						395-408.	2				
						425-450.	1				
						Total:					179

Table 1 - Composition of group finds from the territory of Late antique Naissus



Map 1 - Mapped sites from the territory of Late antique Naisus (Tags: Marija Jović on @ GIS portal Gradske uprave Niš, <https://gis.ni.rs/smartPortal/gunisPublic>)

The hoard from Liberation Square was found during construction works in 1961, in the immediate vicinity of the ancient wall. It contains 215 coins dated from 317 to 334/5 (Janković Mihaldžić 2000: 37). The find from Obrenovićeve Street was discovered in 1936 and includes 181 folles from a short and homogeneous period from 294 to 311 AD (Janković Mihaldžić 1986: 25). The coins from Gradsko Polje were gifted to the National Museum in Niš in 1962, when 30 bronze coins, which are assumed to be from the city's necropolis, were handed over to the museum. Although there are few coins, the material composition is homogeneous and belongs to the short time span of 312/3 until 328/9 (Janković Mihaldžić 2002: 15, 17). At the end of 1959, during the foundation digging for the construction of the Vuk Karadžić elementary school in Niš, 67 pieces of Roman coins were found. Nominals can be classified chronologically from the sixth decade of the 3rd century to the seventh decade of the 4th century. Most of the specimens are bronze coins from the Tetrarchy period and one silver coin belonging to the Gallienus mint (257-259) (Janković Mihaldžić 2003: 23). The hoard from Međedonac was discovered in 1944, at the "Strana" site. The hoard contains 3,971 well-preserved Roman bronze coins dating from Constantine I to Gratian (Janković Mihaldžić 2005: 54). This work covers the processed part of the hoard, which contains 728 coins<sup>1</sup>. During the archaeological research in *Mediana*, in 1961, a group find of coins was discovered in the horreum. It contained 227 specimens, of which 179

pieces were chronologically determined. The time distribution of minting spans the years 330/5 to 421/50 (Janković Mihaldžić 2008: 77; Јанковић Михаљдић 2005: 54) (Table 1).

The category of individual finds includes coinage that was discovered during archaeological research, mostly stratified, as well as specimens that became part of museum collections through purchase. The analysis of individual finds of coins provides data on the volume of circulation over a long period of time. This category includes coins found during archaeological research in *Mediana*, King Milan Square, Jagodin Mala, in the premises of the "Ambassador" hotel, the "Gorča" business centre, and coinage from the numismatic collection of the National Museum in Niš (Table 2).

During previous archaeological research in *Mediana* from 1961 to 2011, 1,653 examples of Roman coins were discovered, of which 1,347 were precisely chronologically determined and date from 76 to 450 AD (Vasić 2021: 77; Janković Mihaldžić 2008: 34). The coins from the core of the late antique city of *Naisus* are also included, found during the research of the baths in the Niš fortress, comprising 399 specimens, dated to the period from 310 to 491 AD.<sup>2</sup> Part of the material consists of coins from the suburbs of late antique *Naisus*, obtained from the research of King Milan Square (19 pieces), carried out in 1990-1991 (Jović 2021: 104). Also, four coins discovered next to a brick built grave in the basement of the "Ambassador" hotel and two specimens found during the

<sup>1</sup> On this occasion, I would like to thank Vesna Crnoglavac, the current director and advisor of the National Museum in Niš, for the provided data.

<sup>2</sup> I owe a great deal of gratitude to Dr Miloje Vasić for providing the data on the numismatic material from the thermal baths in the Niš fortress and for his selfless help in the preparation of this paper.

