

XVI INTERNATIONAL NUMISMATIC  
CONGRESS IN WARSAW  
SEPTEMBER 11–16, 2022

BOOK OF ABSTRACTS



FACULTY OF ARCHAEOLOGY  
UNIVERSITY OF WARSAW  
KRAKOWSKIE PRZEDMIEŚCIE 26/28  
00-927 WARSZAWA  
[UW.EDU.PL](http://UW.EDU.PL) / [ARCHEOLOGIA.UW.EDU.PL](http://ARCHEOLOGIA.UW.EDU.PL)

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XVI International Numismatic Congress  
Warsaw, September 2022

## TABLE OF CONTENTS

LETTER FROM THE PRESIDENT OF THE INC.....	5
LETTER FROM THE ORGANISERS OF THE INC.....	6
THE CONGRESS & ITS VENUE.....	7
CONGRESS LOGO.....	7
CONGRESS MEDAL.....	7
REGISTRATION.....	8
THE STREAMING PLATFORM.....	8
KEY DATES.....	8
PROFESSIONAL RESPECT.....	9
PLENARY LECTURE.....	11
EXHIBITIONS AVAILABLE TO XVI INC PARTICIPANTS.....	11
XVI INC ORGANISING COMMITTEE.....	11
XVI INC ADVISORY BOARD.....	12
TRAVEL AWARDS.....	12
PATRONAGE.....	13
SPONSORS.....	13
VOLUNTEERS.....	13
EXHIBITION SPACE.....	14

MEDICAL SERVICE & COVID-19.....	14
EDUCATIONAL TENT.....	14
THE PROGRAMME & APP.....	14
HYBRID FORMAT .....	15
PUBLICATIONS.....	15
MANUAL FOR CHAIRPERSONS.....	16
THE BOOK OF ABSTRACTS.....	19
SCHEDULE OF LIVE & ONLINE EVENTS.....	198
INDEX.....	306

## LETTER FROM THE PRESIDENT OF THE INC

Dear Colleagues and Friends,

The aim of the International Numismatic Council is to promote numismatics and related disciplines, and to facilitate cooperation and contacts between institutions and private individuals. To achieve this goal, the International Numismatic Congress is among the most important events, one that enables all those interested in numismatic science to come together and exchange their latest scientific findings.

It is a great pleasure for me to present the programme of the 16th International Congress together with my Polish colleagues and friends. The University of Warsaw is an ideal venue for our Congress which will allow us to come together in a wonderful intellectual and friendly atmosphere. The programme presented here is arranged in seven parallel sessions and includes a total of 13 round tables and 97 sessions. It is impressive testimony to the tremendous breadth and vitality of our discipline. The scholarly programme is rounded off by a series of exhibitions and social events that make a visit to Warsaw a special experience.

In conclusion, it is my pleasant duty to express my sincere gratitude to the Organisers, sponsors and all those who helped to make this congress possible under particularly difficult conditions.

Michael Alram  
President of the International Numismatic Council

## LETTER FROM THE ORGANISERS OF THE INC

Dear Friends in Numismatics,

We present to you here the programme of the XVI International Numismatic Congress, held at the University of Warsaw, seven years after our last meeting in Taormina. Overshadowed by the pandemic, these past few years have nevertheless brought unprecedented progress in the development of modern technologies, in our field as well. One of its results has been the emergence of a separate new branch of study – digital numismatics.

To keep up with the times we shall be offering a streaming platform for the duration of the Congress and two weeks afterwards, in order to enable online participation to those unable to come to Warsaw in person. If for any reason a session, round table or an individual presentation could not be attended, most of them can be viewed and listened to on the streaming platform. This is all the more important because our programme is so crowded, with sessions and round tables, often on closely related subjects, scheduled to take place simultaneously in seven rooms. With so many speakers and only five days at hand, such crowding could not be avoided, but we hope that the streaming will help to make up for any inconvenience. Only a very small number of speakers did not agree to the streaming of their presentations, and those events, which are marked in the programme, will have to be attended in person.

Moreover, to better manage the running of the Congress, we will be using the Indico event management tool and app developed at CERN to keep the Congress participants posted about any last-minute changes, e.g. the absence of a speaker, chairperson etc. Please be aware that this printed Congress programme is a reflection of plans made two weeks ago, so please be sure check the most up-to-date version using the online app. There also you can find all the abstracts, which in order to save forests we decided to keep in digital form.

Last but not least, please take care to read the Introduction where we have included all the relevant details about the Congress and its venue.

Wishing you successful and rewarding sessions, and an enjoyable stay at the University of Warsaw, in our city and in Poland.

On the behalf of the Organising Committee of the XVI International Numismatic Congress

Aleksander Bursche

## THE CONGRESS & ITS VENUE

The International Congress, which takes place every six years, is one of the most renowned events world-wide in the field of Numismatics. It is attended by a great number of people and attracts scholars, curators of coin collections, auction houses and collectors from the six continents. The Congress is an integral part of politics for the promotion, conservation and valorisation of material and immaterial Cultural Heritage.

It is organised under the auspices of the International Numismatic Council, founded in 1927 “to facilitate cooperation between scholars and between institutions in the field of numismatics and related disciplines.” In the past venues have been Paris, Rome, New York – Washington, Bern, London, Brussels, Berlin, Madrid, Glasgow and Taormina. The International Numismatic Congress is the occasion to reflect on the field of numismatics, its methods and advances, but also the problems that it faces. It is therefore a unique opportunity for curators, historians, archaeologists, professional experts, collectors and all participants to meet one another, to share their passion and to make fruitful contacts and initiate projects.

Postponed to this year due to COVID-19 pandemic, the XVI INC is taking place in the University of Warsaw, which was founded more than 200 hundred years ago. Professor Alojzy Z. Nowak, Rector of University of Warsaw and Professor Aleksander Bursche, together with his team, will host you on the main campus of the University in the city centre, in historical buildings dating back to the time of the last Polish kings.

You can take a virtual tour by following this link: [https://www.muzeum.uw.edu.pl/spacer/Uniwersytet\\_Warszawski\\_NOWYnowy23g23.html](https://www.muzeum.uw.edu.pl/spacer/Uniwersytet_Warszawski_NOWYnowy23g23.html).

The Congress will take place in the two buildings of the Auditorium Maximum (five halls) and the Old Library (two halls), located next to each other.

## CONGRESS LOGO

The Congress logo, designed by Aleksander Bąk, is based on a coin showing a peacock and the title of an anonymous ruler PRINCES POLONIAE, i.e. the Prince of Poland. The legend most certainly refers to Boleslas the Brave, while the peacock perhaps alludes to the martyrdom and eternal life of St. Adalbert.

## CONGRESS MEDAL

The medal was designed by Robert Kotowicz, b. 1960, formerly a medallist at the Mint of Poland, and now on the staff of Skarbnica Narodowa, which is part of the Samlerhuset Group, the Major Sponsor of the XVI International Numismatic Congress. Kotowicz also carries out design work for the Narodowy Bank Polski (Polish Central Bank), the co-organiser of the Congress, and specialises in designing commemorative

coins and medals. These include notably a coin for the XIII International Chopin Piano Competition, the “Solidarność 2000” coin commemorating the 20th anniversary of the Polish trade union Solidarity, and a coin commemorating the 2002 FIFA World Cup in Japan and Korea. His designs have won many awards in international competitions and he has been recognised on several occasions by the jury of the International Coin Design Competition in Osaka. He was the winner of the first prize awarded by the American Numismatic Association for a 1 CYP coin designed for the Central Bank of Cyprus, has received four awards from the Coin Constellation medallist competition, and four prizes from the Mint Directors Conference, including for a coin commemorating the World Exhibition EXPO 2005 in Japan.

### **REGISTRATION**

The Congress Centre will be open every day from 8.00 am till 6.00 pm, and on Sunday, 11th September from 10.00 am. Registration will be available throughout the whole event. You can do this by visiting our Congress Centre in the building of the Old Library, where you can pick up the congress materials, the programme and the badge. Entry to the XVI International Numismatic Congress will only be possible if you are in possession of a colour-printed copy of an e-badge, which you will be sent in advance.

### **THE STREAMING PLATFORM**

For the first time in its history, the Congress will be organised in a hybrid mode. All participants who paid the fee can use the login and password they received on registering to gain access to streamed content. Moreover, the recordings of presentations will be available for two weeks after the event. Streaming and recording will only take place with the consent of the authors of presentations. Presentations that will not be streamed are marked in the programme appropriately. More details are to be found in the section below (p. 14).

### **KEY DATES**

#### **11<sup>TH</sup> SEPTEMBER, AUDITORIUM MAXIMUM**

3.00 pm – Opening ceremony (streamed)

3.45 pm – Chopin recital by Katarzyna Kraszewska (streamed)

4.30 pm – Opening lecture, The Coin Finds from the Antioch Excavations Revisited, Alan Stahl (streamed)

6.00 pm – Opening of the exhibitions (University Central Campus):  
"Coin Cabinets of the University of Warsaw"



"Thesaurus Polonicus: Numismatic Rarities in the Polish Collections"  
"History of Numismatic Milieu in Poland"

8.00-10.00 pm – Welcome reception at the Royal Castle sponsored by **KÜNKER**

### **12<sup>TH</sup> SEPTEMBER, NATIONAL MUSEUM, WARSAW**

7.00 pm – Opening of the special exhibition „The Prudent and the Romantic. 100 years of the Department of Coins and Medals” at the National Museum in Warsaw (admission with an invitation)

### **13<sup>TH</sup> SEPTEMBER, ROYAL CASTLE, WARSAW**

7.00 pm – Visit of the temporary exhibition “The Golden Collection. André van Bastelaer’s coins at the Royal Castle”

### **14<sup>TH</sup> SEPTEMBER**

2.00 pm – General Assembly held in the Auditorium Maximum, Adam Mickiewicz Hall / time for visiting museums and the city

8.00-10.00 pm – Gala Dinner in the Palace of Science and Culture (admission after payment)

### **15<sup>TH</sup> SEPTEMBER, OLD LIBRARY – AUDITORIUM**

5.30-6.30 pm – book presentation: Bernhard Woytek, Daniela Williams (eds.), *Ars critica numaria. Joseph Eckhel (1737-1798) and the Transformation of Ancient Numismatics, Vienna 2022*

### **16<sup>TH</sup> SEPTEMBER, AUDITORIUM MAXIMUM & EDUCATIONAL TENT**

6.00 pm – Closing ceremony (Auditorium Maximum) streamed

7.00-9.00 pm – Farewell reception **sponsored by Samlerhuset** (Educational Tent)

### **PROFESSIONAL RESPECT**

The Organising Committee of the XVI INC and International Numismatic Council require those registered for the Congress to comport themselves according to the values of non-discrimination, dignity and courtesy in all Congress activities. The practice of mutual respect in a professional space fosters a sustainable environment for freedom of expression and open inquiry.

The Organisers will not accept hate speech during lectures, political agitation or behaviour not suitable to well-mannered persons representing academia, collectors and other branches related to numismatics.

#### FREE SPEECH

The Organising Committee supports free speech. Presenters and attendees are encouraged to engage in the free exchange of ideas while refraining from disrupting sessions or preventing others from fully participating in them. As a matter of mutual respect, the organisers and chairpersons require you not to exceed the 20 minutes of given time for each presentation.

#### CONSENT

All speakers have both the right to request that their work, images, and/or any related material presented not be live-tweeted, live-blogged or otherwise publicly posted, and the right to expect that their requests will be respected. Audio or video recordings of sessions should not be made or posted without express permission of all of the session's participants. The live stream of presentations will be available only for those presentations of which the authors expressed their consent.

No photographs of any kind should be posted without the consent of the presenters or the subjects therein.

#### RESPECT

Please remember that during the in-person and online discussion you should mind your manners – your comments written in the chat might become public and therefore should be made in the same tone you would use in person: the medium should not change the professional nature of all of us, and it is important for all participants to avoid antagonising or harassing words. We also consider inappropriate any vulgar or profane language, and language that is threatening or that includes personal attacks. Since some participants may tweet spoken words directly live, it is crucial to remember the potential of misappropriation, misinterpretation, misunderstanding (i.e. removal from context) etc. Please remember that Twitter is an immediate and personal platform that might be misused and so potentially injure.

#### DIVERSITY & INCLUSION

The Organising Committee of XVI INC in Warsaw supports all forms of inclusion, respect and empowerment towards other participants. This demands from all of us that we make an effort in mutual understanding, paying attention to individuality and understanding that commonalities and differences are an inherent part of each of us and make our input in the Congress valuable. Please be aware that you may encounter persons of different race, ethnicity, sex, gender identity, religion, socioeconomic status, age, cultural / regional origin etc. All of us are required to behave with respect and mutual understanding.

The Organisers aim to promote equality free of discrimination, harassment and incivility among all participants, including academics, museologists, professional and

amateur numismatists, collectors and exhibitors, and all others who will be visiting the campus. May the Congress be the time and place where humanistic values are respected.

To report an incident of prohibited class-bias, discrimination, harassment or retaliation, please contact our volunteers, team or anybody from the Organisers.

### **PLENARY LECTURE**

Sunday, 11th September, 4.30 pm – Alan Stahl, “The Coin Finds from the Antioch Excavations Revisited” held in Auditorium Maximum, Adam Mickiewicz Hall presented live and streamed

### **EXHIBITIONS AVAILABLE TO XVI INC PARTICIPANTS**

1. Sunday, 11<sup>th</sup> September, 6.00 pm opening of the exhibition, University of Warsaw "Coin Cabinets of the University of Warsaw"
2. Sunday, 11<sup>th</sup> September, 6.00 pm opening of the exhibition, University of Warsaw “Thesaurus Polonicus: Numismatic Rarities in the Polish Collections”
3. Sunday, 11th September, 6.00 pm opening of the exhibition, University of Warsaw "History of Numismatic Milieu in Poland”
4. Monday, 12<sup>th</sup> September, 7.00 pm, National Museum in Warsaw, opening of the special exhibition „ The Prudent and the Romantic. 100 years of the Department of Coins and Medals” (admission with invitation)
5. Tuesday, 13<sup>th</sup> September, 7.00 pm, Royal Castle, Warsaw, visit to the temporary exhibition “The Golden Collection of André van Bastelaer’s coins”

### **XVI INC ORGANISING COMMITTEE**

1. Aleksander Bursche – president (University of Warsaw)
2. Jarosław Bodzek – vice-president (Jagiellonian University and National Museum in Cracow)
3. Anna Zapolska – secretary (University of Warsaw)
4. Mateusz Bogucki (Polish Academy of Sciences, Szczecin)
5. Barbara Butent-Stefaniak (Ossolineum)
6. Renata Ciołek (University of Warsaw)
7. Arkadiusz Dymowski (Independent scholar, Gdynia)
8. Witold Garbaczewski (National Museum in Poznań)
9. Genowefa Horoszko (National Museum in Szczecin)
10. Agata Kluczek (University of Silesia in Katowice)
11. Ryszard Zbigniew Kokoszczyński (University of Warsaw)

12. Mariusz Mielczarek (Polish Academy of Sciences, Łódź)
13. Dorota Malarczyk (Emeryk Hutten-Czapski Museum in Cracow)
14. Borys Paszkiewicz (University of Wrocław)
15. Andrzej Romanowski (National Museum in Warsaw)
16. Paweł Szałamacha (Narodowy Bank Polski)
17. Marcin Wołoszyn (University of Rzeszów)
18. Michał Zawadzki (The Royal Castle in Warsaw – Museum)
19. Przemysław Ziemba (Polish Numismatic Society, Warsaw)

#### XVI INC ADVISORY BOARD

1. Peter van Alfen (New York)
2. Roger Bland (Cambridge)
3. Jarosław Bodzek (Krakow)
4. Mateusz Bogucki (Warsaw)
5. Jerome Jambu (Paris)
6. Amiteshwar Jha (Nasik)
7. Dorota Malarczyk (Krakow)
8. Ariana d`Ottone (Rome)
9. Mariangela Puglisi (Messina)
10. Tuukka Talvio (Helsinki)
11. Helen Wang (London)
12. Zhou Weirong (Beijing)

#### TRAVEL AWARDS

**International Numismatic Council** has granted awards to 25 international scholars

**Warszawskie Centrum Numizmatyczne** (Warsaw Numismatic Centre) has made awards to 8 Ukrainian scholars.

18 Polish young scholars were awarded with a travel grant for International Numismatic Congress founded by the **Polish Minister of Education and Science**.

**Münze Österreich AG** and the **Institut für Numismatik und Geldgeschichte** have granted six travel grants for young scholars from Austria. Three further grants to Austrians were granted by **Österreichische Numismatische Gesellschaft**

The **Italian Academy of Numismatic Studies** (AISN) in collaboration with the **Numismatic Council of Italian University** (CoIN) granted six awards for Italians and non-Italians affiliated with Italian numismatic institutions

The **Royal Numismatic Society** (RNS) and **British Numismatic Society** (BNS) granted ten travel grants each (twenty in total) to British scholars.

The **French Numismatic Society** awarded two grants of 600 € each to young French-speaking members (under 30 years old) of the SNF and attendance at the Gala Dinner for Ukrainian participants

The **American Numismatic Society** (ANS) awarded eight travel grants to attend the International Numismatic Congress in Warsaw.

The **Nachwuchsstiftung** of the **Numismatische Kommission der Länder in der Bundesrepublik Deutschland** awarded ten travel grants.

Apart from above mentioned several smaller institution and foundations offered their support, for which the Organisers would like to express their gratitude on behalf of the beneficiaries.

## PATRONAGE

### SCIENTIFIC PATRONAGE – INTERNATIONAL NUMISMATIC COUNCIL

HONORARY PATRONAGE – MAYOR OF WARSAW RAFAŁ TRZASKOWSKI & RECTOR OF THE UNIVERSITY OF WARSAW – PROF. ALOJZY Z. NOWAK

## SPONSORS

1. Major sponsor – Samlerhuset (<https://samlerhuset.com>)
2. Gold sponsor – Künker (<https://www.kuenker.de/de>)
3. Silver sponsor – International Association of Professional Numismatists (<https://iapn-coins.org>)
4. Coins weekly (<https://coinsweekly.com>)
5. Warszawskie Centrum Numizmatyczne (<https://wcn.pl>)

## VOLUNTEERS

If you need help in any matter concerning the XVI INC or staying in Warsaw, please approach one of our volunteers. They will help you to find the correct lecture hall, explain how to manage with online presentations or any other problematic matter. All of them wear red / orange t-shirts and are fluent in English, and often other languages.

## EXHIBITION SPACE

There will be an exhibition space in the **COLUMN HALL** of the Collegium Historicum, where our sponsors, editors, and other institutions will be presenting themselves. The following institutions and companies have already confirmed their presence:

Samlerhuset Group Company – Major Sponsor  
Fritz Rudolf Künker GmbH & Co. KG – Gold Sponsor  
International Association of Professional Numismatists – Silver Sponsor  
Coins Weekly – Sponsor  
National Museum Warsaw – co-organiser  
Polish Numismatic Society – co-organiser  
ABALON Publishing House  
Brepols Publishing House

## MEDICAL SERVICE & COVID-19

Due to the dynamic and unpredictable development of the COVID-19 situation, we would like to assure you that as Organisers of one of the biggest numismatic events we are taking all necessary steps to keep you safe during the INC2022 in Warsaw. We provide a medical service which will be available every day and which is sponsored by the **INTERNATIONAL ASSOCIATION OF PROFESSIONAL NUMISMATISTS**. Additionally, all hygienic precautions were taken to keep you in good health; hand sanitisers and disinfectants are provided.

## EDUCATIONAL TENT

The Education Tent sponsored by **SAMLERHUSET** is situated on the parking place located between the buildings of the Faculty of Archaeology and the Faculty of History, and provides a comfortable meeting spot for all participants. Throughout the whole Congress coffee, tea and small refreshments will be served here. Book promotions and other special presentations will also take place here. On Friday evening the Farewell Reception will take place in the tent, and will be sponsored by **SAMLERHUSET** – our major sponsor.

## THE PROGRAMME & APP

The printed version of the programme is provided to all those participating in person as part of the Congress package. The online version of the programme is also to be found on the Congress website (<https://inc2022.pl/scientific-programme/>) and is the only version that will be updated in real time. The Organisers also provide all participants with a PDF version with abstracts of all papers and posters, and descriptions of round tables.

Additionally, all in-person and online participants are provided with access to an app with which an individual programme can be created based on sessions of personal interest.

As a participant you should take notice that for the first time there are two sorts of sessions – general, open sessions created by the Organisers from the individual submissions, and organised sessions to which their organisers invited selected participants. These sessions have an additional description provided by their organisers.

### HYBRID FORMAT

The XVI INC will include traditional in-person sessions that will be streamed and recorded via our online platform (<https://live.inc2022.pl>). Apart from one round table, all sessions and round tables will be streamed live and recorded. Several papers, whose authors did not express their consent for recording, will not be streamed either. Such papers are marked appropriately in the programme. All participants who paid the registration fee can use the login and password received during the registration to gain access to streamed content. It will also be possible to take part in a discussion when participating online. Questions can be asked in the chat and will then be read by the volunteers helping the chairpersons. The recording of all sessions and round tables will be available for two weeks after the Congress to all participants.

### PUBLICATIONS

**Survey of Numismatic Research 2014-2020** – this year for the first time in the history of the international Numismatic Congress the Organisers took the decision not to prepare a printed version of the Survey. It will be available as a PDF on pen-drives that each participant will receive in the INC materials package and on the INC 2022 webpage. However, the Organisers will also provide the opportunity to order a print-on-demand copy for those who would like to have the Survey as a printed book. There will be possibility of printing one or both volumes. The books will be sent by post to all who order them.

A special edition of **Compte Rendu**, vol. 68, 2021 issued on the occasion of the XVI International Congress, as well as a special number of **Polish Numismatic News** will be saved on pen-drives given to participants during the registration.

## MANUAL FOR CHAIRPERSONS

1. Please adhere strictly to the timeframe. Congress participants (both in-person and online) may be interested in only a specific contribution in a session and must be sure that it will be presented at the time specified. Each session and round table lasts 1.5 hours, followed by a break. For this reason, please start and end your sessions and round tables on time, according to the schedule.

2. Most sessions will include 4 presentations, each lasting a maximum of 20 minutes, followed by one period of 10 minutes for discussion at the end of the session.

3. In the 17th minute of a presentation, you should show the speaker a board informing them that they have 3 minutes left. Similar information should be provided 1 minute before their time ends. After 20 minutes, you absolutely must interrupt the speaker's presentation. The same applies to sessions with 3 presentations, which can be followed by a 30-minute discussion at the end.

4. Most of the presentations will already have been loaded onto the laptop at the technical point in the back of the room. It will be operated by an English-speaking representative of the BroadcastTeam streaming company, which is responsible for the quality of sound and image in the room and transmission. The laptop in the room cannot be replaced with the speaker's own laptop (e.g. Mac). The remote control with the pointer can be operated by a chairperson or a speaker. Speakers in regular sessions will not have the possibility of using internet resources during their presentations.

5. Presentations for online lectures should also be already uploaded on the laptop in the room. The speaker will connect to the Zoom app and ask for slides to be advanced by saying "next one", which will be done by the chairperson or a volunteer. According to our experience some institutions (especially museums) have firewalls protecting their computers that make it impossible to share the screen outside of the institution.

6. If online participants did not send the presentation on time and have problems with sharing their screen for any reason, you should as an absolute exception change the order of speakers or start a discussion and let them manage the problem. They should send the presentation immediately by email to the BroadcastTeam and after it has been downloaded the speaker may present their lecture. The speaker may need to compress their presentations before they can email them: PowerPoint has a facility for that, or else use WeTransfer.



7. Participants of Round Tables will have a laptop connected to high-speed Internet at their disposal for presentation purposes. However, for technical reasons it cannot be replaced with the speaker's own laptop (e.g. Mac).

8. During the discussion, questions can be asked directly from the room. Online questions can only be asked in the chat function. They will be shown on the screen in the room, and controlled and read by the English-speaking volunteer.

9. The few papers marked in the programme with the symbol  $\ominus$  will not be streamed at the request of the speakers. This means that only the participants in the room will be able to listen to them, not the online participants, and thus the latter will not be able to participate in the discussion.

