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THOUSANDS OF TETRARCHY FOLLES ALL OVER THE WORLD: AN HYPOTHESIS OF RE-COMPOSITION

Abstract

The Čentur's hoard is well known in the numismatic literature as a result of a long series of finds that have been carried out over more than 20 years, all in the same site. Recently, some researchers have hypothesized that the discovery was unique, happened in the same period, but disclosed over the years mainly for reasons related to the geopolitical situation along the border between Italy and Yugoslavia. With the aim of trying to re-establish the missing part, a free-access database was planned to collect all the reliable and verified information. Some preliminary examples of this project suggest promising results.

Keywords

Čentur's hoard; Roman Tetrarchy's coin hoard; Numismatic and Archaeometry; Numismatic Database

The conference on the treasure of Suk el Kedim (Misurata), Rome 19-20 April 2012, was a crucial moment in the lengthy studies of that find because updates were given on the classification of many thousands of the *folles* and the results of their archaeometric analyses. However, it was the contributions pertaining to the study of treasures of similar size (tens of thousands of coins) with the results of their chemical-physical analyses that triggered an interesting debate of a methodological-practical nature. Indeed, the autoptic examination, identification, classification, archaeometric analyses and transfer of all these data into data bases had involved people in years of work, both in the case of the Libyan treasure and other analogous finds. The results of the measurements of silver plating on the surface of Diocletian nummi or determination of the percentages of mercury in the alloy with the application of BSCXRF and LANDIS systems were particularly significant¹. Questions were raised, especially in the informal discussions, on the times, ratio between human/financial investments and outcomes of these long and costly researches. Besides, the great treasure of Suk el Kedim had been obtained substantially intact, the context of the find and type of containers was known. The research therefore led to a wide-ranging discussion specifically on numismatic studies, but also on the relationship between study times and methods of big hoards and the results obtained. In other words, could years of study and human/financial investments be justified to acquire new knowledge in this field? Obviously, an answer was impossible because it was affected by many variables, but in general the conviction seemed to prevail that at least for the big treasures from secure archaeological contexts the studies would benefit from the computing, digitalization and new diagnostic technologies applied in archaeometry². As mentioned, it was mainly the intactness of all the components of the find to motivate the study for many years. Just shortly afterwards, came the discovery of the extraordinary (the adjective is no exaggeration) find in April 2016 at El Zaudín (Tomares-Seville) of 19 amphorae containing Tetrarchy folles³, therefore very similar to Suk el Kedim (Misurata). Archaeological context, chronology of the specimens, quantity (around 600 kg of coins) and the intactness

¹ Salvatore Garaffo and Mario Mazza (eds.) 2015. *Il tesoro di Misurata (Libia). Produzione e circolazione monetaria nell'età di Costantino il Grande*. Roma.

² On this, cf. Ermanno Arslan, *Problemi di documentazione preliminare e finale dei ritrovamenti monetari con grandi numeri. Due esperienze: il ripostiglio di Biassono 1975 e il "deposito" della sinagoga di Cafarnao (Israele)*. In: Garaffo and Mazza (eds.) 2015. *Il tesoro di Misurata (Libia)*, 113-127.

³ *A spectacular discovery in Spain: The Tomares Hoard* in <https://incnews.org/2016/09/13/a-spectacular-discovery-in-spain-the-tomares-hoard/>. Francisca Chaves Tristán 2017. Reflexiones y estado de la cuestión en torno al tesoro de "El Zaudín (Tomares-Sevilla)". *Annali dell'Istituto italiano di Numismatica* 63 (2017), 235-268; Ana Navarro, R.R. de Almeida, N. Conejo, E. García Vargas, Francisca Chaves, *El valor de las cosas menudas. La microexcavación de un ánfora Tejarillo 1 del depósito del Zaudín de Tomares (Sevilla, España)* www.academia.edu/Documents/in/Roman_coin_hoards.

of most of the containers offered another study case that would have required a team, different expertise and rather heavy investments. Since the mid-19th century, enormous treasures with varying chronology have been examined, as in the case of Venera (Verona)⁴, to remain geographically between Regio X and the Italiciana Diocese. This type of hoard has also been found in Gaul, then the Galliarum & Viennensis Dioceses, where examples mainly of the mid-3rd – early 4th century are the great treasures of Saint-Jean-d’Ardières (Rhône)⁵, Porte Chaillouet à Troyes⁶, Saint Germain-lès-Arpajon⁷ and, for chronological coherence with Misurata, El Zaudín (Tomares-Seville) and Čentur, the case of L’Isle-Jourdain, Gers⁸. There are also numerous great treasures of Britannia, and these have been censused and made accessible online with the formidable project Coin Hoards of the Roman Empire⁹. Yet, next to these exceptional finds, the cases of great treasures are not infrequent for which the intactness of the archaeological context and actual composition of the treasure itself (number of examples, type and number of containers, disposal of the coins inside the containers) has been lost or would be problematic to reconstruct. An example of the discrepancy between official reports and other sources is the altering of the size of a 1st century treasure, discovered at Saint-Léonard (Mayenne) in 1863 (first 16 thousand coins, then in 1995, 22,438 coins following a revision of the data)¹⁰, others are those of the Préfecture de Rennes (circa 16 thousand denari from Vespasian to Probus, later graded and in part dispersed)¹¹, of Chapelle-lès-Luxeuil (uncertainty between 15 thousand and 100 thousand coins)¹².

⁴ Together with the series *Il ripostiglio della Venera: nuovo catalogo illustrato*, in the volumes edited by Sylviane Estiot, Daniel Gricourt, Jean-Baptiste Giard & Jean Guillemain, a summary of the history and bibliography of this find is in Federico Biondani 2004. The discovery and recovery of the Venera hoard: new data from archive sources. *Quaderni della Bassa Veronese* 1 (2004), 17-36.

⁵ Vincent Drost 2011/2012. Le trésor d’antoniniens de Sant-Jean-d’Ardières (Rhône) (terminus 252 après J.-C.). *Trésors monétaires* 25 (2011-2012), 1-45.

⁶ Marie-Laure Berdeaux-Le Brazidec, Le trésor monétaire de la porte de Chaillouet. *La Vie en Champagne* 29 (2002), 4-7.

⁷ Vincent Drost, Florence Moret-Auger & Christian Piozzoli 2011. Le dépôt monétaire de Saint-Germain-lès-Arpajon (Essonne): premiers résultats. *Bulletin de la Société française de Numismatique* 66, no. 10 (December 2011): 285-94. See also the specific paper in this volume.

⁸ Marie-Laure Le Brazidec, Le plus important dépôt d’imitations de Tetricus (271-274). *Archeologia* février 1997, 57.

⁹ <http://chre.ashmus.ox.ac.uk/>

¹⁰ Paul-André Besombes, Jean-Noël Barranton & Rodolfo Martini 2003/2004. Le dépôt de 22438 monnaies du gué de saint-Léonard (Mayenne). *Trésors monétaires* 21 (2003/2004).

¹¹ Vincent Drost 2005/2006. Le trésor de la préfecture de Rennes (Ille-et-Vilaine), 1881. *Trésors monétaires* 22 (2005/2006), 171-206.

¹² Daniel Gricourt 1999. La Chapelle-lès-Luxeuil (Haute-Saône). 15518 nummi constantiniens. *Trésors monétaires* 18 (1999).