Mediana			Square Kralj Milan			Tvrđava			Jagodina Mala			
Period	Pcs.	Mint	Period	Pcs.	Mint	Period	Pcs.	Mint	Period	Pcs.	Mint	Pcs.
1. vek	2	Aquileia	1. vek	1	Edrine	1. vek	1	Aquileia	309-313.	2	Aquileia	2
2. vek	1	Alexandria	3. vek	1	Cyzicus	2. vek	1	Heraclea	317-318.	1	Cyzicus	2
2-3. vek	11	Antiochia	134-138.	1	Constantinopolis	3. vek	3	Carthago	321-330.	3	Constantinopolis	5
3. vek	6	Arelate	240-241.	1	Nicomedia	4. vek	95	Cyzicus	330-333.	1	Siscia	2
4. vek	235	Heraclea	295-299.	1	Roma	4-5. vek	14	Constantinopolis	337-341.	3	Thessalonica	9
4-5. vek	3	Carthago	311-313.	2	Thessalonica	5. vek	4	Nicomedia	341-346.	2	Ticinum	1
5. vek	1	Cyzicus	336-340.	2	Viminacium	vizantija	1	Roma	351-361.	11		
76-292.	12	Constantinopolis	355-361.	2		310-324.	3	Sirmium	364-367.	3		
239-303.	20	Londinium	364-375.	1		324-337.	6	Siscia	367-378.	4		
305-313.	40	Mediolanum	527-565.	1		337-341.	2	Thessalonica	378-383.	1		
313-317.	26	Nicea	565-578.	1		341-354.	15		383-395.	5		
317-324.	83	Nicomedia	1444-1481.	1		355-361.	37		394-408.	1		
324-330.	50	Ostia	?	4		363-375.	43		532-537.	1		
330-341.	236	Roma	Total:	19		378-383.	7		570-571.	1		
335-361.	5	Serdica				383-393.	127		583-584.	1		
351-366.	2	Sirmium				393-395.	5		595-596.	1		
341-361.	389	Siscia				395-408.	16		Total:			41
361-375.	187	Thessalonica				408-425.	4		<b>National Museum of Niš</b>			
378-395.	32	Ticinum				425-455.	12		Period	Pcs.	Mint	Pcs.
404-406	1	Treveri				476-491.	2		324.	1	Constantinopolis	1
425-450.	2	Viminacium				?			350-355.	1	Mediolanum	1
?	14					Total:			367-375.	1	Nicomedia	1
Total:		1347				<b>Ambasador</b>			383-388.	2	Thessalonica	2
						Period	Pcs.	Mint	430-440.	1	Treveri	1
						232-282	1		Total:			6
						270-275	1					
						Total:						

Table 2 - Composition of individual findings from the territory of Late antique Naisus

construction of the “Gorča” business centre belong to 3<sup>rd</sup> and 4<sup>th</sup> century coins and material from the suburbs of Naissus (Ajdić 1975: 38; Јовановић 1976: 76). The nominals found within the burial units originate from the late antique Jagodin Mala necropolis. Investigations of the necropolis began in 1932 and are still ongoing. The paper includes material up to that found during research on the premises of the “Benneton” factory, conducted in 2012 (Jeremić 2014: 15) (Table 2).

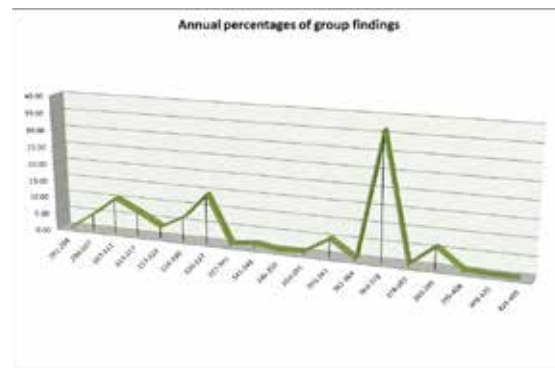
### ANALYSIS OF MONETARY MOVEMENTS OF INDIVIDUAL AND GROUP FINDS OF LATE ANTIQUE NAISSUS FROM THE END OF THE 3<sup>RD</sup> TO THE MIDDLE OF THE 5<sup>TH</sup> CENTURY

An insight into the monetary flow of late antique *Naissus* will be made by analysing the annual percentages<sup>3</sup> of individual and group findings. The number of coins in circulation will be observed for shorter chronological sequences within the period from the end of the 3<sup>rd</sup> to the middle of the 5<sup>th</sup> century. Looking at each category of finds separately will give a more detailed insight into the difference in monetary flows of individual and group finds.

In the group finds category, 1,390 precisely dated specimens were subjected to analysis. Less than 1% of the samples were observed within the following chronological sequences: 292-294, 337-341, 341-346, 346-350, 350-355, 361-364, 378-383, 395-408, 408-425 and 425-455. The number of specimens of these sequences ranges from 0% to 6%. There is a slightly larger number of coins in the periods that belong to the ranges 294-330, 355-361, and 383-395, where percentages do not exceed 10%. The sequences 330-337 and 364-378 make up the highest percentage share (10.79% and 51.37%, respectively.) (Table 3).

If we take a look at the annual percentages of the group finds, a slight increase in coins in circulation between the sequences 292-294 and 307-313 is noticeable, when the first peak is observed. The circulation decreases from 313 to 324, only to peak again between 324 and 330 in the sequence

330-337. In the period from 337 to 364, the value of annual percentages is relatively low and uniform (0.37% - 1.41%) with a slight growth of 6.71% in the period 355-361. The highest number of coins in circulation can be observed from 364 to 378 (36.71%). Between 378 and 455, the circulation is very low (from 0% to 0.94%), with the exception of the period 383-395, when it is 6.14% (Graph 1).



