I. INTRODUCTION

For more than a century the discovery of the Ilanz cache, now at the Räthisches Museum of Chur, has provided elements to scholars\(^1\) for the study and the interpretation of the coinage of Desiderius (757-774AD), the last king of the Lombards. The cache is particularly rich in Desiderius’s starred tremisses\(^2\): gold coins with the king’s name that, suggested by a previous mintage of King Aistulf (749-756AD), also inspired the subsequent gold production of Charlemagne for Italy.

Such star tremisses are characterized, on the obverse, by the honorific \textit{flavia} title followed by a city name; the inscription surrounds a linear circle embracing a multiple-ray star. The reverse is characterized by a potent cross with a legend referring to the king’s name and his leadership or royal title.

The Ilanz cache (Switzerland, Kt. Graubünden, 1904) incorporates Desiderius’s starred tremisses for different cities, i.e., Seprio, Milan, Pavia, Treviso, Vicenza, Vercelli and Pombia, but other findings have completed the list with additional cities, e.g., Novate, Reggio Emilia, Ivrea, Brescia, Lucca, Piacenza and Pisa\(^3\). It is likely, as several scholars have likewise noted, that other names are missing in the list, e.g., Bergamo, whose name appeared on later Charlemagne’s starred tremisses\(^4\).

Desiderius’s tremisses are extremely rare even if at least 140 specimens have been identified in museums and private collections\(^5\), including tremisses of doubtful authenticity and fakes. However, by considering tremisses from the Ilanz cache, we are free from any contamination and, hence, can position ourselves on solid ground.

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\(^{2}\) In addition to Desiderius starred tremisses the cache comprises a relevant set of Charlemagne tremisses, deniers, as well as Anglo-Saxon pennies, Islamic dirhems and jewels.


\(^{4}\) ARSLAN (n. 3), p. 23; PARDI (n. 3), p. 77.

\(^{5}\) ARSLAN (n. 3), at p. 20.
Other caches\(^6\), e.g., Mezzomericco (Italy, Novara province, c. 1915-1920), have provided further specimens of the Desiderius’s tremisses but, unfortunately, coins were diffused before any studying or cataloguing could be undertaken. A thorough analysis of the Ilanz cache has been carried out over time by different scholars. The first critical review was undertaken by Jecklin\(^7\); several authors have completed the latter work by correcting some errors and extending the analysis\(^8\). Other relevant material includes Arslan’s analysis and list of Italian findings\(^9\) and the most recent comprehensive study provided by Pardi\(^10\) which, by relying on Arslan’s and Bernareggi’s works, integrates the existing state of research on Lombardic and Carolingian starred tremisses.

II. THE COINS

According to the existing literature, all Desiderius’s star tremisses are characterized by a six-ray star on the obverse with olives (or little segments) within sectors. A traditional specimen, provided in figure 1 for the starred tremisses of Milan, is representative of such a typology.

Obv.: +FL’AMDIOL’ANO, six-ray star with olives within sectors
Rev.: +DNDI’SIDI:RIVSR’ (ND, RI and RX ligatured), a potent cross.
AV: 0.948g; 19.3-18.6mm; 270°
JECKLIN 1906/07, no. 5; BERNAREGGI 1977, no. 5 (Räthisches Museum Chur M 1986.458)

Figure 1: A Milan tremissis of Desiderius struck up to 772/3: a traditional pattern

Coins derived from different dies and belonging to this type mainly differ in the legend and the presence of pellets and small lines. For instance, _flavia_ may also become _fla_ (as in the present specimen) while Desiderius is variously spelled, e.g., _deside, desde, disidirivs, disidi, disidiriv_. Such variants still represent an open research issue; the interested reader can refer to Bernareggi\(^11\) for further details. Finally, the reverse legend begins with DN (dominus noster/dominio nostro, Our Lord) and terminates with the Rx (Rex) symbol which, in some

