

Abstracts TALLINN (6 June)

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1. ALLEN Martin, Mining or trade?: the sources of silver for medieval English mints

It has been suggested that locally mined silver from the Pennines made a major contribution to the growth of English mint outputs in the twelfth century, but this can be contested. From 1279 to 1343 English mint accounts allow the quantification of the usually dominant contribution of imported silver to mint output. The crucial role of the wool trade in supplies of bullion to late medieval English mints is shown by the highly volatile variations in the output of the Calais mint between 1363 and c. 1450.

2. BYTHEWAY Simon James, Japan and Gold, 1872-1932

The movements of gold, its journey from the mine to the bank vault, its travel across the oceans, and its trade from country to country, were never as important, were never as intensely scrutinised, as in the era of the classical gold standard in the late nineteenth and early twentieth centuries; when all international balance of payments transactions between member states were ultimately settled by transfers of gold, or bank notes convertible to gold. Against this background, how did Japan, an insignificant gold producer, procure gold for the operation of its own monetary gold standard, and its own international commerce and trade? Where did Japan's gold reserves come from? When was it purchased, and in what form, and how was it paid for? Ultimately, where did it go, and how was it used? In order to answer these questions, and to explain how they relate to emerging global economy, my presentation aims to explain

and historicize the Japan trade in gold within the wider bounds of international financial history, and thus, clarify the importance of the exchange and trade of gold and precious metals in the Japanese experience of modernization.

3. DĀBOLIŅŠ Viktors Riga mint in the year 1621

The paper discusses the activity of Riga mint in 1621. On the 17 September 1621 Riga capitulated to the Swedish army and was soon followed up by the economic, monetary, religious policy in order to integrate it within the rising Swedish empire. Despite the initial attempts to integrate Riga into the Swedish monetary system, soon after the previous Polish regulations were restored. Based on the archival sources, we can follow the intensity of emission rates, supply of the mint and try to answer how the change of political order reflected on the everyday work of Riga mint in a short and long term. We can also ask if the case of Riga mint could have served as an example for the Swedish monetary policy in its later acquisitions in German lands, where a relative monetary freedom was favored as well.

4. DEPEYROT Georges, CAVERO Julien, Roman Coin Finds in Ukraine and Moldova

All the Eastern countries are known to be very rich in Roman coins. All these coins are the testimonies of the trade between Rome and the Barbarians. Of coins the closer we are from Rome, the more common the coins are.

Archaeological remains are very abundant in Ukraine and the country is very opulent in a numismatic country. The Romans, exported a lot of gold, silver and copper coins.

Fortunately, we have large inventories of coin hoards and coin finds. Everything was published in the 60s and 70s by Kropotkin who summarized the complete documentation. Some years ago, a new important work was published by Anokin, dedicated to local imitations of Roman coins. This last book takes advantage from the general use of metal detectors and from the development of private collections in ex-USSR.

We would like to present a set of maps analysis the coin distributions in Ukraine and Moldova.

This series underlines

- the finds of hoards
- the finds single finds
- the official coins
- the imitations
- the gold, silver copper coins.

We are now able to compare all these maps and to see the specific dissemination of each group.

5. FLAMENT Christophe, Athenian coinage, from mint to markets,

It will begin with an estimation of the minimal quantity of silver yearly produced in Laurion, based on considerations related to the profitability of the mining district, implying thus that mining expenditures (payments to the State, maintenance of slaves, rental of working installations) had first to be estimated.

Then the question: which proportion of the silver extracted from the mines was converted into coins, and by what procedure? Actually, the greatest part of – if not all – the silver produced in Laurion was converted into Athenian coins by mine lessees to defray their significant operating costs. In practice, mine lessees had the opportunity to bring their silver bullion to the Athenian mint for converting it into coins. Combining several epigraphical

documents will provide us with a glimpse into the modality of such a conversion, notably that mint staff deducted several drachmas from every 100 drachmas produced, exactly as manufacturing costs of other metal artefacts were calculated.

Several important conclusions follow from this model: first, the initiative to strike coins in Athens would not have come from the State, but from private individuals who also put into circulation the new minted coins, and it is possible to reconstruct the channels through which those new coins circulated; secondly, the intensity of the monetary production in Athens would thus have to be principally correlated to the intensity of the mining activity in Laurion, and not, for example, to the intensity of the military activities.