Čentur (Maresego-Slovenia) is a treasure of this type. As is known, the publishing of that huge number of folles occurred in successive stages, with different methods, especially because the information extended between 1934 and 1962. A period of 28 years cannot do other than raise many questions, create many doubts and render the entire “Čentur treasure” of difficult interpretation. How is it possible that in a site of limited size finds of many thousands of coins from the same period could take place at fairly regular intervals? Were they really different treasures buried far apart from one another? Or should it rather be interpreted as a single treasure, hidden in the same place and at the same time? Who really made the discovery? What verifiable testimonies have the protagonists left us, who were certainly aware at the time that they had discovered one of the most clamorous Tetrarchy hoards of the Italiciana Diocese and of the whole Roman empire? Were archaeological digs of verification planned and conducted or was an unverified oral tradition just accepted, more or less connected to an undemonstrated toponymical interpretation of Čentur as the quarters of a Roman centuria? Or perhaps, *lectio facilior*, the find was just one that came under the control of two families of a tiny village and was then announced gradually (amphora after amphora?) over the years due to the influences cause by the tensions in 1939-1945 and then by the definition of the frontier between Italy and Yugoslavia? What role did some still living protagonists have? For some of these questions it was attempted to give, if not an answer, at least some indication in tune with the objectives of the Roman conference on Misurata¹³. A global approach was chosen for an objective examination of both the bibliography and the new data with the aim of reconstructing the unity of the find, i.e. of the hoard being interpreted as a single great hoard of Tetrarchy folles buried around 310/312.

The input was determined by the study of a part of the first find, that of 1934 (known as Čentur D¹⁴), conserved at Trieste and the project is funded by the Department of Humanities (FRA 2016¹⁵), with a focus on the following:

- a. identification of the archaeological site;
- b. listening to the protagonists;

¹³ Bruno Callegher 2015. *Un milione di denari sulla collina di Čentur*. In: Garaffo and Mazza (eds.) 2015. *Il tesoro di Misurata (Libia)*, 141-161.

¹⁴ Robert Matijašić 1981-1982. The hoard of Roman coins from Centora (Čentur) kept in the Archaeological Museum of Istria in Pola. *Atti del Centro di Ricerche Storiche – Rovigno* 12 (1981-1982) 35-56; **information** on the Trieste holdings in Bruno Callegher 2015. *Un milione di denari sulla collina di Čentur* cit., 144-146.

¹⁵ The project has involved Manuela Montagnari, Andrea Favretto and Bruno Callegher of the Department of Humanities and Gianpiero Adami of the Department of Chemical and Pharmaceutical Sciences of the University of Trieste.

- c. recovery of the monetary data at public and private bodies;
- d. verification method of the data;
- e. construction of a data base with controlled access for the progressive input of new acquisitions.

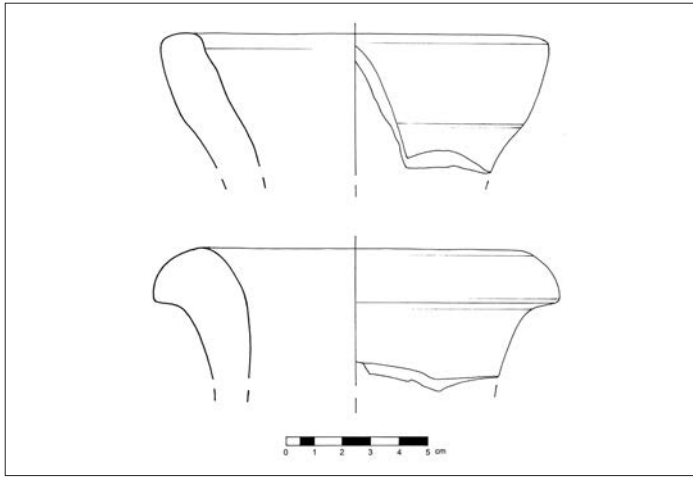
THE ARCHAEOLOGICAL SITE



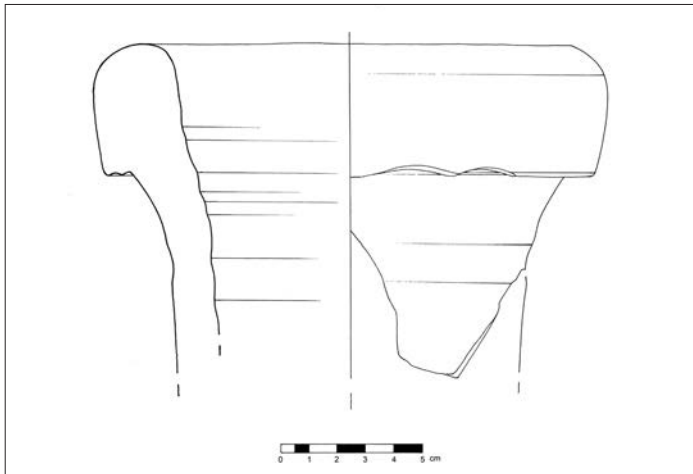
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The vagueness of the topographical reference relating to the exact location of the discovery of this Tetrarchy treasure is still today surprising. Yet, the first information was announced in 1937 by the archaeologist Giovanni Brusin (1883-1976)¹⁶, who would certainly not have missed the historical potential of such a find. Some authors, in particular Aleksander Jeločnik (1917-2003), refer to archaeological digs in the

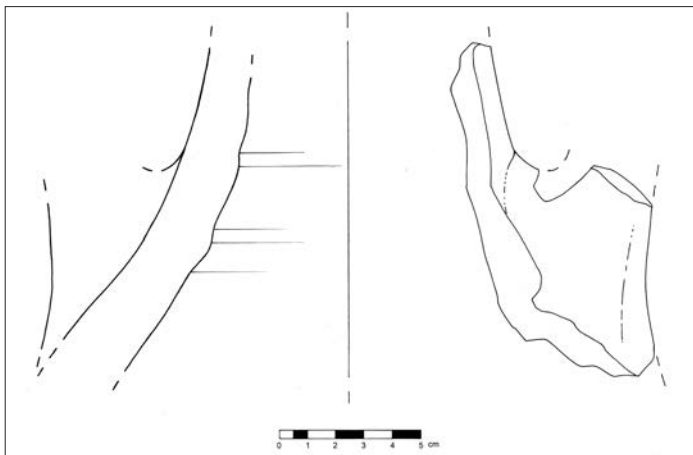
¹⁶ Giovanni Brusin 1937. *Notiziario archeologico (1935-1936). Atti e memorie della Società istriana di archeologia* 47 (1937), 287.



2



3



4

area, but in a fairly generic way, and today the documentation of investigations conducted by Yugoslavian archaeologists does not exist or has perhaps been lost¹⁷. The hypothetical location of the find is georeferenced because a recent survey conducted by some inhabitants of the small village in an area today an olive grove and indicated in fig. 1, produced pieces of sesquipedalian bricks, fragments of coarse ceramics and above all, sides and necks of North-African amphorae (figs. 2-4) datable to the early 4th century¹⁸. It follows that, on an archaeological basis, a frequentation can be hypothesized at a time coherent with that of the hoard (310-312). However, it cannot be proved that these surface finds are associated with those connected to the ancient containers of the coins, indicated in the literature as amphorae without any reliable description of the shape or volume, and now lost. A careful archaeological investigation, a gap that it is hoped can be filled with the publication of the old dig reports (if preserved) or with new surface investigations or at least with a comparison between archaeological finds reported in the bibliography of the site and finds that came to light during ploughing, would provide inescapable elements to establish if the hoards would have been buried together – as at El Zaudín (Tomares-Seville) and Suk el Kedim (Misurata) – and therefore discovered at the same time, or if the places were far apart and thus the reason, at least partly, for the strange succession of news lasting 28 years¹⁹. The archaeology is thus lacking, and deserves a complete rewriting: for this the contribution of Slovenian archaeologists is awaited, especially as regards the existence of any documents or reports of digs for the years 1934-1962.

