

THE USE OF MONOGRAMS ON BYZANTINE SEALS IN THE EARLY MIDDLE-AGES (6th TO 9th CENTURIES)

WERNER SEIBT

We possess many thousands of Byzantine seals with monograms, far more monograms than on other Byzantine artefacts. Nowadays many monograms exist that are constructed from only two or three letters, sometimes in ligature, like the initials of the name or symbol of a firm, a bank etc., e.g. VW. In former times there were partial and complete monograms. Byzantine seals in the early Middle-Ages are in particular complete ones.¹

Sealing has a very long tradition, stretching back some thousand years before Christ. The Byzantines sealed in many different media: clay, lead, wax, gold and silver. Clay bullae were used in the early Byzantine centuries, especially from Egypt we know a good number, some of them are even still today on the original papyrus, though many thousands have disappeared or fallen apart. Monograms are very rarely used on such clay bullae.



Fig. 1: Clay bulla with a monogram, probably Johannes, on a Viennese papyrus from the 7th century, but written by Apa Iulios.²

- 1 For Byzantine monograms in common cf. W. SEIBT, *Monogramm. RbK* 6 (1999) 589-614. Highly problematic is the publication R. FEIND, *Byzantinische Monogramme und Eigennamen. Alphabetisiertes Wörterbuch – Byzantine monograms and personal names. An alphabetized lexicon.* (Regenstauf) 2010; though much is taken over from good publications that is intermingled with a lot of errors and misinterpretations; cf. the review of W. Seibt in *JÖB* 61 (2011) 252-253.
- 2 A.-K. WASSILIOU, *Katalog der ausgestellten Siegel*, in: A.-K. WASSILIOU – H. HARRAUER (Hrsg.), *Siegel und Papyri. Das Siegelwesen in Ägypten von römischer bis in früh-arabische Zeit* (Nilus 4). Vienna 1999, 37, no. 28.

The use of wax is documented from the middle Byzantine centuries, and was especially in late Byzantine times quite common, but there exist only some late originals; on the other hand there is a good number of rings, stamps, miniature bulloteria, and sometimes wax seals are mentioned in documents – in contrast to the West, where sealing in wax was extremely common during the middle ages. But we possess a resin seal on an early Arab papyrus from Egypt, and one more resin fragment on another papyrus.³ To seal in gold was reserved to the emperor, starting only in the 9th century,⁴ and there are some silver seals of despots from the last centuries of Byzantium.

The overwhelming mass of Byzantine seals (here the term is used normally in the strict sense of *sealings*) are lead ones; I estimate the number extant at nearly 100.000. The earlier form appears as *plombs* (with imprints on one side only). Roman lead plombs are known from the 1st century AD on; they are decorated primarily with busts, often recognizable as imperial ones. Nonetheless the majority does not seem to come from the emperor(s) personally, but from government officers, particularly the ones found on the border of the Empire. At a relatively late date some plombs with a block monogram begin to appear (not before the 5th century). But these plombs disappear more or less at the end of the 6th century; only a small number dates from the 7th century.

They were replaced by seals, lead seals, with relief prints on both sides, printed by a bulloterion, pincers (*Siegelzange*). To my mind the earliest seals started slowly in the late 3rd century, and only in the 7th century their number gradually increased, with the culmination in the 11th century; from the 12th century on, when the empire became already smaller and the social structure of the population changed somehow, fewer people ordered a bulloterion and sealed. But sealing in lead did not stop altogether: the Oecumenical patriarch in Constantinople seals even today in lead, like the pope in Rome. On lead seals we can find thousands of monograms, quite different in construction over time; they were only in some centuries out of fashion.