6. HARRIS, W. V. Were there shortages of metals in the late Roman Empire?

This question is important for the economic, ecological and also military history of late antiquity, as well as for its numismatic history. On the one hand it is widely believed that even by 200 AD many Roman mines had reached a point of exhaustion. On the other hand it can be argued that neither in Severan times or later (and this enquiry must be extended down to the seventh century empire) is there any clear sign that the Romans ran short of any of the major metals. Many difficult questions arise along the way: how should we define a shortage, how can we be sure that a given mine was no longer productive? Methods of provenancing metal artefacts are advancing, but where do they lead us? The scholarly literature on this subject concentrates unduly on certain mining areas, especially those in western Europe, at the expense of others. Great obscurity still veils the contributions made by the mines of some other areas, for example the silver and lead mines of Bolkardag in southern Turkey.

Three separate periods are involved in this inquiry, and although they present similar problems they must be kept distinct: (1) the late-second to late-third centuries, when archaeologists and scientists tell us that there were sharp and more or less permanent reductions in the producing of gold, silver, lead, copper and perhaps iron; (2) the period of the Germanic invasions, let us say from the 360s to the fall of Carthage, when the military need for metals was intense and mining zones in the Balkans and the West were passing out of Roman control; and (3) the period from Justinian to Heraclius, when the eastern empire in its turn was in severe need of precious and base metals alike, and was from late in Justinian's reign onwards increasingly unable to defend the relevant territories. A short paper can of course do no more than sketch some of the crucial elements in this problem.

7. JEFFERIES Claudia, Local silver exchange rates within a transatlantic context: inquiries into the rationale behind the price differential between specie and bullion in New Spain's frontier towns 1550-1620

Frontier towns in early modern New Spain were large silver producers. Despite repeated petitions by local miners to establish a mint in Zacatecas, which was the leading silver producing town in New Spain, the viceregal authorities during the Habsburg era stuck to a single mint in Mexico City, which catered for the whole of the Viceroyalty. Miners needed specie to cover expenses, such as salaries, and as a consequence, the silver produced in mining towns followed a round trajectory: "*vuelta de la plata*". Silver bullion produced in mining towns was exchanged against specie, which bore a high premium. A type of local currency was produced in frontier towns, which was known as "*moneda de resgate (sic)*", which was made out of untaxed silver and could be seen as a hybrid of bullion and coin. The exchange mechanism of bullion against silver was part of a wide network of transactions, which involved credit instruments that linked Spanish colonial mining towns with European financial centres. This paper places silver produced in frontier towns within the context of transatlantic credit and currency markets in order to analyse the rationale behind the exchange rate premium of specie against bullion.

8. KAMPMANN Ursula, Organization structures of modern mints and the connection to the coins produced

Various concepts of organization structures for mints have developed over the past 50 years. They are taking into account that some governments try to clear their state budget of the burden of financing a mint, while they like - on the other hand - receiving the seignorage from the coins struck.

In principle, there are three different concepts: State owned mints, private mints as well as mints that are organized as stock company whose stocks are completely owned either by the finance ministry or the central bank.

Using the example of the German mints (state mints), the Polish mint (private mint), the Austrian mint (stock company owned by the Central Bank), and the Royal Canadian Mint (crown corporation), this lecture will investigate first whether the products of these mints show different features due to their organization structure. Second, we will present a case study concerning commemorative coins made of silver sold for face value. How did different mints handle the changing silver price.

9. KÜNG Enn, The use of riksdaler in the Baltic provinces of the Swedish realm in the 17th century

This paper gives an overview of the use of riksdaler in the Baltic provinces of the Swedish realm from the end of the first third of the seventeenth century to the beginning of the eighteenth century. The paper relies mainly on the customs books of port towns in the Baltic provinces of the Swedish realm, and to a lesser extent on account books from Estland, Livland, and Ösel (Saaremaa and other archival materials containing monetary transfers. Coins with different values circulated the Baltic provinces in the seventeenth century, resulting in different financial systems in Livland and Estland. Tallinn was clearly part of the Swedish financial system, but Polish coinage was used in Riga.

