

BYZANTINE ANONYMOUS FOLLES IN THE BOLU MUSEUM

BOLU MÜZESİ'NDEKİ BİZANS ANONIM FOLLISLER

SERKAN KILIÇ*

Abstract: This article concerns the Byzantine anonymous folles today in the Bolu Museum and of the distribution in Anatolia of those anonymous folles which date from the Middle Byzantine period. 394 Byzantine coins are in the Bolu museum collection. Of these coins, 11 are gold, 2 are silver, imitations of the solidus of emperor Anastasius (491–518) and of Constantinus VII (913–959). 381 of the coins are bronze, one of which is a counterfeit. 184 of the bronze coins are anonymous folles and there is a catalogue of them. As is evident, about 50% of all these coins in the museum collection are anonymous folles. The imperial bronze anonymous folles struck, differ from others in previous centuries in two main respects. Firstly there is a portrait of Christ on them, which had been preferred and employed earlier on gold coins. The other is that these coins were not struck on behalf of any emperors.

In conclusion, the Byzantine anonymous folles in the Bolu Museum are compared with the folles in other museums and those finds from excavations in Anatolia.

Keywords: Byzantine • Coin • Anonymous Folles • Bolu Museum

Öz: Bu makalede Bolu Müzesi koleksiyonunda yer alan Bizans anonim follisleri örneğinde, Orta Bizans Dönemi Anadolu'sunda anonim follislerin dağılımı ele alınacaktır. Müze koleksiyonunda 394 Bizans sikkesi tespit edilmiştir. Bu sikkelerin 11'i altın, 2'si gümüş (ki bu sikkeler imparator Anastasius (491–518) ve VII. Constantinus (913–959) Dönemi soliduslarının taklitleridir) ve 381'i bronzdur (1'i sahtedir). Bronz sikkelerin 184'ü anonim follisdir ve kataloğu yapılmıştır. Göründüğü üzere müzedeki tüm Bizans sikkelerinin yaklaşık %50'sini anonim follisler oluşturmaktadır. İmparatorluğun bastırıldığı bakır anonim follisler, önceki yüzyıllardakilerden iki önemli hususta ayrılmaktadır. Bunlardan birincisi, bakır sikkeler üzerinde, şimdije kadar altın sikkeler için tercih edilen bir uygulama olan, İsa'nın bir portresinin yer alması ve ikincisi ise sikkelerin herhangi bir imparator adına basılmamış olmasıdır.

Sonuç olarak Bolu Müzesi'nde tespit edilen Bizans anonim follisleri, Anadolu'daki diğer yayinally müze ve kazı buluntuları ile önce sayısal olarak karşılaştırılmıştır.

Anahtar Kelimeler: Bizans • Sikke • Anonim Follis • Bolu Müzesi

Bolu is located on the west coast of the Black Sea region in Turkey¹. In antiquity, the town was called Bithynium and later Claudiopolis, a name which lasted into the Byzantine period². 394 Byzantine Coins were recorded at Bolu Museum during research conducted by Dr. Z. D. Gökalp³ on September 2008. In the Bolu collection, 11 of recorded coins were gold, 2 of them were silver (although these coins were imitations of emperors Anastasius and Constantinus VII) and 381 of them

* Arş. Gör., Akdeniz Üniversitesi, Edebiyat Fakültesi, Sanat Tarihi Bölümü, Antalya. serkankilic@akdeniz.edu.tr
This study was presented on the 15th Symposium on Mediterranean Archaeology, at the University of Catania, 3-5 March 2011.

¹ Yedidağ et al. 1998, 26.

² Yedidağ et al. 1998, 118.

³ Assoc. Prof., Department of History of Art at Anadolu University. She kindly asked me to study the anonymous folles recorded during her work here, I thank her for giving me this opportunity. I also want to give my gratitude to people from Bolu Museum for their help.

were bronze (one of which is a modern imitation). The provenance of almost all of these coins is unknown as they were brought to the museum through acquisition or donation⁴. The gold Byzantine coins in the Bolu Museum are dated to the reigns of: Emperor Basileios II, Constantinus IX, Mikhael VII, Ioannes III and Mikhael's VIII. Also, there is 1 *tremissis* belonging to the Early Byzantine period but its condition prevents us to identifying to which emperor's reign it belongs⁵.

380 bronze coins were struck in the reigns of emperors from Anastasius to Ioannes Comnenus II. For 16 of these coins, the mint marks could not be read, but their units and emperors were recorded. On a further 13 coins, the emperors could not be determined, but the unit marks and mint names show that they were struck in the early Byzantine period. 73 of the coins in Bolu Museum are 40 nummi. 37 of these coins were struck by the Constantinopolis mint; 16 by the Nicomedeia mint, 12 of them by the Antiocheia mint, 7 of them by the Cyzicus mint and 1 by the Carthago mint. There are eighteen 20 nummis in the Museum. 7 of the coins were struck by the Constantinopolis mint, 4 by the Nicomedeia mint, 3 by the Cyzicus mint, 3 of them by the Antiocheia mint and 1 of them by the Thessalonike mint. In the museum collection, there are two 10 nummis. The coins were struck in the Antiocheia and Roma mints. Finally, two 5 nummis are in the collection. Both of them are from the Antiocheia mint⁶.

The Formula of “coins per period / by period length x 1000 / by total coins found” was applied to the bronze Byzantine coins in the museum. This formula shows the yearly coins lost out of every 1000 coins in circulation, and thus provide us with a clearer picture of the coins in circulation at that time. The result shows 13 different coin usage periods. As seen on the graphic, the economical and political mobility of emperor Justinian I reign reveals itself with augmentation in 3rd period includ-

ing years between 565 and 582 AD. The period from the end of VIIth century is described as the “Byzantine Dark Age”. If we attend to the VIth, VIIth and VIIIth periods including the years between 641-867 AD, the finds of coins was reduced substantially. After the IXth period, within the Middle Byzantine Period the rise in number of coin finds is remarkable (Fig. 1).

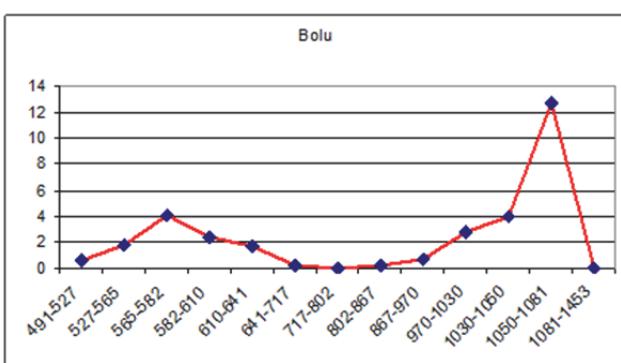


Fig. 1. *The Distribution of the Byzantine Bronze Coins in Bolu Museum with Respect to Periods*

tween the years 970 and 1092 AD 184 of the 380 bronze coins in Museum collection are Anonymous Folles. The Byzantine Anonymous Folles began to be minted in the reign of Ioannes Tzimiskes I and minting continued until the large monetary reform of Alexius I in 1092 AD⁷. The anonymous copper coins of the Byzantine Empire differ from earlier coins in two important ways. Firstly; a portrait of Jesus appears for the first time on copper coinage, this image was used solely on

The Anonymous Folles which form the subject of this paper are dated to be-

⁴ Three of them were uncovered during archaeological excavations conducted at the Akçakoca Church in 1996 (one of them is Justinus II and two of them are from the period of Mauricius Tiberius).

