

# THE DENARII SERRATA OF THE ROMAN REPUBLIC: SOME CONSIDERATIONS



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As it is known the denarii serrati represent a particular and original typology of republican denarii having the edge indented, instead of linear.

A curious comparison for these particular types of roundels can be found in some Macedonian and Syrian bronzes issued during the II century BC, such as those minted by Philip V and Perseus (185-168 BC), by Antiochus IV (175-164 BC), by Demetrius I Soter (162-150 BC) and by Alexander II Zabinas (126-122 BC).) and by Alexander II Zabinas (126-122 B.C.), such specimens were however obtained by casting in moulds of a suitable shape, probably after the knowledge of the Roman serratic denarii; the same for some Carthaginian nominals in noble metal dated around the years of the third Punic war.

In the course of the history of studies, many hypotheses have been advanced to make the serratus have a certain function. The most known is connected to an anti-fraud or anti-fourré mechanism: the cuts on the edge of the denarii, showing a possible copper or bronze core, would have guaranteed the purity of silver and therefore the originality of the coin. In 1924 Mattingly proposed a connection between the serratus and the gentes of the Marian side; from a well-known passage of Tacitus (Tac.Germ.5) was formulated the hypothesis that the serratus would be used to trade with the Germans. Later it has been hypothesized that they would have had a religious destination, or that there would have been a connection with the marks of value on the obverse, and finally that the serration would have been made for a simple aesthetic value. Recently, serratos have been studied in their physical and microstructural properties. The analysis of the edge of the coins has revealed the constant presence of microglyphs on the surface of each cut: this has shown that the indentation was performed on the roundel, before minting, through the use of a mechanical system.

The fragmentation of the edge of the coin would have been created intentionally to relieve the tensions induced by the minting by distributing them radially; the reason for this technical expedient proved to be absolutely necessary since a fragile silver alloy of first cupellation with a percentage of copper considerably lower than the other Republican denarii was used. During the working of the plain-edged coins copper was added both to decrease the silver title and to improve the mechanical properties of the coin itself: therefore in the coins under examination, to avoid the disintegration of the almost pure silver coin during the minting phase, the practice of indentation was absolutely necessary. In the light of these considerations the above passage of Tacitus could acquire a new key of interpretation: the historian, more than a century after the minting of the last serratus, simply describes the Germans' preference for coins of purer silver than those circulating at his time. It is not by chance that among the numerous barbaric imitations of republican denarii the serratus types are held in great consideration and, in most cases, are even made with serrations, sometimes only impressed on the roundel.

The first serrate issue of the Roman Republic appears in the famous series of anonymous denarii with symbols, dated by Crawford between 211 BC and the middle of the next century. Despite numerous studies still has not been able to shed light on the meaning of the many symbols present in these denarii.

As for our case, that is the denarius with the wheel symbol on the R/, for the sake of completeness we must remember that this appears in the coinage of Etruria, Luceria and Massalia, but it is also known as the wheel is a purely Roman symbol related to the military sphere, the road system and roads: with caution we could assume the destination of this denarius to exceptional expenses for the construction of one or more *viae publicae* between the end of the third and the first half of the second century BC.

The serratos minted subsequently, with a few exceptions, can be easily grouped into four major series, both on the basis of the chronology proposed by Crawford through the study of epigraphic and stylistic elements, and on the basis of a technical criterion: the average number of teeth present on the edges of the coins.

The first series is composed of five issues having at the R/ the same type: the cock king Bituitus in chariot and at the exergue the legend L. LIC.CN.DOM. . These issues, according to Crawford, were minted around 118 BC, the year of the dedication of the first Roman colony beyond the Alps, Narbo Martius. The colony was connected to the road network of the Italic peninsula by means of the Domitia road (the first

Roman road in Gaul that took its name from Cn. Domitius Ahenobarbus ) built in the same years. The foundation of the colony, desired by L. Licinius Crassus against the opposition of the Senate, united in the framework of the Gracchan reform the characteristics of the military appropriation with the purpose of land assignments to the knights. The second series consists of four issues dated between 106 and 105 BC. We are in the years immediately following the decisive reform of the army wanted by G. Marius. Before this institution, the fundamental concept of the Servian constitution was in force, which limited the conscription only to the landowners and ordered the different weapons only according to the classes of the census holders. In 107 B.C. Marius declared that he would enlist in the army all Roman citizens, including those who until then had been excluded, i.e. those with no property. The huge expenses for the soldiers' equipment were paid by the state and the bond of clientele, a very important factor of the whole Roman socio-political structure, found definitely its reflection in the military field.