However, it was beneficial for central authorities to have financial proceedings between the province and the state (customs, taxes, rent, etc.) conducted with common coin currency: riksdaler (for everyday use) and silver daler (which served as a unit of account). The number of öre silvermynt (rundstück) as well as other silver and copper coins in riksdaler changed with time, officially remaining between 36 to 64 öre in the seventeenth century. The exchange rate of silver daler used as a unit of account was fixed at 32 öre and did not vary over time. Since riksdaler had to be used for day-to-day dealings, it resulted in a permanent shortage of those coins. Consequently, the need to mint more coins changed their value, in other words, there were more öre in riksdaler according to the market exchange rate than according to the official exchange rate. The rate difference fluctuated between two to almost ten öre. These phenomena were characteristic to both the Swedish mother country as well as its overseas provinces, although there were significant variations between different towns and provinces (see also the table). In practice, it meant that the official exchange rates of coins deviated from reality. As demand grew, central authorities had to consider the actual exchange rate and increase the content of öre in riksdaler over time.

10. LEIMUS Ivar, Mining and Christianisation – a Baltic sample

If looking at the course of Christianisation in lands around the Baltic from the 10th till 13th c. a certain pattern occurs. First, the merchants as pioneers seem to have laid the path to the Nordic lands. Then, the missionaries joined the endeavour. And finally – as it was the case in Livonia (roughly taken today's Estonia and Latvia) – the armed crusaders finished the job.

However, in order to trade in a remote and unknown land you must have firstly - agreement and secondly - specie, preferable in form of silver or gold. Gold was scarce in Nordic

lands but hoards of Western silver coins of the period, on the contrary, are being found in abundance in Scandinavian and Baltic countries.

Strikingly, the beginning of the Christianisation in Poland, Denmark and Sweden that started in the 960s surprisingly well coincide with discoveries of rich silver ores in Saxony, Harz mountains. They probably provided with silver also the Anglo-Saxon mission in Scandinavia that began in 990s.

However, by the late 11th c. the Harz mines were mostly depleted. Instead, around 1133 it was started to explore the Carlisle silver mines on the Scottish border. Correspondingly, British coins, mostly these of Stephen (1135-54/8) penetrated to Estonia. Not to its neighbour lands where domestic currency already existed, manufactured probably from the British silver. There is no proof whether English pennies were accompanied by any missionaries but the fact is that Christian iconography widely spread just in the 12th c. in Estonia.

In 1168 new silver deposits near what now is known as Freiberg were discovered in Saxony. The volume of ore excavated and silver subtracted is unknown, unfortunately, but according to some optimistic calculations it could reach 4 tons per year. Also, since c. 1188 the English silver mining boomed again. All it provided the Saxon merchants with fresh cash and in 1180s they started to appear at the Livonian coast again, accompanied soon by missionaries. Then they founded the first footholds and crusades for protection of the newly founded church were declared by the Pope. Thus, during the 13th c. Livonia was baptized by cross and fire.

11. MARSILIO Claudio, 'Better lose than waste your money' Exchange rates and bullion quotations, New evidences from Genoese private archives (1620s-1660s)

The Genoese fairs inherited the features of a time-honoured institution that developed itself through the subsequent stages of Geneva, Lyon Piacenza and finally Novi. This economic and financial institution reached its zenith between the end of the 16th Century and the beginning of the 17th Century; starting from 1580 almost all European International, transactions were settled right in Piacenza exchange fairs every three months. The "*cambi*" became the most important International mean of payment and for more than two centuries creditors and debtors met at prearranged towns at set times of the year starting the *long adventure* of the European exchange fairs. Exchange fairs can be defined as a credit market through which a considerable amount of money was moved from one place to another.

These flows of money generated large profits when the lucrative investments reached maturity. The fairs were well-established institutions that rhythmically and cyclically marked the time of the European financial calendar. Piacenza and later on Novi became the main operating market where an increasing number of operators coming from all the European trading markets were gathered together and where the volume of transactions multiplied. The exchange fairs of Novi created an efficient financial network under Genoese control and permitted arbitrage among the other northern Italian financial markets (Piacenza, Verona, Bolzano).