⁵ Demirel-Gökalp 2011a, 147-156.

⁶ Kılıç 2012, 503-510.

⁷ Hendy 1999.

golden coinage until then⁸.

The second important difference is that the predominant emperor imagery disappears from the coinage totally, leaving the space to the son of god, and his will to give the rule over the earth to the one appointed by him. Hence, king of kings, Jesus Christ. Some researchers have suggested that these changes came after the murder of Nicephorus Phokas and empress Theophano and reflect the guilt felt by Ionnes Tzimizces for these unholy acts. Thus Ionannes may be paying penance for the murders by reducing the emperors role on coinage and increasing god's, yet leaving the road open for political ambition by implying that Christ chose him to rule and therefore, the continuation of imperial propaganda⁹. The folles which were used for nearly 100 years starting from the reign of Tzimiskes and continuing until Alecsius I are classified in 15 classes. The sequence of these classes are determined by overstruck examples (Fig. 2).

CLASSES OF THE ANONYMOUS FOLLES					
Class	Description	Class and Attribution			Predominant Combination
		Wroth	Bellinger	Miss Thompson	
A (1)	Bust of Christ Rev. 4 lines inscr. } small module	I John I – Romanus III	I (small) John I	A (1) John I	Over Nic. II and Constantine VII
A (2)	Bust of Christ Rev. 4 lines inscr. } large module		I (large) Basil II – Romanus III	A (2) Basil II, Constantine VIII	—
B	Bust of Christ Rev. Cross on steps w. inscr.	II Michael IV	II Michael IV	B Romanus III	Over A (2)
C	Half-figure of Christ Rev. Jeweled cross, ΙΣ ΞΣΙΝΙ KA	III Theodora	III Constantine IX	C Michael IV	Over B
D	Christ seated, throne w. back Rev. 3 lines inscr.	V Constantine X	VI Isaac I	D Constantine IX	Over C
E	Bust of Christ Rev. 3 lines inscr.	VI Isaac I	IV Theodora	E Isaac I	Rare, sometimes over A (2)
F	Christ seated, backless throne Rev. 3 lines inscr.	IV Michael VI	V Michael VI	F Constantine X	Rare, sometimes over E
G	Bust of Christ Rev. Bust of Virgin	VII Constantine IX	VII Michael VII	G Romanus IV	Over Const. X and some- times over Romanus IV
H	Bust of Christ Rev. Patriarchal cross on leaved base	Crusaders, temp. Alexius I	VIII Alexius I	H Michael VII	Nicephorus III over H
I	Bust of Christ Rev. Cross w. X on leaved base		IX, XII Alexius I	I Nicephorus III	Over Michael VII
J	Bust of Christ Rev. Cross above crescent		X Alexius I	J Alexius I	Over Nicephorus III
K	Bust of Christ Rev. Virgin standing, globule border	VIII Constantine IX	XI Alexius I	K Alexius I	Over J
L	Bust of Christ Rev. Cross, ΙC XC NI KA at ends	—	XIII Alexius I	L Alexius I	Rare; no overstrike identified
M	Christ seated, throne with back Rev. Jeweled cross on crescent	—	—	—	Rare; no overstrike identified
N	Bust of Christ Rev. Patriarchal cross, ΙC XC, NI KA	—	—	—	Over Class F, under Nicephorus III

Fig. 2. *Classes of the Anonymous Folles* (Grierson 1973, 638).

There are 59 class A coins in Bolu Museum. 1 of them is class A1 and 58 of them are class A2. Class A2 coins differ from the other anonymous folles by the variety of ornament on them. There are ornaments that differ according to variations which are, on the front side of the coins on: both arms of the cross on the nimbus of Jesus and on the binding and on the bottom and top of the scripture and, on the reverse, there are 50 to 60 changing variations.

As is shown in the list, the variations in class A2 have been prepared according to the material found in Corinthus excavations by Alfred Bellinger. There have been some additions and changes

⁸ For extra information see; Demirel-Gökalp 2009a, 218-219.

⁹ Demirel-Gökalp 2009a, 218-219.

Motifs on Anonymous Folles, Class A2									
No.	Obverse		Reverse		No.	Obverse		Reverse	
	In Cross	On Book	Above Inscription	Below Inscription		In Cross	On Book	Above Inscription	Below Inscription
1	.	■	- ◊◊ -	- ◊◊ -	24b	■		*	*
1a		■	○○	○○	25	■		- ♦♦ -	- ♦♦ -
2			Nothing	Nothing	26	...	■	♦♦♦	♦♦♦
3			Nothing	*	27		■	♦♦♦	♦♦♦
4			*	Nothing	29		*	- ◊	- ◊
5			*	*	30	...	■	- ◊ ◊ -	- ◊ ◊ -
6			-	-	31		■	↑	↑
6a			--	--	32	+	+	+	+
7			--	--	32a	(?)	- ♦ -	- ♦ -	
8			◊	◊	33	■	○○	○○	
9			- ◊ -	- ◊ -	33a	■	•Φ•	•Φ•	
10			++ (?)	++ (?)	34	(?)	- * -	- * -	
11		■	♦♦	♦♦	35	■	- ◊ -	- ◊ -	
12		■	- * -	- * -	36	■	- Γ -	- Γ -	
14		■	- ◊ -	- ◊ -	38	(?)	->X<-	->X<-	
14a		■	- ◊ -	- ◊ -	39	■			
14b		■	○○	○○	40	■			
15		■	- ·A· -	- ·A· -	40a	■			
15a		■	- A -	- A -	40b	■			
16		■	- Λ -	- Λ -	41	■	- ◊ -	- ◊ -	
16a		■	- ·Λ· -	- ·Λ· -	42	(?)	- A -	- A -	
17		■	- h -	- h -	42a	■	○○	○○	
18		■	- R -	- R -	42b	(?)	?	- Φ -	
19		■	- P -	- P -	43	×	■	- C -	- C -
19a		■	- υ -	- υ -	45	υ	■	- ♦ -	- ♦ -
20		■	Nothing	*	47	□	□	□	□
21		■	- * -	- * -	48	↔↔↔	↔↔↔	- ♦ -	- ♦ -
22		■	- ◊ -	- ◊ -	49	↔↔↔	↔↔↔	- ♦ -	- ♦ -
23		■	- ◊ -	- ◊ -	50	↔↔↔	↔↔↔	- υ -	- υ -
24		■	○○	○○	51	...		- + -	- + -
24a	(?)	■	■■■	■■■					

Fig. 3. Motifs on Anonymous Folles, Class A2 (Grierson 1973, 645).