10. Thank you very much for your help and cooperation.



Auction 362, Lot 1280 - The Mark and Lottie Salton Collection  
Netherlands. City of Campen. 8 Rosenoble n. d. (1600). 60,95 g.  
Imitation of the fourfold sovereign of Queen Elizabeth of England.  
**Hammer price: 700,000 Euros**  
*Piece from the auction Glendining & Co., London,  
October 26-27, 1938, no. 213.*



The Preussag Collection, Part 1, Lot 43  
Brunswick-Wolfenbüttel. Friedrich Ulrich, 1613 - 1634.  
Löser (multiple taler) in the weight of 20 gold gulden 1625,  
Goslar or Zellerfeld.  
**Hammer price: 910.000 Euro.**  
*Piece from the Pogge Collection, Auction L. & L. Hamburger, Frankfurt/Main,  
November 1903, No. 2190, of the Vogelsang Collection, Auction Riechmann  
35, Halle/Saale 1925, no. 440 and the Auction Hirsch 103, Munich 1977, no. 57.*



Auction 302, lot 1211  
Saxony-Coburg-Gotha.  
Frederick I alone, 1675-1680-1691.  
6 Ducats 1687, Gotha, by Chr. Wermuth,  
on the alchemical experiments of the Duke.  
**Restitution to the Klassik Stiftung Weimar, March 2019.**  
*Piece from the Auction Grunthal & Gans 9, New York 1950, No. 47.*

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## THE BOOK OF ABSTRACTS

### 1. GREECE 1. GENERAL, CHAIRED BY WOLFGANG FISCHER-BOSSERT (AUSTRIAN ACADEMY OF SCIENCES)

#### A) COINAGE AND CONSTRUCTION, JOHN MOORING (NATIONAL RESEARCH SCHOOL IN CLASSICAL STUDIES, AMSTERDAM)

To understand the early stages of coinage I study the relation between building activities and the origins of minting. Already in 2000 Kenneth Sheedy concluded that there was a link between Parian coin production and building activities of the Parians. Was Paros an exception or was there a structural link between public building and coinage? To answer that question, the investigations conducted by the Copenhagen Polis Centre are invaluable. In the synthesis publication *An inventory of Archaic and Classical Poleis* (Hansen and Nielsen 2004), a wealth of information about all 1,035 identified poleis was brought together. With these rich data I test whether there is a connection between minting and several types of buildings (city walls, political architecture and other public buildings including temples). My final aim is to demonstrate that coinage was used as a solution to tackle developments that took place in the late Greek archaic period.

#### B) THE SEARCH FOR ANCIENT SILVER MINES, FRANCIS ALBAREDE (ENS LYON), JEAN MILOT (ENS LYON), MARKOS VAXEVANOPOULOS (ENS LYON), KATRIN WESTNER (ENS LYON), JANNE BLICHERT-TOFT (ENS LYON)

Many mines had been in use over several millennia but most ancient workings have been trampled damaged and jumbled by the more recent extraction phases and have become exceedingly difficult to identify and date. For silver mines, isotopes offer a unique opportunity to resolve this conundrum. Over 95% of the  $^{109}\text{Ag}/^{107}\text{Ag}$  ratios measured in silver coins from different origins, such as Ancient Greece and Iberia, Spanish Americas, medieval and pre-modern Europe, fall in a narrow  $\pm 0.1$  per mille range, whereas the range for potential ores is more than an order of magnitude broader. Galena ores with high Ag, Sb, and As contents and  $^{109}\text{Ag}/^{107}\text{Ag}$  ratios in the coinage range represent acceptable sources of bullion and, with some exceptions, make it safe to disregard other ore districts. This approach provides results consistent with literature records describing mines from Ancient Greece and Iberia.

#### C) ANCIENT GREEK COIN HOARDS (550 -350 BC). DELVING INTO THE ACQUISITIONS OF A NUMISMATIC MUSEUM, GREECE, GEORGE KAKAVAS (NUMISMATIC MUSEUM, HELLENIC MINISTRY OF CULTURE AND SPORTS), CHARIKLEIA PAPAGEORGIADOU (RESEARCH DIRECTOR, INSTITUTE OF HISTORICAL RESEARCH, NATIONAL HELLENIC RESEARCH FOUNDATION), PANAGIOTIS TSELEKAS (ARISTOTLE UNIVERSITY OF THESSALONIKI, SCHOOL OF HISTORY AND ARCHAEOLOGY)

A significant number of coin hoards dated to the period 550-350 BC is kept at the Hellenic Numismatic Museum, attesting the long history of the city-states' consolidation. These hoards are of a major importance since most of them were found in an archaeological context or at least, their findspot and conditions are known in a certain degree.

The aim of this paper is to present this material, published or unpublished, from a new perspective to add, wherever possible, to our knowledge of the regional circulation pattern and the numismatic history of the issuing authorities.

## 2. GREECE 2. SOUTHERN ITALY, CHAIRED BY FEDERICO CARBONE (UNIVERSITY OF SALERNO)

### A) COINS AND COLONIAE: COSA COINAGE AS MECHANISMS OF SOCIO-ECONOMIC INTERACTIONS IN MIDDLE REPUBLICAN SOUTH ETRURIA, MELISSA LUDKE (FLORIDA STATE UNIVERSITY)

The Latin colonia of Cosa was founded in 273 BCE and situated on a promontory overlooking the Mediterranean Sea in Central Italy. While the city has been studied extensively concerning its history and architecture, its socio-economic interactions with the surrounding region, including the full reach of its coinage that was minted at the colony until the mid-third century BCE, has not been overly explored. As a small facet of a larger project that examines regional socio-economic networks among cities in South Etruria during the Middle Republic, this paper presents preliminary findings on the circulation and potential function of coinage from coloniae and non-Roman cities in the region between the third and second centuries BCE. Since Cosa's coins appear to have joined other Etruscan coins circulating within the region, it seems that the colony's coinage was intended as a means of interacting with previously established exchange networks and existing trade routes.

### B) ⊖ THE COINS OF LARINUM AND THE FRENTANI. REVIEWING THE EVIDENCE, VALENTINO PIVA ('SAPIENZA' UNIVERSITY OF ROME)

Starting from the third century BC, the Oscan-speaking communities of the Central and Southern Italy began to strike autonomous coin issues based on the earlier samples of the Magna Graecia mints. The coins attributed to the Frentani, were struck in bronze, bearing Oscan legend, with the exception of coins from Larinum, whose legends are in Greek or in Oscan, in the Latin alphabet. This peculiarity reflects how different Larinum was from the other the extraneousness of Larinum compared to the settlements reality of the Frentanian district, as the city saw a precocious urbanization and a greater participation in the Hellenistic 'koine' in the Italian Peninsula in the 3rd and 2nd century BC, possibly the result of the growing influence of Rome. The focus of this paper is to reexamine the data related to the circulation of the Frentanian coins and their political value in the context of the Italian communities.

### C) MEBIC – LAGIOIA COLLECTION: REMARKS ABOUT CIRCULATION OF BRONZE COINS BETWEEN APULIA AND WESTERN GREEK REGIONS, GIULIA VALLI (GABINETTO NUMISMATICO E MEDAGLIERE), NOVELLA VISMARA (UNIVERSITÀ DEGLI STUDI DI MILANO BICOCCA)

As part of MeBic project (the upload of Milan Coin Cabinet collections) a significant set of coins was selected to improve the website. This is a group of ancient coins from the Lagioia collection, mainly issues of local Apulian mints and other local mints; the collection has been kept in the Milan Coin Cabinet for a long time, but has not yet been fully and systematically studied. It includes ca. 200 coins that offer interesting clues for an analysis of both the contents of the collection and its history: the set helps to reconsider some issues concerning the horizon of circulation of some

local bronze issues in Apulian area, and also to looking into the relationship with some western Greek region coinages. Lastly, it offers a chance to better understand the first owners' various collecting interests.

D) THE SAKKOS AS AN IDENTIFYING ELEMENT OF THE FEMALE STATUS: A CASE STUDY FROM LOCRI, MARIANNA SPINELLI (UNIVERSITY OF CALABRIA)

The paper seeks to identify a female head depicted on a silver coin of Locri Epizephyrii through the analysis of its accessories. In particular, the study focuses on the sakkos, a typical attribute of female hairstyles in ancient Greece.

The research, adopting the LIN method, follows three phases: 1. Collecting evidence highlighting the distribution of sakkos in the ancient world; 2. Identification of characters depicted wearing this headdress during the Greek age; 3. Comparing similar attributes from other coin series.

As a final step the data is interpreted and used to identify the woman's status. Parallel to the coins, analysis is made also of a bronze ring deriving from Locrian excavations which has an iconography similar to the coin under study. According to the archaeological literature, the figure depicted on the ring is defined *euchrua* or "good looking".

3. GRECE 3. GREEK COIN ICONOGRAPHY IN THE DIGITAL ERA, ORGANIZED BY ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES) AND FRÉDÉRIQUE DUYPAT (BIBLIOTHÈQUE NATIONALE DE FRANCE) AND CHAIRED BY VLADIMIR STOLBA (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT / BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES)

Numismatic iconography is a rapidly evolving research area, which with advent of new technologies also becomes increasingly interdisciplinary. While its potential for the history of the Roman world has long been appreciated, numerous paths are still to be developed in the field of Greek numismatics. Sharing the basic theoretical framework of the 'Bildwissenschaften', Greek coin iconography has, however, its specifics which make mandatory an approach that is different from the one used for Roman or provincial coinage. This has been clearly demonstrated by a range of international conferences on the topic held in Italy, Germany, and Greece over the last decade.

A number of novel approaches and potential new directions in the field that were identified include:

- promoting research on Greek coin iconography;
- implementing a quantitative approach;
- paying attention to multiple contexts (numismatic, historical, archaeological), with a special focus on contemporary Greek art history;
- analysing image choices and the general evolution of coin types and their distributions vis-à-vis their metals and denominations;
- studying the engraver styles on various levels (international, regional, personal); and
- identifying target audiences and the problems of reception, also beyond the scope of Antiquity.

Digital approaches that have become a new and rapidly advancing trend in numismatic research also raise the question of what Linked Open Data, Natural

Language Processing, image recognition and the new tools under construction, such as web portals devoted to iconography, can bring to such a topic. The session aims at identifying where this research currently stands, and how and in which directions we should move further. We invite specialists working on Greek coins from different parts of the ancient Greek world, which should offer a broad geographical and chronological perspective from the beginning of this coinage down to the Roman provincial.

A) ICONOGRAPHIC AMBIGUITIES IN GREEK COINAGE: THE CORPUS NUMMORUM AND THE SO-CALLED TORCHES OF BYZANTION, ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES), VLADMIMIR STOLBA (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT / BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES)

This paper explores the potential of new digital tools in the study of numismatic iconography, taking as an example the Corpus Nummorum Portal—which produces iconographic authority data and aims to create a hierarchical, multilingual Thesaurus Iconographicus Nummorum Graecorum (THING). It focuses on a specific motif present in the Roman provincial coinage of Byzantion that reoccurs on the issues spanning the period from Trajan to Gallienus and represents objects whose nature remains obscure. Although their identification as fish traps goes back to the 19th century, the corpus study by Edith Schönert-Geiß, who discussed this topic in detail, accounts for the popularity of an alternative interpretation favoured already by Eckhel: namely, their identification as beacons or torches. Based on iconographic evidence of coinage and other visual testimonies, the “readings” of this motif are re-examined.

B) ARCH – AN ONLINE PROJECT OVERARCHING THE COINAGE OF THE GREEK WORLD, FRÉDÉRIQUE DUYPAT, JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE)

The ARCH project – Ancient Coinage as Related Cultural Heritage – uses Linked Open Data technology to establish, for the first time, an overarching platform for the study, curation, archiving and preservation of the monetary heritage of the ancient world. It is available through a portal where all the types known from the Greek world, from the 7th to the 1st century BC, are made available in a hierarchy based on previous bibliography and links to other portals such as MIB, Hellenistic Royal Coinage and Corpus Nummorum Online. This paper aims at explaining how the typology underlying the ARCH project is built and how it can grow and be exploited for iconographical study.

C) CHALLENGES OF CREATING A TYPE CORPUS OF EARLY ELECTRUM COINAGE, UTE WARTENBERG (AMERICAN NUMISMATIC SOCIETY)

Electrum coinages, minted from 640 BCE well into the fifth century, are usually grouped under the amorphous term of “early electrum coinage”. There are publications of a few museum catalogues and specialized collections, but no comprehensive type catalogue exists. The only monograph that offers some sort of typology of the earliest coins was written in 1975 by Liselotte Weidauer (Probleme der frühen Elektronprägung). Online coin databases have shown a way forward to how to present coin types using linked open data. In a database started a few years ago, Ute

Wartenberg and Wolfgang Fischer-Bossert have begun a classification of c. 10,000 electrum coins. The challenges of creating a typology of electrum coins which are only distinguished by varying emblems but very rarely bear legends are discussed. A proposal for an iconographic structure, which uses a hierarchical organization of types, will be tested on electrum coins.

D) BETWEEN GREEK AND ROMAN ICONOGRAPHY: IMAGING THE EMPEROR ON CIVIC COINAGE IN THE ROMAN EAST, DARIO CALOMINO (UNIVERSITY OF VERONA)

This paper presents the preliminary results of the ERC Cog RESP project (The Roman Emperor Seen from the Provinces – GA 101002763), which investigates how Roman emperors, Augustus to Diocletian, were represented on visual media in the provinces. The research combines quantitative analysis of coin types in the RESP project database – linked to the RPC online database, with comparative analysis of coin imagery and sculptural representations of Roman emperors, to study the modes and tropes of imperial representation in full-figure in the Roman East. This integrated approach allows for a comprehensive study of the treatment of the imperial image and of the interpretation of its ideological background outside the Italian Peninsula. It reconstructs the genesis of Roman provincial iconographies to understand whether they conformed to Roman metropolitan models, or reinterpreted them, or again featured as entirely new creations, following the artistic and cultural paradigms of the Greek world.

4. GREECE 4. IBERIAN PENINSULA AND GALLIA, CHAIRED BY ELENA MORENO PULIDO (UNIVERSIDAD DE CÁDIZ)

A) A NEW CATALOGUE FOR THE ANCIENT IBERIAN COINAGES: MONEDAIBERICA.ORG, PERE PAU RIPOLLÈS (UNIVERSITAT DE VALÈNCIA), MANUEL GOZALBEZ (MUSEU DE PREHISTÒRIA DE VALÈNCIA), ALEJANDRO PEÑA (RENDER S.L.), FRANCISCO ONIELFA (RENDER S.L.)

The website monedaiberica.org offers a new complete catalogue of the ancient coinages of the Iberian Peninsula and the south of France struck between the 6th and 1st centuries BC. The new project has been developed within the framework of the international ARCH project (Ancient Coinages as Related Cultural Heritage) in collaboration with the University of Oxford and the Bibliothèque nationale de France. The catalogue organizes the coin series from more than 200 mints, including 4,000 types from the Greek, Punic, Iberian, Celtiberian, Vasconian and Lusitanian cultures. The project collects for research purposes over 100,000 coins with images from museums, auctions and private collections. The website links different international projects. The contents are managed by Dédalo/Numisdata, a research and publishing open-source system based on web standards. This database enables promotes work in collaborative environments, and offers powerful resources for managing languages, users and projects.

B) AN EXAMPLE OF MONETISATION OF SW HISPANIA DURING THE REPUBLICAN PERIOD: MESAS DO CASTELINHO (PORTUGAL), BARTOLOMÉ MORA (UNIVERSITY OF MÁLAGA), CARLOS FABIÃO (UNIVERSIDADE DE LISBOA), AMILCAR GUERRA (UNIVERSIDADE DE LISBOA), SUSANA ESTRELA (UNIVERSIDADE DE LISBOA)

Since the mid-20th century, the Mesas do Castelinho has been a point of reference in the archaeological mapping of southern Portugal. It was occupied at an early date, and its heyday coincided with the Roman presence in these territories between the 2nd and 1st centuries BC, when it controlled routes connecting the Algarve with Alentejo, taking advantage of the course of the Guadiana and the passes through the Serra do Caldeirão. The excavations have recovered many coins consistent with the profile of the rest of the archaeological material recovered there.

Roman denarii and asses are complemented by bronze coinage from Murtilis, as well as from other mints in the south of the Iberian Peninsula (Gadir) and the Guadalquivir valley (Castulo). A group of monetiform leads from Ossonoba is made outstanding by its size and distance from their centre of issue; there are moreover some uncertain issues possibly of a local origin.

C) THE NEW BAETICAN LEAD TOKENS OF EUCLERATUS, DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)

We present a previously unpublished issue of "Baetican Lead Tokens". They were found at Linares, Bailén, Jaén and, in short, Andalusia (Spain). The uniface and the lead issue was "struck" by Eucleratus. It should not necessarily be related to mining activity. According to epigraphic sources, Eucleratus is a Greek cognomen documented just once in Asia, specifically in Balat (Miletus) in a funerary inscription bearing the name Lucius Ambeivius Eucleratus (EDCS 29601640). In summary, I discuss the meaning of the new lead issue, presenting a formal description (• EE • EVCLERATVS) and possible interpretation of the new lead tokens of Eucleratus.

D) THE FIRST CHALKOS OF GREEK MARSEILLE, JEAN-ALBERT CHEVILLON (GROUPE NUMISMATIQUE DU COMTAT ET DE PROVENCE)

A small group of some twenty identical bronze coins with a "sacrificial bull" reverse come from a Hellenistic wreck of the early 3rd century B.C. found off La Tour Fondue at the tip of the Giens peninsula, Var, France. Despite their unmistakable Massaliot appearance and excellent style, these early pieces differ in a number of ways from the usual series. By considering also other coins of this type, from excavations at Olbia, finds from England, and others of various origin, we hope to demonstrate that the issue was the first chalkos struck by Massalia. It next went on to serve as a model for cast potins issued in England (the Kentish Primary Series, or "Thurrock type"), as well as in a number of places in Gaul.

## 5. GREECE 5. ITALY – SICILY 1, CHAIRED BY MARIANGELA PUGLISI (UNIVERSITÀ DI MESSINA)

A) THE EARLY INCUSE COINAGE OF CROTON, STEFANIE BAARS (MÜNZKABINETT, STAATLICHE MUSEEN ZU BERLIN – STIFTUNG PREUßISCHER KULTURBESITZ)

The ancient polis of Croton, a colony founded by Achaeans in Bruttium, exerted influence over a vast area in southern Italy from the end of the 6th to about



the middle of the 5th century BC. Towards the end of the 5th century BC, the power structures in the region reorganized and the poleis of Taranto, Thurium and Heraclea gained influence. At the same time, with the strengthening of Dionysius I of Syracuse on the one hand and Lucanians on the other, further sources of conflict arose. The Crotoniates adapted to the political power and the resulting economic changes, which were also reflected in the monetary evidence at the end of the 5th/ beginning of the 4th century BC. Incorporating the historical background, this study attempts to examine the early incuse coinage of Croton and its images.

B) THE COINAGE OF THURIUM AND ITS CONTEXTS – A DIE STUDY, MARC PHILIPP WAHL (VIENNA UNIVERSITY, DEPARTMENT OF NUMISMATICS AND MONETARY HISTORY)

Thurium is one of the most important Greek colonies in Magna Graecia, both because of its connections to other cities and innovative coinage. However, the current arrangement and knowledge of Thurian coins has not yet reached a level that is comparable to other cities of similar importance. This oversight has repercussions for our understanding of the politics and economy of Magna Graecia.

This paper – an outcome of more than four years of studies made within a project funded by the Austrian Science Fund (FWF) – addresses the question of how the potential uses of an extensive die-study in the 21st century..

C) COIN FINDS FROM ANCIENT MEDMA, TODAY ROSARNO (RC, ITALY), GIORGIA GARGANO (SOPRINTENDENZA ARCHEOLOGIA, BELLE ARTI E PAESAGGIO PER LA CITTÀ METROPOLITANA DI REGGIO CALABRIA E LA PROVINCIA DI VIBO VALENTIA)

The identification of the polis of Medma in the current Rosarno area was made in the 20th century, when the control activity over archaeological finds started to be particularly intense. Finds of ancient coins date back to the 19th century and have contributed to the most important numismatic collections in Southern Italy and across Europe as well. Recent studies identified the functions of the areas of the city and outlined its layout, as well as the sacred areas and the necropolis. The systematic analysis of numismatic finds in three Calabrian museums – Reggio Calabria, Rosarno and Vibo Valentia – makes it possible to analyse absence and presence of ancient mints in an attempt to search for information about the monetary circulation in a polis which ancient sources show had a port, in order to structure a research base useful for an up-to-date archaeological map.

D) COIN CIRCULATION IN LIPARI (SICILY) FROM THE GREEK TO THE ROMAN TIMES, LUDOVICA DI MASI (UNIVERSITY OF MESSINA)

The aim of this work is to study the coin circulation of the island of Lipari off the coast of Sicily (Italy). Taking into consideration the numismatic evidence from archaeological excavation campaigns on the site of interest, we focus on the period spanning the Greek and the Roman age.

Although the mint activity of Lipari in the Greek period has been widely examined by many researchers, this will be the first time to make an overview of the data at hand.

The analysis will be conducted mainly of coins currently held in the Luigi Bernabò Brea Archaeological Museum.

Considering the historical background, the following aspects will be studied: coin circulation (continuity or interruption); more common coins; recorded origins of the coins (urban context, necropolis, sanctuary...). Considering the historical background, the following aspects will be studied: coin circulation (continuity or interruption); more common coins; recorded origins of the coins (urban context, necropolis, sanctuary...).

**6. GREECE 6. ITALY – SICILY 2, CHAIRED BY BENEDETTO CARROCCIO (UNIVERSITÀ DELLA CALABRIA - DIPARTIMENTO DI STUDI UMANISTICI)**

**A) PYRRHUS' THREAD: A NIKE AND HER TROPHY, CARLO LUALDI (UNIVERSITY OF WARWICK)**

Gold coins minted by Pyrrhus king of Epirus during the final stage of his campaign in Sicily have on the reverse the image of Nike bearing a trophy and holding an oak wreath. The trophy consists of a corselet cuirass and a thyreos-type shield with a central reinforcing ridge. Recent analysis has linked this iconography to the memory of Pyrrhus' victory at Heraclea Lucaniae. The iconography seen on the golden staters and half-staters minted at Syracuse has been compared to two terracotta figurines from the inventory of a grave in a garden near the church dedicated to San Francesco di Paola in the urban area of the city of Taras. Here, we propose to relate the image of Nike bearing a trophy, including a thyreos-type shield, to the imagery dating to the eastern campaigns of Pyrrhus in Italy and Sicily.

**B) ALAISA/HALAESA (SICILY): THE ANCIENT SITE AND ITS MONETARY PROFILE, MARIANGELA PUGLISI (UNIVERSITÀ DI MESSINA)**

Ancient Alaisa/Halaesa has seen many excavations in recent years. Different sectors of the site have been studied – the sanctuary of Apollo by the joint archeological mission of the Universities of Messina and Oxford; the city walls by the University of Palermo; the agora and the theatre by the Université de Picardie Jules Verne of Amiens. As a result, the site yielded a significant number of coins. We can draw from them a general idea about the circulation and compare with what we know from previous excavations and the output of the city's mint. The study of the coin finds has potential for a chronological reconstruction of the circulation of coins in this area of Sicily. As a next step, this can be compared with other areas of the north-eastern Tyrrhenian coast of this island, with the aim of gaining a general understanding of the history of this area.

**C) THE HISTORICAL FIGHT OF ATHENIAN "OWL" AND SICILIAN "LIZARD" ON KAMARINA'S BRONZE COINS, MARIA CALTABIANO-CACCAMO (UNIVERSITÀ DEGLI STUDI DI MESSINA)**

In 415 BC, during the second Athenian expedition against Sicily, when almost all the inhabitants of the island had united against the Athenians alongside the Syracusans (Thuc. VII 33 2), Kamarina minted copious series of bronze coins representing both the Athenian owl attacking the Sicilian lizard, and the combat of this small reptile against the great raptor. These coins, found today in all of the archaeological excavations conducted in Sicily, represented a "manifesto of resistance" which Kamarina together with other Sicilian cities was promoting against the attack of Athens. This episode, with its strong political and military significance,

must have left a heavy mark on the pride of Athens. In fact, after several decades, around the middle of the 4th century BC, to erase the shame of that defeat the Athenian Praxiteles created the famous statue of Apollo Sauroktonos, “the Lizard-Slayer”.

D) KEY-BEARER FEMALE FIGURE ON THE COINAGE OF ENTELLA (440-430 BC): ANALYSIS AND MEANING, JOSÉ MIGUEL PUEBLA MORÓN (INDEPENDENT RESEARCHER)

Male and female figures depicted standing in front of an altar and making a sacrifice are one of the main features in the coinage of Greek Sicily. Typically the female figures are shown holding a phiale, but on the first litrae minted at Entella (440-430 BC) the female figure appears holding a temple key in her other hand.

These litrae issued by Entella are the only ancient Greek coins with an image of a female figure bearing a key. Consequently, a study of this iconography made in conjunction with evidence from archaeology (because of the lack of references to this polis in the written sources) is made to determine the meaning of this iconographic depiction and the local cults, since the deities who appear related to the title of “Kleidouchos” (understood as “key-bearer”) are Persephone, Hekate, Cybele, Artemis, Aphrodite, Athena, Hera and Apollo.