The third series is composed of twelve issues dated between 83 and 79 BC. the years of the Sullan dictatorship. As it is known, in this short period of time huge expenses seriously affected the Roman state treasury: the reconstruction of the Capitoline Jupiter temple, the deduction of numerous colonies, the proscription lists, the demobilization of the victorious armies, the imposition of numerous extraordinary taxes, finally the promulgation of various laws aimed to limit the expenses of the wealthiest families and to find, through confiscations, lands for the veterans.

The fourth and last series is composed by four issues dated between 72 and 70 BC. We are in the middle of the years of the servile revolt led by Spartacus and in the year following his defeat. The most demanding of the servile wars that Rome had to face for three years against tens of thousands of slaves, seriously threatened the Roman economy. Spartacus in fact directly undermined the latifundia system, mainly run by slaves and considered the primary focus of large-scale agriculture in the Italic peninsula.

The elements highlighted so far, contribute to delineate the following picture: several series of serratus denarii were minted in particularly critical moments in the economic history of the Roman Republic; probably the operation consisted in placing on the market coins with an intrinsic value slightly higher than normal.

It could be assumed with extreme caution that this practice had certain relations with the military sphere or that it was used to increase the commercial value of the circulating currency issued by the Roman state in particular historical junctures during which, for internal political reasons,

Rome could have lost the strength of its silver coinage in trade relations with the entire Mediterranean basin.

Moreover, a key element of the matter could be represented by the radical disappearance of the serratus denarius towards the last years of the republic, in favour of the progressive appearance of the aureus which, from Caesar onwards, entered definitively into circulation in the Roman commercial orbit.

The monetary system of the republican Rome was based on the denarius and its submultiples. The urban denarii, both with plain and serrate borders, minted in Rome or in mints authorized by the Senate and subject to the magistracy of the *Illviri aere, argento auro flando feriundo*, are today generally classified as "ordinary". When instead we find ourselves in front of an issue bearing the mark *Ex Senatus Consulto* and signed by quaestors, praetors, *edili curuli* and *edili della plebe*, this is classified as "extraordinary". At this point the denarii serrati could become part of a new classification, as if they were "exceptional" urban denarii. They are not at all coins with particular celebratory, religious or aesthetic meanings: they are a real denarial class apart, whose production appears to have been systematically planned.

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For Macedonian coin types see e.g. SNG Copenhagen, 1292; BMC, 60; for Carthaginian coin types see SNG Copenhagen, 404v; on this question see Catalli 2003, p. 86, according to whom the first serratus denarii represent an imitation of these foreign nominals; see also Nicolai 2005, *Considerations and reflections*, p. 16, who considers the Macedonian issues a *terminus ante quem* for the Roman serratus.

Forzoni 1995, pp. 296-298. The appearance of numerous serrate-suberati denarii in the medal collection has made the theory of the anti-fraud mechanism scarcely credible (Catalli 2003, pp. 85-86, who points out that the activity of the magistrate in charge of minting money was inevitably subject to controls by the urban quaestor), despite this some scholars have linked the production of numerous serrati during the Sullan dictatorship with the promulgation of the *Lex Cornelia testamentaria nummaria* (Cic.Verr. II.1,42,108) which affected a series of behaviors concerning *crimen falsi*, Della Corte 1999, p. 34.

Mattingly 1924, pp. 46-52. The hypothesis was later debunked in Sydenham 1935, pp. 211-212.

Martinelli 1976; Della Corte 1999, p. 22; Savio 2001, p. 119.