THE PROTAGONISTS

To overcome the vagueness of the site (or sites) of the find it was decided to do a survey of any memories or oral tradition of the treasure directly on site, among the inhabitants of Čentur and Mali Čentur and the Babić and Krmac families, who are still today the majority²⁰. Of what happened on the little plateau at the time of the so-called “fifth find” that of 1962, when “*a group of foreign illegal treasure-seekers*

¹⁷ Alexander Jeločnik 1973. *Čenturska zakladna najdba folisov Maksencija in tetrahije/ The Čentur Hoard: folles of Maxentius and of the Tetrarchy*, Ljubljana (Situla 12); referring to the digs of 1962, but without indication of their publication, Peter Kos 1988. *Die Fundmünzen der römischen Zeit in Slowenien*, I, Berlin 1988, 62/1/1-21 records isolated finds from this locality.

¹⁸ The identification and drawings were made on site. I thank Dr. Ella Zulini for the dating of the amphora material.

¹⁹ For the wealth of numismatic information on the content and containers of a monetary treasure, cf. Sylviane Estiot, Vincent Drost & Rodolphe Nicot 2011/2012. Le double trésor de Magny-Cours, Nièvre (*terminus* 3003 de notre ère). *Trésors monétaires* 25 (2011/2012), 47-175.

²⁰ Bruno Callegher 2015. *Un milione di denari sulla collina di Čentur* cit., 150-151.

discovered with detectors in the same locality a large quantity of coins and deposited them (in three portions each exceeding 2.000 coins) in three places at Koper”²¹ only “heard it said” remains and the interviewees had a vague memory. With widespread diffidence they admitted that something important had been found but in the distant past, that news of a treasure was repeated over the years, but they lamented that there was no longer anyone who had known the expert Bogomir Babić, one of the protagonists²². The absence of memories was therefore accompanied by some reticence, as if our questions evoked memories or feelings muted by time. It would seem impossible that in a village inhabited by a few dozen people, belonging to only two families, the sensation caused by the find of an enormous monetary treasure could have vanished so completely. The comment by Jeločnik deserves a mention because it suggests another explanation, that of the clandestine treasure-seekers with metal-detectors. Also in this case the intention emerges of “not saying” rather than justifying in a circumstantial way. It appears rather dubious that in 1962, in full geopolitical crisis between Italy and Yugoslavia, when the Treaty of Osimo of 10 November 1975 had not yet been reached that sanctioned the territorial separation that had created the Free Territory of Trieste following the London Memorandum (1954) rendering the frontiers between Italy and the then Yugoslavia definitive, that foreigners (but of which nation?) could cross the frontier with a metal-detector to head for a specific locality: that of the area of the previous discoveries. It is even less plausible that the treasure-seekers with metal-detectors would go straight there and in a short time find a treasure of more than 6 thousand folles then divide it into three parts and take it to Koper to be sold. Three piles of more than 2000 folles each do not fit into a bag and not even a cardboard box! These explanations/reconstructions lack coherence and logic; they are rather an old tale, easy, but lacking in circumstances and verifiable references at a much later date, which instead have the characteristics of an imaginary or adventure story²³.

As the research directly at Čentur and Mali Čentur had confirmed the well-known criticalities, a final attempt was made with the last protagonists of that distant 1962:

²¹ Alexander Jeločnik 1973. Čenturska cit.

²² A first visit was in May 2012, but there were others up until 2017 in the company of a Slovenian student with an excellent command of the language and knowledge of the area. It is also surprising that in a village Erpelle/Cosina not far from Čentur wide publicity was given, with a footpath being laid and a highly-visible explanatory signpost to a treasure of Venetian times, much smaller and with less historical significance: cf. Federico Cammarota 2018. Il terzo ripostiglio monetale da Erpelle-Cosina (Herpelje-Kozina): nuovi dati e nuovi documenti. *Atti e Memorie della Società Istriana di Archeologia e Storia Patria* 118 (2018), 203-240.

²³ It is obvious that a denial will be happily accepted based on data, facts, documents and not on memories or “it is said”, nor on irrefutable statements like the one accepted in Jeločnik and mentioned here.

Efrem Pegan (Munich), Giulio Bernardi (Trieste) and Giovanni Paoletti (Trieste). They all well remember the great hoard of Tetrarchy folles of 1962, but provide different reconstructions. On the one hand the two Trieste protagonists claim that well before 1962 there had been a continuous flow of Tetrarchy folles to Trieste in the search for buyers, which continued throughout the 1960s, but the large number of these coins and their repeated supply had made the market value fall while it had aroused numismatic interest. Bernardi and Paoletti also confirm that Efrem Pegan was the point of reference abroad. With him, they had agreed to buy all of the treasure even if it was no longer intact. As is self-evident and logical, their proposal was not for financial gain but rather to avoid the dispersal of the treasure, at least of that defined as the “fifth find”. Through personal contacts the two Trieste intermediaries bought some tens of specimens both as confirmation of the seriousness of their proposal and to verify the authenticity of the numismatic material. Yet the project foundered for reasons that remain unexplained, at least if other documents not known today or not accessible do not emerge. This negotiation and its failure led to the spread of information that the proprietors (but who? The Babić or Krmac family?), to avoid trouble with the Yugoslav police, had “destroyed the evidence” i.e. transformed many thousands of folles into copper sulphate, for a weight – and once again the sources diverge – ranging between twenty and two hundred kilogrammes²⁴. Beyond an almost certain physical disappearance of most of the last find, that of 1962, a possible overlap/confusion should be pointed out between the discovery in summer 1944 (in the middle of the civil war)²⁵, reported by Mirabella Roberti in 1952²⁶ and that of 1962, known as Čentur B²⁷; it could even be hypothesized that it was a single discovery announced over the course of the years. However, there is one fact that contributes to rendering complicated both a correct temporal succession and quantity of the finds and that the treasure/s would not have been well known to the competent authorities of the region. Indeed, it contradicts both the confirmation of the more or less mysterious circumstances of the find and the invasion of foreign treasure-seekers equipped with a metal-detector – the incontrovertible fame of this dossier in the Koper area in the early 1950s. In fact, in 1955 how could a local bank have minted a token imitating an Aquileian follis coming from Čentur without permission from the competent authorities and publicizing that find?²⁸

²⁴ Bruno Callegher 2015. *Un milione di denari sulla collina di Čentur* cit., 149-150. The information is reported without critical analysis and without knowing this article, in <https://univerzanaprimorskem.academia.edu/LeilaniStajer>.

²⁵ Čentur A: Alexander Jeločnik 1973. Čenturska.

²⁶ Robert Matijašić 1981-1982. *Il ripostiglio di monete romane di Centora* (Čentur), 52.

²⁷ Alexander Jeločnik 1973. Čenturska.

²⁸ The Splošna Banka of Koper issued a silver token (925‰) described thus: D/ SPLOŠNA

Posta :: ringraziamenti

17/12/2016

Rispondi Inoltra Elimina


ringraziamenti

Data: 20/11/2016 (13:11:54 CET)

Da: Efrem Marcel Pegan

A: bcallegher@units.it

Hai risposto a questo messaggio il 21/11/2016 10:56:16.