Graph 1 - Presentation of coin flows of group finds from the territory of Late Antique Naissus

The number of precisely dated individual finds of coins is 1,387, where it can be seen that both categories of finds are almost equally represented in percentages (50.05% and 49.95%). The smallest percentage share of coins, in individual finds, which does not exceed 1%, is observed in the sequences: 292-294, 294-307, 350-355, 361-364, 378-383, and 408-425. The range from 1.08% to 6.63% of the coin prominence is in the periods from 307 to 330, 337-346, 395-408, and 425-455. A high percentage of coins is noted in the sequences 330-337 (11.39%), 383-395 (11.46%), 364-378 (16.37%) and in the period 355-361 (20.69%), when it is the highest (Table 4).

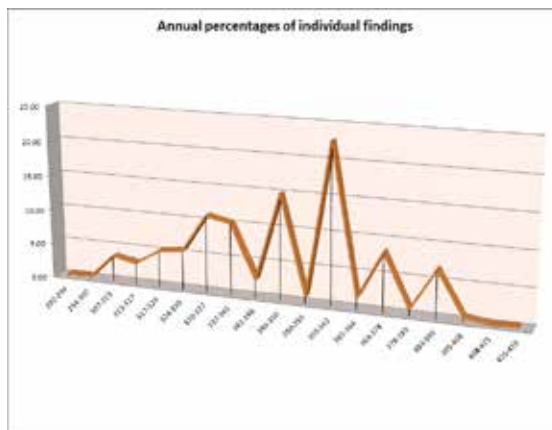
The analysis of annual percentages shows growth from 294 to 330-337, when the curve reaches its first peak. Between the years of 337 and 341, the number of coins is almost uniform from 10.24% to 11%. In the period from 341 to 361, sudden peaks and declines in the monetary flow are periodically observed. From 341-346, the annual percentage value is 2.6%, and in the next sequence (346-350) amounts to 15.03%, while an almost complete drop of 1.02% can already be seen in the next period 350-355. The maximum number of coins in circulation was recorded from 355 to 361 (22.83%). The value of the annual percentages between the years 361 and 455 almost

<sup>3</sup> To obtain the annual percentages, it is necessary to first calculate the annual coefficients. The value of the annual coefficients represents the quotient of the number of samples within one period and the number of years that period includes:  $a=b/c$ . Adding all the annual coefficients ( $a, a_1, a_2, \dots$ ) gives the value ( $e$ ). The value of annual percentages is obtained by the formula  $d= a \times 100 / e$  (Vasić 2021: 95).

Period	Annual percentages
292-294	0.51
294-307	5.09
307-313	10.41
313-317	7.06
317-324	3.26
324-330	6.90
330-337	14.38
337-341	0.61
341-346	1.41
346-350	0.31
350-355	0.77
355-361	5.15
361-364	0.38
364-378	36.51
378-383	0.38
383-395	6.14
395-408	0.71
408-425	0.00
425-455	0.02

Table 3 - Annual percentages of group finds from the territory of Late Antique Naissus

never exceeds 2%, with the exception of sequences 364-378 (8.43%) and 383-395 (6.81%), when an increase is observed (Graph 2).



Graph 2 - Presentation of coin flows of individual finds from the territory of late antique Naissus

Period	Annual percentages
292-294	0.37
294-307	0.36
307-313	3.74
313-317	3.01
317-324	5.22
324-330	5.65
330-337	11.00
337-341	10.24
341-346	2.60
346-350	15.03
350-355	1.02
355-361	22.83
361-364	1.67
364-378	8.43
378-383	0.93
383-395	6.81
395-408	0.72
408-425	0.12
425-455	0.27

Table no. 4 - Annual percentages of individual finds from the territory of late antique Naissus

### MONETARY CIRCULATION OF LATE ANTIQUE NAISSUS FROM THE END OF THE 3<sup>RD</sup> TO THE MIDDLE OF THE 5<sup>TH</sup> CENTURY

By comparing the monetary flows of the group and individual finds, a more complete picture of the coin circulation of late antique *Naissus* can be obtained. Also, by comparing monetary movements with the site of *Horreum Margi* in *Moesia Prima* and *Timacum Minus* in *Dacia Ripensis*, we will get an insight into the monetary circulation of the diocese of *Dacia* (Map 2).