to Bellinger's classification, but his basic numbering is still used and new variants when added are given as: 1a, 14a, 14b (Fig. 3). There are 12 class B coins in the Museum collection. The shape of Jesus on the obverse of the coin looks the same. However the ornament on the cross on the nimbus is different. There is a cross over the two step bedplate on the reverse. "Holy Jesus the King of Kings" is recorded between the arms of the cross. On the 16 class C coins there is the depiction of the figure of Jesus Antiphonetes, an icon respected in particular by empress Zoe, pictured to his knees on the obverse and an ornamented Greek cross and a victory text (IC-XC / NI-KA) between the arms of the cross on the reverse. There are 69 class D coins in the collection. On these, Jesus is sitting on a throne on the obverse, and Jesus the King of Kings (ISXS / bASILE / bASIL) is written in three rows on the reverse. On the obverse of our 2 examples of the class F coins in the collection, Jesus is sitting on a backless throne and there is the three line text IS XS/bASILE/bASIL on the reverse. There is a frontal bust of Jesus on the obverse of 11 coins which belong to class G and there is Mary's bust in orans stance. There is a bust of Jesus on the obverse of 15 examples of class I coins, and floral ornament around a Latin cross. Underneath it there is a crescent whose meaning could be something like marking a victory against Islam, particularly the Seljuks and Danishmend.

CLASS	Bolu	Amasra	Amasya	Bolvadin	Fethiye	Isparta	Erzurum	Malatya	Yalvaç	Yapi Kredi	Kayseri	Bilecik	Sinop	Nigde	Manisa	TOTAL
A1 (AD 970-976)	1	1	6	2	4	4		6	15					56		95
A2 (AD 976-1028)	58	15	197	19	71	40	54	196	149	28	31	12	24		29	923
B (AD 1208-1034)	12	7	226	6	28	30	36	151	54	7	48	4	12	40	13	674
C (AD 1034-1041)	16	6	101	5	29	41	20	70	45	15	12	5	4	24	19	412
D (AD 1042-1055)	69	3	38	1	6	5	9	18	18	4	2	1	2	9	7	192
E		4	1	1	1				1	2					4	14
F (AD 1060-1065)	2						2									4
G (AD 1068-1072)	11	7	32	3	10	9	13	11	30	6	4	1	2	6	34	179
H			1					2								3
I (AD 1078-1081)	14	1	3	7	16	10	4	7	34	5	1	1	1	4	31	139
K			1					1					1			3
NEW	1															1
TOTAL	184	44	606	44	165	139	136	464	346	67	98	24	46	139	137	2639

Fig. 4. Distribution of Folles in Bolu Museum and in Other Museums

CLASS	Bolu	Aizanoi	Amorium	Antiocheia (Orontes)	Antiocheia (Pisidia)	Pergamon	Ephesos	Sardis	Edirne	Troy	Sarachane	Arycanda	Side	TOTAL	
A1 (AD 970-976)	1		6			1				1					9
A2 (AD 976-1028)	58	1	63	166	58	2	40	40	11		21	1	1		462
B (AD 1208-1034)	12		10	125	20	1	11	11	1	1	2	2	3		199
C (AD 1034-1041)	16	1	29	80	30		7	7			3	12	1		186
D (AD 1042-1055)	69		8	8			4	4			2				95
E		1		5			2	2	3						13
F (AD 1060-1065)	2			2			5	5	1		1				16
G (AD 1068-1072)	11	2	8	22	2	1	6	6	2	1	3				64
H				4						1					5
I (AD 1078-1081)	14	2	18	15	9	6			2		2				68
K							4		3		2				9
NEW	1														1
TOTAL	184	7	142	427	119	11	79	75	24	3	36	15	5		1127

Fig. 5. Distribution of Folles in Bolu Museum and Excavation Finds

Byzantine Anonymous Folles in Bolu Museum Collection are compared statistically with the examples in the Amasra¹⁰, Amasya¹¹, Bolvadin¹², Fethiye¹³, Isparta¹⁴, Erzurum¹⁵, Malatya¹⁶, Yalvaç¹⁷,

¹⁰ Ireland – Ateşoğlu 1996, 132-137.

¹¹ Ireland 2000.

¹² Ashton 2000, 171-195.

¹³ There is no article or book on the examples in the Fethiye Museum. I have appreciated Ass. Prof. Dr. Tolga Tek's help on this matter.

¹⁴ Demirel-Gökalp 2007.

¹⁵ Özyurt-Özcan 2007, 1-16.

¹⁶ Demirel-Gökalp 2009a, 217-250; 2011b, 191-200; 2014b.

¹⁷ Demirel-Gökalp, 2009b.

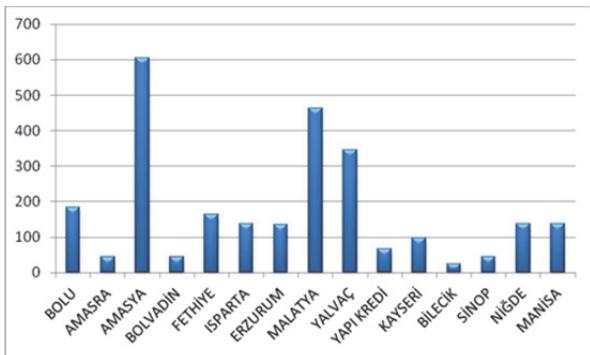


Fig. 6. Distribution of Anonymous Folles in Bolu Museum and in Other Museums

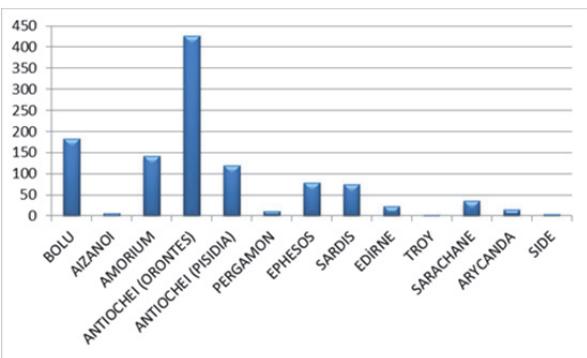


Fig. 7. Distribution of Anonymous Folles in Bolu Museum and Excavation Finds

situation can be explained as being due to the collapse of tax collecting power, the impoverishment of the government and the loss of military force, although the extent of the territory of the empire was increased.

Yapı Kredi¹⁸ (private collection), Kayseri¹⁹, Bilecik²⁰, Sinop²¹, Niğde²² and Manisa²³ museum collections (Fig. 6), and with examples from Anatolia excavations in Aizanoi²⁴, Amorium²⁵, Antiocheia (Orontes)²⁶, Antiocheia (Pisidia)²⁷, Pergamon²⁸, Ephesus²⁹, Sardis³⁰, Edirne³¹, Troy³², Sarachane³³, Arycanda³⁴ and Side³⁵ (Fig. 7). From the comparison that has been made with a total of 3398 coins in these collections, the conclusions recorded were obtained.

When the Anonymous Folles in all the museum collections and excavations finds are investigated it can be noticed that the Anonymous A1 coins minted between the years 970 and 976 can be considered rare. Moreover this situation is not surprising if it is considered that the A1 coins were minted only for six years. There is also a decline seen on the number of the Anonymous Folles found in Anatolia dated between 1050 and 1060 as it is seen in Figs. 4 and 5. This

¹⁸ Tekin 1999.