 **Testo (6 KB)**

Gentilissimo professore Bruno Callegher,

Le ringrazio per la Vostra gentile lettera.

Grazie per la Vostra decisione di mandarmi il Vostro articolo. La notizia era per me una bella sorpresa. Già l'immediata decisione di far mi ottenere il Vostro articolo mi ha fatto un vero piacere.

Come ringraziamento lunedì Le manderò un libro scritto da me occasionalmente del 75annuario della fondazione della Società numismatica di Slovenia. Come si tratta di storia locale, speciale numismatica ed piuttosto uno sviluppo della società numismatica e scritta in sloveno. Ma si trova anche un breve riassunto in tedesco. Il caso di Čentur non è menzionato, ma sono qualcuno altri ripostigli, ed notizie storiche come sviluppo del collezionismo, della società numismatica e di scienza numismatica in Slovenia. Sono parecchi ricordi che con tempo si sfumano e perdono per sempre.

Nel settembre 1962 ho partecipato negli scavi di Čentur assieme con la signora archeologa Mirina Zupančič ed la defunta dottoressa Jacqueline Lallemand della Bibliothèque Royale de Bruxelles.

Ma non era trovato altro come murra die una fortificazione (?) die dimensioni di un campo. Le Anfore erano spostate negli angoli del battimento.

Mentre non so dove si trovano le documentazioni degli scavi, le monete invece hanno fatto il giro del mondo. E passato un mezzo secolo ed moltissimi ricordi sono stati vittime del tempo, sono spariti.

Io ho dimenticato moltissime circostanze. In ogni caso tutto che mi potrei ricordare Le farò volentieri sapere. Penso che non sarà qualche cosa di importanza. Quello che ho suo tempo detto al dott. Jeločnik, ed prof. Peter Kos e già scritto nelle pubblicazioni del Museo di Lubiana.

Io ho tenuto la parola Čentur sempre come diventata di Centuria perché parecchie località che avevano un pedigree latino in slavo si hanno trasformato in "Č". Per esempio le località di oggi: Vič (oggi parte di Lubiana - strada verso Trieste (suo tempo la località extra muros era un vicus), lo stesso, la località Vičava nelle vicinanze di Ptuj [Poetovionia], era nell'antichità lo stesso un vicus). Per esprimere con altre parole, si tratta di una questione linguistica. Vostra prima spiegazione "un probabile Sveti ..." dovrebbe essere almeno menzionato nell'archivio episcopale. La seconda spiegazione mi pare più plausibile, però non conosco un paragone.

<https://wmail4.units.it/impdynamic.php?page=message&buid=22633&mailbox=5U5CT1g&token=e9xp2N15Fn3CAReeX07MGDb&uniq=1481998263158>
1/8

In 2015, publication of the paper reconstructing this intricate find in the proceedings of the conference on Misurata drew the attention of Efreml Marcel Pegan. I had unsuccessfully tried to contact him through a mutual friend Giulio Bernardi, being willing to meet him in Munich. Unexpectedly, I received a letter from Pegan in October 2016 with a request for my paper, which I promptly sent, accompanied by a lengthy list of questions. It was the long awaited occasion to obtain some help with the many doubts that had gradually emerged during the research: the locality and place-name, any archaeological investigations, documentation of the digs, fate of the coins and reliability of the information diffused over the decades. Shortly afterwards I received an extremely courteous reply with a lot of useful data (fig. 5)²⁹, but also with information or absence of answers that confirmed my perplexities. Crucially, two confirmations and one silence emerged. The first regarded the archaeological component. I learned that the archaeologist Marina Zupančič together with Jacqueline Lallemand (1928-1995), a specialist in money of the second half of the 3rd century³⁰ had made investigations at Čentur. A search of the archives in the Cabinet des Médailles of Brussels, where the papers of the Belgian scholar are held, did not provide any confirmation. The reference, because unpublished, surprised those who had known and worked with her³¹. The second valuable datum regarded the absence of proof on the existence of a military camp in the locality, but at the same time confirmed the presence of amphorae “in the corners of the beat (sic)” (*rectius*: in the corners of the outer wall, the extent of the site?), news that was confirmed in situ thanks to the help of the above-mentioned inhabitants of the village (cf. figs. 2-4).

No reply, therefore silence, about the transformation of many kilogrammes of folles into copper sulphate. Rather an extremely interesting confirmation: “*While I do not know where the documentation of the digs is, the coins have gone around the world*”. The protagonist at that time, on the Yugoslavian side, thus knew about the dispersal of the treasure, or at least of its last part, in the thousand streams of collecting.

BANKA KOPER, in the centre: 1955; R/ Reproduction of the cast of a coin of the Aquileia mint from Čentur, described as: Moneta standing l. with scales and cornucopia; SACRA MONETA AVGG ET CAESS NOSTR, exergue: AQF, in the field, a d. III. The token is in the medal collection of the Department of Humanities-University of Trieste.

²⁹ I present the reply in its entirety because it is an important document of purely scientific nature and thus worthy of not remaining in my personal archive. I take the occasion to sincerely thank Dr. Efreml Marcel Pegan.

³⁰ Johan von Heesch 1995. Bibliographie de Jacqueline Lallemand. Bibliografie van Jacqueline Lallemand. *Revue Belge de Numismatique et de Sigillographie* (141), 1995, 394-403.

³¹ I thank Johan van Heesch and Jean-Marc Doyen for this information.

“THE COINS INSTEAD HAVE GONE AROUND THE WORLD”
THE NEW DATA

The above confirmation and contacts with those who played some role in 1962 suggested planning a collection of all the data in order to verify the reliability of the two hypotheses: treasures or a single treasure?

One of the new contributions, outcome of the preliminary phase of this research was the discovery in Trieste of a very consistent part³² of the 1934 find (Čentur D)³³.

Confirmation was later received that the bronze coins of Maxentius published by Picozzi in 1964 were acquired in Trieste, “coming from a find in an unspecified locality of Yugoslavia” and that belonged to the 1962 find and perhaps also that of 1944 (Čentur A and/or Čentur B)³⁴.

It has been mentioned that during those years some of the protagonists had bought specimens to verify the authenticity of the discovery. Giovanni Paoletti, cited in Pegan’s letters made a group of folles available. Giulio Bernardi, who remembers perfectly what happened between 1962 and 1963, has a good number of these Tetrarchy folles. Yet, being in the imperial series of his personal collection, they are not always easily distinguished and only an examination of the patinas will allow a plausible distinction between the folles of Čentur and those collected over the course of many years. A scrutiny of the inventory of the National Archaeological Museum in Aquileia³⁵ was no less surprising, where nos. 60239-60270 record the arrival of 32 folles of Maxentius, type Cohen VII, p. 171, n. 54, with the generic origin of Istria, but which are traditionally known in the Museum as a “fragment of the Čentur treasure” (figs. 6-7-8). The indication of Cohen is not entirely correct because two folles in this group are of the type AETERNITAS AVG N (RIC VI, p. 403, n. 16) and FIDES MILITVM AVG N (RIC VI, p. 405, n. 45), but they are all issues of Maxentius, also in this case a targeted selection. However, it will be a coming archaeometric analysis of the patinas to confirm their origin.

In Trieste, three new folles from Čentur were reported on 9 January 2014, a gift from Professor Benedetto Lonza da Centora (Maresego) and indicated as a “Babić”

³² Bruno Callegger 2015. *Un milione di denari sulla collina di Čentur* cit., 144-146.

³³ Robert Matijašić 1981-1982. *Il ripostiglio di monete romane di Centora* (Čentur).