Fox 1983, p. 101. This assumption inevitably implies that serratos were indented subsequent to minting.

Ficicchia 1989, p. 193. The numerous exceptions render the theory lacking in credibility.

BMC, Grueber, 1910, I, p. 159; Finetti 1987, p. 45.

Balbi de Caro et al. 1999.

In Guidarelli 2005 there is a reconstruction of a machine used to create these roundels. According to Finetti 1987, p. 46 the serration was carried out on the roundel before minting by means of a chisel or other cutting tools. Different opinion in Zehnacker 1973, I, pp. 48-51, according to whom the serratos were obtained with a patient filing work after having been coined normally.

Davis 2003, *passim*.

An excellent summary of the issue with extensive previous bibliography in Nicolai 2005, *Considerations and Reflections*, pp. 5-16.

The hypothesis of Thomsen that the symbols represent the indication of the mint has shown clear relations with the *Magna Graecia* and has opened many problems of chronology. Among the numerous studies see e.g. Arslan 1989; Breglia 1952; Caccamo Caltabiano 1976; Parise 1993; Jenkins 1987; Fusi Rossetti 1991.

Crawford 1974, 79/1. According to Nicolai 2005, Considerations and Reflections, p. 15, the wheel symbol is in close connection with the indented roundel.

For the Italic coinage see Montenegro 1996, e.g. nos. 276-284 and 1070; for the Massalian coinage see SNG Manchester, VII, 9.

The wheel is in fact used in numerous personifications of roads, just to mention a few examples: on one of the Aurelian reliefs of the Arch of Constantine - via Flaminia (Bianchi Bandinelli - Torelli 1976, no. 142); on the R/ of a denarius of Trajan - via Traiana (Montenegro 1988, no. 886); on a bas-relief from the Roman countryside - via Latina (Tomassetti 1976, IV, p. 11).

As already hypothesized by Lippi 1997 who connected the symbol of the wheel with the via Valeria built in Sicily by the consul of 210 BC M. Valerius Levinus. During the II Punic War other viae were built in Italy, such as the Aemilia and the Popilia Annia, moreover the existence of at least two different types of serrati is known, one with a six-spoke wheel, one with an eight-spoke wheel: Varesi 2005, p. 5, n. 29; for the viae see Radke 1981, *passim*.

Crawford 1974, 202/1b - 391/1a - 407/1 - 412/1.

Della Corte 1999, p. 35, independently of the microstructural analyses, divided the serratus coins into four series on the basis of the average number of teeth present on the edges of the coins. The study shows that the serratus coins with the wheel symbol would have  $33.0 \pm 1.0$  teeth, the serratus coins with the type of Bituitus in chariot on the R/ would have 26 teeth, those minted from 83 to 79 BC 22, and finally those minted from 75 to 64 BC would have 23 teeth. The series minted from 106 to 105 BC has not been analyzed, but the reason for such clear differences in the number of teeth according to the years of issue could be due to the changes made over the years to the machinery used for the production of the roundels after long periods of inactivity.

Crawford 1974, 282/1,2,3,4,5. The historical data that follow from here are extrapolated from Rossi 1980.

Crawford 1974, 311/1-313/1-312/1-314/1.

Crawford 1974, 364/1-358/1-362/1-378/1a,b,c-377/1-372/1,2-380/1-379/2-383/1-382/1-384/1.

Crawford 1974, 399/1a,b-401/1-404/1-403/1.

Since copper was a relatively abundant metal in the ancient world, found in numerous deposits all over the Mediterranean basin (Giardino 1998, pp. 115-119), it would be natural to exclude the "availability" factor from the production of the roundels under examination.

The last minted serratus was dated by Crawford to 64 BC, Crawford 1974, 412/1.

For a clear synthesis of the gold issues of the Roman republic see Savio 2001, pp. 123-127. Note how the rare aureus minted under Sulla for Mommsen 1977, ch. XI, par. 17 "can be considered almost as medals given by him on the occasion of his triumph".

Crawford 1974, pp. 607-608; excellent summary in Bernareggi 1963, p. 9, nt. 11 and p. 10, nt. 13.

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