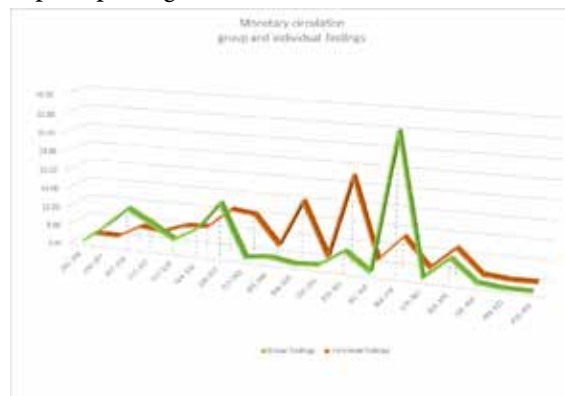
In the period from 292-294, the number of coins in circulation is relatively low in both categories of finds. In the next sequence, 294-307, in the case of individual finds, the situation remains unchanged, but in the case of the group finds, the circulation is increasing. It was recorded that the emperor Diocletian stayed in *Illyricum* during this period. During the year 293, Diocletian focused on the fortification of the Danube Limes, as well as visiting larger cities



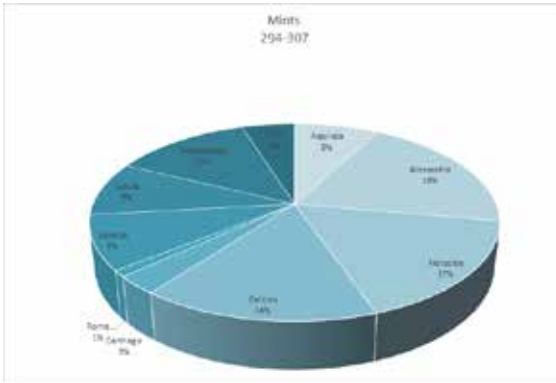
Map 2 - The positions of the sites of Naissus, Timacum Minus and Horreum Margi in the diocese of Dacia, (Tags: Marija Jović on © Cplakidas / Wikimedia Commons / CC BY-SA 3.0, [https://upload.wikimedia.org/wikipedia/commons/0/0e/Balkans\\_6th\\_century.svg](https://upload.wikimedia.org/wikipedia/commons/0/0e/Balkans_6th_century.svg))

and mines. During the year 294, the emperor stayed in *Sirmium*, *Singidunum*, *Viminacium*, and *Cuppae* (Vasić 2008: 58). The increase in coin flow for group finds is possibly due to Diocletian’s stay in this area. The supply of coins mainly originated from eastern mints (53%), but western (16%) and central mints (31%) are also present (Graph 3 and 4). In the 307-313 sequence, there is a noticeable increase in coin flows, even in the category of the group finds, where it reaches the first peak. Historically, this is a complicated period full of disagreements between pretenders to the throne. The Balkan provinces and Asia Minor were under the administration of Galerius until his death in 311, when Licinius took over the administration of the territory of the Balkans and established his residence in *Sirmium* (Vasić 2008: 63; Vasić 2008: 12) (Graph 3). The period from 308 to 310 was marked by Galerius’ frequent trips, departing from *Serdica* or *Thessalonica*, and he

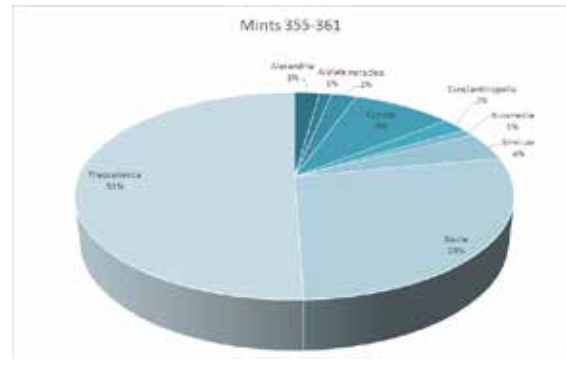
probably also passed through Niš (Vasić 2008: 12). The results of the mints percentage representation in the 307-313 sequence show a dominant share of Balkan and eastern mints (83%). Also, Thessalonica is by far the most represented with 43%, which can be explained by the closing of the *Serdica* mint in 308 and Thessalonica taking over (Božkova 1977: 7; Božkova 1994: 134) (Graph 3 and 4). The increase in circulation and the majority share of the Thessalonica mint can be explained by the desire of the rulers to expand their influence, as well as by the fact that Thessalonica became Galerius’ main mint in 308, and at the same time the closest mint to the city of *Naissus*. From 313 to 330, a uniform and slightly increased circulation rate can be noticed. This period was marked by the diarchy of two rulers, Constantine I and Licinius, but also by frequent conflicts between the rivals. The first battle between the two rulers took place in 316 at *Cibalae*, after which Constantine spent most of his time in the Balkans and assumed power over this territory (Mirković 2012: 9). Constantine’s final victory over Licinius in 324 enabled him to take over the entire Roman Empire (Lenski 2007: 78). During all the years of conflict between the two rulers, Constantine’s frequent visits to the Balkans were recorded. His confirmed stays in *Naissus* took place during the years 319 and 321 and in the period from 316 to 324 he often passed through the city (Vasić 2008: 12). Although it would be expected that the increased deployment of military forces and the permanent stays of emperors in the Balkans would lead to a significant