³⁴ Vittorio Picozzi 1964. Un ripostiglio di folles di Massenzio. *Numismatica. Periodico di cultura e informazione numismatica* 5.3 (1964), 181-198: 181. Cf. <http://www.socnumit.org/doc/NSA/1964.3.Num.pdf>.

³⁵ I am grateful to Dr. Antonio Stella for this report. In the inventory, the coins are recorded after 1967-1969, but this slight chronological discrepancy does not conflict with that of the find, instead it confirms it because the time lag between the date of the discovery, the acquisition and that of the addition to the collection through the inventorying is limited to a few years.

6

NUMERO d'ordine progressivo	DATA dell'entrata	DESCRIZIONE
✓ 60239-60270		M. 32 MB di Maruzio (Glen VII p. 171 n. 59)
✓ 60271		Ag B di Romiano (Cohen I p. 507 n. 439)
✓ 60272		Ag B di Alessandrio Severo (Cohen IV p. 459 n. 563)
✓ 60273		MB di Alessandrio Severo (Cohen IV p. 459 n. 329)
✓ 60274		Denaro repubblicano (Babelo I p. 168 n. 32)
✓ 60275		Ag di Traiano (Cohen II p. 139 n. 196)

7



8



find, a direct confirmation that at a distance of many decades, the distinction between the various “hoards” was well known: in this case belonging to the find of 1944.

Another research line could be implemented in the *Münchener Numismatisches Antiquariat* and *Bibliotheca Numismatica* catalogues, so far not consulted in a methodological way because they are not easy to find (figs. 9-10)³⁶. The title

³⁶ The information online (cf. www.sl.wikipedia.org/wiki/Pegan) qualifies Efreml Marcel Pegan as an archaeologist. Yet in the ambits of collecting and the numismatic press he is known for being in the 1950s, firstly a very young external collaborator of the Ljubljana National Museum and in the following decade a member of staff in that museum during the direction of Aleksander Jeločnik, assuming the role of keeper of the numismatic cabinet in 1964 and graduating in archaeology in 1965. From the bibliographical information (Gjuro Krasnov 1985. Slovenski numizmatiki: Pegan, Efreml Marcel, klasični arheolog in numizmatik. *Numizmatični Vestnik* 13 (1985) 127-132 & Ranko Mandić 1986. Dopolnilo numizmatične bibliografije Dr. Efremla Pegana. *Numizmatični Vestnik* 14 (1986), 201-203 where his articles, reviews, reports and collaborations are listed) it is understood that he not only actively participated in the research/recovery of the Čentur treasure, but also that from the end of the 1960s he personally collaborated in the numismatic trade in both Italy and Switzerland, at the auction house Leu & Co. AG. Indeed, he is still remembered today as a supplier of ancient coins, both Greek and Roman, of great value and rarity. In the same period, probably also in this case at the end of the 1960s, he moved to Munich, where he opened his own numismatic business with Gürsching G., Munich, Germany until 1967-1968, then passed to the Münchener Numismatisches Antiquariat, Diessen, Germany (cf. T.V. Buttrey, M. De Castro, *Numismatic sale catalogues in the Fitzwilliam Museum*, Cambridge, Cambridge 1997, p. 85). As is known, it is very arduous to retrieve entire series of auction house catalogues, the consultation of which is one of the most limiting deficits in numismatic research. In some catalogues accessible through <https://www.fitzmuseum.cam.ac.uk/dept/coins/library/salecatalogue/SALECM-N.pdf>, edited by Ted Buttrey, the list in Münchener Numismatisches Antiquariat (E. Pegan, G. Gürsching) Diessen, Germany provides the following data: “continued from GÜRSCHING no [9]; -- seriation taken from PEGAN 76 I-III-2002. Lists: {Small} 1974: no [16], Spring; 1978: no [34], Summer; 1987: no 50, Summer; no [51a], Winter; 1988: no 52, Spring. Lists (lit.): {Small} 1972: Spring; no [10], Summer; [11], Nov; 1973: no [14], Dec; 1973/74: no [15]; 1974: no [17], May; no [19], Dec; 1974/75: no [20]; 1975: no [23]; 1976: 1981: Summer; 1983: Autumn; 1984: Summer; 1987: no [51], Autumn Auctions: {Large general} complete 1-7 1987: no [53], no 1, 20 Nov; 1988: no [54], no 2, 3 May (lit.); no [55], no 3, 7 Oct; no [56], no 4, 10 Oct; 1989: no [57], no 5, 28 Mar; no [58], no 6, 24 May; no [59], no 7, 24 May. – continued as PEGAN no [60]”; other data in the Pegan listing give the following indications: “PEGAN, E.M., Gilching, Germany -- continued from Münchener Numismatisches Antiquariat no [59] -- seriation taken from PEGAN 76 I-III-2002 Auctions: {Large} have 60-82 1989: no [60], 30 Nov (lit.); 1990: no [61], 10 May; no [62]; 5 Oct; 1991: no [63], 23 Feb; no [64], 5 Sep; 35 1992: no [65], 14 Feb; no [66], 12 May; no [67], 20 Nov; 1994: no [68], 3 Jun; no [69], 22 Sep; 1995: no [70], 10 Feb; no [70a], 15 Apr; no [71], 14 Jun; no [71a], 31 Aug; no [72], 4 Nov; no [72a], 20 Dec; 1996: no [73], 7 May; no [74], 4 Sep; 2000: no 75, 19 Jun; 2002: no 76, 1 Mar; no 77, 1 Jun; no 78, 23 Nov; 2003: no 79, 5 Apr; no 80, 7 Aug; no 81, 6 Sep; no 82, 20 Dec”. Of all these catalogues, however, I was able to consult: *Antike Münzen: Auktion IV*, München, Grand Hotels Continental, Montag, 10. Oktober 1988, Auktionator Dr. Efreml M. Pegan; *Münzen: Auktion VII*, München, Mövenpick im Künstlerhaus, Mittwoch, 24. Mai 1989, Auktionator Dr. Efreml M. Pegan). Pegan was also active in the buying and selling of books on numismatics (*Bibliotheca numismatica: Auktion III*, München, Grand Hotels Continental, Freitag, 7. Oktober 1988, Auktionator Dr. Efreml M. Pegan; *Bibliotheca numismatica: Auktion VI*, München, Mövenpick im Künstlerhaus, Mittwoch, 24. Mai 1989, Auktionator Dr. Efreml M. Pegan; *Bibliotheca*

ANTIKE MÜNZEN



AUKTION IV München

Montag, 10. Oktober 1988
im Dachgartensaal des GRAND HOTELS CONTINENTAL
Max-Joseph-Straße 5

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München

Donnerstag, 10. Mai 1990
im Mozartzimmer des
AUSTROTEL MÜNCHEN
Arnulfstraße 2

Dr. E.M. PEGAN
Numismatiker

D-8031 Gilching Postfach 1408 Telefon: 08105/0 24340 FAX 08105-24360 BR Deutschland

pages of some of these catalogues give Efrem Pegan sometimes as owner, sometimes as editor of the catalogue/presentation schedule. In these publications for collectors the series of Tetrarchy folles of the Aquileia, Ticinum, Ostia, Carthage mints is always quite substantial, with types consistent with those of Čentur (FIDES MILITVM, GENIO POPVLI ROMANI, SALVIS AVVG ET CAESS FEL KART, CONSERV(ATOR) VRB(IS) SVAE) (plates nr 1-3) and it cannot be excluded that many of the Tetrarchy folles especially of the Aquileia mint, came from one of the various coin sets of Čentur. On this, however, and it was one of the questions posed in the mentioned email but not dealt with, an answer could be given only by the person directly involved.