7. GREECE 7. SICILY AND BEYOND, CHAIRED BY SUZANNE FREY-KUPPER (UNIVERSITY OF WARWICK)

A) THE BRONZE COINAGE OF HIERONIMUS OF SYRACUSE BETWEEN POSTHUMOUS SERIES, PARALLEL STRIKINGS AND ORGANIZATIONAL CHANGES, BENEDETTO CARROCCIO (UNIVERSITÀ DELLA CALABRIA – DIPARTIMENTO DI STUDI UMANISTICI)

Bronze coins were barely mentioned in Holloway's monograph (1969) on the series issued in the name of Hieronymus of Syracuse, who reigned for 13 months (215-214 BC) due to the belief that the difficulty of taking good quality images and wear make it impossible to reconstruct the die-sequence. HD photography and new materials now at hand have removed this challenge. Starting with the large sample of coins from the Megara Hyblaea 1967 hoard, it was possible to reconstruct the succession of control-marks used, the change in the responsibilities connected to them, to find new proof of the operation of parallel workshops, and of a posthumous and contemporary striking of a large part of the "tridents" in the name of Hieron II, by the same controllers, who apparently also minted the Republican series. The data sheds light on the Syracusan ways of participating in the Second Punic War.

B) THE HOARD OF CALA TRAMONTANA IN PANTELLERIA (TRAPANI-SICILY): PRELIMINARY OBSERVATIONS, LAVINIA SOLE (UNIVERSITÀ DEGLI STUDI DI PALERMO)

The hoard, still unpublished, was found in 2011 in the waters off Cala Tramontana, along the eastern coast of the island of Pantelleria. It consists of over 3000 Punic bronze coins belonging to the IA series in the Forteleoni classification (1961) with a female head / equine protome (300-264 BC). This contribution will present some reflections on the structure of this assemblage and some observations about its archaeological context and information offered by historical sources, in order

to advance interpretative hypotheses regarding the nature of the hoard and the causes of its non-recovery.

C) THE COINAGE OF COSSYRA (MODERN PANTELLERIA), MARTIN ZIEGERT (FRITZ RUDOLF KÜNKER GMBH)

Archaeological excavations of the acropolis of the ancient city of Cossyra (modern Pantelleria) have been in progress for over twenty years now. Coin finds from this site offer new insights into the monetary circulation on the island, assisting attribution of some coins to the mint of Cossyra. Coins with the name of the island in the legend exist in Punic and Latin letters, but the date of this change of language is uncertain: was it associated with the Roman conquest of the island in 217 B.C., or is this change unrelated to this development? Furthermore, the coin finds have helped attribute some coins of uncertain mints to the workshop of Cossyra. How do these coins relate to those previously known? Some coins can be dated using the excavated evidence, but the coinage of Cossyra is still in need of a more extensive analysis.

D) A SMALL PERSONAL TOUCH: GRAFFITI ON CARTHAGINIAN GOLD COINS, JÉRÉMY ARTRU (UNIVERSITÉ D'ORLÉANS / IRAMAT-CEB)

Even if the study of coin graffiti has been revived for several years, Punic coins have been left out, despite the interest that such a study has for the understanding of a coinage which remains poorly understood in many respects.

This communication aims to approach this subject from a quantitative and qualitative point of view. Firstly, the large corpus available allows us to identify trends in the occurrence of graffiti depending on individual series. It may be seen that Carthaginian gold is more affected than silver. And within the gold coinage, two groups issued ca 300 BC are more affected than others. On an individual scale, the diversity of the graffiti is also apparent, especially for the gold coins (Punic letters, Greek letters, traces more difficult to identify...). These elements could provide insights into the uses of coins struck by Carthage and their users.

**8. GREECE 8. NORTH-WESTERN GREECE AND MACEDONIA, CHAIRED BY JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)**

A) THE COIN HOARDS FROM CAREVI KULI, STRUMICA (NORTH MACEDONIA), SANJA BITRAK (ARCHAEOLOGICAL MUSEUM OF NORTH MACEDONIA)

Archaeological excavations on the site Carevi Kuli, Strumica brought in a significant amount of numismatic material, including 262 individual finds, 8 mini-hoards (3 to 11 pcs.) and 3 hoards (18 to 21 pcs). Carevi Kuli is located on a hill which rises southwest of the city of Strumica where important ancient roads intersected: the ancient road Astibo-Astrajon-Dober-Idomene-Thessaloniki. Two of the mini hoards belong to the Macedonian king Perseus (179-168 BC), three date to the beginning of the 4th century, one comprises coins from the first half of the 4th century, one mini hoard dates to the middle of the 4th century, and one to the second half of the 4th century. The large hoards include a group of coins from autonomous regions and cities, from the cities of Amphipolis, Pella and Thessalonica (the reign of Philip V and Perseus, 187/6-168 BC), two coin hoards date to the late 4th century.

B) AUTONOMOUS AND EQUAL: THE KHAONES OF EPEIROS AND THE EPEIROTE KOINON IN 234/3 BC, WILLIAM BUBELIS (WASHINGTON UNIVERSITY IN ST. LOUIS, JOHN MAX WULFING COLLECTION OF ANCIENT COINS AND RELATED OBJECTS)

Dated to c. 250-210 on independent grounds, a newly published bronze khalkous (1.9g) of the Khaones (E. Baldi and W. Bubelis in *Butrint 7*) likely belongs to the dynamic political situation in Epeiros in 234/3 BC, when the Molossian Kingdom fell and its partner the Epeirote Symmachy was replaced by the Epeirote Koinon. The new khalkous features types (Artemis/thunderbolt in wreath with abbreviated ethnikon) that are consistent with earlier Khaonian coins and yet closely parallel contemporary issues of the Molossians and the Symmachy. The khalkous thus expresses not only the Khaones' equal and independent status with respect to the other Epeirotes but also the Khaones' shared identity as Epeirotes at a key moment when their political relationships required negotiation. By functioning as a symbol of Khaonian claims to autonomy, therefore, the khalkous therefore provides important new evidence for how the Khaones positioned themselves in the formation of the new Koinon.

C) ⊖ THE PALAIOPOLIS HOARD AND CIRCULATION OF DRACHMAS IN LATE HELLENISTIC CORCYRA, GEORGIA TSOUVALA (ILLINOIS STATE UNIVERSITY), GOULIELMA-KYRIAKI AVGERINOY (EPHORIA ARCHAIOETETON KERKYRAS), LEE BRICE (WESTERN ILLINOIS UNIVERSITY)

In 1995 a hoard of 508 coins was found inside the wall of a late Hellenistic building in the Kasfiki field, at Palaiopolis on the island of Kerkyra, Greece. The archaeological context indicates the Kasfiki hoard was probably buried in the late third century BCE during the siege of Kerkyra by Pyrrhus of Epirus. This hoard is of great interest because it includes only silver drachms and hemidrachms from the ancient Greek cities of Corinth and Kerkyra. The coins of Corinth predominate, making up two thirds of the total. The coins range in condition from heavy wear, resulting from circulation, to unused. The importance of the hoard lies not only in what it may indicate about the circulation of coinage, but also of continuing trade connections between Kerkyra and its metropolis. Also, the relative chronology of the later Corinthian drachms remains uncertain and this hoard sheds light on that issue, too.

**9. GREECE 9. THRACE, CHAIRED BY ULRIKE PETER (BERLIN-BRANDENBURGISCHE AKADEMIE DER WISSENSCHAFTEN)**

A) THE DEMETER COINAGES OF BYZANTIUM AND CHALCEDON, CONSTANTIN MARINESCU (INDEPENDENT RESEARCHER)

This paper explores the dual coinage struck by Byzantium and Chalcedon featuring the head of Demeter on the obverse and a local deity on the reverse. Previously these two coinages were seen as a type of short-lived emergency measure intended to raise funds for Byzantium during the third quarter of the 3rd century BC. However, using a revised and updated die study of Byzantium's "Demeters" based on the work of Schoenert-Geiss and a never before completed study of Chalcedon's "Demeters", I intend to show that these parallel series continued in circulation for an extended period of time. Furthermore, although struck on a different weight standard, sometimes called "Phoenician", the "Demeters" were minted alongside the Attic-weight Lysimachi coinages of both cities. This provides further proof that Byzantium

and Chalcedon carefully orchestrated their coinages and employed different types of coins to fulfil diverse needs.

B)  $\ominus$  THE CAST COINS OF ISTROS – A REASSESSMENT OF METROLOGY, ADRIAN POPESCU (FITZWILLIAM MUSEUM)

Successively attributed to mints belonging to the Black Sea Greek cities of Olbia, Istrionon Limen and Istros, the so-called ‘wheel coins’ are considered the earliest copper alloy issues of the latter city. The dating, metrology and function of these cast coins have been studied on more than one occasion since the early 19th century. The fact that these coins must have been produced in very large numbers is indicated by the finds from Histria itself, where coins of this type outnumber all of the other copper alloy types issued by this city prior to the Roman period. This paper will consider the metrology of the cast coins with the depiction of a wheel on the obverse, and propose a new classification based on the analysis of their metrology.

C) MONETARY CIRCULATION IN ISTROS DURING THE FIRST HALF OF THE 3RD CENTURY BC, STELUȚA MARIN (THE BUCHAREST MUNICIPALITY MUSEUM)

The colonies located on the north-western shore of the Black Sea during the 3rd century BC were under the rule of the Thracian king Lysimachos. Their rebellion against Lysimachos led by the colony of Kallatis caused a conflict which continued over several decades, and directly influenced their development, the monetary circulation and their relationships. The aim of this paper is to trace some features of the coin circulation in the local market of Istros following the death of Lysimachos, which included silver drachms of Istros, bronze coins of Macedonian kings Philip II and Alexander the Great, countermarked bronze coins of Lysimachos and bronze coins of Apollo and Demeter types minted by Istros. The presence of some countermarks, both on the coins of Lysimachos and on the bronzes of Istros enables the dating of some monetary issues, and sheds light on the relationships between the Greek colonies in that period.

D) ARCHAEOLOGICAL, HISTORICAL, AND TECHNOLOGICAL (XRF ANALYSES AND GIS) ASPECTS OF EARLY SILVER COINS AND COIN HOARDS FROM SOUTHWESTERN THRACE, NINA HADZHIEVA (REGIONAL HISTORY MUSEUM AT BLAGOEVGRAD)

This paper will present new information about coins and coin hoards from the valley of the Middle Mesta River dating to the 5th–4th century BC. We will present new archaeological and historical data based on the accurate analysis of alloy composition (in %) of the coins and the exact findspots of some of the coin finds.

The nondestructive technique of X-ray fluorescence was used to identify a wide range of elements including, precious metals.

The main purpose of the analyses is to determine silver content, the amount of other elements in the alloy, and their ratios. Statistical analysis of the data made in a unified database could reveal much of the missing information on the economic and technological aspects of ancient coin production, and on the sources of the raw material in the region.

**10. GREECE 10. ADVANCES IN ARCHAIC ATHENIAN COINAGE: MORE ON MINES, METALS AND MONEY, ORGANIZED AND CHAIRED BY KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY)**

This session will present papers dealing with the significant changes in our understanding of the coinage of archaic Athens – the Wappenmünzen and the archaic Owls (ca. 545 BC- 480 BC) and with our understanding of the Laurion and its silver mines during the archaic period. It will review the new catalogue and die study of Wappenmünzen together with extensive XRF research (Sheedy and Davis), present an overview of the evidence from Laurion for mining activity in the archaic period (Nomicos), present numismatic and scientific analyses of an unpublished plated Wappenmünzen tetradrachm (Sheedy, Salvemini, Olsen, Luzin, Davis) and review findings from new isotope studies of archaic Athenian coinage (Davis, Albarède). The papers jointly examine the new understanding that has emerged concerning the exploitation of silver sources in Attica and the nature and role of money in archaic Athens.

**A) A NEW CORPUS AND DIE STUDY OF ATHENIAN WAPPENMÜNZEN, KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY), GIL DAVIS (ACANS, MACQUARIE UNIVERSITY)**

This paper provides an overview of work to produce a new corpus and die study of Athenian Wappenmünzen. The study is intended to replace the famous but now well out of date 1924 book of Charles Seltman (*Athens, Its Coinage and History*). We review the changes in coin numbers and die patterns. Among the results are challenges to Seltman's various claims for various reverse dies linking coins with different obverse types. It can now be demonstrated that most didrachms depicting a horse protome to left are forgeries. Among the most significant discoveries is the fact that the Wappenmünzen mint, in contrast to other major archaic mints on the Greek mainland and in the Aegean, was primarily concerned with the production of obols as well as a good number of drachms and that the didrachm output was relatively small.

**B) SILVER MINING IN ARCHAIC LAURION, SOPHIA NOMICOS (WESTFÄLISCHE WILHELMS-UNIVERSITÄT MÜNSTER)**

According to the literary evidence and the scale of Athenian coin production during the 5th and 4th century BC the Laurion mining "industry" boomed during the classical period. This view is strongly supported by the archaeological record. The classical mining landscape in South Attica is preserved to this day in an astonishing number and diversity of sites: mines, workshops, furnaces and many more. In contrast, the Archaic period is hardly visible in the material remains. Consequently, the mining history of archaic Laurion has been primarily on the basis of a handful of inconclusive literary sources, and the results of metal analyses which identified Laurion deposits as the source of the Archaic "owls" of Athens. This paper re-examines and reviews the existing evidence, including archaeological. It discusses to which extent the latter can contribute to our understanding of Athenian mining during the Archaic period.

C) A PLATED ATHENIAN WAPPENMÜNZEN GORGONEION TETRADRACHM AT ACANS, KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY), FILOMENA SALVEMINI (ACANS AND ANSTO), VLADIMIR LUZIN (ACANS AND ANSTO), SCOTT OLSEN (ACANS AND ANSTO)

Little is known about the techniques for manufacturing plated coins among the very earliest issues of Greek (and world) money. In this study we present neutron and synchrotron X-ray analyses of a plated silver coin produced in Athens around 525-515 BC. This unpublished coin, ACANS 14A09, is a tetradrachm, which should have been made with 17.2gm of silver. But this 'false' coin (with its bronze core) was identified as such in Antiquity, and cut in half so that it might not be used again. Nonetheless, a study of the dies shows that they were used to mint other gorgoneion tetradrachms of good metal and so it is evident that our plated coin was produced in the official mint of Athens, and not by a forger, ancient or modern. Analyses show two mysterious gaps in the silver plating. Apparently the mint repaired the original plating of the coin flan in order to remove two blemishes before it was struck and allowed to pass into circulation.

D) NEW TECHNIQUES AND ANALYSIS OF ARCHAIC ATHENIAN COINS, GIL DAVIS (AUSTRALIAN CATHOLIC UNIVERSITY), LIESEL GENTELLI (ECOLE NORMALE SUPÉRIEURE DE LYON), JANNE BLICHERT-TOFT (CNRS), KENNETH SHHEEDY (ACANS, MACQUARIE UNIVERSITY), MARKOS VAXEVANOPOULOS (ECOLE NORMALE SUPÉRIEURE DE LYON), FRANCIS ALBARÈDE (ECOLE NORMALE SUPÉRIEURE DE LYON)

The Wappenmünzen were the first coin types at Athens instigated by the Peisistratid tyrants in the third quarter of the sixth century BCE with changing types long thought to be 'heraldic' rather than state-sanctioned, minted in small denominations mainly for domestic use. Late in the sixth century, a standard 'owl' type was adopted, minted primarily in large denomination tetradrachms. The change of type and denomination was associated with access to domestic silver mined in Lavrion, Attica, prior to the introduction of democracy. Literary evidence implies the Peisistratids derived the silver for the Wappenmünzen from Northern Greece, and from Attica for the owls. Here we examine the silver ore sources of the Wappenmünzen and the owls using high-precision lead isotope data on a large set of new and legacy data of ores and coins, and detailed numismatic information on the coins and their types combined with new statistical approaches and EDXRF.

#### **11. GREECE 11. CENTRAL GREECE – PELOPONNESE, CHAIRED BY CATHERINE GRANDJEAN (UNIVERSITY OF TOURS)**

A) RELATIVE AND ABSOLUTE CHRONOLOGIES FOR 4TH-2ND CENTURY BCE CORINTHIAN COINAGE, LEE BRICE (WESTERN ILLINOIS UNIVERSITY)

Despite having been one of the earliest Greek mainland mints Corinth's coinage has remained imperfectly understood. We have not had a good handle on the scale, pattern, and chronology of the coinage minted from the early fourth century to the closure of the Greek mint in 146 BCE. A key reason for this problem is that there are too many staters available to complete a die study. Yet, it is possible to carry out a die study through the Corinthian drachms which are less numerous, but carry the same series marks as the staters. My die-study of the drachms has resolved some of the uncertainty around the mint's activity. I will present the results of the study which



has yielded a stable, well-supported relative chronology for Corinth Period V and a suggested absolute chronology for minting activity in the 4th-2nd centuries BCE at Corinth.

B) ATHENA AND THE BELLEROPHON MYTH ON COINS FROM CORINTH AND BEYOND, ANGELA ZISKOWSKI (COE COLLEGE), LEE BRICE (WESTERN ILLINOIS UNIVERSITY)

The identity of the female depicted on Greek period Corinthian coins has often been contested. A decisive case can be argued that the figure is Athena and the iconography depicted by the Corinthian state centered around the Bellerophon myth and its core elements: Bellerophon, Pegasos, Peirene, and Athena. The implications of accepting that Corinth's iconographic program was cohesively designed to represent this myth reach well beyond this polis. Corinth founded many colonies and some, like Ambracia, replicated the mother city's iconography while others did not. Likewise, Amphilocheian Argos, which was not a colony of Corinth, used this iconography. In this paper, we affirm the iconographic program used on Corinthian issues and examine which city-states adopted it. We argue that, in some cases, economic assimilation played a larger role than local identity in choosing the issues produced, a facet of numismatic production underplayed in discussions of identity construction.

C) THE (WINGED) HORSE AS MOTIF ON COINS FROM CORINTH AND MARONEIA, OLIWIA ULLRICH (WWU MÜNSTER)

This paper is a summary of my master thesis in which I collected all the coins from the poleis of Corinth and Maroneia from the Archaic through to the Hellenistic periods. These cities chose the (winged) horse as a motif, so I compared the various representations with other poleis in the Mediterranean. The overall concept was to study the movement of the horse. Next to the usual canon of the "flying Pegasus" used in Corinth, and the "prancing horse" of Maroneia, there are also very interesting exceptions. Among them I was able to identify some postures of the horse which nowadays are called "dressage movements" which were described already by Xenophon (430/25–354 BC) in his work "On Horsemanship". These coins illustrate how the horse could be captured in a significant moment of its movement or in its natural habitat, and show the further meaning of the animal in different regions of the Mediterranean.

**12. GREECE 12. NORTHERN & CENTRAL GREECE, CHAIRED BY VASSILIKI STEFANAKI (NUMISMATIC MUSEUM, ATHENS)**

A) NEW THOUGHTS ON THE CHALCIDIAN COIN ICONOGRAPHY, OLIVIA DENK (UNIVERSITY OF BASEL)

Within the framework of my dissertation project on the sacred topography of the northern Greek peninsula of Chalcidice new insights on the coin iconography of Ouranopolis and Cassandreia were gained. Firstly, I will discuss the attribution of Aphrodite Ourania on the Ouranopolitan coins, and will present a new interpretation, which proposes that the coin depicts the god Helios or the personification of the sky (Ouranos) instead of the goddess Aphrodite. The second part is dedicated to the Roman colony of Cassandreia and deals with an interesting reverse type that Hugo

Gaebler already mentioned in a footnote, speaking of a pantheistic connection of Ammon with Zeus and Dionysos, or with Zeus, Dionysos and Asclepios. I aim to present this syncretic phenomenon on the basis of new coin material, and to discuss thought-provoking proposals for their interpretation. Both case studies demonstrate the added value and the innovative potential of an interdisciplinary approach.

B) NUMISMATIC EVIDENCE FROM ANCIENT CASSANDREIA AT CHALCIDIKE, NORTHERN GREECE, ELENI KLINAKI (EPHORATE OF ANTIQUITIES OF PIERIA / HELLENIC MINISTRY OF CULTURE), ANTONIA NIKOLAKOPOULOU (NUMISMATIC MUSEUM /HELLENIC MINISTRY OF CULTURE)

This paper reports on the preliminary study of numismatic material deriving from rescue excavations conducted by the Ephorate of Antiquities of Chalcidice and Mount Athos on ancient Cassandreia, in the Chalcidice peninsula, in Northern Greece. The Hellenistic city was founded by Cassander in 315 B.C. over the ruins of the Corinthian colony of Potidaea.

The numismatic material consists of stray coins and hoard finds that were unearthed in the residential urban space and in the area of the fortifications, and therefore were studied comparatively for the two regions of the city. We examined the remarkable presence of the "Apollo" bronzes (head of Dionysos / amphora and the legend ΑΠΟΛΛΩΝΟΣ) that have been the subject of discussion by the scholars. An overview of the circulation and the chronological distribution of these coins is also presented, revealing the prevalence in our sample of the local Macedonian coinage.

C) THE COINAGE OF HIPPIAS OF ATHENS IN THE LIGHT OF A NEW SPECIMEN, KORAY KONUK (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, INSTITUT AUSONIUS)

A unique obol issued in the name of Hippias of Athens found in the Cabinet des Médailles in Paris has intrigued numismatists for over a century, some of them even questioned its authenticity. Another such obol was sold at auction in 2017 and appears to be from the same dies as the Paris unique specimen. This new example, definitely genuine as demonstrated in this paper, gives us the opportunity to re-examine a very unusual coinage in the political context of Athens during the late Archaic period.

D) A HOARD OF ATHENIAN COINS IN THE EGYPTIAN MUSEUM OF ANTIQUITIES IN CAIRO, SAMAH GOHAR (THE EGYPTIAN MUSEUM)

Egypt has long attracted numismatists with interest in Classical Greek coins because of the abundant finds of Athenian owls in our region. Recent research has challenged the mass production of imitation Athenian owls even though there is evidence to confirm their production. The remains of such findings remain scarce and mostly known but very old literature, mentioning large hoards found within the country.

This paper discusses an unpublished silver collection of 89 tetradrachms and a single drachm, definitely a part of a hoard, with the head of Athena on the obverse and the owl on the reverse, which can be classified to the Pi style group. These coins offer new data on the Athenian coinage in Egypt. Most of these coins bear also one or

several punchmarks, and a hieroglyph, offering insights into their circulation both outside and within the country, with new coins undoubtedly found in the country.

**13. GREECE 13. PELOPONNESE, CHAIRED BY KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY)**

A)  $\Theta$  COMMON CURRENCIES? THE COINAGES ATTRIBUTED TO THE ARKADIAN KOINON, DAVID WEIDGENANT (UNIVERSITY OF VIENNA/INSTITUTE FOR NUMISMATICS AND MONETARY HISTORY)

A number of Peloponnesian coins of the 4th and 3rd century BC have been ascribed to the Arcadian Koinon, which flourished between 370 and 362 BC. They not only include the very well known staters and triobols with depictions of Zeus and Pan, but also smaller denominations ranging from obols to bronzes. With the exception of the staters and triobols these coins have been studied so far only superficially. In my paper I will present the latest chronological overview of these coins, and discuss their denominations and iconography. I proceed to analyse their very peculiar distribution in the Peloponnese and reevaluate their role as a “federal coinage”.

B) THE SILVER COINAGES OF ACHAIA AND AETOLIAN FEDERAL STATES: NEW NUMISMATIC AND HISTORICAL DATA, CATHERINE GRANDJEAN (UNIVERSITY OF TOURS), MARYSE BLET-LEMARQUAND (CEB-IRAMAT, CNRS & UNIVERSITY OF ORLÉANS), ELENI PAPAETHYMIU (UNIVERSITY OF WARWICK)

The federal Achaean coinage of the Hellenistic period was produced in a civic framework, in silver of poorer quality than that of the coins of central Greece and the Aetolian Koinon. New elements of the monetary history of the Aetolian Koinon will be presented. The results of LA-ICP-MS elemental analyses of Achaian and Aeolian coins in the Bibliothèque nationale de France will be compared with data on Macedonian, Athenian and Boeotian coinages.

C) THE CORINTHIAN MINT OF DEMETRIOS POLIORKETES, MICHAEL IERARDI (BRIDGEWATER STATE UNIVERSITY)

In his catalogue (1927) of the coinage of Demetrios Poliorketes, Edward T. Newell was unable to assign to a mint a substantial body of bronze issues (Newell nos. 162-174), whose characteristic types were a youthful male Head in Corinthian helmet r./ BA, Prow r. On grounds of control iconography and die axis, Newell tentatively assigned these issues to a royal mint in Karia or nearby regions of Asia Minor. In light of recent excavation finds this paper reattributes Newell 162 and 163 to a hitherto unrecognized royal mint at Corinth. It proceeds to examine other Demetrian royal and Corinthian civic issues, demonstrating by conjunction and overlap of controls a high degree of interpenetration of local and royal minting operations at Corinth. The paper concludes by proposing a new model for understanding the minting operations of the Diadochoi, which emphasizes cooperation wherever possible with local Greek mints and civic personnel.