The prime mover of the Genoese exchange fairs was - more than International commerce - the huge volume of transactions generated by the Spanish Crown's public debt and the financial speculations of the most powerful European financial operators (Genoese and Florentine above all). Cashless payment transactions are, without any doubt, among the most important elements of the European economic network. This mean of payment enabled the economic operators to provide liquidity wherever it was required. As a result, these payments - on the basis of the bill of exchange - contributed to financing the trade within Europe and therefore to the integration of different economic regions.

Being the fair the place where the compensation in different International currencies took place, we should understand how this could happen. We must know that the exchange fairs had a "monetary system" of their own.

During the 17th Genoese fairs the system was based on a “fixed ratio” between the currency unit - the “*scudo di marco*”, a kind of “imaginary money”, and the “*scudo d’oro delle cinque stampe*” (“five towns’ gold coins”), which represented the “real coin”. The Genoese Senate accepted as “good quality gold *scudi*” only the “*scudi delle 5 stampe*” as to say the gold coins from Genoa, Venice, Naples, Florence and Castile. These hard coins were related to the special unit of account of the fair - the “*scudo di marche*” - and their stability and goodness were fundamental for the “fixing” which took place on the third working day of the meetings.

Moreover, some private Genoese archives - only recently opened to the researchers - such as Archivio Brignole Sale, Archivio De Ferrari, Archivio Sauli, Archivio Durazzo, Archivio Pallavicini, Archivio Doria di Montaldeo, Archivio Balbi-Doria Lamba collect new evidences on the European exchange rates and the international financial market of that time. In the years 1620s-1660s many letters written by the most important Genoese financial brokers - Durazzo, Pallavicini, Spinola among others - give us an accurate report of the enormous amount of silver that the Genoese bankers sent from Madrid (via Barcelona, Dénia and Alicante) to their correspondents in Genoa and how they re-routed the precious metal to Venice thanks to the intermediation of the Florentine operators (e.g. Castelli and Orlandini). It is important to underline that many bullion quotations are enclosed in these commercial letters and, above all, all the exchange rates collected referring to Genoa and Venice are still unpublished.

12. MICHON Sylvain, La Chevauchée du second Président Alexandre de la Tourette en 1556.

Présentation de la publication du manuscrit de 1556.

La Chevauchée du second Président Alexandre de la Tourette en 1556 dans les pays de Champagne, Bourgogne, Auxerrois, Bar sur Seine, Mâconnais, Charolais, Auxonne, Bresse, Bugey, Vérone, Savoie et Piedmont ; sur les fautes abus et malversations commises par les maîtres et officiers des ateliers monétaires, changeurs, orfèvres, joailliers, affineurs, départeur, tireurs d’or et d’argent ; comme sur les types de monnaies portées dans les recettes générales.

13. MILEJSKI Pawel, Weight debasement of Prague groschen of Wenceslas IV (1378-1419) based on Polish and Lithuanian finds.

Physical properties of coins - diameter, weight and metal fineness – are rather rarely subjected to thorough analyzes. In the light of the development of technology and possibility of making complex metallographic examinations, we obtain a lot of new information about the chemical composition of individual coins. However, let’s think, if analyzing homogeneous hoards of Prague groschen, we can observe some regularities, connected with weight increasing or weight decreasing.

Prague groschen, which began to be struck in the mint of Kutná Hora in 1300, were intended as „eternal” coinage of constant weight and quality. The weight of the earliest specimens was declared as 3.960 g, i.e. 64 groschen would be struck from one heavy Prague mark. However, in fact Prague groschen of Wenceslas II (1278–1305) weighed 3.780 g.¹ For nearly 80 years Prague groschen was subject to significant debasement. Its quality was spoilt, and, as a consequence, its weight decreased. In the times of Wenceslas IV (1378–1419) the weight of Prague groschen dropped to 2.900 g – 3.100 g. During his forty-year reign, debasement of coins proceeded in weight and fineness, and the lightest groschen specimens weighed less than 2 g.