At the beginning we have to do with *block monograms*. Greek block monograms were already used in Classical times (for instance on coins mentioning the mint), but they came into fashion in the Byzantine world from the 6th or already 5th century till the early 7th century. On seals and other media they hide normally

3 WASSILIOU (cited n. 2), 37, no. 27.

4 Cf. W. SEIBT, *Chrysobull. LMA* 2 (1983) 2050 (with previous literature). An exception was the chrysobull of the Despotēs Thomas of Epirus, cf. W. SEIBT, Ein Goldsiegel des Despoten Thomas von Epirus aus dem frühen 14. Jahrhundert. *Ηπειρωτικά Χρονικά* 31 (1994) 71-76. Sometimes you find the hypothesis, that already Charles the Great had printed golden bulls, but that is wrong.

the name of the owner of the seal, sometimes a title (like ἀπὸ ὑπάτων), Greek block monograms are in the genitive, Latin ones in the genitive or nominative. Though there are some partial monograms on coins, the monograms on seals are nearly always complete ones, including the end of the name or word. Block monograms are constructed around a “central letter”, in ligature with the other elements of the word, some letters are integrated into other ones. It is sufficient for a letter to appear once, though in the reading of the word(s) this letter can be used twice or even more often. The problem is that some combinations are quite ambiguous; e.g. if there is a Chi inscribed into a Pi, there are many more solutions possible, including My, Ny, Alpha, Ypsilon, perhaps also Delta. In a special case it could be that we have to read only Pi, My and Alpha, no Chi at all. Iota is normally not given, because it can be read in every vertical bar. Every small hasta has its own meaning, but sometimes one does not know if e.g. an elongated horizontal bar of a Pi is only a kind of decoration or if we should read Tau and/or Gamma.

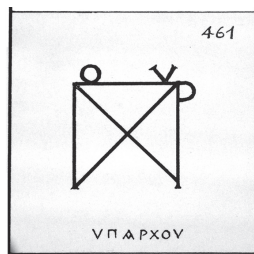


Fig. 2: Figure of such a monogram in the catalogue Zacos – Veglery.⁵ The editors interpreted it as ὑπάρχου and placed it under the „certain solutions“, but there are some more possibilities to transcribe it.

Lead seals (with imprints on both sides) started at the end of the 3rd century. “Imperial” ones had at the beginning a bust (or busts) of the emperor(s) on one side, a Nike on the reverse. Even if there are letters like DDNNAUGG they remain more or less anonymous, though hinting at special emperors by the dress/hair-dress or the number of the busts, e.g. if there are four emperors depicted. It is possible that a seal with a warrior on one side and the legend IVLIANVS on the other one points to the Caesar or emperor Julianus (355-360-363).⁶ Another problematic piece has on both sides only the Greek legend MAPK/IANE (Markianos was emperor 450-457).⁷ An important step was taken by emperor

5 G. ZACOS – A. VEGLERY, *Byzantine Lead Seals I. Plates*. Basel 1972, pl. 242, no. 461.

6 Cf. W. SEIBT, *Die byzantinischen Bleisiegel in Österreich. 1. Teil: Kaiserhof (Veröffentlichungen der Kommission für Byzantinistik, II/1)*. Vienna 1978, no. 3.

7 SEIBT (cited n. 6), no. 5.

Zenon (474-491), where the bust offers also the legend D N ZEN (the reverse has a standing figure of Nike/Victoria).⁸ This DN, *dominus noster*, is the distinctive imperial sign of authority. Anastasios went a step further with the legend D N ANASTASIUS PP AUG, supplementing the imperial name with PPAUG, *perpetuus Augustus*.⁹ The imperial seals type was by Justinian I somehow “christianized” by crosses on either side of Nike. Soon afterwards Nike was replaced by the Mother of God on imperial seals.