#### 14. GREECE 14. CRETE, CHAIRED BY ANDREW MEADOWS (NEW COLLEGE, OXFORD)

##### A) CRETAN COINAGE: INSULARITY AND CONNECTIVITY, GIORGIA CAPRA (UNIVERSITY OF OXFORD)

This paper outlines, by examining Cretan coin hoards, coin circulation patterns on the island over the centuries, highlighting connections between the major Cretan cities minting coins, and drawing attention to significant variations in terms of quantities and metals over time. The presence of foreign coins in hoards affords insight into the relationship between Cretan cities and other entities in the Greek world. The huge number of overstruck pieces raises some interesting questions and seems to shed some light on the function of coinage in Crete and on the reasons behind its production, which began considerably late compared to the rest of the Greek world. Furthermore, the scarcity of Cretan coins outside its territory, in contrast to the huge circulation of foreign issues within the island, suggests a marked insularity, with local coins rarely reaching mainland Greece or the islands around Crete.

##### B) THE COINAGE OF LYTTOS / CRETE: ICONOGRAPHY & DISTRIBUTION PATTERNS, KATERINA PANAGOPOULOU (UNIVERSITY OF CRETE / GREECE)

The resumption of systematic excavations on Lyttos (/Lyttos/Lyktos) prompts us to examine the character and monetary behaviour of one of the four most prominent Cretan cities, lying in Central Crete. The importance of this rival of Knossos, Phaestos and Gortys, eventually controlling a safe natural port (Chersonesos), is reflected by its minting activity starting from the mid-5th c. BC through to the Roman period. We start out by presenting and commenting on the rich iconography of this coinage: while the eagle, Zeus and Athena, which occur on these coins, may easily be associated with prominent deities in the civic pantheon, the exclusive depiction of the boar head by this Cretan city may offer an important clue to its history. The distribution range of the Lyttian coin issues (which includes hoards, overstrikes and countermarks) will then enable a better assessment of the city's involvement in intra-insular and international networks over time.

##### C) POLITICS AND WAR ON CRETAN GOLD COINAGE (4TH – 3RD C. BC), FEDERICO CARBONE (UNIVERSITY OF SALERNO), VASSILIKI E. STEFANAKI (NUMISMATIC MUSEUM)

Cretan coinage presents some special features, such as its own weight standard, the frequent practice of overstriking and countermarking of local and foreign coins, and a limited circulation outside the island. In the late 4th and 3rd century gold coins were issued intermittently by a limited number of mints. Apart from the gold issues of Kydonia with Aeginetan types, as well as those of Hyrtakina and Lissos, gold coins were struck at Gortyna at specific times, probably as emergency coinage, mainly related to the well-known internal wars. The circulation of foreign gold currencies on the island was similarly limited as attested by coins recorded in hoards, during excavations and as stray finds. Nevertheless, the purpose of this paper is to integrate these rare gold issues into the historical and monetary context of the island through the study of their types, style and weight standard.

D) THE COINAGE OF ANCIENT APTERA, EMMANOUIL MARINAKIS (UNIVERSITY OF CRETE / GREECE)

The present article is a summary of the author's post-Doc study now in progress its aim to develop a numismatic Corpus for ancient Aptera, one of the most prosperous towns in Western Crete. Aptera has been characterized as an "emerging" ancient town, because of its impressive ruins that have come to light. Its prolific numismatic output attests its remarkable economic growth (mainly starting from the 4th century until the 1st century B.C.).

The variety of numismatic types, the artistic quality, and the quantity of the surviving specimens of each type confirm the importance of Aptera's coinage. The present study examines in greater detail the chronological periods of Aptera's coinage (in silver and in bronze) along with its metrological data. Consequently, the main focus is placed on establishing the typology of this coinage using the comparative method of die-linking.

**15. GREECE 15. DECODING THE MESSAGE: REVIEWING PROPAGANDA, COMMUNICATION AND LOCAL IDENTITIES ON THE COINAGES OF CLASSICAL AND HELLENISTIC CRETE, ORGANIZED AND CHAIRED BY MANOLIS STEFANAKIS (UNIVERSITY OF THE AEGEAN)**

Propaganda, as a means of communicating information, is primarily used to influence an audience, and to further an agenda. It may not be objective and may be presenting facts selectively to encourage a particular synthesis or perception since the motives are usually political or religious. Although it has been a popular subject of research both in archaeology and history, its concept is barely researched for coinages of autonomous Greek poleis, and tends to focus rather on Roman (mostly Imperial) coinages. Whenever the subject is touched upon in Greek numismatics, scholars (archaeologists and historians), very often neglect to appropriately address and classify propaganda phenomena with reference to the classifications established by social scientists.

The aim of this session is to review the models of communication and propaganda, as well as all stages and components of the process of propaganda; to reconsider propaganda and communication on the Greek coins to identify the main axes of the monetary propaganda of the classical and Hellenistic era; next, the possibility of targeting propaganda messages encoded on coins struck by various Cretan mints from the 5th to the 1st centuries BC and confirmed by written testimonies. The analysis of the imagery placed on Cretan coins suggests that different types were intended primarily for the inhabitants of other cities, commemorating important traditions, and thus supported locality and ethnicity, and implied supremacy over subordinated cities, as well as economic control of the weaker.

A) PROPAGANDA AND COMMUNICATION ON ANCIENT GREEK COINS: SETTING THE PRINCIPLES, NIKOLAOS PETROPOULOS (UNIVERSITY OF AEGEAN)

There is no novelty in suggesting the importance of ancient Greek coins as means of propaganda and communication; coinage from its first occurrence in ancient Greece is considered as both an economic and political act since coins provided an exceptional canvas on which political groups and communities represented to themselves and others their views on the world. Furthermore, ancient Greek poleis as minting authorities used their coins to send various iconographical and ideological

messages to the members of their community, and to people outside of it, generating, thus, a sense of civic or ethnic identity. Hence, ancient Greek coinages examined from this aspect and within their particular historical contexts offer good insight into the complex political and economic relationships between the Greek cities, and into the processes that led to the formation or change of the local identities.

B) PROPAGANDA, COMMUNICATION AND ETHNICITY ON THE COINAGES OF CLASSICAL AND HELLENISTIC CRETE, FEDERICO CARBONE (UNIVERSITY OF SALERNO)

The Cretan monetary context demonstrates how coins also served to underline peculiar aspects of political dynamics on the island: a starting point for ascertaining the ethnogenesis of the Cretan components, a process that has never been completed.

This path will be analyzed using evidence such as the exchange of iconographic types between the main and minor mints, cases of joint production to which cities have agreed, as well as issues attributable to individuals rather to poleis.

These peculiarities will then be placed in the context of federalism policies that also affected the monetary economy, although a lack of interest in this is also attested.

The central aim is not ethnic attribution of coinage, but rather analysis of the political, economic, and social contexts in which possible processes of ethnogenesis and ethnicity construction can be understood through coins.

C)  $\ominus$ PROPAGANDA, COMMUNICATION AND RELIGION ON THE COINAGES OF CLASSICAL AND HELLENISTIC CRETE, MANOLIS I. STEFANAKIS (UNIVERSITY OF AEGEAN)

The aim of this paper is to review the models of religious communication and propaganda messages encoded on coins struck by various Cretan mints from the 5th to the 1st century BC. The analysis of the imagery placed on Cretan coins, especially by the major mints, indicates that coin-types often commemorated important mythological and religious traditions in an attempt to support locality and ethnicity, as well as implying supremacy over neighbouring cities.

D) ECONOMIC CONTROL AS A FORM OF PROPAGANDA AMONG CRETEAN MINTS, VASSILIKI STEFANAKI (NUMISMATIC MUSEUM ATHENS)

It is generally accepted that coinage functions as a transmission vehicle of political, economic, social and religious messages, possibly exerting an impact on the users. Some 43 Cretan cities which in the Classical and Hellenistic period issued coins with a rich iconographic repertoire and were in a constant conflict, affirmed their origin, ethnicity and religion, as well as their political identity and pride through their coins. On the other hand, the Cretan coinage may in some cases demonstrate the economic control of an authority in a particular area, through the use of common types, weight standards and denominations. The purpose of this paper is to study, with the contribution of written sources, this frequent phenomenon of the so-called "monetary alliances" between Cretan city-states.

## 16. GREECE 16. ASIA MINOR 1, CHAIRED BY ANEURIN ELLIS-EVANS (UNIVERSITY OF OXFORD)

### A) SOME REMARKS ON EARLY ELECTRUM COINAGE FROM ASIA MINOR, WOLFGANG FISCHER-BOSSERT (AUSTRIAN ACADEMY OF SCIENCES)

As a result of the re-dating of the Artemision deposit (IGCH 1153/1154) to c. 640–620 BC, the chronological range of early electrum coinage has been extended considerably. Die-links seem to connect the Royal Lydian coinage with some Ionian series, including that of Miletos. The early Lydian electrum coinage turns out to be much more complex (to avoid the word "chaotic") than hitherto thought; in addition to the KVKALIM, WALWET and LATE groups, various anepigraphic series are closely interlinked with the Royal Lydian series. At the same time, Lydian coin legends raise serious problems, the WALWET legend in particular. It will be argued that the perplexing evidence can be reconciled with what is known about the history of the Mermnad dynasty.

### B) HOARDS IN ANCIENT ANATOLIA: A STATISTICAL OVERVIEW, LEAH LAZAR (UNIVERSITY OF OXFORD)

I will present the first large-scale statistical overview of patterns in hoarding behaviour in ancient Anatolia in the *longue durée*. As part of the CHANGE project, funded by the ERC, I have collected and digitised data on Anatolian hoards from the Coins Hoards publications, to add to the data from the Inventory of Greek Coin Hoards available at [coinhoards.org](http://coinhoards.org). The full data-set includes dates, findspots and contents of hundreds of hoards either found in Anatolia or containing Anatolian coinages, from the seventh to the first century BCE. For the first time, a large-scale statistical approach can be employed to analyse hoarding behaviour in the region over time. I will present an analysis of chronological and geographical developments and trends, as well as of the inclusion of different denominations and materials. This approach will indicate new research directions for numismatic study of ancient Anatolia, and indeed of the ancient world more broadly.

### C) MYSIAN MINTS, BERNHARD WEISSER (MÜNZKABINETT, STAATLICHE MUSEEN ZU BERLIN), ANDREA GORYS (BERLIN-BRANDENBURGISCHE AKADEMIE DER WISSENSCHAFTEN)

In 2018 the Münzkabinett, Staatliche Museen zu Berlin and the Berlin-Brandenburgische Akademie der Wissenschaften started developing a coin typology of the Troad and Mysia based on coins and casts preserved in Berlin and other resources ([corpus-nummorum.eu](http://corpus-nummorum.eu)). Coins were produced in this region from 6th century BC until the reign of Gallienus (AD 253-268). The distribution of mints published by Barclay V. Head in 1911 in his *Historia Numorum* is widely used in numismatics. Nevertheless, some questions remain as to the location of mints and their relationship to each other. We have three categories of mints. The first are those with a known location like Cyzicus and Pergamum, then there are sites with a likely location like Pionia (which was attributed to the Troad), Priapus and Teuthrania. The location of a few mints like Germe, Iolla, Cisthene and Thebe is open to debate.

D) PRODUCTION CHARACTERISTICS OF ARCHAIC DRACHMS DEPICTING THE GORGONEION AND PROBLEMS WITH THEIR ATTRIBUTION TO PARION, ED SNIBLE (BRONX COIN CLUB)

For the past century scholars have been attributing the production of a huge issue of gorgoneion drachms with geometric reverse, circa 3.8g, to the mint at Parion in Mysia. Yet neither hoards nor single specimens have ever been found there.

A fresh look at these coins, including a new die study, reveals unusual methods of production. The iconography of this coinage will be compared with other archaic gorgons for clues as to the true origin. A comparison of the individual features suggests a style much closer to the coinage of Olbia than Western Asia Minor.

In the 19th century there was debate about the origin of this coinage. By the 20th century, Parion was unchallenged. Voices were cast aside in favour of the dubious Parion attribution. Did a Belgian nobleman in the Russian service get it right in 1822?

**17. GREECE 17. ASIA MINOR 2, CHAIRED BY BERNHARD WEISSER (MÜNZKABINETT BERLIN)**

A) ΘHELLENISTIC BRONZE COINS IN PHRYGIA: THE CASE OF ACMONEA, BARBARA HILTMANN (MUSEUM OF ARCHAEOLOGY AND HISTORY, LAUSANNE – SWITZERLAND)

It is generally agreed that, in Phrygia, cities began to produce bronze coinages during the 2nd century BC, probably influenced by the bronze coins first minted there by Alexander the Great and his successors. The city of Acmonia followed this pattern and struck three bronze denominations. It is hard to date the beginning of their minting precisely. However, their typology clearly indicates a connection with bronze coins struck in the neighboring city of Apamea. Thus, Acmonian coins were probably minted in the same period as those of Apamea, or possibly some years later. The three denominations issued by Acmonia all bear names of officials, sometimes also known from epigraphical records. This feature allows us, taken in combination with coin finds and die-link analyses, to be more specific about their date of issue and uses in day-to-day transactions at a local level as shall be demonstrated in this talk.

B) TISNA IN AEOLIS AND ITS COINAGE, DINÇER SAVAS LENER (AKDENİZ UNIVERSITY, DEPARTMENT OF HISTORY)

Tisna, one of the cities in the ancient region of Aeolis in Asia Minor, lies today within the borders of Aliağa district of Izmir province. Located on the Güzelhisar Valley, between Myrina and Aigai, the city is located on Sarıkale Tepe, 350 m at its highest point. The numismatic data obtained from the regular archaeological surveys conducted since 2018 in Sarıkale, on Kocakale Hill and its surrounding area under the direction of E. Erdan, not only shed light on the location of the ancient city, but also helped us to better understand the coin circulation in Aeolis. In this study we also report on finds of coins minted by the city of Tisna recovered in the region.



C)  $\Theta$ POTNIA THERON ON EARLY CAUNIAN COINS (CARIA) – IDENTIFYING COIN IMAGE AND QUESTIONING CRETAN ORIGIN, HÜLYA VIDIN (GOETHE UNIVERSITY FRANKFURT / LANDESMUSEUM HANNOVER)

Caunus, the easternmost city of Caria, on the border with Lycia, began its minting activity in the early 5th century BC. On the obverse, the coins carry a female winged figure with outstretched hands in a kneeling-running position with two volutes on her head. On the coins of the late 5th century BC, she holds a caduceus and a wreath. Little attention has been paid to the identification of this figure and to her cultic, cultural, and identity-forming significance. Generally, she is referred to either as Iris or Nike.

This paper proposes to identify her as the goddess Potnia Theron, the mistress of wild animals and the underworld who is rooted in the Minoan culture. After an iconographic analysis, the origin of Caunus in Crete handed down by Herodotus (Hdt. 1, 172) will be discussed and re-evaluated based on the proposed identification of this goddess.

D) PAYING WITH THE WOLF. SMALL CHANGE FROM LYCAONIAN LARANDA, KATHARINA MARTIN (WESTFÄLISCHE WILHELMS-UNIVERSITÄT)

In the 4th century BC, a large number of silver fractions were issued in southern Asia Minor to meet an apparently growing demand for small change in the region. Among them are obols from the Lycaonian hinterland, which can be attributed to the mint of Laranda (today Karaman). These coins have a specific reverse motif in common: the forepart of a wolf. The most frequent obverse type shows Baaltars, which links – at least iconographically – to Cilicia.

The die quality and the shape of flans differ significantly, which indicates extensive issue(s). Hoards and coin finds would be an important source for questions about the circulation pattern and economic function, but the lack of information on finds and find contexts requires a different approach: a die study is expected to furnish further insights into the minting process, the extent and duration of the issue, and probably also on a wider currency area.

**18. GREECE 18. LEVANT AND PTOLEMAIC COINAGE, CHAIRED BY FRÉDÉRIQUE DUYPAT (BIBLIOTHÈQUE NATIONALE DE FRANCE)**

A) REFINING THE DATES OF JEWISH COINS USING ARCHAEOLOGICAL PROVENANCE: THE CASE OF ALEXANDER JANNAEUS, DONALD T. ARIEL (ISRAEL ANTIQUITIES AUTHORITY)

Research in the twentieth century on the Jewish coins of the Hellenistic–Early Roman periods provided a consensus on the historical identities of the Jewish minting authorities, many named only in Hebrew on the coins. More recent efforts have focused on determining the seriation of the types within each ruler’s tenure and fine-tuning their absolute dates. This has been done for the coins of John Hyrcanus I (2021), Judah Aristobulus (2020), Alexander Jannaeus (2004, 2008), Mattathias Antigonus (2013), and Herod (2012). Here, I propose to refine the dates of one of the ubiquitous late emissions of Alexander Jannaeus, based upon the presence of that high priest/king’s early types — and the absence of his later types — at excavations at El’ad. This site, located in the southern Sharon Plain, has been shown historically and

archaeologically to have been abandoned in the middle to late 80s of the first century BCE.

B) ANCIENT PTOLEMAIC BRONZE COINS IN THE J. PAUL GETTY MUSEUM: HISTORY AND PRESERVATION METHODS, ALMOATZBELLAH ELSHAHAWI (J. PAUL GETTY MUSEUM)

Archaeologists and historians use ancient coins as one of the most important sources of knowledge for interpreting the past. Through the study of coins, we can obtain valuable information about the culture of that time since most coins can be easily dated. This is partly because, unlike most other ancient artifacts, they are often stamped with text and images of rulers from a specific period in time. Coins also revealed which countries had been trading partners. Furthermore, the materials used to mint coins, such as bronze, silver, and gold, have assisted historians in dating the coins and revealing the culture's richness.

My paper will focus on the study of eighty Ptolemaic bronze coins in the antiquities collection of the J. Paul Getty Museum. I'll discuss the history of the coins, how they were documented, and conclude with treatment, cataloguing and storage recommendations.

C) THE BEGINNING OF THE PTOLEMAIC GOLD COINAGE, AUGUSTIN ROCHE – LÉVÊQUE (ARCHÉOSCIENCES BORDEAUX)

My investigation into the gold coinages of the two first Ptolemies, the quadriga stater and the trichryson (with its division, the tenth), has brought to light several points of interest. Struck under Ptolemy I Soter (and in the first part of Ptolemy II Philadelphus' reign for trichrysa), these gold coins follow the development of the Ptolemaic coinage: the progressive abandonment of the Attic standard and the affirmation of the king's person. These two coinages are hardly represented in hoards, probably because they were recalled to strike the next gold coinage, the mnaieia. The die study of this series revealed that the gold and silver coinages appeared around 294 BC in a linked production structure, something suggested already by common monograms. The trichrysa are mostly likely linked with the financing of military conflicts and the payment of soldiers, even though papyrological evidence shows that bankers, merchants and probably priests also handled these high-value coins.

**19. GREECE 19. PTOLEMAIC COINAGE, CHAIRED BY JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE)**

A) THE MONETARY SYSTEM OF CLEOPATRA VII ON THE LIGHT OF HELLENISTIC AND ROMAN TRADITIONS, ÉPHÉLINE BERNAER-BABIN (UNIVERSITÉ DE MONTRÉAL)

The reign of Cleopatra VII, essentially told from the point of view of the victor, has certainly been the subject of a myriad studies but has not been subjected to a complete numismatic analysis. The coins remain, however, the most tangible sources, given the scarcity of documentary data and the biased nature of literary sources. Thirteen cities minted coins for Cleopatra and/or in her effigy; an iconographic analysis (choice of portraits/types according to metal and context) coupled with a technical study (metrology/die study) reveal the aims and logic behind each issue and the means the sovereign employed to govern her kingdom. The insertion of these coins into the broader field of Hellenistic and Roman female coinage (3rd c. B.C. – 1st

c. A.D.), demonstrates the respective influences/divergences and the way women appear on coins over the centuries, as legitimizing or individualized figures.

B) A METROLOGICAL SURVEY OF PTOLEMAIC BRONZE COINS, DANIEL WOLF (INDEPENDENT RESEARCHER)

A synthesis of results and methods is presented of five quantitative studies of Ptolemaic bronze coins produced at many mints over most of the duration of the empire. The studies are of weights of over 10,000 coins, hundreds of catalogued types, in diverse public collections and reference works as well as some records from trade. A method evolved for these studies may be applied to other bronze coinages. The results add to our understanding of the minting practices and weight standards evolved in different parts of the Ptolemaic empire. This survey lends support to a modern view of the bronze coinage series and also persuasively points to some new ideas about Ptolemaic bronze coinage. Unexpected discoveries exposed by quantitative metrology include several coin denominations as well as revised dating of a major coinage reform and its connection to an allied kingdom's adoption of the Ptolemaic monetary system.

C) "PUT MONEY IN THY PURSE": THE CIRCULATION OF THE PTOLEMAIC BRONZE COINS IN THE PELOPONNESE, ALESSANDRO CAVAGNA (STATE UNIVERSITY OF MILAN)

The presence of Ptolemy III bronze coins in the Peloponnese during the 3rd-1st century BCE is well-known. These coins were minted by the Egyptian king and financed Cleomenes III, king of Sparta. Moving from the evidence of the unpublished hoard found in 1936 at Kato Kleitoria, near Tripolis, Arcadia (IGCH 184), this paper will analyze this peculiar phenomenon, its occurrence in different archeological contexts across the Peloponnese and its relationship to other local issues.

D) PTOLEMAIC COINS IN SOUTHWESTERN ASIA MINOR: NEW ATTRIBUTIONS AND SUGGESTIONS, ÖMER TATAR (AKDENIZ UNIVERSITY, DEPARTMENT OF HISTORY)

The circulation of Ptolemaic coins in Asia Minor, particularly in southwestern Asia Minor, where the political hegemony was mainly established, has never been studied in detail. In addition to the published material, new numismatic data, both from archeological excavations and museum collections which make such a study possible, offer new evidence for making new attributions as well as for revisiting the existing ones. The study of this new data makes it possible to propose new mint attributions for some coin issues previously described as "Uncertain mint(s)". Moreover, the circulation of Ptolemaic coins in the region adds to our understanding of the rise and the decline of the political hegemony. This study is mainly based on Ptolemaic coins from excavations and museums in Caria and Lycia.

## 20. GREECE 20. DIGITAL DEVELOPMENTS IN HELLENISTIC ROYAL COINAGES, ORGANIZED AND CHAIRED BY PETER VAN ALFEN (AMERICAN NUMISMATIC SOCIETY)

Between 2015 and 2020, largely with funding provided by the US National Endowment for the Humanities (NEH), the American Numismatic Society launched Hellenistic Royal Coinages (HRC, [numismatics.org/hrc](http://numismatics.org/hrc)), a ground-breaking internationally collaborative online research tool with several major component parts: 1) PELLA, which focuses on the coinages of Alexander the Great and his Macedonian predecessors; 2) Seleucid Coins Online; 3) Ptolemaic Coins Online; 4) Antigonid Coins Online; 5) the monograms repository; 6) the digitized notebooks of Edward T. Newell, a major early 20th century American scholar of Hellenistic coinages; and 7) CoinHoards.org, a digitally enhanced hoard database currently based on the 1973 publication Inventory of Greek Coin Hoards. More recently with funding from both the NEH and the UK Arts and Humanities Research Council, an additional component, OXUS-INDUS, is being constructed, which focuses on Hellenistic Graeco-Bactrian and Indo-Greek coinages.

This session will present the origins, design, development, and on-going updates of the HRC project with particular focus on the OXUS-INDUS component, the monograms repository, and CoinHoards.

### A) HELLENISTIC ROYAL COINAGES. AN OVERVIEW, PETER VAN ALFEN (AMERICAN NUMISMATIC SOCIETY)

This paper will discuss the origins, development and future plans for the Hellenistic Royal Coinages digital resource ([numismatics.org/hrc](http://numismatics.org/hrc)) and its component parts, including PELLA, Seleucid Coins Online, Ptolemaic Coins Online, Antigonid Coins Online, and CoinHoards.org.

### B) NETWORK ANALYSIS APPLIED TO HELLENISTIC MONOGRAMS, ETHAN GRUBER (AMERICAN NUMISMATIC SOCIETY)

Over the course of the American Numismatic Society's Hellenistic Royal Coinages project, nearly 3,000 monogram identifiers were created, each with an open access Screen Vector Graphic image that can be reused on the web and in print. These monogram identifiers have been integrated into the online type corpora of PELLA (the coinages struck in the name of Alexander the Great and Philip Arrhidaeus), Seleucid Coins Online, Ptolemaic Coins Online, and Antigonid Coins Online. The result is that the monograms are linked to more than 10,000 types and subtypes, which are also linked to Nomisma.org concepts for denominations, mints, authorities, etc., enabling the query and visualization of the relationship between these entities and the monograms appearing on associated coinage. This paper introduces the user interfaces built around searching and visualizing monograms, from network graphs to maps depicting the production and circulation of these symbols, and the questions that might be answered.