Plate nr. 1 – Authorities and Mints

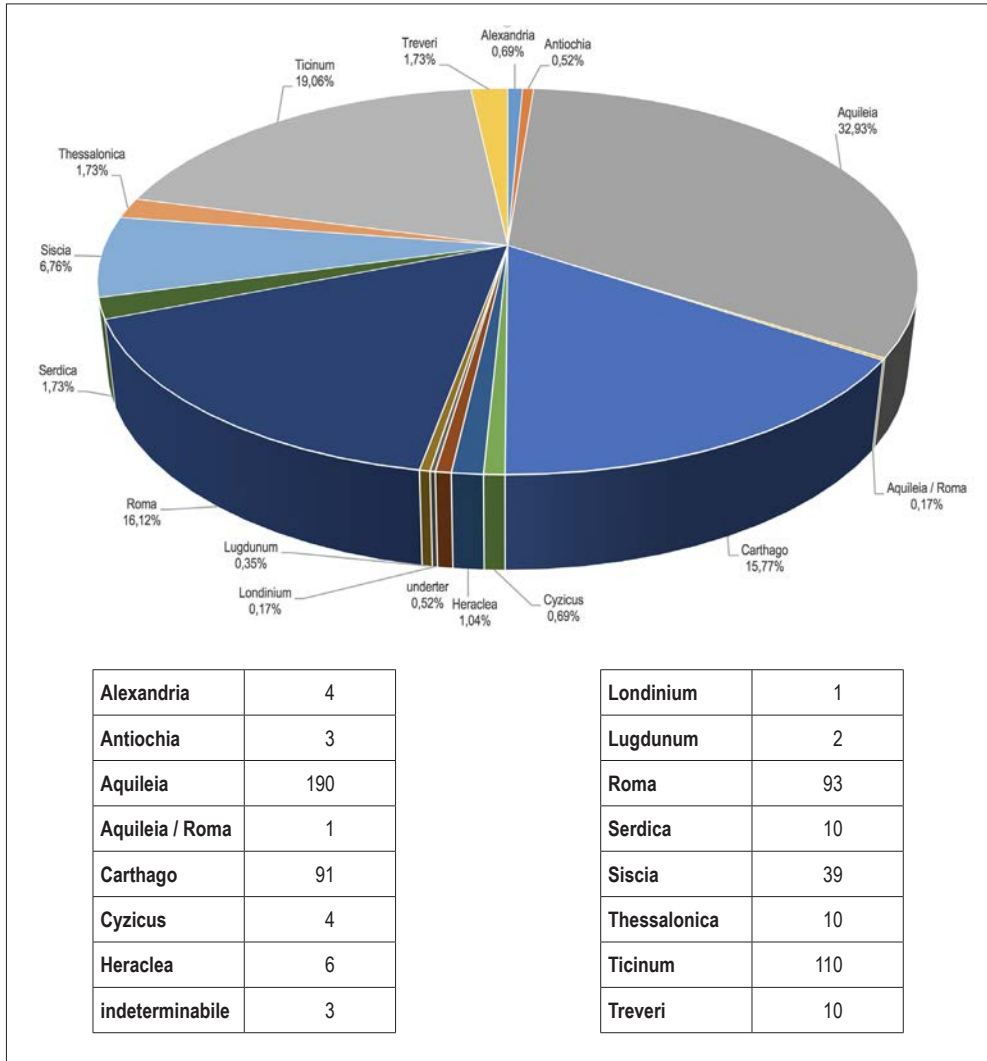
	Ale	Ant	Aq	Aq/Rm	Carth	Cyz	Her	Lon	Lug	Roma	Ser	Sis	The	Tic	Tre	uncert	total
Constantius, Caesar			47		1					3		1		13			65
Diocletian	4	3				4	6				3		10			1	31
Severus			18											1			19
Galerio, Caesar											7						7
Licinius												5					5
Maxentius			115	1	16					35				41			208
Maximianus Herculus			10		74			1	2	55		33		55	10	2	242
total	4	3	190	1	91	4	6	1	2	93	10	39	10	110	10	3	577

numismatica: Bücher über Antike Kunst, Geschichte, Antiken Schmück, Geschnittene Steine; Münzen der Antike, Ausgrabungen: Auktion, München, Austrotel, Donnerstag, 10. Mai 1990; Bibliotheca numismatica: Antike Münzen: Auktion, München, Austrotel, Samstag, 23. Februar 1991; Bibliotheca numismatica: Spezialsammlung Sasanidischer Münzen: Auktion, München, Austrotel, Donnerstag, 5. September 1991; Bibliotheca numismatica: Münzen: Medaillen, Archäologie, Geschnittene Steine: Auktion, München, Austrotel, Freitag, 14. Februar 1992). Many other auction houses made use of his expertize, not least *Numismatica Varesi* of Pavia, for which he edited the valuable catalogue *Biblioteca Domenico Rossi. Cataloghi d'asta e listini di numismatica*, Asta 45, Pavia 2005. A check of the numismatic material in the catalogues might clarify some relationship with the folles of the north Istrian treasure being examined here. Moreover, a catalogue will shortly become available of all the auctions directed by Pegan, edited by Matthias Barth of the Staatliche Münzsammlung München. I sincerely thank Hadrien Rambach for this advance information.

Plate nr. 2 – Mints and typology

	Ale	Ant	Aq	Aq/Rm	Carth	Cyz	Her	Lon	Lug	Roma	Ser	Sis	Thes	Tic	Trev	undet
GENIO POPVLI ROMANI	4	3	1			2	6	1	2	15	10	12	10	8	10	
FIDES MILITVM			35											7		
CONSERVATORES VRB SVAE										9				5		
CONSERV VRB SVAE			36	1						25				31		
SACRA MONET AVGG ET CAESS NN			9													
SACRA MON AVGG ET CAESS NN																1
SACRA MONET AVGG ET CAESS NOSTR												21		47		2
SACRA MON VRB AVGG ET CAESS NN										43						
SAC MON VRB AVGG ET CAESS NN										1						
PROVIDENTIA DEORVM			9													
VIRTVS AVGG ET CAESS NN			25													
FELIX ADVENT AVGG NN					19											
SALVIS AVGG ET CAESS AVCTA KART					4											
SALVIS AVGG ET CAESS FEL KART					52											
CONSERVATORES KART SVAE					16											
GENIO AVGG ET CAESARVM NN						2										
GENIO AVGVSTI												4				
GENIO CAESARIS												1				
PROVIDENTIA DEORVM QVIES AVGG														2		
IOVI CONSERVAT												1				
VIRTVS CONSTANTINI			5													
VIRTVS AVGG ET CAESS NN														5		
PERPETVA VIRTVS														1		
VIRTVS PERPETVA AVG														1		
MEMORIA DIVI CONSTANTINI			70													
MEMORIA DIVI CONSTANTI														3		
total	4	3	190	1	91	4	6	1	2	93	10	39	10	110	10	3

Plate nr. 3 – Mints



In the early 1970s and during the 1980s, various collectors in Trieste, but also in Veneto and Lombardy, remember the massive availability of folles, of the Aquileia, Ticinum, Rome and Carthage mints, for which an origin was indicated as the “frontiers of Italy”. Some of them claim that in the period 1945-1954, during the administration of the Free Territory of Trieste, many soldiers of American, English and other contingents bought the folles that arrived from Istria, a cryptic way of not saying that they came from Čentur. Pegan thus had reason to write that they were dispersed throughout the world.