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\(^6\) E. BERNAREGGI, Moneta Langobardorum (Lugano 1989), at p. 96; Pardi, p. 85, n. 159; ARSLAN (n. 3), pp. 24-27.
\(^7\) JECKLIN (n. 1).
\(^8\) E.g., GRIERSON (n. 1); VÖLCKERS (n. 1); BERNAREGGI 1977 (n. 1); BERNAREGGI 1983 (n. 1); BERNAREGGI 1989 (n. 6); GEIGER (n. 1).
\(^9\) ARSLAN (n. 3), pp. 18-22 and the updated list of findings kept by the scholar.
\(^10\) PARDI (n. 3), pp. 59-86
\(^11\) BERNAREGGI, 1989 (n. 6), pp. 171-191.
specimens, is even repeated (which may perhaps be read as “king of Lombard kings”, in spite of the erroneous declination).

There are only two known examples of Desiderius’s starred tremisses which do not incorporate the contradistinguishing six-ray star pattern: the Vercelli coin in the Ilanz cache and a related tremissis with the same city name from a public auction.

Obv.: +FL’Λ’IΛ\VIRCC-L’I’, (ΛV ligatured), four-ray star with olives within sectors, four pellets between the main axis of the coin and the olives.
Rev.: +DNDCSIDCRIVS Rx (ND and RX ligatured), a potent cross (with lunettes).

AV; 1.006g; 19.1-17.6mm; 135°
JECKLIN 1906/07, no. 31; BERNAREGGI 1977, no. 42 (Räthisches Museum Chur M 1986.495)

Figure 2: The Vercelli tremissis of the Ilanz cache probably struck by Desiderius in 773-774

Obv.: +FL’Λ’IΛ\VIR’CCLLIR’, (ΛA/, ΛV ligatured), eight-ray star with olives within sectors
Rev.: +’ D’ND(EXSIDE) Rx Rx (ND and RX ligatured), a potent cross.

AV; 0.93g; 19.0-18.6mm; 150°
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Figure 3: The Vercelli tremissis published in the auction catalogue, probably struck by Desiderius in 773-774

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12We define the main axis as the logical elongation of the cross in the legend towards the centre of the coin.
The Ilanz specimen is depicted in figure 2. The peculiarity of the tremissis resides in the four-ray star pattern, in strong contrast to the six-ray star pattern which was, before this discovery, the unique canonical pattern for the starred tremisses of Desiderius. The four-ray star, which here resembles a potent cross, is composed of two segments intersecting each other orthogonally in the middle, different from the six-ray star pattern obtained by intersecting three segments in the centre, hence producing 60° sectors.

Only four specimens are known or cited for Vercelli. The first one is present in the Ilanz cache and is the specimen here under investigation, another is in Rome, Collezione Reale (its weight is 1.05g), two others are in private collections. Unfortunately, we had access only to the tremissis recently published in an auction catalogue and shown in figure 3. Such a tremissis shares a pattern similar to the one found in the Ilanz cache, presenting two orthogonal crosses and hence confirming the peculiarity of the Vercelli type.

Figure 4: two typologies for the Vercelli starred tremisses. left: four-ray star (cross) with olives and pellets; right: eight-ray star (double cross) with olives;

Figure 4 shows the different reverse typologies for the starred tremisses of Vercelli in the Ilanz cache (figure 4, left) and the one present in the auction catalogue (figure 4, left). The latter specimen presents an evolution for the cross type: the four olives of figure 4 left, which became an addition cross intersecting the existing one and pellets, extended to all angular segments, disappear and are replaced by eight olives (figure 4, right). It is interesting to observe that both Vercelli specimens are characterized by orthogonal cross(es) dividing the field into four 90 or eight 45 degrees sectors respectively.

Unfortunately, based on the scarce evidence, we cannot state whether the orthogonal-ray star is a peculiarity of the Vercelli mint or, conversely, constitutes evidence of a proper feature minted in the Northern kingdom; further studies in this direction need to be carried out.