And there is another type of a Justinian seal with a Greek block monogram, probably Ἰουστινιανοῦ (although the monogram itself could also be read as Ἀναστασίου!) on one side, and the simple name IVSTINIANVS (without a title, in the nominative, in Latin) on the reverse.¹⁰



Fig. 3: Seal of Justinianus.¹¹

Was this type, known by many exemplars, an imperial one of Justinian I, as people often think, or was it used perhaps by members of the government in the name of the emperor, or does it stem from a time before Justinian had become co-emperor, or was it even a personal seal of another homonymous? We do not know for sure.¹² The “normal” imperial seals of this time offer on one side the bust(s) of the emperor(s) with the circular Latin inscription beginning with DN (*dominus noster*), on the other side a Nike, or, probably beginning with Justinos II, the Mother of God, the Theotokos.¹³

8 I. V. SOKOLOVA, *Pečati vizantijskich imperatorov. Katalog kolekcii*. St. Peterburg 2007, no. 5 (three exemplars).

9 SOKOLOVA (cited n. 8), no. 6; ZACOS – VEGLERY (cited n. 5), no. 1.

10 Cf. e.g. SEIBT (cited n. 6), no. 7; ZACOS – VEGLERY (cited n. 5), no. 2.

11 ZACOS – VEGLERY (cited n. 5), no. 2b.

12 They are not accepted as imperial by J. NESBITT (with the assistance of C. MORRISSON), *Catalogue of Byzantine Seals at Dumbarton Oaks and in the Fogg Museum of Art VI: Emperors, Patriarchs of Constantinople, Addenda*. Washington, D.C. 2009, 7-8.

13 The question, which emperor was the first to introduce a bust of the Theotokos on the official imperial seal, is still open. W. SEIBT, *Die Darstellung der Theotokos auf byzantinischen Bleisiegeln, besonders im 11. Jahrhundert. Studies in Byzantine Sigillography* 1

The Germanic kings in former Roman provinces used monograms on coins and other media, especially the Ostrogoths, beginning with Theoderich. They used Latin block monograms, in nominative, sometimes including free standing letters, because round or curved ones cannot fit well into the system.¹⁴ A good example is Theoderich's monogram.



Fig. 4: Monogram on a silver coin of Theoderich, a quarter-silqua minted in Ravenna (493-518).

The central block contains R, H (at the same time N and V for U) and D (at the same time a retrograde C); more modest are E and T; O and S are separated. The reading is clear: D(ominus) N(oster) THEODERICUS. DN is the principal sign of authority, just like on imperial coins.

And we know some rare half siliqua silver coins from Carthage¹⁵ and half folles and denarii as copper coins from Ravenna¹⁶ with imitations of this type for Justinian I, to be read as D N IUSTINIANUS. But there is nothing like that on imperial seals.

From the Ostrogothic king Heldebad (540-541) we did not know a monogram before (and he had no chance to print coins), but just shortly I could decipher it on a buckle found in Schwetzingen in the Rhein-Neckar area in Germany; the Frankish officer of this tomb had participated in the wars of king Theudebert in Northern Italy starting in 539. The monogram reads: DN HELEBADUS (also HILDEBADUS would be possible).¹⁷

(1987) 36 thinks about Justinus II, but NESBITT – MORRISSON (cited n. 12), no. 6.1 prefer the elder interpretation as Justinian I (according to ZACOS – VEGLERY, l.c., no. 4).

14 Cf. M. A. METLICH, *The coinage of Ostrogothic Italy*. London 2004, 123.

15 W. HAHN (with the collaboration of M. A. METLICH), *Money of the Incipient Byzantine Empire (Anastasius I – Justinian I, 491-565)* (*Veröffentlichungen des Instituts für Numismatik und Geldgeschichte der Universität Wien*, 6). Vienna 2000, pl. 17, 53.

16 HAHN – METLICH (cited n. 15), pl. 34, 235 and 240.

17 W. SEIBT – U. KOCH, *Eine Schilddornschnalle mit dem Monogramm des Ostgoten Königs Heldebad (540-541) aus Schwetzingen*, in: TOVTO APECH TH XWPA. *Festschrift für W. Hahn zum 70. Geburtstag* (*Veröffentlichungen des Instituts für Numismatik und Geldgeschichte der Universität Wien*, 16). Vienna 2015, 341-343.



Fig. 5: King Heldebad's monogram on a buckle.