C) OXUS-INDUS: A NEW TYPOLOGY FOR GRAECO-BACTRIAN AND INDO-GREEK COINS, SIMON GLENN (ASHMOLEAN MUSEUM / UNIVERSITY OF OXFORD), GUNNAR DUMKE (MARTIN LUTHER UNIVERSITY HALLE-WITTENBERG)

Graeco-Bactrian and Indo-Greek coins are the best, and in many cases only, primary source for our understanding of these enigmatic Hellenistic kingdoms. Since the publication of Osmund Bopearachchi's seminal 'Monnaies gréco-bactriennes et indo-grecques' in 1991 many new coins have appeared. This paper will present a new typology of these coinages, created as part of the OXUS-INDUS project, and made available initially in a linked open data format online. It will also demonstrate the ways in which this new material and its online portal can be used to address important research questions, such as investigating patterns of circulation and systems of mint administration, allowing new light to be shed on these historically important coins.

D) HELLENISTIC COINAGES – PLUGGING THE GAPS, ANDREW MEADOWS (NEW COLLEGE, OXFORD)

Part one of this paper will discuss the nature of typologies used to describe Royal Coinages, both in print and online. In part two it will then outline the work that has taken place as part of the ARCH project, to plug the gaps in the typologies of royal coinages that have not been covered by the Hellenistic Royal Coinages project. In part three it will explain why ARCH has taken the approach that it has, and it is hoped that the ARCH project can help to build more complete typologies in the future. In conclusion, the ARCH project will be demonstrated live.

**21. ANTIQUITY 1. SYRIA & ASIA, CHAIRED BY KLAUS VONDROVEC (KUNSTHISTORISCHES MUSEUM)**

A) PARTHIAN OCCUPATION IN SYRIA: NUMISMATIC EVIDENCE FROM ANTIOCH AND APAMEA, RAZIEH TAASOB (CHARLES UNIVERSITY)

This paper will discuss a set of numismatic evidence belonging to the brief Parthian occupation of Syria (51 BC and 41-40 BC). Previous studies have not sufficiently considered the attribution of the tetradrachm (S.44.1) with regard to its own historical context, seeking to determine whether this coin type belongs to either Orodes II (Gardner 1877, Wroth 1903, Sellwood 1980) or prince Pacorus (Simonetta 1978). This paper will suggest these tetradrachms were issued neither in 51 BC nor in 40 BC, and not in Antioch but in Seleucia by Orodes II. I will next show that the temporary Parthian occupation in Antioch could be documented by a series of rare "city issues" unearthed during the Antioch excavations bearing the Seleucid dating of ΒΟΣ-- similar to the one on Apamea's bronze issues – and a Parthian terracotta figure found in the same context as these Parthian bronze coins.

B) THE COINAGE OF THE KINGS ATTAMBELOS IV AND V OF CHARACENE (A.D. 54/5 – 73/4), PATRICK PASMANS (ROYAL NUMISMATIC SOCIETY OF BELGIUM)

The paper provides an up-to-date status of the research on the coinage of the Characene kings Attambelos IV (A.D. 54/5 – 64/5) and Attambelos V (A.D. 64/5 – 73/4) in Mesene (southern Iraq). While most researchers are familiar with the bronze tetradrachms of Attambelos IV and V, this paper covers also the rare bronze drachms and the small change in lead of Attambelos IV as well as the Arabian imitations that

were found. There are also new insights regarding the dates used on the coins and the countermarks on the tetradrachms.

C) GRAECO-BACTRIAN GOLD: METAL ANALYSIS OF THE COINS OF THE BIBLIOTHÈQUE NATIONALE DE FRANCE USING LA-ICP-MS, SIMON GLENN (ASHMOLEAN MUSEUM), JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE), MARYSE BLET-LEMARQUAND (CNRS, IRAMAT-CEB)

Although they account for only a small part of the coinage struck by the Graeco-Bactrian and Indo-Greek kings, gold coins have played an important role in historical reconstructions of the period, not least the unique 20 stater coin of Eucratides I (apparently the largest precious metal coin produced in Antiquity) and the octadrachm of Euthydemus I. Both these unique objects have recently been the subject of LA-ICP-MS analysis along with all the other gold coins of the Graeco-Bactrian and Indo-Greek kingdoms in the collection of the Bibliothèque nationale de France. The results of this analysis will be presented in this paper with a comparison of previous analyses of Hellenistic, and Kushan gold, allowing important conclusions about the stock of metal used in these kingdoms and our understanding of their history.

**22. ANTIQUITY 2. ANCIENT SOUTHERN ASIA MINOR IN ANTIQUITY: UNITY IN DIVERSITY?, ORGANIZED AND CHAIRED BY WILHELM MÜSELER (INDEPENDENT RESEARCHER)**

Geographers and historians have a tendency to use the terms ‹Southern Asia Minor› or ‹The Southern Shore› thereby suggesting that this part of the Anatolian peninsula forms a specific unit. In fact, the area is divided into the regions of Caria, Lycia, Pamphylia and Cilicia, which have frequently been the subject of separate studies. The speakers of this panel propose to explore whether the uniformity of Southern Anatolia carries more weight than the diversity of its regions, or whether the differences between different local units indeed prevail, and these general references to the area as a whole should only be used with circumspection. The analysis shall base primarily on a comparative analysis of the numismatic record. After an introduction to different coinages of the area, Achaemenid through Hellenistic to the Roman period, the four speakers will discuss similarities and differences in the purpose and structure of the various regional coin-issues, and between the mint authorities involved. Within this context a number of different aspects such as the beginning of the local use and production of coins, their standards and compatibility as well as the geographical spread and the average timespan of their circulation will be considered.

A) LYCIAN HISTORY AND COINAGE AT THE TIME OF THE ACHAEMENIDS, WILHELM MÜSELER (INDEPENDENT RESEARCHER)

Under the overlordship of the Achaemenids Lycia consisted of several tribal units led by different dynastic clans. The population was dispersed over a great many isolated valley systems, but shared a number of distinct cultural traditions as, for example, a common language and writing system. When coinage was introduced to the area at the beginning of the 5th century BC it soon evolved from an instrument of interregional trade to a means of self-assertion and the propagation of hegemonial

claims by rivalling dynastic families and their respective tribes. By the middle of the 4th century BC the dynast Perikle succeeded in uniting the entire peninsula under his control, but was soon deposed and replaced by the Hekatomnids of Caria, who changed the dynastic organization of the Lycian society introducing civic bodies of self-administration within individual settlements, precipitating thereby the process of the gradual Hellenization in Lycia.

B) ANCIENT SOUTHERN ASIA MINOR IN ANTIQUITY: UNITY IN DIVERSITY? PAMPHYLIA, JOHANNES NOLLÉ (LUDWIG MAXIMILIANS-UNIVERSITÄT MÜNCHEN / AUKTIONSHAUS KÜNKER)

In Pamphylia the production of coins started in the Achaemenid period when Aspendos and Side began with minting silver coins on the Persic standard. The exact chronology of the earliest coins of the two cities has not yet been exactly determined. The dating confined to the beginning and the middle of the 5th c. are under discussion. Although Side and Aspendos were neighbours, and their mintages fell back on Greek artistic traditions, their coins reflect the different cultural influence of Pamphylia. Whereas in the 4th century Sillyon started a limited production of some smaller coins, the silver coins of Side and Aspendos reached considerable quantities and a wide distribution both in the Eastern Mediterranean and beyond. These coins reflect a considerable involvement in long-distance trade, made possible by the Achaemenid Peace and an imperial administration that gave the cities plenty of freedom.

C) CARIA AND ITS COINAGE IN THE TIME OF THE ACHAEMENIDS, KORAY KONUK (CNRS – INSTITUT AUSONIUS)

Recent research would suggest that some of the earliest coinages of Caria (c. 530-500 BC) were struck in connection with the activities of the Achaemenids, and in some instances, as a reaction to their rule in that region. Carians had their own language and cultural traits that are reflected on some of their coin issues, especially in the 5th century BC. The Greek foundations, all established along the coast, had more conventional coinages displaying little local influence. The next century is marked very much by the coin productions of the members of the Hekatomnid dynasty, which produced one of the first dynastic coinages of the ancient world, foreshadowing the numerous examples of the Hellenistic period.

D) ARCHAIC AND CLASSICAL COINAGE OF CILICIA, JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)

Cilicia, located on the southeastern coast of Anatolia, from the time of Cyrus the Great to the Macedonian conquest in 333 BC, was part of the Achaemenid state administrated by local dynasts (called Syennesis) and subsequently, by satraps. The satrapy played a strategic role as a mustering point and recruiting area for the Persian army. Minting activity in Cilicia began around the middle of the 5th century, intensifying over the 4th century BC. There were several active mints in this period. The pattern of Cilicia's coinage was quite complicated. It consisted of civic issues, coins minted by the local elites, as well as by satraps and Achaemenid generals. At the same time, some of the civic issues were minted anonymously by the above-mentioned figures. The coinage of the period is characterized by a specific iconography, the use

of the Aramaic and Greek alphabet in the legends, and a fixed system of denominations.

E) LYCIAN HISTORY AND COINAGE IN HELLENISTIC AND ROMAN TIMES, WILHELM MÜSELER (INDEPENDENT RESEARCHER)

In the division of Alexander's realm Lycia fell under the control of the Ptolemies of Egypt and issued only very few coins throughout the 3rd century BC. In 188 BC with the peace of Apamea the Romans entrusted the administration of most of the Lycian peninsula to the island of Rhodes. Opposing this step several Lycian communities formed a political league wishing to bring about Lycian independence and a proper alliance with the Romans. Finally, Rome granted this privilege to the towns organized in the league, which subsequently formed a confederate republic, with common institutions and the right to strike its own coinage for more than 200 years. After the final integration into the Empire there was an attempt to install an imperial mint at Patara, but this was soon abandoned. With one short-lived exception there was, however, no imperial bronze coinage struck in Lycia in the name of different cities.

F) PAMPHYLIA IN HELLENISTIC AND ROMAN TIMES, JOHANNES NOLLÉ (LUDWIG MAXIMILIANS-UNIVERSITÄT MÜNCHEN / AUKTIONSHAUS KÜNKER)

The conquest of Asia by Alexander left the cities of Southern Asia Minor with perceptible limitations of their freedom. Side was a mint of Alexander, but ceased producing coins in 317 BC. The monarchs of the Hellenistic period controlled, restricted or prohibited the cities' minting activities. Antiochos III. forced several cities of Pamphylia to mint posthumous Alexander coins. Only the Seleucid ally Side received the permission to mint tetradrachms with the city's own designs. Side would continue the minting of such coins up to the foundation of Roman monarchy. The emergence of Perge as a mint producing silver coins in the name of Artemis reveals that city's promotion to a place of pilgrimage. During the principate even the smaller cities of Pamphylia minted bronze coins, reflecting economic-welfare until the middle of the 3rd c. AD, followed by a rapid decline which led to the end of minting in Pamphylia.

G) CARIA AND ITS COINAGE DURING THE HELLENISTIC AND ROMAN PERIODS, KORAY KONUK (CNRS – INSTITUT AUSONIUS)

The conquest of Alexander the Great had a significant impact on the coin production of Carian mints, similarly as in most of the territories subdued by the Macedonian king. His successors and their officials minted in their own names, while civic mints continuing to strike their own coins. The next century was marked in Caria by a continuous struggle for power of Ptolemaic, Seleucid, and Antigonid rulers which was followed by the emergence of an ever-powerful island city: Rhodes, which would influence a number of Carian mints, especially after the treaty of Apameia in 188 BC. By then, Rome had become the key player and the kingmaker in western Asia Minor. Rome's influence and imprint are not always visible on the coinages of a century and a half which preceded Augustus whose rule represents a defining turning point for the local coinages of Caria for the next three centuries.



H) COINAGE OF CILICIA IN THE HELLENISTIC AND ROMAN PERIODS, JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)

After the Macedonian conquest, the position of the governor of Cilicia was taken by Balakros, who minted coins on his own. Alexander the Great used Tarsos and Myriandros to strike imperial types. During the Hellenistic period, Cilicia was the subject of rivalry between the Ptolemies and the Seleucids. The latter used several Cilician mints for the production of coins. Besides the royal issues, civic coins were also minted. In 64 BC, by the decision of Pompey the Great, Cilicia became a Roman province. The coinage of the region in the Roman period consisted of civic issues, coins minted by representatives of the local Teukrid, Tarkondimotid and Orontid dynasties, as well as Roman Provincial coinage. Most of the issues minted during the Roman period were bronzes, except for silver teradrachms produced in Tarsus and Aegae. The Cilician mints ceased to operate during the reign of Gallien.

**23. ANTIQUITY 3. THE ISSUE OF AUTHORITY ON TOKENS OF THE ANCIENT MEDITERRANEAN, ORGANIZED AND CHAIRED BY CLARE ROWAN (UNIVERSITY OF WARWICK)**

Ancient token studies have witnessed a resurgence in recent years, seen most vividly with 'Tokens: Culture, Connections, Communities' (ed. Crisà, Gkikaki & Rowan), 'Tokens, Value and Identity', (ed. Crisà), as well as the ongoing publication of unpublished material across Europe.

In spite of recent advances, the issue of who was responsible for the issuing of tokens, and how this authority was (or was not) communicated on these objects remains relatively unexplored. This session therefore focuses on the issue of authority in relation to tokens from Rome and Athens. Two papers focus on tokens from Athens, with Gkikaki presenting Hellenistic tokens from the Agora and Karra discussing a group of tokens with numeric values from a residential quarter to the immediate southeast of the Acropolis. The other two papers will focus on the Roman Empire, with Rowan focused on the lead tokens of Rome and Ostia, and Mondello the bronze and brass tokens from late antique Rome.

These papers will explore the issue of authority on tokens, and what this might reveal about the function of these enigmatic artefacts. Questions addressed by the session include: how was authority communicated on tokens, and how did this differ from official coinage? What does the absence of an authority reveal about the operation of tokens in antiquity? What types of authority can we identify? To what extent does the communication of authority align with the creation or communication of identity? How might tokens become an official channel of expression for cult associations or civic corporations? In what ways did tokens contribute to the roles of individuals, thereby imitating the structures of the state? How did the distribution and circulation of tokens create bonds between authority and users? The session will shed further light on the historic and numismatic significance of these often overlooked objects.

A) TOKENS IN THE ATHENIAN AGORA: NEGOTIATING AUTHORITY IN THE HELLENISTIC SOCIETY, MAIRI GKIKAKI (UNIVERSITY OF WARWICK)

The tokens excavated in the Athenian Agora constitute a unique case of more than 300 types and approx. 1,400 specimens, of which the find spots can be plotted

against the thriving political and administrative centre of Classical and Hellenistic Athens. The issue of authority – who was responsible for the issuing of tokens – has been the subject of debate between scholars. That Athenian tokens were issued by the polis, and were employed in the workings of the government is a fact which cannot be denied. On the other hand, there is plentiful evidence which points in the direction of privately issued tokens. Cult associations and civic corporations, as well as members of such associations, issued tokens and sponsored their distribution, and the associated benefits on a number of occasions. The sharing of tokens helped create and sustain strong bonds among their members.

B)  $\Theta$ A GROUP OF LEAD TOKENS WITH NUMERICAL SIGNS FROM THE LATE HELLENISTIC ATHENS: FUNCTIONS AND AUTHORITY, IRINI KARRA (ACROPOLIS MUSEUM)

During the excavation for the construction of the Acropolis Museum, to the immediate southeast of the Acropolis, an important group of lead tokens was found inside a cistern containing debris from a cleanup operation of the area, after Sulla's invasion in 86 BC. It consists of 19 tokens, most of which bear an animal design in addition to a numerical sign, which could equally denote obols or numbers for any unit.

This contribution examines the possible functions of these tokens, their relation to Athenian coinage, as well as the authority who could have issued them, as their special characteristics in combination with the specific context in which they were found, suggest that they were used rather as private than administrative devices – a frame of use well attested for Roman tesseræ but not yet confirmed for Hellenistic Athens.

C) CRYPTIC, VISUAL AND LETTERED COMMUNICATIONS OF AUTHORITY ON ROMAN LEAD TOKENS, CLARE ROWAN (UNIVERSITY OF WARWICK)

It is clear from the find spots, designs and differing styles of lead tokens in Rome and Ostia that these were objects produced by a variety of different groups within the region. This paper explores the ways in which authority was (or was not) communicated on these issues, and the significance of this for our understanding of the use context of these pieces. Tokens name authorities in full, express shared authority (e.g. between an emperor and magistrate), use enigmatic abbreviations of names, and perhaps also utilise other emblems of identity, e.g. designs associated with personal seals. These differing forms of expression reflect the varied use contexts of tokens, from relatively large events to small communities in which everyone knew each other. The ways in which authority was expressed communicated the prestige of token issuers, and, in the case of the more enigmatic expressions, served to bind a particular community together.

D)  $\Theta$ I TOKENS 'VOTA PVBLICA' DELLA ROMA TARDOANTICA: AUTORITÀ, PRODUZIONE E CIRCOLAZIONE, CRISTIAN MONDELLO (UNIVERSITY OF WARWICK)

In una nota monografia del 1937, A. Alföldi analizzò una speciale categoria di tokens tardoantichi che combinano i busti degli imperatori romani da Diocleziano a Valentiniano II con iconografie religiose egiziane ed isiache, accompagnate dalla legenda 'Vota Publica'. Mentre singoli gruppi o nuovi ritrovamenti riguardanti questo materiale

sono stati discussi in contributi occasionali, l'analisi globale di questa serie enigmatica non ha registrato finora nessun progresso significativo. Questo contributo intende investigare il problema dell'autorità che si cela dietro l'emissione dei tokens 'Vota Publica', nonché il modo in cui, da tale autorità, dipesero i modelli di produzione dei tokens qui considerati. Oggetto di disamina saranno altresì alcuni noti die-links individuati tra tali tokens e alcune serie monetali romane, al fine di chiarire la relazione tra le due categorie di manufatti.

Mediante un approccio incentrato sull'autorità, questo contributo affronterà questioni legate alla produzione, cronologia e circolazione dei tokens 'Vota Publica' nella tarda antichità.

**24. ANTIQUITY 4. ANCIENT THRACE – A REGION OF COINAGE DIVERSITY, ORGANIZED BY LILY GROZDANOVA (SU "ST. KLIMENT OHRIDSKI"), CHAIRED BY ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES) AND SELENE PSOMA (NATIONAL AND CAPODISTRIAN UNIVERSITY OF ATHENS)**

Ancient Thrace was a region with multiple monetary systems and some of the earliest coinages. The intensive scholarly interest in these diverse coinages starts in the 18th c. and continues uninterrupted to the modern digital era. The intensification of the archaeological investigations in the region in the last century and a half has brought to light enormous quantities of materials, a substantial part of which are the numismatic artefacts which leave a crucial number of questions open for analysis.

The recent implementation of digital technologies in the research has changed the paradigm of historical and numismatic study permanently and essentially. It calls for scientific debates, the development of new methodologies for the reevaluation of existing theories and the formulation of new. They could affect historical knowledge beyond the local level of Thrace, due to the complexity of the region as a meeting point of multiple civilizations and identity constructs in Antiquity. A wide range of research questions is open as regards the coinages, confirming the value of coins as a complex historical source.

Thrace offers key numismatic topics such as the specifics of the Thracian tribe coinages; the interpretation and analysis of the coinages of the Thracian Chersonese; the economic and cultural interactions of the Greek colonies; the Roman monetary system combining central and local monetary and economic practices and concepts. The abundance of themes is a strong argument that the only functional form for the current proposal is a double session.

The potential audience is a wide circle of international experts, representing universities, research centres, museums, auction houses etc. The importance of the region's interdisciplinary approach makes this event attractive for scholars from many areas of Ancient world studies.

**A) MONEY AND THE ODRYSIAN RULERS: PAYING THE PATRIOS PHOROS, SELENE PSOMA (NATIONAL AND CAPODISTRIAN UNIVERSITY OF ATHENS)**

The electrum stater of Cyzicus was the most significant currency in the Propontis and the Black Sea region from the mid-5th c. BC to the reign of Alexander III, as revealed by literary sources, epigraphic evidence, hoards and occasional finds. These coins were minted in large numbers and several types referring not only to Cyzicus. In a recently published article, I proposed to explain this currency in relation

to the needs of others, Greek cities and local satraps, using combined evidence from literary sources and coins related to other coinages of the area. The aim of my paper is to propose an explanation for this phenomenon in relation to the Odrysian rulers and the Greek cities of Thrace, and associate these coins with the payment, inter alia, of the so-called patrios phoros, mentioned in Thucydides and epigraphic evidence.

B) THE HEMIDRACHMS OF THE THRACIAN CHERSONESE AND THEIR POLITICAL ENVIRONMENT, JULIA TZVETKOVA (SOFIA UNIVERSITY)

The small silver uninscribed coins showing a lion protome on the obverse and a quadripartite incuse square on the reverse are known in the numismatic literature as "the hemidrachms of the Thracian Chersonese". They form one of the main currencies in Thrace during the 4th century BC. Only recently their intensive issue, together with the other poleis on the peninsula, has been revisited in some new studies (cf. Peter van Alfen, Selene Psoma, Angela Berthold, Boryana Russeva, and the author of this presentation). The publication of several important hoards containing Chersonesean coins now makes it possible to address questions about the typology (distinguishing at least 200 coin groups) or narrow down the dating of these coins. The present study offers some observations with regard to the next level of inquiry: which authority is behind this copious coinage, and what are the reasons for its introduction.

C) PRE-ROMAN BRONZE COINAGE OF SETTLEMENTS ON THE THRACIAN CHERSONESE, ANGELA BERTHOLD (MÜNZKABINETT BERLIN)

The so-called Thracian Chersonese, today the Gallipoli / Gelibolu Peninsula, has always been an important strategic point as a bridge between Europe and Asia. The peninsula extends parallel to the coast of Asia Minor, with the Hellespont between the two. The coinages of most Greek coastal settlements situated there were short-lived, represented by a small volume of bronzes of different denominations. The towns of Alepkonnesos and Kardias occupied the shore closer to the Thracian Coast, while Elaiou, Madytos, Sestos, Aigospotamoi, Paktye and Krithote were found on the shore opposite Asia Minor. Except for Kardias and Alepkonnesos they have not been the subject of much numismatic research. This paper aims to give an overview of their coinage in pre-Roman times, with particular attention on coin designs, chronology, denominational fractions and contacts.

D) THE EMERGENCY COINAGE OF CHARIDEMOS IN THE TROAD, DINÇER SAVAŞ LİNGER (AKDENİZ UNIVERSITY – ANTALYA)

According to the generally accepted view coins bearing the head of goddess Athena on the obverse and spearhead with legend X A on the reverse were struck at Chalkis in Aiolis. Currently their circulation has been confirmed in the Troad, especially in Kebren and its vicinity. As there is no city in the region with a name starting with "Xa", these coins could have been minted by Charidemus, a famous mercenary commander, during the Great Satrap's Revolt in the Troad. According to ancient sources, Charidemus took control of the region, capturing Kebren, Skepsis and Ilion in the Skamander Valley, to establish an autonomous principedom in 360 B.C. Faced with financial problems and in need of money to pay his troops he could be the authority behind striking the coins bearing the XA legend.

E) ADAIOS AND HIS COINAGE REVISITED, ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES), VLADIMIR STOLBA (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT)

Despite its key role in the current historical discourse, the early Hellenistic coinage of Adaios is, at the same time, one of the most controversial topics in Thracian numismatics. After a half-century long discussion, the identity of this figure, as well as the chronology of his coins and the location of the mint, remain uncertain. While taking into account both textual and material numismatic evidence, this paper reassesses the issue from the perspective of archaeological evidence, whose potential, in our view, has yet to be fully exploited.

F) ICONOGRAPHIC INTERACTIONS BETWEEN THE ROMAN PROVINCES OF THRACE, PONTUS BITHYNIA AND ASIA MINOR, MARINA TASAKLAKI (EPHORATE OF ANTIQUITIES OF RHODOPE, HELLENIC MINISTRY OF CULTURE AND SPORTS)

The Roman world was flooded by images; images which carried cultural, religious, ethical and political messages. They could be encountered everywhere, from jewellery to public and private buildings, and obviously, on coins issued by the imperial and the provincial mints alike.

The issues of the cities the Roman province of Thrace appeared just after the integration into the Roman Empire. However, it was not until the mid-2nd century AD that the majority of the cities start to issue coins with an iconography pointing either to local religious and cultural identities, or to imperial virtues in a propagandistic way. A distinct group with what at a first glance appear to be local iconographic topics, it evidently has parallels in neighboring provinces.