¹⁹ Yuka 2015, 90-115.

²⁰ Demirel-Gökalp 2014a, 11-28.

²¹ Casey 2010, 88-90.

²² Metivier – Prigent 2010, 614.

²³ Ünal 2012, 72-86.

²⁴ Köker 2013, 133-151.

²⁵ Lightfoot 2012, 147-155.

²⁶ Waage 1952.

²⁷ Sancaktar 2014, 515-524; 2013, 368-377.

²⁸ Bendall *et al.* 1993.

²⁹ Foss 1979. Foss, mentioned the anonymous folles not in groups but under the subjects of the emperor names.

³⁰ Buttrey 1981, 206-207.

³¹ Çantay 2008, 151-152.

³² Bellinger 1961.

³³ Hendy 1986, 285-365.

³⁴ Tek 2002.

³⁵ Atlan 1976. However, results received from Side excavations can change because A. Tolga Tek has been working on folles from this excavations in Side Museum.

As is seen in Fig. 6, the large number of the anonymous coins at Amasya and Malatya museums can be explained by the existence of unrecorded hoards at these museums. Although the museums from which this data was compared are different and far from each other, in general they show similarity across Anatolia during the Middle Byzantine Period. After the Byzantine Dark Age between the years 641-867 AD, the rise in population in Anatolia from the end of IXth and during the Xth century, and the resumption of public activities, can be shown through the frequency of coin finds. Therefore, we can say that the examples in the Bolu Museum from Byzantine Anatolia in the Middle Ages provides good and accurate data reflecting the group, as a result of the compilation of data from 13 museums, 1 special collection and excavation finds in 10 areas, this data reflects this same pattern of distribution as found for these coins in the Bolu Museum (Fig. 4-7). In consequence, the data obtained, as in the example from Bolu, shows both the mobility in the circulation of coins and the socio-economical liveliness of Anatolia in the Middle Byzantine period.

CATALOG

2016

Anonymous Folles**(AD 970–1092)****CLASS A1**

Ob.: + ΕmmA NOVΗΛ

Bust of Christ facing, bearded, with nimbus cross having 2 pellets in each arm, wearing tunic and himation; right hand raised in blessing in sling of cloak, left hand holds book with ornate cover from beneath. In field IC XC

Rev: IhΣIS / XRISΤΣ / bASILEΨ' / BASILE

AD 970/976(?)

1* AE 28/29 mm, 16,36 gr, 6 Inv. No: 76

Ref: DOC 3/2, 648, no. A1. 1

CLASS A2**(AD 976 (?) / 1030–35)**

Ob.: + ΕmmA NOVΗΛ

Same inser, and type, but with variations in nimbus cross and Gospel Book

Rev: IhΣIS / XRISΤΣ / bASILEΨ' / BASILE

Usually with ornament above and beneath

Variation 3

2* AE 27/28 mm, 10,27 gr, 6 h, Inv. No: 1960

Ref: DOC 3/2, 652, no. A2. 3. 12;