Fig. 6: The Latin monograms of a Theodoros komes.¹⁸

On the obverse a special form of a block monogram, reading *Theodori*. In the upper part of the letter R we can discern also O and at the same time D. The letter I can be read in every vertical bar; only E is missing – so it is a partial monogram. On the reverse in cross form the legend *comitos* (end of the 6th – first half of the 7th century).

Are there seals comparable with Justinian's type mentioned above? A seal in the Hermitage has on one side a cruciform monogram, in this case to be solved as Μαυρικίου (but it could also read Μάρκου, Μακαρίου, even Κομαρίου, Μαρκίου), and on the other side the Latin legend MAU-RICII (in the genitive, as normally in cases like that).¹⁹ Of Phokas we have a type with a Greek monogram (in a special form) reading Φωκᾶ, and on the other side a Latin cruciform monogram reading FOHCA.²⁰ Nowadays we should be very cautious in attributing such seals rashly to emperors.

Many early Byzantine seals (from 5th to the 7th century) offer only a name. But, as in this time only persons of authority, especially people of the imperial

18 Collection WASSILIOU-SEIBT (Vienna), no. 467.

19 E. V. STEPANOVA, *Pečati s latinskimi i greko-latinskimi nadpisjama VI-VIII vv. iz sobranija Ermitaža*. St. Peterburg 2006, no. 99; p. 148, fig. 99.

20 STEPANOVA, *Pečati* (cited n. 19), no. 106; p. 150, fig. 106.

or ecclesiastical administration, were in possession of a bulloterion and printed seals, even these simple names are in a certain sense already signs of authority. And if a seal's imprint was quite simple, also illiterate persons, e.g. soldiers, learned quickly to recognize the seal of their commander or the governor or the bishop etc. Similarly that was also the case with simple monograms, but we know also quite complicated, sophisticated early ones. Why were such monograms produced? The diameter of early seals was normally small, rarely bigger than 2 cm, and the die cutters were in the beginning not yet trained to incise very small letters; monograms could use much bigger letters. But that is only one reason – it was a real mode in this time. Anyway, the block monograms were more or less short-lived in Byzantium.

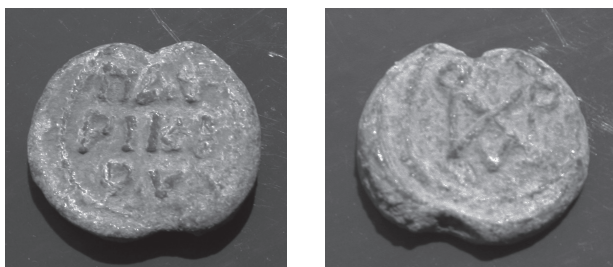


Fig. 7: Seal of Marianos patrikios.²¹ On the obverse a Greek block monogram probably reading Μαρριανου, on the reverse the title of this man, πατρικιου. Later 6th – first half of the 7th century.

The “typical Byzantine monogram” became the *cross monogram*, with letters more or less affixed on the arms of a Greek cross (and often also one letter in the center). In former times people thought that cross monograms began in the time of Justinian I, with the monogram of his quite extraordinary wife, the empress Theodora, visible on capitals in the Hagia Sophia, but now we know that such a cruciform monogram appeared already on a coin type of Justinos I, Justinian's uncle and predecessor, on a minimus from Antiocheia, starting in 522.²²

These cruciform monograms presented names, titles, offices etc. on seals, in the 8th century also a combination of such elements. But that stopped more or less in Byzantium at the end of the 8th century. On the other hand we know a good number of invocative monograms (such as “Mother of God, help”), starting around the middle of the 7th century. Till the later 7th century the cruciform monograms of names, titles etc. were in the genitive, but, starting at least in the

21 Collection WASSILIOU-SEIBT, no. 469.

22 HAHN – METLICH (cited n. 15), p. 37; 105; pl. 10, NN67.

last third of the 7th century, also in the dative (dependent on an invocation, grammatically needing the dative). In these cruciform monograms the single letters were only rarely in ligature, so they appeared less ambiguous.