The source base will be three monospecific, Prague groschen hoards from Silesia: 1) Oleśnica (tpq 1415) – of Wenceslas IV (415), Charles IV (1346–1378) (5); 2) Wałbrzych (provisional tpq c.1435 Wenceslas (1310) and Charles IV (75); 3) Błazejowice (tpq 1395) –

¹ Kiersnowski R., *Wielka Reforma Monetarna XIII–XIV w. Część I*, Warszawa 1969, s. 190–191.

Wenceslas IV (78), Charles IV (28), George of Poděbrady (1469–1471) (1) and Vladislaus II (1471–1516) (1); as well as one hoard from Lithuania: 4) Lobanov, Švenčionių 2 (hidden in the second tierce of 15th century) –Wenceslas IV (147) and 32 Lithuanian pennies from the turn of the 14/15th centuries. Together 1950 Prague groschen will be subjected to analysis. They represent all of 15 basic types of Wenceslas IV groschen as distinguished by Jiří Hána.² While observing weights of individual coins divided into types, we can see some phenomena – the process of eliminating heavier coins from circulation, changes in the coin standard of Wenceslas IV, steady reduction of coin weights with successive issues (types Hána I-III are the heaviest, whereas types X-XV are characterized by low weight).

Analysis of weight changes of individual issues of Prague groschen of Wenceslas IV will extend our knowledge about coin production in the Kutná Hora mint.

14. NAUTZ Jürgen & SCHNEIDER Karin, Monetary regulations of the Congress of Aix-la-Chapelle and effects on the European monetary order

The defeat of France in 1815 opened not only new political structures in Europe it was a central date for the financial situation and the monetary order of Europe, too. It was necessary to find a solution the financial problems resulting from the Napoleonic era. The loser had to overcome declines in population and territory, occupations of parts of its territory, and – last but not least – large reparations to the victorious countries. Interestingly enough, France could place a large amount of debt on the financial markets in the period between the Vienna Congress and the mid-twenties. This paper will explain the financial regulations of especially the Congress of Aix-la-Chapelle and try to reconstruct the flows of money and precious metals and the role of banks (Barings and Hope, Rothschild) as intermediators.

15. TOUITOU-MICHON Brigitte, Marquise de Sévigné, Molière et Andersen : trois exemples littéraires de thésaurisation, durant le cycle du cuivre de Suède au XVII^e siècle.

Cette étude s'appuie sur les trois auteurs suivants : Madame de Sévigné, lettres du 29 juillet 1676 et du 15 juin 1680 (Lettres). Molière, L'avare (Pièce de théâtre), Andersen, le briquet (Conte).

Le règne de Louis XIV coïncidera en France avec la poursuite d'un cycle du cuivre commencé sous les rois Henri, cuivre issu des mines de Suède.

Cette période verra une thésaurisation des 3 métaux cuivre, argent, or, relevée dans deux lettres de la marquise de Sévigné et immortalisée par l'Harpagon de l'Avare de Molière. Andersen se souviendra de la thésaurisation séparée de ces trois métaux dans un de ses contes.

16. ZAORAL Roman, Mining, trading and minting in late medieval Bohemia

The paper is based on the long-term detailed comparative analysis of coin hoards and written sources. It has in view particular steps in silver mining and coining during the silver rush in Bohemia (the 1240s– the 1350s): minting poor quality coins at the beginning of the 13th century as a result of a lack of silver; minting bracteates within the Meissen–Bohemia monetary union in the 1220s–1250s; imitating Regensburg pfennigs in the Pilsen Mint between the 1210s and the 1240s; silver mining and trading in Jihlava (Iglau), Brod (Deutschbrod) and Kutna Hora (Kuttenberg); re-coining as a result of a short-lived coinage system; the reorganization of coinage under King Premysl II. Ottokar (1253–1278): concurrent Ottokar's monetary reforms (1253, 1260 and 1268) with trading and legal reforms in Venice; minting coins in connection with crusades, pilgrimages and collections of papal tenths; Florentine banking society in Bohemia and its share in the introduction of Prague groschen in 1300 and of Bohemian florins

² Hána J., *Pražské grosé Václava IV. z let 1378–1419*, Plzeň 2003.

in 1325; Bohemia as the largest silver exporter in Europe at the turn of the 14th century; the Bohemian Mining Code as an example for mining activities in other parts of Europe; extensive minting as a tool of general monetization; debasement as a result of a long-lived coinage system.