3 AE 28 mm, 10,15 gr, 6 h, Inv. No: 14780

Variation 4

4* AE 31 mm, 16,66 gr, 6 h, Inv. No: 2202

Ref: DOC 3/2, 652, no. A2. 4

5 AE 28/31 mm, 14,11 gr, 6 h, Inv. No: 5575

6 AE 30/31 mm, 11,45 gr, 6 h, Inv. No: 5817

7 AE 32/33 mm, 11,17 gr, 6 h, Inv. No:

Variation 5

8 AE 33 mm, 19,12 gr, 6 h, Inv. No: 14742

Ref: DOC 3/2, 652, no. A2. 5. 1

9 AE 32 mm, 11,69 gr, 6 h, Inv. No: 5916

Ref: DOC 3/2, 652, no. A2. 5. 5

Variation 6

10* AE 31 mm, 13,17 gr, 6 h, Inv. No: 1764

Ref: DOC 3/2, 652, no. A2. 6

Variation 11

11* AE 31/32 mm, 14,77 gr, 6 h, Inv. No: 435

Ref: DOC 3/2, 654, no. A2. 11. 3

12* AE 31/33 mm, 11,90 gr, 6 h, Inv. No: 12909

Ref: DOC 3/2, 654, no. A2. 11. 4

Variation 14

13* AE 32 mm, 19,15 gr, 6 h, Inv. No: 14722

Ref: DOC 3/2, 655, no. A2. 14. 1

Variation 15a

14* AE 36/39 mm, 14,91 gr, 6 h, Inv. No: 2026

Ref: DOC 3/2, 656, no. A2. 15a

Variation 21

15* AE 34/36 mm, 18,64 gr, 6 h, Inv. No: 14799

Ref: DOC 3/2, 658, no. A2. 21

Variation 24

16* AE 29/30 mm, 13,98 gr, 6 h, Inv. No: 13965

Ref: DOC 3/2, 659, no. A2. 24. 1

17* AE 27/31 mm, 11,73 gr, 6 h, Inv. No:
5495

Ref: DOC 3/2, 659, no. A2. 24. 3

18 AE 27/29 mm, 10,16 gr, 6 h, Inv. No:
14875

Ref: DOC 3/2, 659, no. A2. 24. 12

19* AE 26/28 mm, 9,85 gr, 6 h, Inv. No: 430

20 AE 26/29 mm, 9,59 gr, 6 h, Inv. No:
14873

Ref: DOC 3/2, 659, no. A2. 24. 14

21 AE 28/30 mm, 9,03 gr, 6 h, Inv. No: 444

22 AE 28 mm, 8,17 gr, 6 h, Inv. No: 14874

23 AE 25/27 mm, 5,58 gr, 6 h, Inv. No:
14721

Variation 25

24 AE 35 mm, 16,33 gr, 6 h, Inv. No: 5940

Ref: DOC 3/2, 661, no. A2. 25. 2

Variation 26

25* AE 34/35 mm, 20,24 gr, 6 h, Inv. No:
5901

Ref: DOC 3/2, 662, no. A2. 26. 1

Variation 27

26* AE 34 mm, 18,41 gr, 6 h, Inv. No: 14672

Ref: DOC 3/2, 662, no. A2. 27. 1

27* AE 31/32 mm, 9,83 gr, 6 h, Inv. No: 178

Variation 32

28* AE 29/31 mm, 10,56 gr, 6 h, Inv. No:
5689

Ref: DOC 3/2, 663, no. A2. 32. 5

29 AE 29/31 mm, 10,22 gr, 6 h, Inv. No:
13876

Ref: DOC 3/2, 663, no. A2. 32. 6

30 AE 26/27 mm, 9,53 gr, 6 h, Inv. No:

15047

Ref: DOC 3/2, 663, no. A2. 32. 7

Variation 36

31* AE 33/35 mm, 19,90 gr, 6 h, Inv. No:
14743

Ref: DOC 3/2, 665, no. A2. 36. 1

Variation 40

32* AE 29/30 mm, 13,43 gr, 6 h, Inv. No:
5702

Ref: DOC 3/2, 666, no. A2. 40. 2

Variation 40b

33 AE 28/30 mm, 13,68 gr, 6 h, Inv. No: 447

Ref: DOC 3/2, 668, no. A2. 40b. 1

34* AE 28/30 mm, 7. 43 gr, 6 h, Inv. No:
14064

Ref: DOC 3/2, 668, no. A2. 40b. 3

Variation 42a

35* AE 26 mm, 8,51 gr, 6 h, Inv. No: 5586

Ref: DOC 3/2, 670, no. A2. 42a

Variation 43

36* AE 29 mm, 9,91 gr, 6 h, Inv. No: 1421

Ref: DOC 3/2, 670, no. A2. 43. 6

Variation 47

37 AE 25/29 mm, 10,76 gr, 6 h, Inv. No:
14140

Ref: DOC 3/2, 672, no. A2. 47. 13

38* AE 26 mm, 10,29 gr, 6 h, Inv. No: 5571

Ref: DOC 3/2, 672, no. A2. 47. 15

39* AE 26/28 mm, 8,70 gr, 6 h, Inv. No: 5885

Ref: DOC 3/2, 672, no. A2. 47. 21

40 AE 28/29 mm, 6,48 gr, 6 h, Inv. No: 5644

Ref: DOC 3/2, 672, no. A2. 47. 23

Variation 50

41* AE 33/35 mm, 17,93 gr, 6 h, Inv. No: 14744

Ref: DOC 3/2, 673, no. A2. 50. 1

42* AE 32/34 mm, 17,37 gr, 6 h, Inv. No: 1293

Ref: DOC 3/2, 673, no. A2. 50. 1

New

43* AE 25/26 mm, 9,23 gr, 6 h, Inv. No: 1294

44* AE 31/32 mm, 15,51 gr, 6 h, Inv. No: 14135

1. Unreadable A2

45 AE 31/32 mm, 17,32 gr, 6 h, Inv. No: 1426

46* AE 32/37 mm, 16,48 gr, 6 h, Inv. No: 14872

47 AE 31 mm, 15,82 gr, 6 h, Inv. No: 585

48 AE 30 mm, 14,19 gr, 6 h, Inv. No: 5925

49 AE 31 mm, 13,78 gr, 6 h, Inv. No: 5690

50 AE 25/27 mm, 10,67 gr, 6 h, Inv. No: 14139

51 AE 26/28 mm, 9,97 gr, 6 h, Inv. No: 2014

52 AE 27/31 mm, 9,81 gr, 6 h, Inv. No: 2203

53 AE 27 mm, 9,32 gr, 6 h, Inv. No: 5808

54 AE 31 mm, 8,48 gr, 6 h, Inv. No: 71

55 AE 27/28 mm, 8,43 gr, 6 h, Inv. No: 322

56 AE 31 mm, 8,41 gr, 6 h, Inv. No: 186

57 AE 23/25 mm, 7,49 gr, 6 h, Inv. No: 2204

58 AE 27/30 mm, 5,30 gr, 6 h, Inv. No: 73

59 AE 26 mm, 4,16 gr, 6 h, Inv. No: 91

CLASS B

AD 1030–35/1042(?)

Ob.: + ΕmmA NOVHA

Bust of Christ facing, bearded, with cross nimbus having “□” in each arm and pellet in each upper quarter, wearing tunic and

himation; r. hand raised in blessing in sling of cloak, l. holds book, in field, IC XC

Rev: IS-XS / bAS IL€ / bAS IL€

Cross on base and two steps, pellet at each end of upper arms

60* AE 29/31 mm, 12,48 gr, 6 h, Inv. No: 446

Ref: DOC 3/2, 677, no. B. 16

61 AE 29/30 mm, 10,78 gr, 6 h, Inv. No: 588

Ref: DOC 3/2, 678, no. B. 35

62* AE 29 mm, 10,72 gr, 6 h, Inv. No: 124

Ref: DOC 3/2, 678, no. B. 36

63 AE 26/29 mm, 9,96 gr, 6 h, Inv. No: 1409

Ref: DOC 3/2, 678, no. B. 46

64 AE 23/25 mm, 9,62 gr, 6 h, Inv. No: 1410

Ref: DOC 3/2, 679, no. B. 49

65* AE 26/31 mm, 9,37 gr, 6 h, Inv. No: 183

Ref: DOC 3/2, 679, no. B. 53

66 AE 27/30 mm, 9,20 gr, 6 h, Inv. No: 587

67 AE 26/30 mm, 9,18 gr, 6 h, Inv. No: 5816

68* AE 30/31 mm, 9,10 gr, 6 h, Inv. No: 1417

Ref: DOC 3/2, 679, no. B. 55

69 AE 26 mm, 8,45 gr, 6 h, Inv. No: 1405

Ref: DOC 3/2, 679, no. B. 57

70 AE 26/28 mm, 7,45 gr, 6 h, Inv. No: 1399

71 AE 25/26 mm, 6,98 gr, 6 h, Inv. No: 1424

Ref: DOC 3/2, 679, no. B. 60

CLASS C

AD 1042(?)/1050

Ob.: + ΕmmA NOVHA

Three-quarter-length figure of Christ Antiphonates facing, bearded, with cross nimbus having pellet in arm, wearing tunic and himation; r. hand raised in blessing in front of body; l. holds book with on cover (usually obscure). In field, IC XC