III. DISCUSSION

The six-ray star tremisses of Desiderius represent a traditional Lombardic pattern, as is also precisely documented by Pardi, who demonstrates that the six-ray star is largely used as a decorative element in stuccos, plutei and fibula belts of the Lombardic period (see a detail of a column capital in figure 5).

Conversely, once the war between the Carolingians and the Lombards was over the final Carolingian pattern for starred tremisses became the four-ray star. Figure 6 shows a specimen of such a type for a Charlemagne’s starred tremissis.

De facto, the four/eight-ray tremisses of Vercelli share the orthogonal cross pattern with Charlemagne’s (768-814AD) starred tremisses minted in Italy during the war against the Lombards (773-774AD) and subsequent years, hence providing evidence for a complex

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13 The authors wish to thank Dott. Catalli, senior numismatist of the Soprintendenza Archeologica Archeologica di Roma, for providing information relative to the coin (Collezione Reale, Roma).

14 Asta di Monete e Medaglie, 21, R. Negrini, Milano, 26 May 2005, no. 1118.

15 PARDI (n. 3), pp. 268-271.
political and monetary situation in that transitional period. The four/eight and six ray-patterns are somehow mixed: we find here the Vercelli tremisses of Desiderius with the four/eight ray star and a Charlemagne’s tremissis with one containing six rays. A specimen of this latter type is depicted in figure 7.

Figure 5: A six-ray star pattern on a capital, Santa Giulia Museum, Brescia, Italy

Obv.: +FL’AM’:\EDIO:\ANO (LA and AN ligatured), four-ray star with olives within sectors
Rev.: +DNCA’R’O’L’O’R’X (RX ligatured), a potent cross.
AV; 0.906g; 18.1-17.5mm; 90º
JECKLIN 1906/07, no. 45; BERNAREGGI 1977, no. 60 (Räisches Museum Chur M 1986.517)

Figure 6: A four-ray star tremissis of Charlemagne, struck in Milan, February 774-776/7 or 781

Charlemagne hence minted four-ray star tremisses for some years while preparing the gold demonetisation for Italy in favour of the silver denier.
Obv.: +II·A·MC·DIO·ANΟ (ΛΝ ligatured, C· composing a €), six-ray star with olives within sectors
Rev.: +DOM·F·SCAROIVS (CAR ligatured), a potent cross.
AV: 0.899g; 18.4-18.0mm; 90°
JECKLIN 1906/07, no. 35a; BERNAREGGI 1977, no. 80 (Rätisches Museum Chur M 1986.500)

Figure 7: A six-ray star tremissis of Charlemagne, struck in Milan, 773-February 774

The exact date of the demonetisation of the tremisses (which defines an upper temporal boundary for the coinage) is still under debate and scholars disagree concerning the Capitulary of Mantua\(^{16}\) of 776, 781 or 787AD\(^{17}\). Grierson\(^{18}\), Völckers\(^{19}\), Lafaure\(^{20}\) and Bernareggi\(^{21}\) as well as Pardi\(^{22}\) (who follows the traditional interpretation) see in the Capitulary date of 781AD a more plausible time reference for the tremisses demonetisation. Geiger\(^{23}\) bases his opinion on a different and more critical interpretation of this accepted historical source. In particular, Geiger commences his chronology with Desiderius’s defeat in 774AD, while claiming that the demonetisation of the gold coinage in Italy should be dated around 776/7AD\(^{24}\).

We suggest, in accordance with Bernareggi\(^{25}\), that Desiderius’s six-ray star tremisses would have been struck until around the period of the war against the Franks (up to 772/3AD, first phase); the four- and eight-ray star tremisses of Desiderius and the six-ray star tremisses of Charlemagne came afterwards, probably during the war against the Lombards (773-774AD,


\(^{17}\) P. GRIERSON, Chronologia delle riforme monetarie di Carlo Magno, RIN 56, 1954, pp. 65-79, at p. 70; M. PROU, Les monnaies carolingiennes (Graz 1969), at IX ; S. SUCHODOLSKY, La date de la grande réforme monétaire de Charlemagne, Quaderni ticinesi di numismatica e antichità classiche 10, 1981, pp. 399-409, at p. 400; PARDI (n. 3), p. 93.