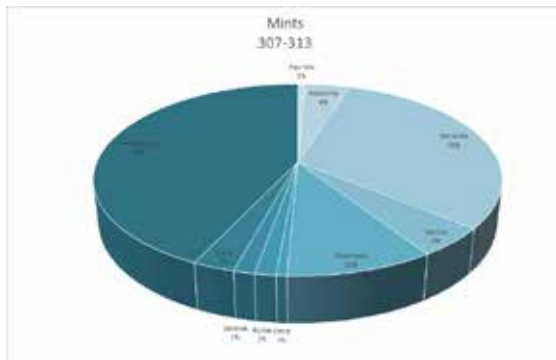
Graph 3 - Parallel display of coin flow of group and individual findings



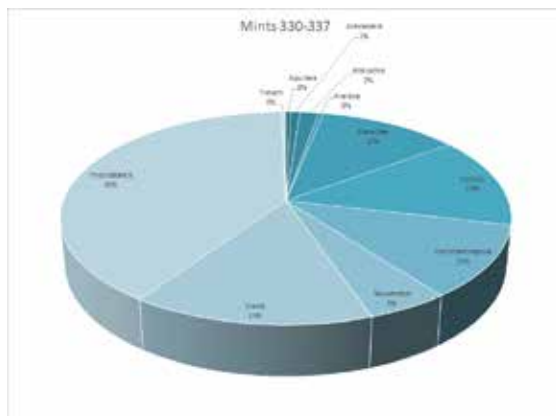
Graph 4 - Percentage representation of mints in the sequence 294-307.



Graph 7 - Percentage representation of mints in the sequence 355-361.



Graph 5 - Percentage representation of mints in the sequence 307-313.



Graph 6 - Percentage representation of mints in the sequence 330-337.

increase in the number of coins in circulation, the results indicate uniform and only slightly increased monetary movements. Also, a greater presence of western mints was noticed during this period, especially the Roma mints during the sequence 313-317, although the dominant share was still held by the Thessalonica and Siscia mints (Graph 3). The influence of the western mints, which were under Constantine's administration

at the time, can be explained by the pretensions of the ruler to expand his influence and take over the territory of the Balkans. In the next sequence, 330-337, a significant increase in coins in circulation was observed in both categories of finds. Until the middle of 334, Constantine led battles against the Goths, Visigoths, and Sarmatian Argarantes on the *Limes*, after which a long period of peace ensued in the Balkans. In the same year, Constantine passed through and stayed in *Naissus* (Vasić 2008: 14; Vasić 2008: 73). It is possible that the increased circulation was a consequence of the mentioned events. The almost exclusive presence of coins from eastern and central mints can be noticed, with the largest share of Thessaloniki at 42% (Graph 3 and 6). After the death of Constantine in 337, and until 341, the situation of individual finds remains unchanged in relation to the previous chronological sequence. Group finds show completely contradictory results, the number of coins in circulation drops drastically from 14.38% to 0.61%. Taking both categories of finds into account, during this period, there was still a significant number of coins in circulation. The territory of *Illyricum* was in the hands of Constans, who came to power at the age of 14 and was under the tutelage of his older brother Constantine II. His stay in *Naissus* between January 19 and February 2, 340 was recorded. Until the year 355, in group finds, the circulation is extremely low and does not exceed 1.5%. Individual finds present a slightly different picture, especially in the sequence 346-350, when the coin supply reached a new peak. In this sequence, significant reforms of Constans and Constantius II (348-354.) took place, but also the death of Constans in 350. (Vasić 1990: 25; Vasić



Period 330-337.			
Mints	Naissus	Horreum Margi	Timacum Minus
Alexandria	/	/	1.2%
Antiochia	3.28%	18.18%	1.2%
Arelate	6.56%	9.09%	/
Heraclea	14.75%	/	2.4%
Cyzicus	21.31%	9.09%	12.24%
Constantinopolis	2.46%	36.36%	14.29%
Nicomedia	8.20%	9.09%	5.10%
Roma	0.82%	9.09%	/
Siscia	9.84%	/	14.29%
Thessalonica	32.79%	9.09%	50%

Table 5 - Percentage representation of mints at the sites: Naissus, Timacum Minus and Horreum Margi, period 330-337.

Period 346-350.			
Mints	Naissus	Horreum Margi	Timacum Minus
Aquileia	3.70%	4.55%	/
Alexandria	1.85%	4.55%	/
Antiochia	1.85%	9.09%	/
Heraclea	5.56%	9.09%	/
Cyzicus	1.85%	/	4.17%
Constantinopolis	5.56%	4.55%	4.17%
Nicomedia	3.70%	13.64%	/
Roma	5.56%	18.18%	4.17%
Siscia	31.48%	/	33.33%
Thessalonica	38.89%	27.27%	54.17%
Treveri	/	9.09%	/

Table 6 - Percentage representation of mints at the sites: Naissus, Timacum Minus and Horreum Margi, period 346-350.