Rev: IC XC / NI KA

In angels of jeweled cross with pellet at end of

- each arm
 72* AE 33/34 mm, 12,76 gr, 6 h, Inv. No: 327
 (Above B)
 Ref: DOC 3/2, 681, no. C. 2
 73 AE 28 mm, 11,21 gr, 6 h, Inv. No: 1290
 Ref: DOC 3/2, 682, no. C. 7
 74 AE 29/31 mm, 10,41 gr, 6 h, Inv. No: 5919
 Ref: DOC 3/2, 682, no. C. 11
 75* AE 26/28 mm, 10,32 gr, 6 h, Inv. No: 171
 Ref: DOC 3/2, 682, no. C. 12
 76 AE 27/29 mm, 9,00 gr, 6 h, Inv. No: 572
 Ref: DOC 3/2, 682, no. C. 16
 77* AE 25/27 mm, 8,73 gr, 6 h, Inv. No: 441
 Ref: DOC 3/2, 683, no. C. 27
 78 AE 26 mm, 8,70 gr, 6 h, Inv. No: 5880
 Ref: DOC 3/2, 683, no. C. 28
 79 AE 27 mm, 8,16 gr, 6 h, Inv. No: 1414
 Ref: DOC 3/2, 683, no. C. 32
 80* AE 29/30 mm, 8,10 gr, 6 h, Inv. No: 2015
 Ref: DOC 3/2, 683, no. C. 33
 81 AE 29 mm, 8,04 gr, 6 h, Inv. No: 1291
 82 AE 28/30 mm, 7,48 gr, 6 h, Inv. No: 5585
 83 AE 26/29 mm, 6,93 gr, 6 h, Inv. No: 5920
 Ref: DOC 3/2, 684, no. C. 40
 84 AE 26/28 mm, 6,66 gr, 6 h, Inv. No: 1696
 85 AE 28/29 mm, 6,57 gr, 6 h, Inv. No: 14879
 Ref: DOC 3/2, 684, no. C. 42
 86 AE 26/27 mm, 6,35 gr, 6 h, Inv. No: 2008
 87* AE 31/32 mm, 5,84 gr, 6 h, Inv. No: 1292
 Ref: DOC 3/2, 684, no. C. 45
- CLASS D**
- AD 1050/1060**
- Ob.: No inscription, Christ seated on square-backed throne facing, bearded, with cross nimbus having pellet in each arm, wearing tunic and himation; right hand raised in blessing in sling of cloak; left hand hold book.
 In field, IC XC
 Rev: _ + _ ISXS / bASIL€ / bASIL _ v _
 88 AE 29/32 mm, 13,53 gr, 6 h, Inv. No: 189
 89* AE 33/34 mm, 13,32 gr, 6 h, Inv. No: 167
 Ref: DOC 3/2, 685, no. D. 1
 90 AE 31/35 mm, 13,04 gr, 6 h, Inv. No: 326
 91 AE 30/31 mm, 12,20 gr, 6 h, Inv. No: 336
 92 AE 27/28 mm, 11,60 gr, 6 h, Inv. No: 345
 Ref: DOC 3/2, 685, no. D. 3
 93 AE 30/32 mm, 11,43 gr, 6 h, Inv. No: 342
 94 AE 30/31 mm, 11,33 gr, 6 h, Inv. No: 343
 95 AE 31/32 mm, 11,30 gr, 6 h, Inv. No: 177
 96 AE 30 mm, 11,30 gr, 6 h, Inv. No: 357
 97 AE 28/30 mm, 11,22 gr, 6 h, Inv. No: 355
 98 AE 28/31 mm, 11,09 gr, 6 h, Inv. No: 354
 99 AE 30 mm, 10,90 gr, 6 h, Inv. No: 367
 100 AE 30 mm, 10,81 gr, 6 h, Inv. No: 366
 101* AE 31/32 mm, 10,53 gr, 6 h, Inv. No: 158
 Ref: DOC 3/2, 685, no. D. 4
 102 AE 30/34 mm, 10,51 gr, 6 h, Inv. No: 181
 103* AE 29 mm, 10,22 gr, 6 h, Inv. No: 153
 Ref: DOC 3/2, 685, no. D. 5
 104 AE 28/31 mm, 9,97 gr, 6 h, Inv. No: 344
 105 AE 26/28 mm, 9,75 gr, 6 h, Inv. No: 360
 106* AE 26/29 mm, 9,73 gr, 6 h, Inv. No: 328
 Ref: DOC 3/2, 686, no. D. 9
 107 AE 28/29 mm, 9,71 gr, 6 h, Inv. No: 159
 108 AE 25/28 mm, 9,65 gr, 6 h, Inv. No: 351
 109 AE 26/27 mm, 9,61 gr, 6 h, Inv. No: 161
 Ref: DOC 3/2, 686, no. D. 10
 110 AE 30/31 mm, 9,44 gr, 6 h, Inv. No: 170
 Ref: DOC 3/2, 686, no. D. 11
 111 AE 31/32 mm, 9,37 gr, 6 h, Inv. No: 347
 112 AE 31 mm, 9,35 gr, 6 h, Inv. No: 346

- 113 AE 30/31 mm, 9,32 gr, 6 h, Inv. No: 5651
 Ref: DOC 3/2, 686, no. D. 12
- 114 AE 29/31 mm, 9,31 gr, 6 h, Inv. No: 187
- 115 AE 29 mm, 9,31 gr, 6 h, Inv. No: 362
- 116 AE 29/30 mm, 9,23 gr, 6 h, Inv. No: 340
 Ref: DOC 3/2, 686, no. D. 12
- 117 AE 32 mm, 9,19 gr, 6 h, Inv. No: 324
- 118 AE 27/30 mm, 9,14 gr, 6 h, Inv. No: 190
- 119 AE 26 mm, 9,12 gr, 6 h, Inv. No: 348
- 120 AE 28 mm, 9,11 gr, 6 h, Inv. No: 339
- 121 AE 26/28 mm, 9,07 gr, 6 h, Inv. No: 352
- 122 AE 26/27 mm, 8,97 gr, 6 h, Inv. No: 368
- 123 AE 30 mm, 8,96 gr, 6 h, Inv. No: 338
- 124 AE 26/31 mm, 8,94 gr, 6 h, Inv. No: 176
- 125 AE 30 mm, 8,84 gr, 6 h, Inv. No: 165
 Ref: DOC 3/2, 686, no. D. 13
- 126 AE 26/29 mm, 8,82 gr, 6 h, Inv. No: 332
- 127 AE 27/30 mm, 8,81 gr, 6 h, Inv. No: 179
- 128 AE 26/28 mm, 8,79 gr, 6 h, Inv. No: 353
 Ref: DOC 3/2, 686, no. D. 14
- 129 AE 28 mm, 8,73 gr, 6 h, Inv. No: 180
- 130 AE 27 mm, 8,73 gr, 6 h, Inv. No: 330
- 131 AE 26/29 m, 8,71 gr, 6 h, Inv. No: 323
- 132* AE 31 mm, 8,68 gr, 6 h, Inv. No: 157
 Ref: DOC 3/2, 686, no. D. 15
- 133 AE 26 mm, 8,64 gr, 6 h, Inv. No: 325
- 134 AE 30/31 mm, 8,55 gr, 6 h, Inv. No: 185
- 135 AE 29 mm, 8,51 gr, 6 h, Inv. No: 350
 Ref: DOC 3/2, 686, no. D. 18
- 136 AE 29/32 mm, 8,35 gr, 6 h, Inv. No: 1765
- 137* AE 25/29 mm, 8,35 gr, 6 h, Inv. No: 128
 Ref: DOC 3/2, 686, no. D. 20
- 138* AE 30/33 mm, 8,18 gr, 6 h, Inv. No: 154
 Ref: DOC 3/2, 686, no. D. 21
- 139 AE 25/29 mm, 7,96 gr, 6 h, Inv. No: 333
- 140* AE 28 mm, 7,93 gr, 6 h, Inv. No: 349
 Ref: DOC 3/2, 686, no. D. 22
- (Above C)
 Ref: DOC 3/2, 686, no. D. 23
- 141 AE 26/31 mm, 7,87 gr, 6 h, Inv. No: 168
 Ref: DOC 3/2, 686, no. D. 23
- 142 AE 24/27 mm, 7,86 gr, 6 h, Inv. No: 191
 Ref: DOC 3/2, 686, no. D. 24
- 143 AE 28 mm, 7,84 gr, 6 h, Inv. No: 337
 Ref: DOC 3/2, 686, no. D. 25
- 144 AE 27/30 mm, 7,71 gr, 6 h, Inv. No: 160
- 145 AE 27/29 mm, 7,59 gr, 6 h, Inv. No: 173
- 146* AE 25/28 mm, 7,45 gr, 6 h, Inv. No: 193
 Ref: DOC 3/2, 687, no. D. 28
- 147 AE 26/28 mm, 7,40 gr, 6 h, Inv. No: 156
- 148 AE 29 mm, 7,31 gr, 6 h, Inv. No: 172
- 149 AE 26/29 mm, 7,15 gr, 6 h, Inv. No: 358
- 150 AE 31/32 mm, 7,11 gr, 6 h, Inv. No: 356
- 151 AE 26/30 mm, 7,10 gr, 6 h, Inv. No: 363
- 152 AE 28/33 mm, 6,83 gr, 6 h, Inv. No: 335
- 153 AE 24/30 mm, 6,73 gr, 6 h, Inv. No: 188
- 154 AE 26/29 mm, 6,34 gr, 6 h, Inv. No: 361
 Ref: DOC 3/2, 687, no. D. 32
- 155 AE 27/28 mm, 5,78 gr, 6 h, Inv. No: 166
- 156 AE 24/27 mm, 5,77 gr, 6 h, Inv. No: 169
- CLASS F**
- AD 1060–1065**
- Ob.: No inscription, Christ seated on backless throne facing, bearded, with cross nimbus having pellet in each arm, wearing tunic and himation; right hand raised to side in blessing, left hand holds book. In field, IC XC pellet in each arm of nimbus cross. Overstruck on Class E and overstruck by Class G Corroded and illegible
- Rev: _ + _ ISXS / bASIL€ / bASIL' +
- 157* AE 29/33 mm, 10.97 gr, 6 h, Inv. No: 341
 Ref: DOC 3/2, 690, no. F. 1