\(^{19}\) VOLCKERS (n. 1), p. 41. n. 60 and p. 76.


\(^{21}\) BERNAREGGI 1983 (n. 1), p. 132 ; BERNAREGGI, 1989 (n. 6), at p. 113.

\(^{22}\) PARDI (n. 3), p. 94.

\(^{23}\) GEIGER (n. 1), p. 409. Geiger, in his essay, expresses strong doubts concerning theories based on the Capitulary of Mantua content since: 1) the 781AD date is uncertain; 2) the Capitulary, while mentioning deniers, does not expressly cite tremisses.

\(^{24}\) GEIGER (n. 1), p. 409.

second phase). We believe that the four-ray star tremisses of Charlemagne came after the latter conflict (around 774 AD and after) and were perhaps circulating, following Geiger’s recent study, up to 776/7 AD or 781 AD (third phase), eventually shortening (776/7 AD) the time duration of the third phase suggested by Grierson and Bernareggi. The result is that the time separation between the end of the first and the third phases could be, in reality, very short, hence providing a strong temporal correlation between the evolution of types over different phases. In conclusion, even taking into account the extremely small size of the sample, we can detect in the four-ray star tremisses of Desiderius a precursor type for the subsequent four-ray starred tremissis of Charlemagne, hence providing evidence for our hypothesis for the temporal transition:

- 772 AD. The war against the Franks breaks out.
  - High standard of refinement for the tremisses;
  - Six-ray starred tremisses of Desiderius
- 773 AD, October-June 774 AD. Charlemagne crosses the Alps. Charlemagne defeats the Lombards at Mortara; Lombards under siege in Ticinum;
  - High/Medium standard of refinement;
  - Six-ray tremisses of Charlemagne with the Domini Caroli type up to February 774; Domini Caroli RX F and D N Caroli Rex types, probably minted in 773; four-ray stars tremisses with the D N Carolo RX type after February 774;
  - Six-ray star tremisses of Desiderius;
  - Most likely date for coinage of the eight-ray star tremisses of Desiderius;
  - Desiderius’s tremisses employing the Charlemagne patterns for Vercelli (final issue);
- 774 AD, June 6th. Ticinum (Papia) capitulates. End of the northern Lombard kingdom;
  - Medium standard of refinement;
  - Continuation of four-ray star tremisses of Charlemagne with the D N Carolo RX type up to 776/7 AD or 781 AD.

IV. CONCLUSIONS

Textbooks and scientific numismatic articles have always identified in a six-ray star pattern a traditional feature for the obverse of Desiderius’s starred tremisses. A new inspection of the Ilanz cache in the Rätisches Museum of Chur shows this is not a universal feature. A four-ray star tremissis of Desiderius has been identified in that collection whose presence was hitherto unknown. Moreover, an eight starred-tremissis of the Lombardic king has been recently published in a sale without commentary. The discovery, while requiring the revision of the existing literature, provides new material for the interpretation of the last years of the Lombardic-Carolingian gold coinage.

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26 Grierson (n. 16), pp. 506-507, 515, suggests that the tremissis continued to be struck until 781.
27 Bernareggi 1983 (n. 1), p. 132, shares Grierson’s point of view about the duration of the last tremissis issue (issue D).
28 Bernareggi 1989 (n. 6), p. 104, suggests that the coinage could have even started as late as the beginning of 773; an opinion which is not shared by Arslan (n. 3), pp. 20-21; Pardi (n. 3), pp. 62-63, believes that Bernareggi’s point of view regarding the start of the coinage is too restrictive and suggests that the mintage started well before 772, during Desiderius’s kingdom.
32 Bernareggi 1989 (n. 6), at p.113; Pardi (n. 3), pp. 92-95.