Over time many monograms became more difficult to interpret, containing on one side a name (sometimes even very rare names!) and on the other side a title or an office; and when both elements were combined in a single monogram, often it became a real enigma with more possibilities to interpret it, so many people did not understand it without additional information – including modern scholars, even specialists. But the monogrammatic seal represented authority by itself, and we may assume that at least many addressees could recognize or remember the person who had sealed a document, an order, a letter etc., perhaps initially only with the help of this document.

Invocative monograms started around the middle of the 7th century. Some typical and often used types were collected by father Laurent; we use to call them primarily according to this scheme,²³ though there are much more types. Laurent called all monograms in this scheme “monogrammes marials”,²⁴ but that is only partially right. In the second half of the 7th century the type Laurent I dominated, in the 8th and 9th centuries the type Laurent V. Both read Θεοτόκε βοήθει (“Mother of God, help!”), often combined with the tetragram τῷ σῷ δούλῳ (“your servant”) in the free quarters of the monogram. Especially in the 9th century another monogram became very popular, type Laurent VIII, reading Κύριε βοήθει (“Lord help!”).



Fig. 8 offers an example of the type Laurent I:²⁵ The Eta at left is fragmented, and at the top the O is nearly missing. On the reverse name and title or office are in genitive. If we read the name Νικήτα (genitive), the title or office must have B, P and OV, e.g. βικαρίου. But that is not for sure. Ca. 660/680.

23 At first in V. LAURENT, Documents de sigillographie byzantine. La collection C. Orghidan (*Bibliothèque byzantine – Documents*, 1). Paris 1952, pl. 70, but sometimes repeated by him and others.

24 E.g. in V. LAURENT, Le corpus des sceaux de l'Empire byzantin. V: L'Église. Planches. Paris 1965, pl. 197.

25 Collection WASSILIOU-SEIBT, no. 442.



Fig. 9 shows an example with the type Laurent V and tetragram.²⁶ On the reverse we read Γρηγορᾶ πατρικ(ίω) β(ασιλικῶ) (πρωτο)σπαθ(αρίω). Ca. last third of the 8th century.

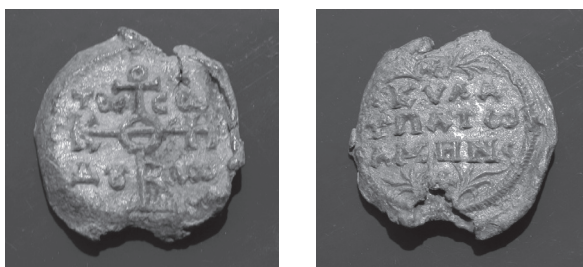


Fig. 10: Seal of Akylas hypatos.²⁷ On the obverse the invocative monogram Laurent V with tetragram, the reverse reads Ἀκύλα ὑπάτω· ἀμήν. 8th century, first half.



Fig. 11: Seal of Sergios, military commander of Makedonia.²⁸ On the obverse the invocative monogram Laurent, type V with tetragram. The reverse reads: Σεργίω β(ασιλικῶ) (πρωτο)σπαθ(αρίω) (καὶ) στρατηγ(ῶ) Μακεδ(ονίας). 9th century, ca. first half.

26 Collection WASSILIOU-SEIBT, no. 441.

27 Collection WASSILIOU-SEIBT, no. 400.

28 Collection WASSILIOU-SEIBT, no. 480.



Fig. 12 represents the same invocation with a monogram of a different type, not registered in Laurent, probably an early form, ca. 660/690, reading Θεοτόκε βοήθει. On the reverse also a cruciform monogram, probably Θεοδώρου στρατηλάτου.²⁹

Only rarely other invocations were rendered in the form of a monogram, like Αγία Τριάς, βοήθει (“Holy Trinity, help!”). In the tenth century the invocative monogram appears sometimes actinomorphic (“Strahlenmonogramm”), where the letters are fixed on eight rays.³⁰ Some very last exemplars of invocative monograms reach up to the early 11th century.³¹