Period 350-355.			
Mints	Naissus	Horreum Margi	Timacum Minus
Aquileia	2.70%	20%	/
Alexandria	/	/	4.76%
Arelate	/	20%	/
Heraclea	10.18%	/	9.52%
Cyzicus	5.41%	/	/
Constantinopolis	13.51%	/	4.76%
Nicomedia	/	20%	4.76%
Roma	2.70%	40%	/
Sirmium	5.41%	/	33.33%
Siscia	13.51%	/	28.57%
Thessalonica	45.95%	/	14.29%

Table no. 7 - Percentage representation of mints at the sites of Naissus, Timacum Minus and Horreum Margi, period 350-355.

Period 355-361.			
Mints	Naissus	Horreum Margi	Timacum Minus
Aquileia	/	3.33%	3.57%
Alexandria	2.30%	/	/
Arelate	1.15%	/	/
Heraclea	2.30%	/	/
Cyzicus	9.20%	10%	7.14%
Constantinopolis	2.30%	20%	14.29%
Nicomedia	1.15%	/	7.14%
Sirmium	4.60%	13.33%	7.14%
Siscia	28.74%	6.67%	14.29%
Thessalonica	48.28%	46.67%	46.43%

Table no. 8 - Percentage representation of mints at the sites of Naissus, Timacum Minus and Horreum Margi, period 355-361.

Period 364-378.			
Mints	Naissus	Horreum Margi	Timacum Minus
Aquileia	0.26%	4.26%	2.74%
Alexandria	1.15%	25.53%	1.37%
Antiochia	0.26%	12.77%	/
Arelate	0.13%	/	/
Heraclea	0.26%	/	/
Cyzicus	0.26%	/	2.74%
Constantinopolis	1.28%	8.51%	2.74%
Nicomedia	0.26%	4.26%	4.11%
Roma	2.56%	14.89%	/
Sirmium	/	/	1.37%
Siscia	48.46%	23.40%	45.21%
Thessalonica	45%	6.38%	38.36%
Treveri	0.13%	/	1.37%

Table no. 9 - Percentage representation of mints at the sites of Naissus, Timacum Minus and Horreum Margi, period 364-378.

2021: 144). In addition to the mentioned historical events, which by their nature could not have had much influence on the increased coin flow in late antique *Naissus*, perhaps the cause can be sought elsewhere. Given that a significant part of the sample of individual finds is occupied by specimens found in *Mediana*, a site with increased construction activity in this period, which required a greater inflow of funds (Vasić 2021: 144), it is possible that all of the above affected the increased circulation. The distribution of coins was mainly carried out from central and eastern mints, among which Thessaloniki (43%) and Siscia (31%) dominate (Graph 3). Observing the monetary flow in the following chronological sequences, in both categories of finds, there are completely parallel, alter-

nating rises and falls in circulation. Between 350 and 355, coin flows were almost at a minimum, only for the curve to reach a new peak in 355-361. The increased circulation was probably the result of Julian's stay in *Naissus* and *Mediana* for several months during the year 361 (Vasić 2008: 15). The supply of coinage remained unchanged, percentage-wise, Thessalonica and Siscia being more prominent (Graph 3 and 7). The next rise in circulation can be noted during the sequence 364-378, which may be related to the stay of Valentinian I and Valens in *Naissus* and *Mediana* in June 364 (Vasić 2008: 19). During the period from 378 to 383, coin circulation was extremely low, which was a logical consequence of the Battle of Hadrianopolis. The last increase in monetary move-

Mints	Naissus	Horreum Margi	Timacum Minus
Aquileia	8.16%	5.07%	/
Alexandria	/	8.70%	/
Antiochia	1.02%	7.73%	/
Arelate	2.04%	0.97%	/
Heraclea	6.12%	4.36%	/
Cyzicus	19.39%	22.95%	20%
Constantinopolis	12.24%	19.81%	30%
Mediolanum	1.02%	/	/
Nicomedia	11.22%	8.94%	20%
Roma	1.02%	10.87%	/
Siscia	5.10%	1.21%	30%
Thessalonica	31.63%	8.94%	/
Treveri	1.02%	/	/
Lugdunum	/	0.48%	/