Consequently, the aim of this presentation is to highlight the iconographic interactions between Thrace and the neighboring provinces of Pontus-Bithynia and Asia Minor, and to shed light on their causes.

G) DIGITAL NUMISMATICS FROM THE USER PERSPECTIVE, LILY GROZDANOVA (SOFIA UNIVERSITY "ST. KLIMENT OHRIDSKI"), HRISTINA IVANOVA-ANAPLIOTI (UNIVERSITY OF ZURICH)

Technological development has introduced an entirely new research environment. Due to the need for new types of scientific resources, and access to the materials, Digital Numismatics (DN) has become a field of dynamically developed tools and research databases.

The number of operating products is already impressive, and the topic of the user perspective on their actual implementation in the research becomes significant. Questions such as: how the new tools change the workflow; is there a quantifiable added value of the digital environment; is there a data distortion danger; how important the previous professional numismatic experience of the user is; etc., need to be posed.

This paper aims to present DN from the user perspective, basing on the experience of the authors with two mints from Thrace, Apollonia Pontica and Pautalia. These examples allow observations both on Greek and Roman numismatics in a region currently proactively engaged in several digital projects.

## 25. ANTIQUITY 5. THE SYLLOGE NUMMORUM PARTHICORUM PROJECT (SNP), ORGANIZED AND CHAIRED BY FABRIZIO SINISI (AUSTRIAN ACADEMY OF SCIENCES)

The session will focus on the Sylloge Nummorum Parthicorum Project (SNP) and the coinage of Parthia between the 3rd century BCE and the 3rd century CE. The SNP will publish nine volumes of altogether c. 17000 coins from some of the most important museums with collections of Parthian coins, such as the American Numismatic Society (New York), the Bibliothèque Nationale de France (Paris), the British Museum (London), the Kunsthistorisches Museum (Vienna), the National Museum of Iran (Tehran), the Staatliche Museen (Berlin), and the collection of the Institut für Numismatik u. Geldgeschichte (ING) of the University of Vienna. In addition, the digital archive at the online site parthia.com and the file-card archive of the ING provide over 50,000 coins from secondary sources.

The session will include four presentations by members of the project from two research units involved, the Vienna group responsible for the publication of Volume 7 in 2012, and the London group that published Volume 2 in 2020. A general introduction will be given by the two co-directors, M. Alram (ÖAW, Vienna) and V.S. Curtis (BM, London), discussing aims and results of the project. Two presentations will focus on SNP 2 and the forthcoming SNP 4 volumes: A. Magub (BM, London) will discuss the problems and methodologies encountered in the preparation of these two volumes, while C. Hopkins (USA) will highlight specific technical issues as a result of the large databases involved in the project and the impact of large scale numismatic research on the broader historical picture. The final paper by F. Sinisi (ÖAW, Vienna) will focus on the nature of Parthian mints and their place in the fabric of the empire based on the results of SNP 5.

### A) THE SYLLOGE NUMMORUM PARTHICORUM PROJECT (SNP), MICHAEL ALRAM (AUSTRIAN ACADEMY OF SCIENCES), VESTA S. CURTIS (BRITISH MUSEUM)

The Sylloge Nummorum Parthicorum is an international research project with the aim of using coins as an important primary source for a better understanding of the history and culture of the Parthian period , c. 248 BC – AD 224.

The Directors of the Project, Michael Alram (Vienna), Vesta Sarkhosh Curtis (London) and Fabrizio Sinisi (Vienna) are working with an international team and holdings from some major museums in the world.

Two volumes have been published so far: SNP7 (2012) and SNP 2 (2020), and SNP 5 is due next year.

Michael Alram and Vesta Curtis will be speaking about the challenges, the results and the way forward. It is also beyond exaggeration to state that the SNP Project has given a new impetus to Parthian Numismatics in particular and Parthian Studies in general.

### B) DATABASE CHALLENGES FOR SNP VOLUMES 2 & 4, CHRIS HOPKINS (INDEPENDENT RESEARCHER)

This presentation discusses database management challenges met and overcome while publishing Sylloge Nummorum Parthicorum Volume 2, and the ongoing preparations for Volume 4. In addition to technical database management issues, the process of acquiring, organizing and cataloguing more than 70,000 Parthian

coins is discussed. Finally, the process of preparing a photos and text catalogue in sylloge format for print publication is addressed.

C) FROM SNP 2 TO SNP 4: CHALLENGES ENCOUNTERED AND OUTCOMES GATHERED, ALEXANDRA MAGUB (BRITISH MUSEUM)

Published in 2020, Volume 2 of the SNP series examines coin production in the Parthian Empire during the reign of Mithradates II (c. 122/121–91 BC). Although the vast majority of Mithradates' coinage is undated and the identification of many issuing mints obscure, research findings from SNP 2 demonstrate that silver and bronze coin production became increasingly centralised during this period of territorial expansion and consolidation. Work on SNP 4 has now commenced, with a focus on the coinage struck during the reigns of Mithradates III, Orodes II and Pacorus I between c. 57–38 BC – a period that is characterised by fraternal rivalry in the Arsacid ruling house and conflict with the Roman Empire. This paper will highlight some of the challenges encountered and findings gathered by the team based in the UK and US in their work on these two volumes.

D) THE DRACHMS OF PHRAATES IV, ORGANIZATION AND PATTERNS OF PRODUCTION, FABRIZIO SINISI (AUSTRIAN ACADEMY OF SCIENCES)

With ten mints issuing drachms, in addition to that of Seleucia on the Tigris dedicated to the tetradrachms, the reign of Phraates IV (37-2 BCE) marks a peak in the territorial distribution of Parthian coin production. Differently from the large silvers, coined only between 37 and 23 BCE, drachms were struck from the beginning to the end of the reign. The work carried out for the forthcoming Vol. 5 of the Sylloge Nummorum Parthicorum has allowed detecting four phases in their production, belonging to two main periods. The paper will discuss the links connecting these series from a chronological and a spatial point of view, highlighting the level of coordination among the mints as well as the local peculiarities, and how their reconstruction may impact our understanding of some key historical events of the reign of Phraates IV and of the fabric of the Parthian Empire on more structural terms.

**26. ANTIQUITY 6. GEORGIAN NUMISMATICS, ORGANIZED AND CHAIRED BY TEDO DUNDUA (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)**

The origins of Georgian coinage date to the 6th century BC. Much has been done towards attribution of monetary groups and making the general numismatic narrative. However, until 2013-2015 there was no catalogue for Georgian coinage.

The Online English-Georgian Catalogue of Georgian Numismatics was a project funded by the Shota Rustaveli National Science Foundation. Now it is complete but still in need of publicising, like the Georgian coin issues themselves. This session is intended to serve this purpose.

Reports.

Tedo Dundua. Coin Issues in Georgia. General Survey – Presentation of Online English-Georgian Catalogue of Georgian Numismatics. The catalogue covers all the major monetary groups struck in Georgia until the 1830s: Colchian money (“Colchian tetri (silver)”, Kolkhidki); Georgian imitations of Alexander and Lysimachus type staters; Coins of Bagadat, son of Biurat; The co-called Saulaces' coins; Municipal

copper coins of Dioscurias; Anonymous copper coins struck in Vani; Drachms of Aristarchus the Colchian; Municipal copper coins of Trapezus; Georgian (Iberian) imitations of Roman coins; Georgian-Sassanian drachms; Arabic dirhems struck at Tbilisi and their imitations; Georgian-Byzantine coins; Georgian credit money (12th c.-1220s); Coins of the Georgian kings in the 13th-14th cc.; Mongol occupation coins; Western Georgian money of the 13th-15th cc.; Coins of the Georgian kings and princes in the 15th-16th cc.; Safavid and Ottoman money struck at Tbilisi; Coins of the Georgian kings in the 18th c.; Russo-Georgian money.

Natia Phiphia. Coin Types in Georgia and the Graeco-Roman World.

Leri Tavadze. Coin Types in Georgia and Byzantine World.

Evgeni Tchanishvili. Beyond the Catalogue of Georgian Numismatics – New Coin Finds from Georgia.

A) COIN ISSUES IN GEORGIA. GENERAL SURVEY – PRESENTATION OF THE ONLINE ENGLISH-GEORGIAN CATALOGUE OF GEORGIAN NUMISMATICS, TEDO DUNDUA (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)

Having the 6th c. B.C. as a starting point, Georgian money issues gradually absorbed all the types, styles and standards which were popular around, especially those from the West. Greek deities and their symbols (Apollo, Helios, Hecate, Nike, Tyche, Dionysus, Dioscuri, Isis) were replaced by the Roman types (Emperor, Mars, Concordia, Annona, Victoria, Mithras), and the pagan deities – by Christ and the saints depicted on Byzantine coins (Blachernitissa, Saint Eugene). A motif drawn from an entirely different environment were fire temples and fire altars. For millennia Georgia has been of great importance to Europe as a frontier and in international commerce as a bridge to Asia. Coins issued in Georgia facilitated both, defense and trade. Defense and trade shaped themselves as international issues, thus these coins are mostly bilingual. And this story is fully related in Online English-Georgian Catalogue of Georgian Numismatics (T. Dundua et al.).

B) COIN TYPES IN THE GEORGIA AND GRAECO-ROMAN WORLD, NATIA PHIPHIA (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)

The paper presents an overview of all the groups of coins discovered on the territory of Georgia which document the relationship of the Graeco-Roman world and Georgia. The overview will be based on the classification made within the framework of the project “Online English-Georgian Catalogue of Georgian Numismatics”. The groups of coins are as follows: 1) Colchian money (“Colchian tetri (silver)”, Kolkhidki) with eight types of the coins, 2) Georgian imitations of Alexander and Lysimachus’ type staters with their three types, 3) Municipal copper coins of Dioscurias with the effigies of Dioscuri caps and thyrsos, 4) Anonymous copper coins struck in Vani (?) with the effigies of lotus and an eight-pointed star, 5) Drachm of Aristarchus the Colchian with the portrait of Gnaeus Pompeius, 6) Municipal copper coins of Trapezus with the effigy of Mithras and 7) Georgian (Iberian) imitations of Roman coins.

C) COIN TYPES IN GEORGIA AND THE BYZANTINE WORLD, LERI TAVADZE (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)

The Georgian coins are an important primary source for the history of Georgia and neighboring countries. Georgian coins minted from the 10th to 12th centuries are



known as "Georgian-Byzantine coins". The Georgian rulers are mentioned not only with their official Georgian titles, but their Byzantine titles appear as well. Davit III, Bagrat IV, Giorgi II are mentioned with their Byzantine court titles while Davit IV the Restorer is described with his Byzantine court title on his early coin issues, but on his later copper coins he appears in the imperial coat similar to the Byzantine rulers. Narrative sources confirm imperial connections of Davit IV starting from 1103. He was styled "Emperor of the Entire East" and "Autocrat", thus declaring himself ruler of the eastern Christian World, while in Georgian sources the Byzantine Emperor was viewed as the ruler of "The Entire West".

D) BEYOND THE CATALOGUE OF GEORGIAN NUMISMATICS – NEW COIN FINDS FROM GEORGIA, EVGENI TCHANISHVILI (TBILISI STATE UNIVERSITY)

Our paper reports on all new numismatic materials discovered in recent years spanning the early middle ages, high middle ages and late middle ages, starting with the Arab period in the Caucasus and Georgia in the 8th century and ending with the abolition of the Kingdom of Georgia.

In our article we discuss the importance of these new discoveries for future researches in the history, culture, ethnography, art history, iconography of Georgia.

**27. ANTIQUITY AND MIDDLE AGES 1. DIGITAL APPROACHES TO COIN FINDS, ORGANIZED AND CHAIRED BY MARGUERITE SPOERRI BUTCHER (HEBERDEN COIN ROOM, OXFORD / ASHMOLEAN MUSEUM) AND DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION, FRANKFURT A. M.)**

An ever increasing number of online public databases are presenting coin finds. These are national or regional find inventories recording archaeological artefacts, more specialised databases dedicated only to numismatic objects that also contain finds, or portals solely recording coin finds or hoards either at a national/regional or international level.

The existence of both national and international databases has meant that exchanges of data between projects have become more common, highlighting the advantages of using common ontologies. Interconnection of information between portals or with third party resources also allows the user to be guided towards additional information available online elsewhere.

While numismatic concepts are being provided with stable digital representations through Nomisma.org, and geographical data often refer to gazetteers like Pleiades or GeoNames, increasing the interoperability between datasets, so far this is not the case of contextual information. The frameworks used by these portals also diverge, with some of them making use of Linked Open Data methodologies, while others do not have machine readable data.

This session will showcase some of the more recent coin find projects at both the regional/national and international level. This will be an opportunity to present how given projects make use of Linked Open Data concepts or unique identifiers in order to ensure interoperability of data, how contextual information is represented, what use is made of interconnectivity with other resources or the potential of using portals to present datasets from a supra-regional perspective.

A) THE COIN HOARDS OF THE ROMAN EMPIRE PROJECT, MARGUERITE SPOERRI BUTCHER (HEBERDEN COIN ROOM, OXFORD / ASHMOLEAN MUSEUM)

CHRE ([chre.ashmus.ox.ac.uk](http://chre.ashmus.ox.ac.uk)) is a joint initiative of the Ashmolean Museum and the Oxford Roman Economy Project, providing digital coverage of hoards and single gold coins of all coinages in use within and outside the Roman Empire.

Our data is made available under a CC BY-NC-SA licence and all hoards come with stable permalinks. We also make use of stable digital identifiers for numismatic concepts, bibliographical references, and some geographical data.

In order to assemble data (encompassing 16,431 hoards and single gold coins so far), we have created an impressive network of scientific collaborations, but we also integrate data from other digital projects. This talk will focus on practicalities of data exchange with various partners, the importance of interoperability of data, highlight the use of linked open data concepts, explain how we deal with contextual information, and show the benefits of links between online portals in order to connect interrelated information.

B) THE COIN FINDS HUB – ITALY PROJECT: MANAGEMENT AND USE OF NUMISMATIC DATA FROM ARCHAEOLOGICAL CONTEXTS, FEDERICO CARBONE (UNIVERSITY OF SALERNO), RENATA CANTILENA (UNIVERSITY OF SALERNO), GIACOMO PARDINI (UNIVERSITY OF SALERNO)

The project "Coin Finds Hub – Italy / Rinvenimenti monetali in Italia", promoted by the University of Salerno and supported by national and international bodies, is aimed at the managing and cataloguing of coin records from archaeological contexts within the Italian territory, with the aim of organizing, sharing and reusing the data.

The project involves the construction of a digital platform between different descriptive ontologies (for coins, archaeological information and documentation), regulatory criteria and requirements relating to the research and interpretation of the numismatic record. This is favored by the adoption of a descriptive system which brings together both national cataloguing standards and the Nomisma ontology, increasingly widespread in the international numismatic community; this is also possible thanks to an adaptation of the Numishare system.

The current agreements and the areas concerned, the work plan and the first data on the thematic portals will be presented.

C) ANTIKE FUNDMÜNZEN IN EUROPA, DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION), KARSTEN TOLLE (GOETHE UNIVERSITY FRANKFURT)

The web-based database AFE for finds of ancient coins was developed by David Wigg-Wolf (Römisch-Germanische Kommission) and Karsten Tolle (Big Data Lab, Goethe University Frankfurt). Implementing the principles of LOUD and FAIR data, it employs the concepts and ontology of nomisma.org to facilitate communication with other numismatic facilities, and is further linked to a range of other resources such as Geonames for geodata or Zenon for bibliographic references, thus facilitating integration into the wider digital archaeological and historical landscape.

There are now four instances of AFE installed in Frankfurt, Heidelberg, Warsaw and Budapest, which can be queried through a common SPARQL endpoint, enabling searches across an extensive geographical area.

This paper will present the architecture and philosophy behind AFE, as well as discussing the potential offered by such an approach for digital coin find applications and studies.

D) PUBLIC FINDS RECORDING PROJECTS, ANDREW BROWN (BRITISH MUSEUM)

Recent years have seen a huge increase in the volume of numismatic material reported through public finds recording projects (mostly by metal detectorists), notably in Britain and western Europe. Several of these projects are part of the European Public Finds Recording Network (EPFRN), which now includes members from Denmark (DIME), England and Wales (PAS), Finland (Sualt Project/FindSampo), Flanders (MEDEA), and the Netherlands (PAN). This paper provides an overview of the various EPFRN schemes focussing on the nature of the numismatic material they record. It will highlight how this data is currently dealt with and recorded within the remit of each project area. The more than 500,000 coins recorded within the EPFRN represent a significant numismatic dataset with huge potential for numismatic research, both physical and digital.

E)  $\Theta$ COIN FINDS FROM CARTHAGE, IVÁN FUMADÓ ORTEGA (UNIVERSITY OF VALENCIA)

The minting activity under Carthaginian authority is a complex, challenging phenomenon which remains far from being fully understood. It is nevertheless a key topic to understand the major economic and social transformations in the central Mediterranean during the 4th and 3rd centuries BC. Although epigraphical and historical factors generally contribute to the difficult study of Punic issues, the distribution of coins from Carthage as well as data about them play a major role in our lack of responses on the topic. The purpose of the Carthaginian coin finds database is to geolocate and chronolocate all known Greek coin finds from Carthage, to increase both their visibility and contextual understanding. The collaborative and multilingual online platform Dedalo allows presenting coin data in many forms. This includes a map of finds, but also bibliographies related to both the coin find and the coin type reported by the finders, as well as alternative coin type interpretations.

F) DIGITALIZING ANCIENT COIN FINDS FROM SOUTH HISPANIA WITH DEDALO, ELENA MORENO PULIDO (UNIVERSIDAD DE CÁDIZ)

Hoy en día no existe una BBDD sobre la moneda antigua que aglutine exclusivamente los hallazgos en el territorio de Hispania y que atienda con especial cuidado a los datos referidos a su contexto arqueológico y visualización geoespacial de acuerdo a los preceptos de estandarización internacional que han dotado de éxito a otras iniciativas europeas y americanas. Dicha información carece así del estudio y difusión apropiados que aportaría un valor añadido tanto a la especialidad académica como a la sociedad en general. Para solventar esta situación el proyecto WONDERCOINS-HIS, financiado por la Junta de Andalucía (PAIDI PY20\_01295) con un equipo marcadamente interdisciplinar, se propone para implementar una plataforma online que cubra esta carencia del patrimonio numismático del sur de la antigua Hispania, mediante el uso de la herramienta informática de gestión del patrimonio digital Dédalo.

G) THE INVENTORY OF COIN FINDS FROM SWITZERLAND, RAHEL ACKERMANN (SWISS INVENTORY OF COIN FINDS), JONAS VON FELTEN (SWISS INVENTORY OF COIN FINDS)

Switzerland's federal structure with its 26 cantons is a challenge when dealing with coin finds, as every canton has its own archaeological service and decides how to deal with their findings, including entering them – or not – in their own databases. For 30 years now, the Swiss Inventory of Coin Finds (SICF) has been collecting and creating coin find data in a standardised way, publishing them as a national inventory. Until now, only a small part of the material has been published online. With a new centralised database system, adapted to the possibilities offered by Linked Open Data, it will be possible to enter data and make the information available for research, still accounting for the needs and restrictions of the individual cantons.

H)  $\ominus$  COIN FIND CATALOGUE OF THE NUMISMATIC COMMISSION OF GERMANY – NEW PORTAL AND ITS INTEGRATION IN THE NUMISMATIC ONLINE WORLD, MARIO SCHLAPKE (THÜRINGISCHES LANDESAMT FÜR DENKMALPFLEGE UND ARCHÄOLOGIE)

The 'Münzfundkatalog Mittelalter/Neuzeit' of the German Numismatic Commission has been a long-term project since 1950. It comprises today approx. 22,000 summary entries on hoards and single coin finds from the period AD 750 to the 20th century. Over the past 20 years, it has been digitized, now as a part of the KENOM project, and updated in cooperation with various heritage conservation offices in Germany. Since 2021, a large number of these finds has been made available for general research through a new online portal: [numismatische-kommission.de/fundkatalog/](https://numismatische-kommission.de/fundkatalog/). By linking find information to the inventory records of individual coins, the coins from many assemblages can now also be displayed. A central point in the new portal is the automatic enrichment of the records with additional information available via LOD. This makes the portal better and easier to use for a wide range of users also outside the field of numismatics.

**28. ANTIQUITY AND MIDDLE AGES 2. COINAGE OF AND IN ANTIOCH ON THE ORONTES, ORGANIZED AND CHAIRED BY ALAN STAHL (PRINCETON UNIVERSITY)**

Antioch on the Orontes was a center of minting and of coin circulation from the early Hellenistic period through the Crusader era. Much recent work has been done on the nature of minting in Antioch, which maintained parallel imperial and municipal coinages from the Seleucid through the Roman periods. Renewed work on the Princeton-led excavations of the 1930s and contemporary archaeological exploration in the city have greatly enriched our understanding of coin circulation in Antioch over the millennium-and-a-half from 300 BCE to 1300 CE. The four papers in this session will integrate existing scholarship with new research to explore Antioch as a mint and as a site for coin finds.

A) THE LOCAL COINAGE OF SHORT-LIVED EMPERORS: ANTIOCHENE TETRADRACHMS IN THE THIRD CENTURY CRISIS, JANE SANCINITO (UNIVERSITY OF MASSACHUSETTS-LOWELL)

In this paper, I study two short-lived emperors, Trajan Decius and Trebonianus Gallus (along with their sons and co-emperors), and focus on their production of tetradrachms at Antioch. I will present the results of three die studies: one of the first officina for each emperor and another of the third officina under Trebonianus Gallus. These studies provide a window into the scale of production of local coinage in Syria

and offer insight into the internal workings of the mint. I conclude that tetradrachms in this period were being produced in quantities large enough to support the local armies, that the finds at Dura Europos and Antioch support the idea that local coinage was primarily used by the military, and that this period offers a starting point for assessing provincial coin production more generally.

B) DIGITAL NUMISMATICS AND DATA VISUALIZATION FOR ANCIENT ANTIOCH, KRISTINA NEUMANN (UNIVERSITY OF HOUSTON), PEGGY LINDNER (UNIVERSITY OF HOUSTON)

This paper discusses how digital numismatics facilitates new research into ancient Antioch in Syria. My monograph, *Antioch in Syria: A History from Coins (300 BCE-450 CE)* (Cambridge University Press, 2021), critically reassesses the capital city by applying the techniques of Exploratory Data Analysis and digital mapping to a database of 300,000 coin finds. Although Antioch's prominence is famous, a quantitative analysis of coins minted in the city and excavated throughout the Mediterranean and Middle East exposes the gradations of imperial power and local agency mediated within its walls. As imperial governments capitalized upon Antioch's location and amenities, the citizens developed their own distinct identities and agency – both financial and political. This research serves as the foundation for the collaborative online exhibit, SYRIOS: Studying Urban Relationships and Identity over Ancient Syria, which teaches public audiences about how digital humanities methodologies enhance the value of coins as historical evidence.

C) COINS OF ANTIOCH AND THE TRANSITION FROM LATE ANTIQUITY TO EARLY BYZANTIUM (324-610 AD), PAVLA GKANTZIOS DRÁPLEOVÁ (INSTITUTE OF SLAVONIC STUDIES/CZECH ACADEMY OF SCIENCES)

This paper introduces the main trends and features of the Antiochene coinage in the period between 324 and 610. This period was rather significant for the development of Antioch as it covers the era of tremendous growth when the city served as a residence for various fourth century emperors and reaches the years when Antioch struggled with economic problems, natural catastrophes and Persian raids in the 6th century.

The research indicates that the main peculiarities are related to the fourth century gold coins and concerned mainly the representation of imperial power. The situation in the 5th century remains rather obscure as the evidence is not sufficient enough to draw reliable conclusions. On the contrary, the particularities of the sixth century Antiochene coinage can be directly related to conditions in which the mint operated, the problems that the city had to face, and to the local socio-economic environment.

D) DOROTHY WAAGÉ, SAVIOR OF THE NUMISMATIC RECORD OF THE ANTIOCH EXPEDITION, KIRSTIN OHRT (PRINCETON UNIVERSITY)

If the numismatic work on the Antioch excavation of 1932-1939 and ensuing coin catalogue production were a relay race, Dorothy Waagé, its anchor, would ultimately have run every leg – and crossed the finish line more than once.

Waagé joined the Antioch Expedition as her husband's assistant in 1937, for the 6th of 9 excavation seasons, with no prior numismatic experience and feeling

“almost lost”; 15 years later, she authored the then groundbreaking Excavation Catalogue: Antioch-on-the-Orontes, IV, part 2: Greek, Roman, Byzantine and Crusaders' Coins. This paper explores the biographical, historical and circumstantial factors that both paved and complicated her path.

Obstacles included lack of numismatic training among expedition staff, sloppy recording, gender bias, publishing woes and the contexts of war and the Great Depression. She bested these with her forthright character, strong personal interest in classics, collaborative support of her husband, and, above all, her steely commitment to scholarship.