Byzantine seals did not use graphic signs like Slavic, Scandinavian or Turkic tamgas, runic characters or other emblems as signs of authority. But we find crosses (as signs of victory!), animals like eagles or lions (symbols of power) etc., even figures of saints could be interpreted also in this respect, though primarily they are seen as patrons of the owner of the seal. On the other hand a non-imperial owner of the seal is – with extremely rare exceptions – not depicted on Byzantine seals, in contrast to Western practice. Perhaps the monogram of the last Byzantine dynasty, the Palaiologoi, found in different media, comes near to an emblem, as an imperial symbol. And there appeared also other monogrammatic forms in this time, as the four Beta and similar emblems.³²

The seals give information about the owner and speak about the power and authority of the persons, but without special signs like a coat of arms. Monograms of names fell in Byzantium out of use around the end of the 8th century, only to return on a much smaller scale in late 12th century, in an epigonus

29 Collection WASSILIOU-SEIBT, no. 302.

30 Cf. e.g. G. ZACOS (compiled and edited by J. W. NESBITT), *Byzantine Lead Seals II*. Berne 1984, no. 914 and 917; SEIBT, *Österreich I* (cited n. 6), no. 51; I. JORDANOV, *Corpus of Byzantine Seals from Bulgaria III*. Sofia 2009, no. 553 and 1649.

31 The seal of Eustathios, patriarch of Constantinople, is dated to the period 1019-1025: N. OIKONOMIDES, *A Collection of Dated Byzantine Seals*. Washington, D.C. 1986, no. 75.

32 Cf. e.g. the Epitaphios of Maria from Mangup, who died 1477: SEIBT, *Monogramm* (cited n. 1), col. 610-614, fig. 17, 18 and 23.

way; in this period primarily family names are hidden behind the monograms. These late monograms often use extraordinary forms (Sonderformen). And at least in some cases they are quasi partial monograms; if I understand it right, they contain all the consonants, but not all vowels, and they do not care about the ending of the name.³³

We can find Byzantine monograms also on rings of different value (golden,³⁴ silver, copper, iron ones etc.), on coins, on glass weights (for coins), on silver ware (monogrammatic stamps), on capitals and plates, in manuscripts, on clay ware, even in mosaics. In some cases there can be also a quite different meaning behind the monogram, e.g. a wish like the papal monogram “bene valet”.

In Vienna the study of Byzantine monograms has some tradition. In 1971 Dr. med. Walter Otto Fink finished his PhD thesis with the title “Das byzantinische Monogramm”. He had collected much material, but some of his solutions were more or less fortuitous, offering only one of more possibilities, some were even erroneous. After some time I developed a new method to solve monograms. If we bring all the readable letters of a monogram (including the possibly additional ones) in an alphabetic order, and do the same with the letters of the names, titles, offices etc. which were used in these centuries, it is no problem to combine both categories. W. O. Fink started with the second part of this project using the genitive form of the respective names etc., producing already some meters of cards. In many cases there is more than one solution possible, though some frequent ones, others only rarely documented. An example to demonstrate the problem of interpretation: The modest combination A, K, Λ, O and V gives Λουκά, Καλοῦ, Ἀκύλου, Ἀλικίου (Latin *Alicii*), Καικιλίου (Latin *Caecilii*), Καλικίου, Καιλίου

33 Cf. e.g. W. SEIBT, Ein Blick in die byzantinische Gesellschaft. Die Bleisiegel im Museum August Kestner. Rahden/Westfalen 2011, no. 37 and 39; A.-K. WASSILIOU-SEIBT – W. SEIBT, Der byzantinische Mensch in seinem Umfeld. Weitere Bleisiegel der Sammlung Zarnitz im Museum August Kestner. Rahden/Westfalen 2015, no. 92; J.-CL. CHEYNET – D. THEODORIDIS, Sceaux byzantins de la collection D. Theodoridis. Les sceaux patronymiques (*CRHCB – Monographies*, 33). Paris 2010, no. 139.