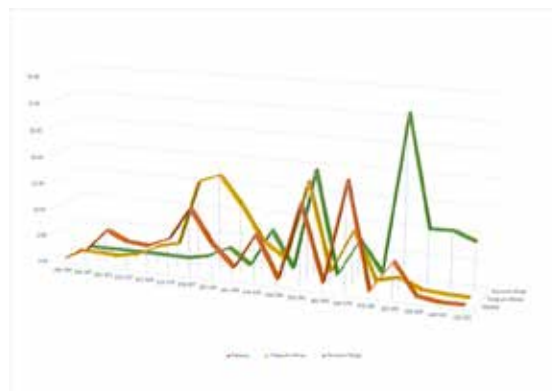
Table no. 10 - Percentage representation of mints at the sites of Naissus, Timacum Minus and Horreum Margi, period 383-395.

ments, within the studied chronology, was recorded in the sequence 383-395. In this sequence, a period of stability prevailed on the territory of *Illyricum*, the distribution of coins was carried out predominantly from the eastern regions, but the presence of western regions is higher in percentage compared to previous periods.

Through a comparison of monetary movements from the sites of *Naissus* in *Dacia Mediterranea*, *Horreum Margi* 4 in *Moesia Prima*, and *Timacum Minus* 5 in *Dacia Ripensis*, we have tried to get a broader picture of coin flows of the prefecture of *Dacia* (Graph 8). The time span from 292 to 330 gives very similar results for all three sites. Throughout this period, the circulation was relatively uniform and low. *Naissus* and *Timacum Minus* have a closer annual percentage that does not exceed the value of 6.54%, while the values at the *Horreum Margi* site are somewhat lower, up to a maximum of 4%. A slight deviation is noticeable in the sequence 307-313 in the form of a slight rise (6.54%), in *Naissus*, while the values in the other two sites do not exceed 1%. *Timacum Minus* had significantly higher monetary circulation in the period of 337-346, and, although the annual percentages at *Horreum Margi* and *Timacum Minus* are lower, the growth and decline of circulation is almost parallel in all three sites. Almost identical coin flows can be observed in the chronological range from 346 to 455. At the

site of *Horreum Margi*, from 395 to 455, the annual percentage values are higher compared to the other two sites, but the curve changes are identical.

The commentary on the analysis of the coin distribution is focused only on chronological sequences where material from all three sites is prominent. In the period from 330 to 337, *Thessalonica* is the most used mint by percentage, while *Constantinopolis* is the most prominent in the case of the *Horreum Margi* site. In *Naissus* and *Horreum Margi*, there is a minor influx of western mints (*Roma* and *Arelate*), however, the central and eastern mints dominate the supply (Table 5). The next section, 346-350, shows that in percentage terms the most prominent mint among all sites is *Thessalonica*. The distribution of coins in *Naissus* and *Timacum Minus* is mostly carried out from central mints, with only a small per-



Graph 8 - Parallel display of coin flow in the sites: Naissus, Timacum Minus and Horreum Margi

4 Numismatic data taken from - Vasić 1990: 101-121

5 Numismatic data as a result of the analysis presented at the INC 2022 - Warsaw - Jović 2022

centage of eastern mints. The percentage at *Horreum Margi* is a little different, because the share of the Roma mint is noticeable at 18.18%, which is negligible at the other two sites (Table 6). The next sequence, 350-355, provides completely different results in all three sites (Table 7). In *Naissus*, the supply was made primarily from the central and eastern mints. *Timacum Minus* shows similar results, although the Sirmium mint dominates, while the western mints are most represented at *Horreum Margi*. During the sequence 355-361, in all three cases, almost half of the coinage came from the Thessalonica mint (Table 8). Sequence 364-378 showed the same inflow of coins at *Naissus* and *Timacum Minus*, with the central mints of Thessalonica and Siscia being the most prominent. *Horreum Margi* had a slightly higher percentage share of eastern mints (Alexandria) compared to central ones (Table 9). The last observed period is 383-395. Here, the dominant distribution of coins was made from the eastern mints at all three sites, with a significant share of the Roma mint at *Horreum Margi* and the Siscia mint at *Timacum Minus* (Table 10).

## CONCLUSIONS

The analysis of monetary circulation was performed on a sample of 2,777 precisely dated coins, which make up 86.35% of the total processed numismatic material from the area of late antique *Naissus*. Only one silver specimen was recorded, all other coins are bronze. Gold coins were not included in the analysis and only two examples are known that correspond chronologically to this research. Although Constantine the Great made the solidus the main unit of the monetary system, the circulation of the gold coin was limited. Solidi were used in the salaries of the army and administration, but were returned to the state coffers through tax collection (Depeyrot 2007: 238). A realistic picture of coin movements is obtained by analysing the bronze coins that the population used in everyday transactions. Bronze coinage entered circulation primarily through the army, and secondarily made its way to regular coin flows through trade transactions. By looking at the annual percentages, it can be concluded that at the very end of the 3rd century, the monetary circulation of late antique *Naissus* was very low. However, at the beginning of the 4th