If these are the new data, how will they be verified and registered, and how can the arrival of information be encouraged also from far away or from collectors willing to share a significant part of their collections? Also in this case the answer is not simple and the reliability of the reports will be checked with a philological-critical method. An example are the 577 folles held in Trieste as part of the 1934 find and then listed in a cursory way prior to their independent publication.

Their origin from Čentur could have been accepted *per se*, trusting just the testimonies of the current custodians of the collection. However, this is confirmed by another type of documentation, conserved together with the coins. These are fragments of pages or paper documents (newspapers, objects used for the conservation, notes and annotations) that support the reliability of the origin. In fact, this part of the hoard reached Trieste immediately after 1945 at the time of the expulsion of the Italian community from Istria. The coins were in an aluminium tube, a food container, (fig. 11) and in it were thrust pieces of pages ripped from sales catalogues of antiquarian books (figs 12-14). Most especially there were bits of envelopes postmarked with the year; on some pieces of rough paper the number of specimens was noted selected by mint and authority, with counts and corrections due to second thoughts. The decisive fragment (fig. 15) records the total number of coins (**3376**) and their division in two parts, one of which specified as **2163** folles. This tallies with the 3378 counted by Brusin in 1937³⁷, even if the total differs by two coins. After complex post-war comings and goings between Italy and Yugoslavia, a set of 2195 folles (more than in the original division) went to the Archaeological Museum in Pola. The second set, estimated as around 1180 pieces, appears to have suffered a loss because of these only 577 are held in Trieste as mentioned above, while around 606 are no longer traceable and so probably lost. One of the most interesting aspects of this set is the ochre patina that covers much of the flan. This is not only the same on all the coins, but is comparable with that on the pieces in private collections in Trieste. So, apparently marginal physical elements and documents authenticate the at least partial re-composition of the hoard found in 1934.

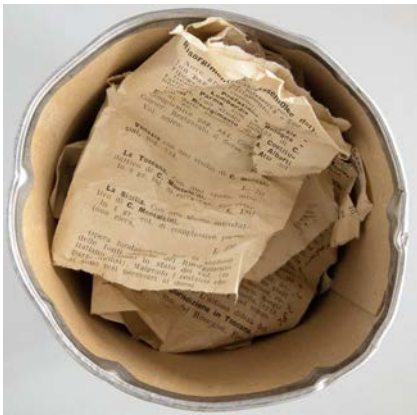
An analogous uniform patina is also found on the small Aquileian segment, seemingly selected taking only two things into account: the emperor Maxentius and the mint, Aquileia, with the two mentioned exceptions.

More generally, in the successive reports over the course of around thirty years and from the reconstruction made so far (fig. 16), a more or less common fact emerges: in the various segments of the Čentur “treasures” the number of folles oscillates around 3 thousand. How can the same quantity for each amphora thus not be hypothesized, buried together and then emerging, between fear and the hope of

³⁷ Giovanni Brusin 1937. *Notiziario archeologico*.



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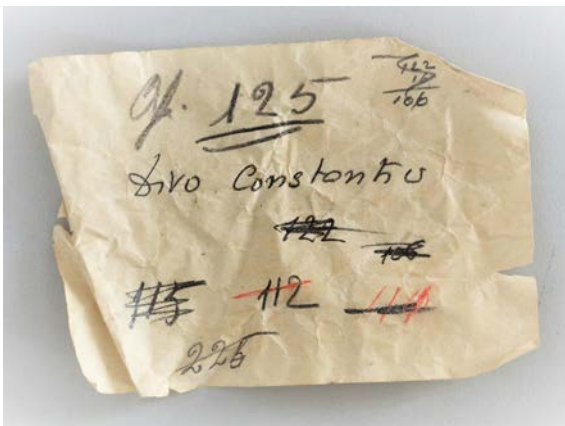


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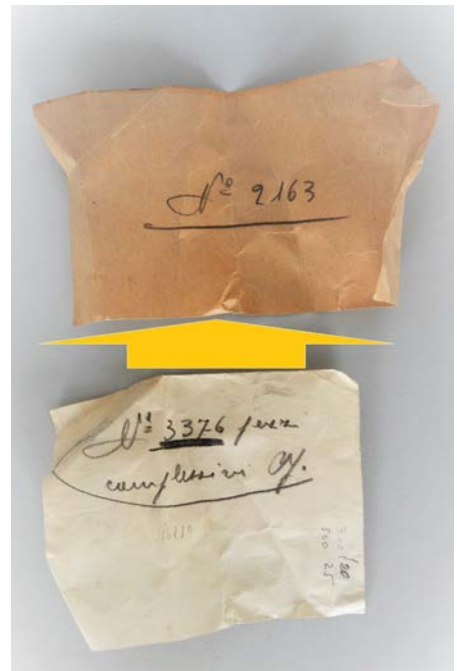


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15



Summary (1935/1962)			
Finds	Nr.	Surviving coins	Missed
1935 = Ćentur D (Matijašić 1981-1982)-Pola	3.378	2.195 + <u>577</u> (unpublished) = 2.772	<u>606</u>
1938 = Ćentur C Jeločnik – Kos	ca. 3.500	2.276	ca. 1.224
1944 = Ćentur A Jeločnik 1973	ca. 25.000	5.032	ca. 20.000
1950 Disperso	ca. 3.000		ca. 3.000
1962 = Ćentur B + Picozzi	+ 6.000	2.042 + 695 = + ca. 500 (unpublished) = 3.327	ca. 2.673
Total	ca. <u>40.878</u>	13.407	ca. <u>27.503</u>

gains, under the control of two families, Babić and Krmac, at a distance of years as an archaeological-numismatic sequel³⁸? Could the number of the pieces contained be explained as a collection of taxes or a sum destined to the payment of soldiers, with a value established by weight and not number? Indeed, if an average weight of folles of the first reform ca. 301 cut to 1/32 of a pound (10.2 g), and those of the weight reduction of ca. 307, in this case with a standard 1/40 of a pound (8.18 g) to the emissions of 309/310 with a weight calculated as 1/48 of a pound (6.52 g) is calculated, a weight is obtained for each amphora of circa 21 kg, equal to around 60/65 pounds (ca 3000 folles x average weight of 7 g)³⁹. These values could be compared, even if only hypothetically because the total is not yet known, with that of the 19 amphorae of El Zaudín (Tomares).

³⁸ In <http://chre.ashmus.ox.ac.uk> Ćentur is listed in the succession of finds as published over the years.

³⁹ The data are taken from Georges Depeyrot 1992. Le système monétaire de Dioclétien à la fin de l'Empire romain. *Revue Belge de Numismatique et de Sigillographie* 138 (1992), 33-106.

HOW TO ASCERTAIN THE PROVENANCE?

As explained, in the Trieste case the origin of the 577 folles and their pertinence to a precise date derive from incontestable documents (fig. 17). A next confirmatory step will be by archaeometry through soil chemical composition analysis and comparison of this with the coins (μ XRF). This diagnostic method compares the data



of the chemical-compositional analyses of the patina taken from the surface of the flans with those of soil samples taken in the place where the remains of amphorae were found. A similar procedure has already been tested on coins originating from archaeological layers of a dig and others from previous surveys in the same area⁴⁰. In that case, the coins from Monte Cesén, it was possible to establish that only some specimens really came from that territory, while for others the patina was completely incompatible with the soil of the dig.