158* AE 25/27 mm, 6,84 gr, 6 h, Inv. No: 14787 (Overstruck)

Ref: DOC 3/2, 691, no. F. 11;

CLASS G

AD 1065/1070

Ob.: No inscription, bust of Christ facing, bearded, with cross nimbus, wearing tunic and himation; right hand blessing inwards in sling of cloak, scroll held in left. In field IC XC. Border of large pellets

Rev: No inscription, bust of the virgin facing, nimbate, orans, wearing tunic and maphorion. In field, MP ΘV. Border of large pellets

159* AE 28/29 mm, 14,94 gr, 6 h, Inv. No: 1284

Ref: DOC 3/2, 692, no. G. 1

160* AE 27 mm, 10,67 gr, 6 h, Inv. No: 449

Ref: DOC 3/2, 692, no. G. 4;

161 AE 25/27 mm, 8,11 gr, 6 h, Inv. No: 1954

Ref: DOC 3/2, 693, no. G. 10

162 AE 27/29 mm, 7,82 gr, 6 h, Inv. No: 14673

Ref: DOC 3/2, 693, no. G. 11

163 AE 26/28 mm, 7,29 gr, 6 h, Inv. No: 5576

Ref: DOC 3/2, 693, no. G. 15

164 AE 25/28 mm, 6,28 gr, 6 h, Inv. No: 89

165* AE 26 mm, 5,51 gr, 6 h, Inv. No: 434

166 AE 25/27 mm, 5,46 gr, 6 h, Inv. No: 5581

167* AE 26/27 mm, 5,16 gr, 6 h, Inv. No: 331

168* AE 24 mm, 5,01 gr, 6 h, Inv. No: 1963

169 AE 23/25 mm, 4,05 gr, 6 h, Inv. No: 1157

CLASS I

AD 1075/1080

Ob.: No inscription, bust of Christ facing, having long, slightly forked beard and cross nimbus with one pellet in each arm of cross, wearing tunic and himation; right hand

blessing inwards in sling of cloak, left hand holds book. In field, IC XC

Rev: No inscription, Latin cross with one large and two small pellets at each extremity, small cross at intersection, and pellet with floral ornaments to l. and r. at base. Above, crescents to l. and r.

170 AE 24/25 mm, 7,27 gr, 6 h, Inv. No: 5647

Ref: DOC 3/2, 696, no. I. 1

171 AE 25 mm, 6,61 gr, 6 h, Inv. No: 2196

Ref: DOC 3/2, 697, no. I. 5

172 AE 25 mm, 5,81 gr, 6 h, Inv. No: 5583

Ref: DOC 3/2, 697, no. I. 15

173* AE 25 mm, 5,36 gr, 6 h, Inv. No: 1288

Ref: DOC 3/2, 697, no. I. 21

174 AE 22 mm, 5,35 gr, 6 h, Inv. No: 60

Ref: DOC 3/2, 697, no. I. 22

175 AE 26 mm, 5,01 gr, 6 h, Inv. No: 5578

Ref: DOC 3/2, 698, no. I. 29

176 AE 25 mm, 4,93 gr, 6 h, Inv. No: 5908

Ref: DOC 3/2, 698, no. I. 30

177 AE 25 mm, 4,33 gr, 6 h, Inv. No: 1289

Ref: DOC 3/2, 698, no. I. 40

178* AE 23/24 mm, 4,10 gr, 6 h, Inv. No: 13915

Ref: DOC 3/2, 698, no. I. 44

179 AE 21/23 mm, 3,92 gr, 6 h, Inv. No: 14746

Ref: DOC 3/2, 698, no. I. 46

180* AE 26 mm, 3,84 gr, 6 h, Inv. No: 437

Ref: DOC 3/2, 699, no. I. 48

181 AE 21/22 mm, 3,77 gr, 6 h, Inv. No: 14142

182* AE 25 mm, 3,74 gr, 6 h, Inv. No: 5577

Ref: DOC 3/2, 699, no. I. 51

183 AE 21 30 mm, 1,79 gr, 6 h, Inv. No: 5926

New?

AD 1050/?

Ob.: + ΕmmA NOVHΛ

Christ facing, bearded, sitting on a square backed throne. With nimbus cross having 2 pellets in each arm, wearing tunic and himation right hand raised in blessing in sling of cloak, left hand holds book with ornate cover from beneath. In field IC XC.