34 There are a lot of precious golden rings with monograms. For the ring of Neboulos, the commander of the Slavic troops under Justinian II, see W. SEIBT, Neue Aspekte der Slawenpolitik Justinians II. Zur Person des Nebulos und der Problematik der Andrapoda-Siegel. *VV 55* (1998) 126; in the publication A. GONSOVÁ – CH. KONDOLEON, Art of Late Rome and Byzantium in the Virginia Museum of Fine Arts. Richmond, Va 1994, 52f., the monogram was misunderstood. The monogram on the golden ring (c. 7th century) in: B. CHADOUR-SAMPSON, Antike Fingerringe – Ancient Finger Rings. Die Sammlung Alain Ollivier – The Alain Ollivier Collection. Munich 1997, no. 31 (p. 146-148) was erroneously interpreted as “Bassou”; it could read Καισαρίου, Ἀρσακίου or Οὐρσακίου. The unsolved monogram on the late Byzantine golden ring in J. SPIER, Late Byzantine Rings, 1204-1453. Wiesbaden 2013, no. 15, could read Μεσσοποταμίτου.

(Latin *Caelii*), Καλίου, Καλοκάλου, Καλόου, Κοιλακίου, Κλουκά; some of these names are quite rarely documented (e.g. only in Preisigke for Egypt³⁵), but who should forbid a person with an unusual name to create a monogram for himself to use it on his seal, ring etc.? If we see that the monogram is in dative, it is no problem to adapt the system accordingly. We had planned to build up also a combination of names with titles, offices etc., but we capitulated soon in front of the mass of possible data. So we are still on unstable ground dealing with complex monograms, leaving much room for phantasy. Anyway, though there was already much progress in the last decennia, there is still much to do for a better understanding of Byzantine monograms.

Institute for Medieval Research
Austrian Academy of Sciences

35 F. PREISIGKE, *Namenbuch, enthaltend alle griechischen, lateinischen, ägyptischen ... Menschennamen ...* Heidelberg 1922 (repr. Amsterdam 1967).

ABSTRACT

The paper deals especially with monograms on Byzantine lead seals. The early form was the *block monogram*, a type used already in Classical times, which came into fashion in the Byzantine world in the 6th or already in the 5th century and remained important till the early 7th century. Such monograms hide normally a name, a title or an office, the Greek ones in genitive, the Latin ones in nominative or genitive. Many of them can be read in different ways. For the double using of parts of letters for other ones the well-known Latin monogram of Theoderich is explained in detail.

But the “typical Byzantine monogram” became the *cross monogram*, with letters more or less affixed on the arms of a Greek cross. The earliest example stems from a coin of Justinus I, starting 522, quite earlier than Theodora’s monograms on capitals in the Hagia Sophia. These cruciform monograms presented in the beginning also a name, a title or an office, but in the 8th century already often a combination of them; these monograms with prosopographical information stopped in Byzantium at the end of the 8th century.

On the other hand *invocative monograms* (like Θεοτόκε βοήθει), often with the tetragram τῷ σῷ δούλῳ in the free quarters of the monogram, started around the middle of the 7th century and can be found till the earlier 11th century. The most common ones were collected by V. Laurent – we use this system till today, though there are much more types documented.

An important problem is that sometimes single letters are “hidden” in another letter, e. g. Lambda in Alpha or Delta, Epsilon in a Kappa on the left bar of a cross monogram, Sigma in Epsilon, Sigma in Kappa, Omikron in Rho, etc.

In Vienna we developed a special program to solve many monograms. If we bring all the readable letters of a monogram (including the possibly additional ones) in an alphabetical order, and do the same with the letters of names, titles and offices which were used in this time, both categories can be combined without problems. Sometimes even modest combinations of letters can be interpreted in many ways – e.g. with usual and very rare names; but who could forbid someone with a rare name to produce a monogram for himself?