A SPECIFIC DATABASE

So there will be two criteria of verification of the new data: documentary and archaeometric.

Indeed, the awaited reports of “coins from Čentur dispersed around the world” will be examined on a documentary basis, then subjected to an autoptic examination and a non-invasive sampling of the surface patina, the results of which will be compared with those already known. In this way, an archaeometric data base of the site can be built up over time. For the management of the new data a setup assisted computerized archive will be created. In this all the publications will be consultable in pdf format; in addition, through a preordained pattern, the essential numismatic data of the coins held in a museum (Lubiana, Pola, Aquileia)⁴¹ or in private collections will gradually be inserted. As the research proceeds, it will be mainly the photographic documentation to establish possible coherent relations between the published⁴² and unpublished material after a rigorous verification. It will probably be possible to find the identity of the coin in the different groups (from the various amphorae?), compare the statistical data relating to authorities, types, mints in order to render less uncertain a hoard that is one of the most important of the Tetrarchy period and the monetary history of the start of the 4th century at the boundaries of the Italiciana Diocese.

(Bruno Callegher)

⁴⁰ Bruno Callegher et al. 2018. Un deposito votivo sul crinale delle Prealpi Trevigiane-Bellunesi: lo scavo archeologico del Monte Cesén, reperti numismatici e analisi archeometriche. *The Journal of Archaeological Numismatics* 8 (2018), 69-124.

⁴¹ Once the architecture of the system has been designed and the work platform defined, these will be submitted to the colleagues in museums for their direct involvement in the project.

⁴² The coin finds of Čentur are summarized in Kos 1988. *Die Fundmünzen* cit., *ad vocem*.

We built a relational database containing all the data related to ancient coins. We chose as DBMS (DataBase Management System) “PostgreSQL”, an “open source object-relational database system with over 30 years of active development” (see <https://www.postgresql.org>). In order to ease the database creation and management, we used, in addition to PostgreSQL, PgAdmin GUI (Graphical User Interface – <https://www.pgadmin.org>).

THE DATABASE STRUCTURE

As previously written, a relational database about the Centur coin finding was built. Seven tables make up the database. Many relationships connect the Centur DB tables. They are both “one to many” and “many to many” relationships. The first ones are achieved by primary keys (PK) and a join table, the second ones by primary and foreign keys (PK, FK).

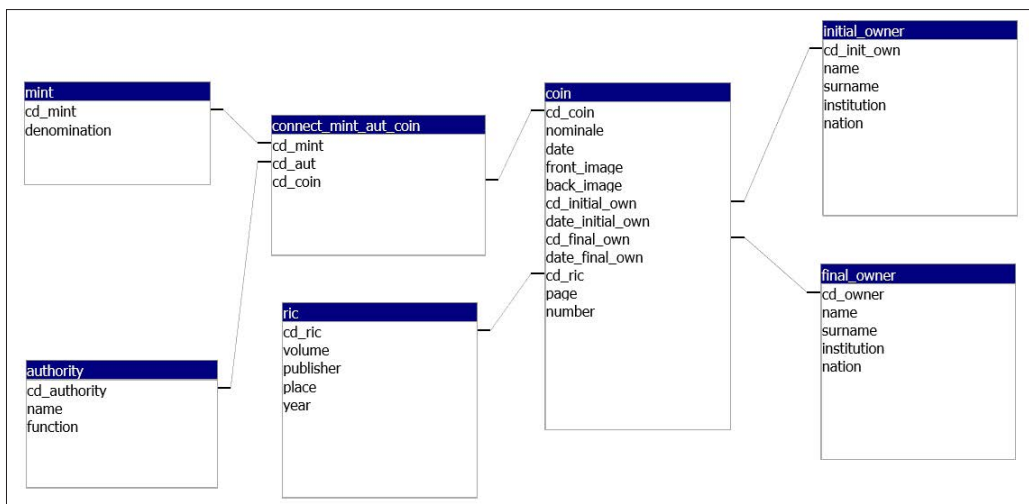
The seven tables are as follows:

1. “mint” table contains information about the different mints that minted the coins. The fields of the table are: “cd_mint”, the code of the mint, PK of the table; “denomination”, the name of the mint.
2. “authority” table contains references about the authorities that issued the coins. The fields of the table are: “cd_authority”, the code of the authority, PK of the table; “name”, the name of the authority; “function”, the rank/function of the authority at the time of the coin minting.
3. “coin” table contains information about the coins. The table fields are: “cd_coin”, the code of the coin, PK of the table; “nominale”, the type of the ancient coin; “date”, the mint date of the coin; “front_image”, the front image of the coin (it is a link to a jpg file stored in a server directory); “back_image”, the back image of the coin (it is a link to the jpg file stored in a server directory); “cd_initial_own”, the code of the first owner of the coin, FK field that is connected to the PK of the “initial_owner” following table; “date_initial_own”, the acquisition date of the coin first owner; “cd_final_own”, the code of the current owner of the coin, FK field that is connected to the PK of the “final_owner” following table; “date_final_own”, the acquisition date of the coin current owner; “cd_ric”, the code of the RIC (Roman Imperial Coniage) catalogue that contains the coin reference, FK field that is connected to the PK of the “ric” following table; “page”, the page of the RIC volume that gives the coin reference; “number”, the number of the coin in the RIC volume.

4. “connect_mint_aut_coin” table is a join table that connect “coin”, “mint” and “authority” tables. The table fields are: “cd_coin”, cd_mint” and “cd_authority” that are the three PK fields of “coin”, “mint” and “authority” tables.
5. “ric” table contains information about the RIC volumes that give the coin references. The table fields are: “cd_ric”, the code of the RIC catalogue that contains the coin reference, PK of the table; “volume”, the RIC volume that contains the coin reference; “publisher”, the name of the publisher of the RIC volume; “place”, the editing place of the RIC volume; “year”, the publishing year of the RIC volume.
6. “initial_owner” table contains information about the first owner of the coin. The table fields are: “cd_initial_own”, the code of the first owner of the coin, PK of the table; “name”, the first name of the coin first owner; “surname”, the last name of the coin first owner; “institution”, the name of the Institution the was the first owner of the coin (as an alternative to “name” and “surname”); “nation”, the Country of origin of the first owner of the coin.
7. “final_owner” table contains information about the current owner of the coin. The table fields are: “cd_owner”, the code of the current owner of the coin, PK of the table; “name”, the first name of the coin current owner; “surname”, the last name of the coin current owner; “institution”, the name of the Institution the is the current owner of the coin (as an alternative to “name” and “surname”); “nation”, the Country of origin of the current owner of the coin.

Fig. 18 shows the relational structure of the Centur database.

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THE DATABASE MANAGEMENT

We planned a client/server architecture to work on our database. The PostgreSQL database will be hosted by a server, available online by a limited number of client (they are the spread owners of the Centur treasure). Of course, the access will be controlled by a logon procedure (with user id and password). The limited number of client machines will use the same application to manage the database.

We used Microsoft Access as front-end to the PostgreSQL database. The reason of our choice is that:

- Ms Access is an efficient and robust software. It is also widespread, being part of the Ms Office Suite.
- The connection driver between Ms Access and PostgreSQL (ODBC – Open Database Connectivity), is well maintained and has frequent updates.
- Ms Access makes available in its environment a user friendly tool to build masks.

We prepared a small number of masks in order to manage the PostgreSQL database (in order to insert, delete, update and view the records of each database table).

The users (the clients in our architecture) will be able to connect to the PostgreSQL database (hosted on the server) and will manage the data using the masks.

(Andrea Favretto)