Rev: Three lines: ISXS / bASILE / bASIL,
above the lines; - * -

Below the lines; - * -

184* AE 25/27 mm, 7,61 gr, 6 h, Inv. No:
19



1



2



4



10



11



12





13



14



15



16



17



18



19



19



25



26



27



28



31



32





34



35



36



38



39



41





42



43



44



46



60



62





65



68



72



75



77



80



87



89



101





103



106



132



137



138



140



146



157



158





159



160



165



167



168



173



178



180



182





184



BIBLIOGRAPHY

- Ashton *et al.* 2000 S. Ashton, C. Lightfoot – A. Özme, “Ancient and Medieval Coins in Bolvadin”. *Anatolia Antiqua* VIII (2000) 171-195.
- Atlan 1976 S. Atlan, *1947–1967 Yılları Side Kazıları Sırasında Elde Edilen Sikkeler*. Ankara 1976.
- Bellinger – Grierson 1973 A. R. Bellinger – P. Grierson, “Leo III to Nicephorus III 717-1081”. Ed. P. Grierson, *Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection and in the Whittemore Collection 3/2*. Washington 1973.
- Bellinger 1961 A. R. Bellinger, *Troy the Coins*. Princeton 1961.
- Bendall *et al.* 1993 S. Bendall, L. Ilisch – C. Morrisson, *Die Fundmünzen aus der Stadtgrabung von Pergamon*. Berlin - New York 1993.
- Buttrey 1981 T. V. Buttrey, “III Byzantine, Medieval and Modern Coins and Tokens”. Eds. T. V. Buttrey, A. Johnston, K. M. MacKenzie – M. L. Bates, *Greek, Roman and Islamic Coins From Sardis* (Archaeological Exploration of Sardis). Boston (1981) 204-227.
- Çantay 2008 D. Çantay, *Edirne-Makedonya Kulesi Kurtarma Kazılarında Ele Geçen Bizans Sikkeleri ve Mühürleri*. Hacettepe Üniversitesi, Yayımlanmamış Yüksek Lisans Tezi. Ankara 2008.
- Casey 2010 J. Casey, “A Catalogue of the Greek, Roman and Byzantine Coins in Sinop Museum (Turkey) and Related Historical and Numismatic Studies”. *Royal Numismatic Society* 44 (2010) 88-90.
- Demirel-Gökalp 2014a Z. Demirel-Gökalp, “Bilecik Müzesi’ndeki Bizans Bronz Sikkeleri”. *TÜBA-KED* 12 (2014) 11-28.
- Demirel-Gökalp 2014b Z. Demirel-Gökalp, *Malatya Arkeoloji Müzesi Bizans Sikkeleri Kataloğu*. İstanbul 2014.
- Demirel-Gökalp 2011a Z. Demirel-Gökalp, “Bolu Arkeoloji Müzesi’ndeki Bizans Altın Sikkeleri”. *Anadolu Üniversitesi Sosyal Bilimler Dergisi* 11 (2011) 147-156.
- Demirel-Gökalp 2011b Z. Demirel-Gökalp, “Malatya Arkeoloji Müzesi’ndeki Bizans Sikkelerinin Değerlendirilmesi”. Ed. A. Baş, *XIV. Ortaçağ ve Türk Dönemi Kazıları ve Sanat Tarihi Araştırmaları Sempozyumu, 20–22 Ekim 2010*. Konuya (2011) 191-200.
- Demirel-Gökalp 2009a Z. Demirel-Gökalp, “Malatya Arkeoloji Müzesi’nde Bulunan Bizans Anonim Follisleri”. *Anadolu Üniversitesi Sosyal Bilimler Dergisi* 9 (2009) 217-250.
- Demirel-Gökalp 2009b Z. Demirel-Gökalp, *Yalvaç Müzesi Bizans Sikkeleri*. Ankara 2009.
- Demirel-Gökalp 2007 Z. Demirel-Gökalp, *Yalvaç ve Isparta Arkeoloji Müzelerinde Bulunan Bizans Sikkeleri*. Yayımlanmamış Doktora Tezi, Anadolu Üniversitesi. Eskişehir 2007.
- Foss 1979 C. Foss, *Ephesus after Antiquity: A Late Antique, Byzantine and Turkish City*. Cambridge 1979.
- Hendy 1986 M. F. Hendy, “The Coins”. Ed. R. M. Harrison, *Excavations at Sarachane in Istanbul*. New Jersey (1986) 285-365.

- Hendy 1999 M. F. Hendy, *Alexius I to Alexius V. Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection and in the Whitemore Collection, Volume Four Part 1, Alexius I to Michael VIII 1081–1261*. Washington 1999.
- Ireland – Ateşoğlu 1996 S. Ireland – S. Ateşoğlu, “The Ancient Coins in Amasra Museum”. Ed. R. Ashton, *Studies in Ancient Coinage from Turkey*. Ankara (1996) 132-137.
- Ireland 2000 S. Ireland, *Greek, Roman and Byzantine Coins in the Museum at Amasya (Ancient Amaseia) Turkey*. Ankara 2000.
- Kılıç 2012 S. Kılıç, “Bolu Arkeoloji Müzesi’ndeki Bizans Bronz Sikkeleri”. Eds. Z. Demirel-Gökalp et al., *Uluslararası Katılımlı XV. Ortaçağ ve Türk Dönemi Kazıları ve Sanat Tarihi Araştırmaları Sempozyumu Bildiriler Kitabı*, vol. II. Eskişehir (2012) 503-510.
- Köker 2013 H. Köker, “Aizanoi Kazısı 2011-2012 Yılları Çalışması”. *Aizanoi I* (2013) 133-151.
- Lightfoot 2012 C. Lightfoot, “The Amorium Mint and the Coin Finds, Amorium Reports 4”. *Berlin* (2012) 147-155.
- Metivier – Prignet 2010 S. Metivier – V. Prignet, “Dapres Les Collections Des Musees De Kayseri Et De Niğde”. Eds. P. Lemerle – G. Dagron, *Mélanges Cecile Morrisson, Travaux Et Mémoires 16*. Paris (2010) 577-618.
- Özyurt-Özcan 2007 H. Ö. Özyurt-Özcan, “Erzurum Arkeoloji Müzesindeki Bizans Sikkeleri”. *AST 24* (2007) 1-16.
- Sancaktar 2014 H. Sancaktar, “Antiokheia (Pisidia) Kazısı Sikkeleri:2008-2012”. Eds. K. Dörtlük, O. Tekin – R. Boyraz-Seyhan, *Birinci Uluslararası Anadolu Para Tarihi ve Numismatik Kongresi 25-28 Şubat 2013 Bildirileri Kitabı*. Antalya (2014) 515-524.
- Sancaktar 2013 H. Sancaktar, “2012 Yılı Pisidia Antiokheia Kazısı Sikkeleri: Ön Rapor”. Eds. B. Hürmüzlü, M. Fırat – A. Gerçek, *Pisidia Araştırmaları I Sempozyum Bildiri Kitabı*. Isparta (2013) 368-377.
- Tek 2002 A. T. Tek, *Arykanda Kazılarda Bulunan Antik Sikkeler Üzerinde Yeni İncelemeler: 1971-2000 Sezonları*. Yayımlanmamış Doktora Tezi, Ankara Üniversitesi. Ankara 2002.
- Tekin 1999 O. Tekin, *Yapı Kredi Koleksiyonu Bizans Sikkeleri*. İstanbul 1999.
- Ünal 2012 C. Ünal, *Manisa Müzesi Bizans Sikkeleri*. Manisa 2012.
- Yedidağ et al. 1998 S. Yedidağ et al., *Bolu 1998 Yılılığı*. Ankara 1998.
- Yuka 2015 A. Yuka, “Kayseri Arkeoloji Müzesi’nde Bulunan Bizans Dönemi Anonim Follisleri”. *Atatürk Üniversitesi Güzel Sanatlar Enstitüsü Dergisi 34* (2015) 90-115.
- Waage 1952 D. B. Waage, *Antioch on-the-Orontes IV/2 Greek, Roman, Byzantine and Crusaders' Coins*. London 1952.