## **29. ANTIQUITY AND MIDDLE AGES 3. ASIA, CHAIRED BY GUNNAR DUMKE (MARTIN LUTHER UNIVERSITY HALLE-WITTENBERG)**

### **A) MONETARY CIRCULATION IN THE INDO-IRANIAN BORDERLANDS: COIN FINDS FROM ARCHAEOLOGICAL EXCAVATIONS AT BARIKOT, EHSAN SHAVAREBI (KUNSTHISTORISCHES MUSEUM WIEN, MÜNZKABINETT)**

The ancient city of Barikot/Bazira is located in the Swat Valley (Uddiyana) in present-day northern Pakistan. The excavations of the Italian Archaeological Mission over 23 seasons (1984–2021) have yielded 469 coin finds, catalogued and analysed within the framework of a project supported by the Austrian Academy of Sciences. These finds cover a time-span from the 3rd century BCE to the 10th century CE, representing coinages of different periods: Mauryan, Indo-Greek, Indo-Scythian, Kushan, Kushano-Sasanian, Turk-Shahi, Hindu-Shahi, etc.

What makes this complex of coin finds so significant is the meticulous recording of their stratigraphic contexts. The radio-carbon dating of Barikot's archaeological phases has made it possible to roughly determine the time-span of each currency's circulation in the region. In addition, a comparison of this assemblage with other finds from Uddiyana and adjacent areas provides a clear picture of monetary circulation in the Indo-Iranian borderlands in ancient and early mediaeval times.

### **B) THE COINAGE OF PRATISHTHANA, A CITY STATE IN ANCIENT PUNJAB, KARAN SINGH (ORIENTAL NUMISMATIC SOCIETY)**

After the collapse of the Mauryan empire, political control in the Indian subcontinent fragmented, with new regional polities coming to the fore, several of which issued coinage for local circulation. In the Punjab, from 2nd century BCE-1st century CE, several janapadas (tribal clans) issued coins, but only one city state: Pratihthana. Located in the eastern Punjab, the ancient site of Pratihthana is presently covered by fields. Till recently, no coins were known of this city state. The first specimen was published in 2006, with a second added in 2016.

A few more copper and lead coins have since come to light. This paper will publish four types with the city name 'Patithana' and examine the context of these rare coins. It provides an important glimpse of a city state that briefly issued coins, before it succumbed numismatically to the powerful political entities in the region, the Indo-Scythians and the Kushans.

C) METAL ANALYSIS OF GUPTA GOLD COINS, PANKAJ TANDON (BOSTON UNIVERSITY)

The paper studies the metrology of Gupta gold coins using XRF analysis. Kumar (Treasures of the Gupta Empire) had studied the gold content of 179 Gupta gold coins using this methodology. However, his attributions have been challenged and seem unsupported. This paper looks at Kumar's data using the corrected attributions and then extends the dataset by performing XRF testing on a new batch of 159 Gupta and 4 Hun gold coins. What the analysis means for the proper attribution of Gupta coins is examined. In particular, I will examine what the metrology implies for the reattributions I proposed (on the basis of weights and styles) in my NC 2020 paper. The implications for Gupta monetary policy are also explored.

D) SILK ROAD IMITATIONS OF BYZANTINE AND SASANIAN COINS: EVIDENCE FROM SHORON BUMBAGAR IN MONGOLIA, ANRAN MAO (UNIVERSITY OF PARIS-SACLAY), CHI XU (RENMIN UNIVERSITY OF CHINA)

This paper focuses on the gold coins and bracteates excavated from the Shoroon Bumbagar tomb, Mongolia. Among these objects, we identify 16 imitations of Byzantine solidi, 7 imitations of Sasanian drachms and 8 gold bracteates with distinctly Central Asian features which attest rich cultural exchanges in Eurasian late antiquity. Past research (Thierry and Morrison, 1994; Raspopova, 1999; Naymark, 2001; Lin, 2003; Guo, 2020) has shed light on various aspects of this topic. The comparison of this group with other similar discoveries along the Silk Road furnished some new insight into the function, location of production, cultural implication and diffusion pattern of these imitations. We report on these findings in this paper. Based on the identity of the tomb's owner and records in Chinese and Byzantine literature, we draw attention to the role of Western Turkic Khaganate and other nomads in the diffusion of imitations of Byzantine and Sasanian coins.

**30. ANTIQUITY AND MIDDLE AGES 4. MOVEMENT OF COINS IN ASIA – ARCHAEOLOGY NUMISMATICS AND NETWORKS – SILK ROAD, ORGANIZED AND CHAIRED BY JOE CRIBB (HEBEI NORMAL UNIVERSITY/ORIENTAL NUMISMATIC SOCIETY) & EMILIA SMAGUR (POLISH CENTRE OF THE MEDITERRANEAN ARCHAEOLOGY, WARSAW UNIVERSITY)**

This panel will examine the movement of coins overland and by sea in Asia, with particular focus on movements along the so-called Silk Road, both on land and by sea.

The evidence of coin finds, designs and composition will be used to interrogate the routes, the sources and destinations of trade, the impacts on local monetary systems and cultures, and the establishment of networks.

Coins often provide the only surviving tangible evidence of the presence of peoples and goods which have travelled great distances by land or sea. The finds of Roman coins in India have long been the focus of research, but more recent discoveries of far-travelled coins in Central Asia and South East Asia, together with imported non-Roman coins in South Asia have revealed a more intense, widespread and long-lasting movement of coins in Asia. These new discoveries and a re-evaluation of the evidence from South Asian finds of Roman coins have opened up new approaches to research and to understanding the significance of such finds.

A) KUSHAN COINS IN XINJIANG PROVINCE, CHINA, JOE CRIBB (HEBEI NORMAL UNIVERSITY)

This paper will explore the significance and impact of Kushan coins found in Xinjiang Province.

B) CHINESE COINS IN EASTERN CENTRAL ASIA – FROM THE HAN TO THE TANG DYNASTIES, HELEN WANG (BRITISH MUSEUM)

Archaeological evidence confirms early links between the east and the west in the region now known as Xinjiang, in northwest China. The earliest Chinese coins in the region arrived during the Han dynasty. Other kinds of coins were also used in the region: foreign coins, local imitations, and local creations. During the periods of the greatest Chinese influence in the region (the Han and Tang) Chinese coins were imported and made locally. In the period between the Han and the Tang, local powers issued their own coins, expressing their own identity on them. In this paper I will survey the period using the evidence of coins, and discuss whether new finds have changed our understanding of the coin history in this region.

C) ANCIENT COIN PROFILE OF DHARMARAJIKA, TAXILA (PAKISTAN), GUL RAHIM KHAN (UNIVERSITY OF PESHAWAR)

At Dharmarajika, Marshall picked up 2077 coins which range in date from 3rd century BCE to 5th century CE. Of this assemblage, he illustrated in his comprehensive field report some selected gold and a few copper coins, leaving the remainder unpublished. The site yielded a large number of coins from different periods, quite a few of them found in the form of hoards, obviously donated by the pilgrims and other donors. Some hoards are larger and some smaller in size. The study of these coins reveals an interesting profile and chronology of this Buddhist complex, the latter is yet to be established.

I would like to present my talk on the composition of coin hoards, groups of coins and individual finds unearthed from this particular site. This study will help to understand the chronology of different dynasties who ruled over Taxila, and the cultural and economic profile and prominent position of Dharmarajika in the region.

D) THE CIRCULATION OF COINS IN THE NORTH KONKAN COAST: SOPARA CASE STUDY, EMILIA SMAGUR (POLISH CENTRE OF THE MEDITERRANEAN ARCHAEOLOGY, WARSAW UNIVERSITY), ANDRZEJ ROMANOWSKI (DEPARTMENT OF COINS AND MEDALS, NATIONAL MUSEUM IN WARSAW)

This paper aims to discuss the circulation of coins on the territory of the North Konkan coast in the Early Historic and Medieval periods. Its purpose is also to present a narrative on cultural interactions between the North Konkan and other parts of India. Its role as both a member of the greater South Indian cultural landscape, and as a participant in Indian Ocean trade networks will be discussed as well.

This topic is important and as yet, not sufficiently studied. However, the steadily increasing corpus of finds opens up possibilities for new interpretations. The presented research is based on finds from Sopara site, one of the ancient Indian Ocean ports mentioned in the Periplus Maris Erythraei. The analyzed corpus consists of three datasets: coins found by H. Cousens, coins found by A. Munshi, and coins found by the authors during the metal detector survey of the site.



E) NETWORKS AND EXCHANGE: MONEY MOVEMENTS ACROSS THE INDIAN OCEAN, SHAILENDRA BHANDARE (ASHMOLEAN MUSEUM)

The paper will present an overview of monetary exchange networks in the Indian Ocean region over the past two millennia, highlighting important numismatic elements, particularly with regard to typology, which make coins a significant marker for the study of these networks.

F) ROMAN COINS FROM INDIA: REVIEW OF THE EVIDENCE SINCE 1989, PAULA TURNER (INDEPENDENT RESEARCHER)

Thirty years after compiling a list of finds of Roman coins from India it seemed to be worth reviewing the material found since then to see whether the patterns first noted were being sustained or had changed. This work is nearing completion and the presentation will be a summary of the new finds accompanied by new distribution maps.

G) THE MOVEMENT OF ROMAN COINS INTO SOUTHEAST ASIA – WHAT DOES IT MEAN? BRIGITTE BORELL (UNIVERSITY OF HEIDELBERG)

The paper will present finds of Roman coins in Southeast Asia that would have arrived along maritime routes. Their dates range from the first to the late fifth/early sixth century AD. In contrast to the well-known influx of thousands of Roman coins into India, the result of trade relations between India and the Roman world, only very few coins were found in Southeast Asia. The discussion will focus on questions of their date of arrival and their function there. It will also include Southeast Asian imitations of Roman gold and silver coins fashioned into jewellery (pendants). Made from tin and gold, they are known mainly from Khlong Thom and Oc Eo. They provide important evidence, assisting our understanding and evaluation of the Roman coin finds in Southeast Asia.

**31. ANTIQUITY & MIDDLE AGES 5. FONTES INEDITI NUMISMATICAE ANTIQUAE (FINA) – ORGANIZED AND CHAIRED BY BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)**

The project "Fontes Inediti Numismaticae Antiquae" aims at collecting, studying and publishing early modern manuscript evidence related to ancient coinage; the focus is on material before c. 1800. The project was launched in 2011 and has been under the aegis of the Union Académique Internationale (UAI) since 2013 (project no. 84). Its background is twofold. On the one hand, there is currently a growing general interest in antiquarianism, of which numismatics forms an important part. On the other hand, studies in antiquarian numismatics have mainly been based on printed material so far. However, though very numerous, numismatic books (and articles in journals) are only a part of the total of information available for the study of the discipline, since a lot of key sources were never printed.

FINA fills this gap through the study of unpublished numismatic letters, manuscripts of numismatic works, manuscript inventories of coin collections, printed books with scholarly annotations and manuscript copies or translations of printed numismatic works (see the project website [fina.oeaw.ac.at/](http://fina.oeaw.ac.at/)). Since 2013, several third-party funded research projects on antiquarian numismatics, especially on the

16th and 18th centuries, have been conducted successfully. Two major international conferences – on Joseph Eckhel and on numismatic correspondence – were organised in 2015 and 2017 respectively, in Vienna and Rome. A wealth of information on numismatic letters and manuscripts, collected by Francois de Callataÿ and Guy Meyer, has been made available on the internet on an open access Semantic Media Wiki platform, which is constantly being expanded: [fina.oeaw.ac.at/wiki/](http://fina.oeaw.ac.at/wiki/).

FINA was first presented to the broader numismatic public at the INC 2015 at Taormina. INC 2022 will provide an excellent opportunity to look back at what has been achieved in the meantime, to present some highlights and to map out promising directions for future research on manuscript sources for ancient numismatics.

A) FONTES INEDITI NUMISMATICAE ANTIQUAE: REVIEW (2016-2021) AND PREVIEW, BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)

The first part of this presentation will provide a short review of activities in the framework of the initiative "Fontes Inediti Numismaticae Antiquae" (FINA) since the 2015 International Numismatic Congress in Taormina: a specific focus will be on research projects on numismatic correspondence of the 18th century, as well as on the development of the FINA database now available online ([fina.oeaw.ac.at/wiki/](http://fina.oeaw.ac.at/wiki/)).

In the second part, the current research project "Ordering the World in Coins", directed by the author at the Austrian Academy of Sciences (Vienna), will be presented. This project deals with the development of new systems for arranging ancient coins during the Enlightenment. These ordering systems are examined not only through published works, but also on the basis of unpublished manuscript sources: mainly the correspondence of Joseph Eckhel and his teacher Joseph Khell.

B) JACOPO STRADAS MAGNUM AC NOVUM OPUS: A COIN CORPUS OF THE 16TH CENTURY AND ITS DOCUMENTATION IN THE DATABANKS OF THE CENSUS AND TRANSLATIO NUMMORUM, VOLKER HEENES (FORSCHUNGSZENTRUM GOTHA DER UNIVERSITÄT ERFURT)

Jacopo Strada (c. 1515 – 1588) created two monumental numismatic corpora in the 16th century: Firstly, an originally 30-volume corpus of coin drawings of the Roman emperors until the 16th century with over 8,500 drawings, the *Magnum ac Novum Opus*; now in the Forschungsbibliothek Gotha. Secondly, an eleven-volume work with the first systematic coin descriptions, the *A.A.A. NumismatΩn Antiquorum Διασκευή*, nowadays in the Universitätsbibliothek Wien.

According to Strada, the coin descriptions should be complementary to the coin drawings. This claim was the starting point of our project at the Forschungszentrum Gotha: We digitized the drawings and descriptions and compared them. Subsequently, we tried to identify the original coins. The results are entered into the databases of the "Census of Antique Works of Art and Architecture known in the Renaissance" (HU Berlin) and "Translatio Nummorum" (KHI Florenz). They provide interesting insights into the knowledge and methods of antiquarians in the 16th century.

C) THE PASSIGNANO COIN COLLECTION AND ITS FATE, ANDREW BURNETT (BRITISH MUSEUM)

The Florentine painter, Domenico Cresti detto il Passignano (1559-1638) formed a collection of 112 gold and 700-800 silver Roman coins. We know about it from a series of letters, written in 1647-50, when Passignano's heirs tried to sell the collection to the young Nicolaas Heinsius. Heinsius wanted only the silver coins, however, and the gold specimens were offered, via Johannes Smetius in Nijmegen, to Simonds D'Ewes in England, before eventually being offered to Queen Christina. These letters illustrate an example of the international nature of the coin network at the time (even including England during the English Civil War). The few details we have about the collection also show that it included a series of false gold coins of rare Roman empresses, otherwise unknown today.

D) THE (EXTRA)ORDINARY CASE OF THE ZANE COLLECTION IN SEVENTEENTH- AND EIGHTEENTH-CENTURY VENICE, MICHELE ASOLATI (UNIVERSITÀ DEGLI STUDI DI PADOVA)

The numismatic collection of the Zane family has many extraordinary features in the panorama of 17th and 18th century Venetian collecting. Formed in the last decades of the seventeenth century and comprising only a few hundred antique gold coins, it seems to have been created almost by chance from local finds and preserved by three generations of Zane family members essentially as a means of social prestige and a value reserve. Dispersed on the British antiquities market in the second half of the 18th century, it became a part of the collection of King George III and is now in the British Museum.

E) THE NUMISMATIC ACTIVITY OF APOSTOLO ZENO: THE ANALYSIS OF THE MANUSCRIPTS, ROBERTO TOMASSONI (INDEPENDENT RESEARCHER)

The presentation illustrates the numismatic activity of the Venetian collector Apostolo Zeno (1668-1750), on the basis of hitherto unpublished sources. A short introduction of the documentary material at our disposal is followed by the discussion of two aspects of Zeno's numismatic collecting: the catalogues of his coins written by Zeno himself, today kept at the Biblioteca Nazionale Marciana in Venice, and some of his letters concerning the purchases of ancient coins, preserved at the Biblioteca Medicea Laurenziana of Florence. These letters had been in the collection of count Giulio Bernardino Tomitano of Oderzo (1761-1828), and were subsequently owned by Sir Bertram, 5th Earl of Ashburnham (1840-1913).

F) APOSTOLO ZENO'S LEGACY. THE ZENO COLLECTION IN ST. FLORIAN MONASTERY IN THE 18TH CENTURY, BASED ON THE CORRESPONDENCE BETWEEN JOSEPH KHELL AND GEORG PFISTERER, PATRICK FISKA (AUSTRIAN ACADEMY OF SCIENCES)

In 1747, the Augustinian monastery of St. Florian in Upper Austria acquired the coin collection of the Venetian scholar and court poet at the Imperial court in Vienna, Apostolo Zeno necessitating the ordering and cataloguing of this collection of about 12,000 coins. Over the years, several canons regular were appointed as custodians of the collection. In addition, numismatists from the environment of the Imperial coin cabinet were repeatedly involved with the collection: Erasmus Frölich, Joseph Khell of

Khellburg and the later directors of the Imperial coin cabinet Franz Neumann, Joseph von Arneth and Friedrich von Kenner.

Between 1760 and 1775 Georg Pfisterer was in charge of the collection of St. Florian. His correspondence with Joseph Khell includes more than 50 surviving letters. The presentation will focus on these documents and the numismatic questions discussed by the two correspondents.

G) PHILIPP VON STOSCH (1691-1757) – HIS RESEARCH AND DOCUMENTARY STRATEGIES TOWARDS ENGRAVED GEMS AND COINS, PAWEŁ GOŁYŹNIAK (JAGIELLONIAN UNIVERSITY), HADRIEN RAMBACH (LILLE UNIVERSITY/UNIVERSITY OF TÜBINGEN), ULF HANSSON (SWEDISH INSTITUTE FOR CLASSICAL STUDIES IN ROME)

The paper presents the research on the collecting, antiquarian and scholarly activities of Philipp von Stosch (1691-1757) related to engraved gems made on the basis of the unknown pictorial (drawings) and archival sources discovered in the Princes Czartoryski Museum in Krakow, the Vatican Library and private collections. Stosch's large commissions of drawings of intaglios and cameos are related to his several research projects which prove that he was not only interested in collecting a vast number of gems but conducted regular research based on academic principles, recording the gems and studying their iconography, artistic value and provenance. The pictorial documentation of interest suggests that Stosch and his works greatly inspired Johann Joachim Winckelmann (1717-1768) in writing his first synthesis of ancient art published in 1764. The paper also discusses ancient coins owned by Stosch to which he applied a similar strategy as far as documenting techniques are concerned.

H) JAN CHRZCICIEL ALBERTRANDI (1737-1808) CORRESPONDENT OF JOSEPH ECKHEL, DANIELA WILLIAMS (AUSTRIAN ACADEMY OF SCIENCES)

Jan Chrzyciel Albertrandi (1737-1808) was librarian and antiquarian at the service of Stanisław II August Poniatowski, King of the Polish-Lithuanian Commonwealth. Three letters by Albertrandi to Joseph Eckhel are kept in Vienna. They were written between July and October 1778, when Albertrandi was in Rome for the second time.

### **32. CELTIC COINS 1. CELTIC COINS IN CENTRAL EUROPE, CHAIRED BY DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION)**

A) THE STORY OF THE ATHENA ALKIDEMOS COIN TYPE. GREEK GODDESS ON THE ROAD TO BOHEMIA, TOMÁŠ SMĚLÝ (ABALON S.R.O)

Gold coinage in the Amber Road corridor, which is the area between southern Silesia and the Austrian Danube valley, is represented by the Athena Alkidemos type from the half of 3rd to the half of 2nd century BC. The vigorous development of lowland settlement centres marked by a high level of commodity production and trade indicates an above-standard position of this region within Central Europe. The extensive coin production in the Amber Road corridor was a strong impulse for the development of coinage in Bohemia. A characteristic manifestation of this influence is the adoption by Celtic elites in Bohemia of the depiction of Athena's head and the standing figure of Athena Alkidemos on their own coinage. The next development is the intensive development in the Stradonice oppidum in Bohemia of coinage of gold

mussel types derived from the latest iconographically deteriorated Bohemian variants of the Athena Alkidemos type series.

B) CELTIC COINS FROM THE CENTRAL SETTLEMENT OF HASELBACH (PB KORNEUBURG, NÖ), JIŘÍ MILITKÝ (NATIONAL MUSEUM, PRAGUE)

The study of Celtic coin production in the Amber Road corridor is one of the most important tasks addressed by archaeology and numismatics. At least six La Tène C central sites are known nowadays in the Danube zone of Lower Austria which yielded thousands upon thousands of such coins. Unfortunately, only a small fraction has been published so far. The settlement of Haselbach has been investigated for five years now. A collection of over 400 coins is available from this site to date, deriving (in a small proportion) from excavation and from a metal detector survey, both official and private. The coin assemblage from Haselbach adds significantly to our knowledge of the 3rd and 2nd century BC coinage.

C) CELTIC GOLD IN BRANDENBURG – AN UNEXPECTED FIND OF 41 RAINBOW CUPS, MARJANKO PILEKIC (MÜNZKABINETT, STIFTUNG SCHLOSS FRIEDENSTEIN GOTHA)

In the summer of 2017 a volunteer archaeologist investigating a field in Brandenburg unearthed a special find. This discovery was followed by a systematic investigation by archaeologists from the Brandenburg State Heritage Management and Archaeological State Museum (BLDAM) which continued until 2018 recovering a total of 41 “plain rainbow cup coins” (glatte Regenbogenschüsselchen). This is the largest Celtic gold find in Brandenburg and the second largest ever hoard find of plain rainbow cups of Kellner V A, in an extremely rare association with full and quarter staters of V A type recorded outside the normal distribution area of rainbow cups in general and plain rainbow cups in particular. In addition to die studies, metal analyses were carried out which, despite the lack of motifs, could also allow unexpected conclusions to be drawn about the coins. New and partly unpublished results will be presented.

D) THE CELTIC SMALL SILVER COINAGE OF THE UPPER DANUBE. A CASE OF EARLY MONETIZATION?, MARKUS MÖLLER (RÖMISCH-GERMANISCHE-KOMMISSION)

As a Celtic counterpart of the Greek obol, small silver coins occur in southern Germany, the Czech Republic and Austria. The main occurrence in phase La Tène D1 (150-75 BC) correlates with the emergence of oppidum settlements. So far research has focused on the publication of single and hoard finds, and also coins from settlements in order to broaden the material base. Now for the first time this type of coinage is to be recorded systematically within the framework of a dissertation. While larger Celtic currencies continue to raise the question of the extent to which they are money, there is sufficient evidence to make an argument for an early phase of monetarization based on small silver. This particularly interesting, as there are proto-urban phases in the study area with the emergence of small silver, which ended with the abandonment of oppida. This would give examples that contradict the idea of monetarization as a gradual process.

**33. CELTIC 2. CELTIC & REPUBLICAN COINS, CHAIRED BY SYLVIA NIETO-PELLETIER (IRAMAT, CNRS-UNIV. ORLÉANS)**

**A) TWO RECENT IRON AGE COIN HOARDS FROM BRITAIN, ELEANOR GHEY (THE BRITISH MUSEUM)**

This paper presents the results of work on two recent finds of British Iron Age coin hoards. A hoard from the New Forest consists of two discrete silver deposits with evidence for deliberate damage and destruction of coinage. It contains a mixture of South Western and Southern coinage, including a number of new types.

The second, the Baddow, Essex hoard, is the largest British gold hoard from recent times, containing 933 coins, 900 of which are of the same type. The homogeneity of the hoard presents an opportunity to study the sequence of coin production within a single deposit. The distribution of coins from the same dies also sheds light on regional networks in the North Thames area and beyond.

**B) CELTIC COINS AND EVENT HISTORY – A STORMY RELATIONSHIP. THE CASE OF THE CIMBRI MIGRATIONS, JULIA GENECHESI (MUSÉE CANTONAL D'ARCHÉOLOGIE ET D'HISTOIRE, LAUSANNE / DIRECTRICE ADJOINTE), ENEKO HIRIART (CHERCHEUR CNRS IRAMAT-CRP2A, UMR 5060 UNIVERSITÉ BORDEAUX MONTAIGNE)**

Until the 1970s, linking archaeological data to historical events documented in the literary sources was a common approach in archaeological studies. Despite its limitations this method is still frequently used. There are many interpretations of the consequences of the migrations of the Cimbri and Teutones, which according to some texts swept Europe at the end of the 2nd century BC. One of these consequences would be the settlement of the Helvetii on the Swiss Plateau (CH), the fortification of Manching (DE) and the abandonment of the site of Němčice nad Hanou (CZ).

Let us leave aside the sources and restart the investigation, now without a tunnel vision. Can we really identify and confirm migratory phenomena using coins, by comparing the monetary profiles of sites whose occupation covers the period between 150 and 50 BC? What methodology can we use to differentiate between population movements and trade?