century and during the reign of Constantine the Great, it slowly grew and the circulation was almost uniform, until his death in 337. The following period, from 337 to 408, is characterised by alternating sudden rises and falls in circulation. The very end of the chronological sequence that is observed, 408-455, features minimal coin flow. Any significant increase in annual percentages can be mostly associated with the stays of emperors in the late antique *Naissus* area. Also, intensive construction activities, which required large amounts of coins, influenced the growth of monetary circulation. Since a significant part of the sample consists of coins from *Mediana*, the site that underwent extensive construction work, this probably contributed to the increased circulation. The inflow of coins was mainly from the central and eastern mints, among which Thessalonica and Siscia had a dominant share. In the period from 307-313, the presence of Roma mints increased noticeably, which is probably a consequence of Constantine's pretensions to expand his influence in the Balkans.

A parallel analysis of the monetary flow of the sites of *Naissus*, *Horreum Margi*, and *Timacum Minus*, which are almost identical, leads to the conclusion that the coin flow and further circulation were uniform in all the provinces of the diocese of *Dacia* and that the same laws, whether of a historical or economic nature, ruled these areas.<sup>6</sup>

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<sup>6</sup> Dr Miloje Vasić first came to the same conclusion, which was later confirmed by analyses carried out in two independent studies of the monetary circulation of the *Timacum Minus* site, presented at the INC 2022 congress in Warsaw and the study of monetary movements of *Naissus* presented in this paper.

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**REZIME****MONETARNA CIRKULACIJA U KASNOANTIČKOM NAISSUS-U**

**KLJUČNE REČI:** NUMIZMATIKA, NAISSUS, KASNA ANTIKA, NOVAC, MONETARNA CIRKULACIJA.

Predmet rada predstavlja analiza novčanih kretanja kasnoantičkog Naisusa. Istraživanje je ograničeno na period od kraja 3. do sredine 5. veka. Numizmatički materijal je sa 13 lokacija, sa lokaliteta: Medijana, Trg Kralja Milana i Trg Oslobođenja, Niška tvrđava i Gradsko polje, nekropola Jagodin Mala, Gorča, Ambasador, ulica Obrenovićeva i OŠ Vuk Karadžić. Pomenuti lokaliteti pozicionirani su kako u urbanom jezgru grada tako i na njegovoj periferiji. Na osnovu konteksta u kome je pronađen novac je podeljen u dve kategorije: na grupne i pojedinačne nalaze. Grupni nalazi novca podrazumevaju celine poput ostava i kasa u okviru kojih je novac sukcesivno prikupljan, dok pojedinačni nalazi podrazumevaju novac koji je otkriven tokom arheoloških istraživanja, uglavnom stratificiran, kao i primerke koji su otkupom postali deo muzejskih zbirki. Broj hronološki precizno određenih primeraka je kod obe kategorije gotovo jednak (grupni nalazi-1390; pojedinačni nalazi- 1387 primeraka). Komparacijom novčanih tokova grupnih i pojedinačnih nalaza dobija se kompletnija slika monetarne cirkulacije kasnoantičkog Naisusa. Takođe, poređenjem novčanih kretanja sa lokalitetom Horeum Margi (Horreum Margi) u Prvoj Meziji (Moesia Prima) i Timacum Minus (Timacum Minus) u Priobalnoj Dakiji (Dacia Ripensis) dobićemo u monetarnu cirkulaciju prefektуре Dakije. Sagleđavanjem godišnjih procenata može se zaključiti da je na samom kraju 3. veka opticaj novca kasnoantičkog Naisusa bio jako nizak. Ipak početkom 4. veka i za vreme vlade Konstantina Velikog opticaj polako raste i cirkulacija je gotovo ujednačena. Naredni

period od 337. do 408. odlikuju naizmenični nagli skokovi i padovi u optičaju. Sam kraj hronološke sekvence koja se posmatra 408-455. odlikuje minimalan novčani tok. Svaki značajan rast godišnjih procenata uglavnom se može povezati sa boravcima imperatora na prostoru kasnoantičkog Naisusa ili posledicom intenzivne graditeljske aktivnosti. Dotok novca uglavnom je bio iz centralnih i istočnih kovnica, među kojima su dominantan udeo imale Tesalonika i Siscija. Paralelnim sagledavanjem novčanih tokova lokaliteta su Naisus, Horeum Margi i Timakum Minus, koja su gotovo podudarna, nameće se zaključak da su dotok novca i njegova dalja cirkulacija bili ujednačeni u svim provincijama dijeceze Dakije i da su iste, zakonitosti, bilo istorijske ili ekonomske prirode vladale ovim prostorima.

\* \* \*

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