**C) IL TESORO MONETALE DAL CARDO IV DI ERCOLANO NEL MEDAGLIERE DEL MUSEO ARCHEOLOGICO NAZIONALE DI NAPOLI (562 AR), EMANUELA SPAGNOLI (UNIVERSITÀ DEGLI STUDI DI NAPOLI "FEDERICO II")**

Si presenta la composizione del cospicuo ripostiglio di 562 monete d'argento rinvenuto nel 1938 in una cassetta di legno nel corso delle indagini di Amedeo Maiuri nel Cardo IV di Ercolano e custodito nel Medagliere del Museo Archeologico Nazionale di Napoli (inv. 1947). Il ripostiglio, inedito, consente di discutere il quadro di affermazione del denario d'argento nell'ultima fase di vita della cittadina vesuviana investendo problematiche di emissione e di circolazione della moneta tra la tarda età romana repubblicana e la prima età flavia.

**34. CELTIC COINS 3. CELTIC NUMISMATICS IN THE DIGITAL AGE, ORGANIZED BY DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION) AND SYLVIA NIETO-PELLETIER (IRAMAT, CNRS-UNIVERSITÉ D'ORLÉANS), CHAIRED BY DAVID WIGG-WOLF AND KATHERINE GRUEL (AOROC\_CNRS- ENS-PSL)**

Within the context of the Digital Turn, Celtic coins present a number of distinct challenges, but at the same time also chances. In contrast to many other ancient coinages, for example Hellenistic or Roman, for which structures of production are clearly recognisable and standardized typologies have been developed and published, Celtic issues still remain to some extent a “chaos impénétrable” (Colbert de Beaulieu). We often know very little about the actual infrastructures behind conception, production and issue, who was the active issuing authority, whether there were permanently established mints or instead coins were produced on an ad hoc basis, perhaps by travelling moneyers. The when and where of production are also often difficult to determine closely. A further characteristic of many coins series is a gradual development of the iconography, rather than clear transitions between distinguishable types, resulting in typologies that are often essentially subjective attempts to impose a structure on what is in reality more a fluid mass.

The session will concentrate on two aspects of how these distinctive characteristics of Celtic coins shape digital projects.

Four papers will address the challenges faced by databases in structuring data on what are often seemingly unstructured coinages. A particular focus will be on the role and application thereby of Linked Open Data.

However, the fluidity of the iconography and the resulting variety of individual coins also means that they provide an ideal testing ground for the employment of digital methods such as image recognition and machine learning. A further four papers will thus present digital projects addressing the development of typologies and automated die studies.

A) IMAGE RECOGNITION APPLIED TO THE HOARD OF LE CÂTILLON II, CHRISOWALANDIS DELIGIO (GOETHE UNIVERSITÄT FRANKFURT AM MAIN), KARSTEN TOLLE (GOETHE UNIVERSITÄT FRANKFURT AM MAIN), PHILIP DE JERSEY (CULTURE AND HERITAGE, STATES OF GUERNSEY)

The hoard of Le Câtillon II found in Jersey contains almost 70,000 Celtic coins. It took enormous manpower and time (including 25 volunteers) taking apart the hoard, generating pictures and also to do a first identification of each single coin. Currently, die studies are still ongoing and it would probably take another several decades to finish them based on the eyes of an expert only.

Within our project called Classifications and Representations for Networks (ClaReNet) funded by the German Federal Ministry of Education and Research (BMBF) this hoard is one of three cases to apply and evaluate IT-based methods to support the processes, ranging from pre-sorting the coins to clustering them into die related sets.

So far, we can say that our first approaches with unsupervised and supervised deep-learning of smaller process steps are extremely promising. However, it remains extremely important to keep the expert in the loop.

B) THE CONTRIBUTION OF 3D DIGITALISATION TO THE STUDY OF CELTIC COINS OF THE RIEDONES (FR, 35), KATHERINE GRUEL (AOROC\_CNRS- ENS-PSL), CAROLINE PLUMEL (AOROC\_CNRS-ENS-PSL), BENJAMIN HOUAL (ATELIER D'ARCHEOLOGIE 3D GRENOBLE), OLIVIER MASSON (AOROC), THIERRY LEJARS (AOROC\_CNRS – ENS- PSL)

The fine 3D digitalisation (to 1/10 of a micron) of coins leads to a wide variety of uses both in terms of research and the enhancement of collections. Our work aimed first of all to provide a dataset to identify dies by "deep learning". The 3D process erases colours and shading, and brings out details that have almost been erased. Then, from several pieces, a more complete picture of the dies was reconstructed. The classes of the Riedonan billon were redefined on the basis of the Liffré (Fr, 35) hoard. This has facilitated the iconographic study of this series. In addition, it has been possible to follow the evolution of the diesbreaks, and to evaluate the volume of issues. These scans also open up interesting museographic exploitations, allowing highly magnified views, specific focus on details and 3D prints at various scales.

C) 3D SCANNING OF CELTIC COINS AND DEEP LEARNING TO IDENTIFY MONETARY DIES, SOFIANE HORACHE (MINES PARIS, PSL UNIVERSITY), FRANÇOIS GOULETTE (MINES PARIS, PSL UNIVERSITY), JEAN-EMMANUEL DESCHAUD (MINES PARIS, PSL UNIVERSITY), THIERRY LEJARS (ENS ULM, PSL UNIVERSITY), KATHERINE GRUEL (ENS ULM, PSL UNIVERSITY)

To cluster thousands of coins, automatic methods are necessary. Public datasets for coin die clustering evaluation are too rare, despite their importance for the development of new methods using Artificial Intelligence. Therefore, with our dataset of 2070 3D scans of coins, we create two benchmarks, one for point cloud registration, essential for coin die recognition, and a benchmark of coin die clustering. We show how we automatically built the dataset and perform a preliminary evaluation. The code of the baseline and the dataset are publicly available. These results have been obtained by new developments using 3D imaging and the registration of 3D images by deep learning methods. We will present the die recognition algorithm with a visualisation tool with the possibility of excluding links between two coins that are rejected, and obtain an automatic redistribution of sets of coins from the same die.

D) THE MANERBIO HOARD (LOMBARDIA, ITALIA) AND 3D DIGITIZATION: THE REDISCOVERY OF CISALPINE GAUL DRACHMS, ELODIE PARIS (ECOLE FRANÇAISE DE ROME), ERMANO ARSLAN (ACCADEMIA NAZIONALE DEI LINCEI), KATHERINE GRUEL (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE / ECOLE NORMALE), FRANCESCA MORANDINI (FONDAZIONE BRESCIA MUSEI), SERENA SOLANO (SOPRINTENDENZA ARCHEOLOGIA BELLE ARTI E PAESAGGIO PER LE PROVINCE DI BERGAMO E BRESCIA)

The 16 kg hoard of Padanian drachmas was discovered at Manerbio in 1955. Its size is exceptional, its composition remarkable: the deposit is divided into three series, attributed to three Cisalpine peoples: the Cenomans, the Insubres and the Libui (?) (ARSLAN 2017). Recent metal analyses established that these three series of coins were minted from the same silver stock. This unusual assemblage raises questions about the function of such a hoard.



The Manerbio hoard, now in the Brescia Museum, has been undergoing 3D digitization since February 2022. The Toutiopouos epigraph series is the first to be digitized. The aim is to obtain a database for an in-depth die study. By using 3D technology, a better reading of the coin types and legends is possible. This will bring new elements to the understanding of the complex monetary system of the Padanian coinage.

E) HOW TO TRANSFORM A PRIVATE MONETARY DATABASE INTO A COLLABORATIVE TOOL ON THE INTERNET?, ENKO HIRIART (CNRS\_ UNIVERSITÉ BORDEAUX MONTAIGNE), KATHERINE GRUEL (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE / ECOLE NORMALE), GUILLAUME REICH (BIBRACTE), AGNÈS TRICOCHÉ (ECOLE NORMALE SUPÉRIEURE), YADH YEBNI (INDEPENDENT RESEARCHER)

Developed with FileMaker Pro, our "Antic monetary facies" database contains 40,000 records. Its transformation into a collaborative web tool entails a reorganization of the structure by distinguishing between data files, which can be made available at a later date, and the descriptive thesaurus under OpenTheso (a web-based thesaurus management tool dedicated to the management of vocabularies), allowing alignment with other thesauri such as those of Nomisma.org, in accordance with the FAIR principles. The originality of this database lies in the fact that it does not start from the coin but from the archaeological site and, if possible, from the contexts of discovery. Then, two levels of entry of numismatic objects are possible either individually (coins, monetary tools, etc.) or by batch via the georeferenced table. Optimized extractions facilitate cataloguing and mapping in WG84, in the European NUTS format thanks to Archéolocalis.

F) ONLINE CELTIC COINAGE: A VIRTUAL UNION CATALOGUE FOR THE COINAGE OF PRE-ROMAN IRON AGE EUROPE, DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION)

Recent years have seen the successful online publication of a number of virtual union catalogues for coinages from different fields of numismatics, for example Online Coins of the Roman Empire (OCRE) and PELLA. However, the development of such a resource for the coinage of pre-Roman Iron Age Europe presents a number of new challenges. Thus, there is no single universal standard reference work such as Roman Imperial Coinage that could provide a framework, but rather a wide range of often conflicting typologies covering individual coinages. Furthermore, some of the concepts used to describe Greek and Roman coinages, such as issuer, authority, mint and denomination cannot be applied in the same straightforward way to Iron Age coins. This paper will consider these challenges and discuss potential solutions that are needed in order to develop an Online Celtic Coinage.

G) IRON AGE COINS IN BRITAIN AND THE CELTIC COIN INDEX DIGITAL, COURTNEY NIMURA (UNIVERSITY OF OXFORD), ETHAN GRUBER (AMERICAN NUMISMATIC SOCIETY), CHRIS HOWGEGO (UNIVERSITY OF OXFORD), CHRIS GOSDEN (UNIVERSITY OF OXFORD)

The Iron Age was the period in which the first coins appeared in Britain, and they are a major source of information on late Iron Age society. The main dataset of this material culture is the Celtic Coin Index (CCI), housed at the University of Oxford.

Up to now, it has existed mainly on paper index cards (more than 80,000). This talk introduces the Celtic Coin Index Digital (CCID) project aimed on creating a fully accessible database of this living archive on a Linked Open Data platform. The CCID classification is based on the latest generally agreed taxonomy, ABC (Ancient British Coins). An online edited version – IACB (Iron Age Coins in Britain) – is now available as a digital research tool which provides access to an edited ABC online. This paper will also present recent work undertaken to create the IACB and detail its connection to the CCID.

H) AEMA (ARCHÉOMÉTRIE ET MONNAIES ANTIQUES): A DATABASE OF METAL ANALYSES FOR ANCIENT COINS, SYLVIA NIETO-PELLETIER (IRAMAT, CNRS-UNIV. ORLÉANS), MARYSE BLET-LEMARQUAND (IRAMAT, CNRS-UNIV. ORLÉANS), MURIELLE TROUBADY (IRAMAT, CNRS-UNIV. ORLÉANS), LAURENCE RAGEOT (MSH VAL DE LOIRE), HENRIQUE DA MOTA (IRAMAT, CNRS-UNIV. ORLÉANS)

Thanks to the Aureus and Atmoce projects funded by the French Région Centre-Val de Loire, a metal analysis database for ancient coins, especially Celtic coins, was recently developed at the IRAMAT laboratory in close partnership with the MSH Val de Loire.

Interoperable, in particular with the Gallica database (BnF), the AeMa database will make available to the scientific community the results of elemental analyses carried out at IRAMAT of ancient gold, silver and copper alloy coins by LA-ICP-MS (precious metals) and Fast Neutron Activation (copper-based alloys).

This paper will report on the thinking behind the development of this database, presenting its structure and potential within the current context of Linked Open Data.

### 35. ROME 1. REPUBLIC AND EARLY EMPIRE, CHAIRED BY LIV MARIAH YARROW (BROOKLYN COLLEGE, CUNY)

A) Ⓞ SHIPS ON REPUBLICAN DENARII FROM THE LATE 2ND CENTURY BC. FAMILY HISTORY AND CURRENT EVENTS, WILHELM HOLLSTEIN (MÜNZKABINETT, STAATLICHE KUNSTSAMMLUNGEN DRESDEN)

Towards the end of the 2nd century BC the quaestor Q. Lutatius Cerco (RRC 305) and two moneymen of the gens Fonteia (RRC 290; RRC 307) minted denarii with a ship on each reverse. The images of coins of the latter two in particular differ in several details, which due to their faulty and inadequate descriptions hinder interpretation. On the one hand, the images of the ships on the Fonteian denarii have been associated with alleged naval exploits of the ancestor P. Fonteius Capito, praetor in Sardinia 169 (e.g. Grueber). On the other hand, taking into account the depiction of Dioscuri (?) on the obverses, they have been linked with Telegonos who, as a founder of Tusculum, from which the gens Fonteia originated, had come to Italy by sea (e. g. Crawford). These two lines of interpretation will be revisited. It is also worth asking whether current events and debates are indeed reflected by images on coins.

B) FROM THE COIN UP: ROMAN IMPERIALISM AND THE NUMISMATIC EVIDENCE, MARSHA MCCOY (SOUTHERN METHODIST UNIVERSITY, DALLAS, TX)

Analysis of the coinage of Narbo Martius in southern Gaul sheds more detailed light on Roman expansion into the western Mediterranean compared with literary

accounts of the period. The Romans founded Narbo Martius as the first Roman colony outside of Italy in 118 BCE, and its coinage, in startling iconography, depicts a triumphant Gallic warrior riding a biga and carrying a carnyx and a Gallic shield. The Romans clearly hoped with this coinage to engage the newly-subdued Gauls with a combination of intimidation and the economic incentives of increased trade and prosperity, a novel tactic in Rome's treatment of the Gauls. That this strategy was ultimately unsuccessful is seen in ongoing conflicts and Caesar's final defeat of the Gauls; later coinage depicting Gauls returns to a conventional iconography of conquest. The coinage of Narbo Martius, however, illuminates a pivotal period in Roman imperial strategy that is otherwise lost to history.

C) THE REPRESENTATION OF SICILY ON ROMAN COINAGE FROM THE REPUBLIC TO AUGUSTUS, MANON LARUE (IRAMAT-CEB / UNIVERSITÉ D'ORLÉANS)

Sicily has been the focus of numerous representations on Roman coins, from the early Republican coinage to the Augustan period. This contribution offers a comprehensive and up-to-date numismatic study of the main gold and silver issues which refer to the first province of Rome. The iconographic analysis, the study of the circulation of coins and the quantification of each series adds to our knowledge of the evolution of the image of Sicily over nearly three centuries; drawing attention to similarities and echoes between the different series; improving our understanding of the place occupied by this province in the successive power struggles which punctuated Roman political life.

D) MINTING IN THE MIDDLE GROUND: COUNTERFEITED ROMAN COINS IN THE LEMANIC ARC (60-20 BCE), CHARLES PARISOT-SILLON (IRAMAT-CEB / CNRS & UNIVERSITY OF ORLEANS)

This paper seeks to bring together the evidence for three different case studies which document the counterfeiting of Roman silver coins in Southwestern Switzerland, from the Caesarean conquest to the early Augustan period. While patchy and heterogeneous in nature, the available evidence, in the form of manufacturing tools and end products, including a deposit of plated coins from Genève, makes it possible to identify a regional trend in the irregular monetary activities. Of particular interest in this regard is the question of the Roman military presence as a factor stimulating monetary accommodation.

**36. ROME 2. EARLY EMPIRE, CHAIRED BY BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)**

A) ⓪ BEDEUTUNG VON MÜNZEN IN DER ERFORSCHUNG DER EWIGKEITSDIEE DES RÖMISCHEN KAISERS, KATARZYNA BALBUZA (ADAM MICKIEWICZ UNIVERSITY)

For a historian dealing with the history of antiquity, coins are one of the most important sources for learning about the past. The idea of aeternitas of the Roman emperor, which is the subject of my research, was most strongly rooted in the imperial coinage, which was one of the most important means of expression (and transmission) of ideological content for the representation of Roman power. It was the type of media coverage that reached the widest possible audience. The fundamental question is, therefore, the significance of coins as a means of communication in the then discourse on the emperor's eternity, and nowadays, as a historical source of the studied idea in the context of its historical development. Do

the coins spreading the idea of the emperor's eternity bring any limitations in researching this idea?

B)  $\ominus$ REMARKS ON THE ICONOGRAPHY OF THE AUGUSTAN ISSUES OF 19 BC, LENKA VACINOVÁ (NATIONAL MUSEUM, PRAGUE)

The use of coin images for the purpose of propaganda considerably increased and became more systematic with the beginning of the Principate. The reverses of the denarii of the triumvir monetalis Petronius Turpilianus seem to refer to some important and recent events of the year in which they were minted – the notorious return of the Parthian standards, the execution of some political rivals of Augustus, and perhaps, also the death of Virgil. This paper will deal with more detailed interpretation of some of these scenes, with special interest paid to the motif of high treason and its rightful punishment.

C) TAXONOMY OF BILINGUAL COINS FROM AUGUSTUS TO MID-THIRD CENTURY AD, BARTOSZ AWIANOWICZ (NICOLAUS COPERNICUS UNIVERSITY)

Bernhard Woytek and Dario Calamino have proposed the following three main categories:

- issues combining the Latin name of the emperor and imperial titles on the obverse with a Greek legend on the reverse
- "pseudo-bilingual" issues, with imperial names and titles in Greek and a conventional mark of authority in Latin
- issues regarded as bilingual "by mistake".

The aim of our paper is to describe other possible types noted between the first century BC and the third century AD, i.e.:

- bilingual issues with the same text in Latin and in Greek
- bilingual issues featuring the name and title of one personage (king or emperor) in Latin and a name and a title of another personage (queen or empress) in Greek
- bilingual coins with the imperial name and titles on the obverse in Greek in a combination with Latin legends on the reverse.

**37. ROME 3. DATA-DRIVEN APPROACHES TO ROMAN COINAGE: METROLOGY, METALLURGY AND MODELLING, ORGANIZED AND CHAIRED BY GEORGE GREEN (ASHMOLEAN MUSEUM OF ART AND ARCHAEOLOGY)**

This session seeks to showcase some of the latest research on Roman coinage where scientific, data-driven methods have been employed. The four papers will cover approaches ranging from the familiar to the cutting-edge, but in each case our understanding of the topic at hand has been deepened through the collection, interrogation and manipulation of data.

The use of metrological data should be familiar to numismatists, but there is still scope for novel conclusions even with traditional methods. Here Green presents an analysis of 3000 aurei weights from second-century hoards, arguing that the rate of wear of the aureus – and therefore the velocity of its circulation – is far greater than has been traditionally accepted.

Metallurgical analyses of Roman coinage have been greatly aided by advances in chemistry and physics. In recent decades the use of high precision techniques, such

as ICP-mass spectrometry, has become an established part of the archaeometric pantheon. Here Butcher and Ponting present results from their most recent analyses of Roman silver coinages, focusing on the conclusions that can be drawn from the trace element composition of the metal. At the bleeding-edge of this field is a brand-new technique called muonic X-ray emission spectroscopy that allows penetrative, major element analyses of cultural heritage objects to be conducted totally non-destructively. Here Hillier demonstrates how  $\mu$ XES has been used to investigate the question of surface enrichment in Roman gold and silver coinages.

Finally, the rich data generated by numismatic studies provides fertile ground for the application of computer modelling. This approach is still in its relative infancy within Roman numismatics, but there is clearly scope for the development of important research themes. Here Chiu-Smit presents some of the early conclusions from his doctoral work combining agent-based modelling with online databases of Roman coinage.

A) THE AUREUS AS A HIGH VELOCITY GOLD COIN – AN ANALYSIS OF METROLOGICAL DATA FROM SECOND-CENTURY-AD GOLD HOARDS, GEORGE A. GREEN (ASHMOLEAN MUSEUM OF ART AND ARCHAEOLOGY)

It will be argued here that the aureus had a much higher velocity of circulation than Duncan-Jones and others gave it credit for.

The data underpinning the notion that the aureus was low velocity coin comes from Duncan-Jones' comparison of the weight loss of aurei from his "Belgian Hoard" with the weight loss of the English sovereign. A similar rate of wear to the sovereign, which was alloyed for hardness, was used to present the aureus as 'low velocity.'

Here over 3000 individual weights of aurei from seven hoards will be compared against 11 mint surveys conducted for the English sovereign and other 19th-century gold coins. Not only does the aureus have a rate of wear that is over double that of Duncan-Jones' original estimate, but one that is well in excess of these modern gold coins. For a gold coin, then, the aureus appears to be relatively high-velocity.

B)  $\ominus$ NEW ANALYSES OF ROMAN REPUBLICAN SILVER COINS, KEVIN BUTCHER (UNIVERSITY OF WARWICK), MATTHEW PONTING (UNIVERSITY OF LIVERPOOL)

The chemical composition of silver coinage under the Roman Republic has been little studied. The largest recent survey is that of Holstein (2000), involving the analysis of 590 coins. The main analytical technique used was electron-probe micro-analysis (EPMA) directly on unprepared surfaces, which was unable to overcome surface effects that produced enhanced silver levels and reduced copper levels unrepresentative of the original compositions as well as alterations to the few trace elements measured. Comparisons carried out at the time by the British Museum Laboratories (Cowell and Ponting 2000) revealed the extent of the problem and how this potentially masked important compositional variations.

As part of the ERC-Funded RACOM project (835180 RACOM ERC-2018-ADG), over 1000 Roman Republican silver coins from c. 150 BC to the Augustan period have been sampled by drilling and analysed by microwave-plasma atomic emission spectrometry (MP-AES). This paper presents the preliminary findings and interpretation of these data.

C) ⊖ PROBING BENEATH THE SURFACE WITHOUT A SCRATCH: NON-DESTRUCTIVE COMPOSITIONAL ANALYSIS USING NEGATIVE MUONS, ADRIAN HILLIER (ISIS NEUTRON AND MUON SOURCE, UKRI/STFC RUTHERFORD APPLETON LABORATORY, UK), GEORGE GREEN (ASHMOLEAN MUSEUM, UNIVERSITY OF OXFORD), THOMAS ELLIOT (UNIVERSITY OF LIVERPOOL), MATTHEW PONTING (UNIVERSITY OF LIVERPOOL), KEVIN BUTCHER (UNIVERSITY OF WARWICK)

Non-destructive compositional analyses are extremely important in many cultural heritage fields. The use of negative muons (an electron analogue) has seen a resurgence in recent times, with developments occurring at several muon sources. After implanting negative muons into a sample muonic x-rays and gammas are released – these can then be detected to determine the composition of the sample. While similar in principle to X-ray fluorescence, the negative muon technique can analyse deep beneath the surface of the sample. By controlling the muons momentum (or energy) the implantation depth of the muons can be controlled, ranging from 10s of  $\mu\text{m}$  to 10s of mm. This means the composition at different depths within the sample can be determined non-destructively. Here we review the technique and its recent applications to numismatics, presenting case studies on Roman gold and silver coinage: the former showing no evidence of surface enrichment, the latter unambiguous evidence.

D) ⊖ COMPUTATIONAL APPROACHES TO COIN CIRCULATION DURING THE THIRD AND FOURTH CENTURIES AD, ALEXANDER CHIU SMIT (UNIVERSITY OF OXFORD)

This paper combines agent-based modelling with coin-level data from The Coin Hoards of the Roman Empire Project, presenting early findings of doctoral work on coin circulation during the third and fourth centuries AD.

Computational methodological approaches are still in their relative infancy within Roman numismatics yet are being increasingly employed within the field. Leveraging the accessibility of computational power and the growing digitisation and expansion of available datasets in numismatic studies, researchers are now able to test sophisticated theoretical frameworks against reproducible computational simulations.

Specifically, this paper presents several case studies based on coin hoard data from the third and fourth centuries AD. Using a custom-built agent-based model employing a wide range of GIS spatial data of the Roman transport network, it will be explored how numismatists can investigate complex phenomena in both spatial and temporal settings using a bottom-up approach, thereby expanding our understanding of Roman economic systems.

### **38. ROME 4. ROMAN IMPERIAL COINAGE 1, CHAIRED BY LIESBETH CLAES (LEIDEN UNIVERSITY)**

A) ⊖ THE CAREER OF CORNUTUS TERTULLUS AND THE SIGNIFICANCE OF DIANA/ARTEMIS ON NERVA'S COINAGE, NATHAN ELKINS (AMERICAN NUMISMATIC SOCIETY)

Nerva's coinage displays interest in Diana/Artemis. The goddess appears on denarii of December 96 CE, struck at Rome; the Temple of Artemis at Perge appears on cistophori of 97 CE, struck at Rome for circulation in the province of Asia. The

depiction of the Pamphylian temple especially puzzles scholars, as the coins circulated in a different province. I argue that the depictions on Nerva's coinage are linked with the emperor's promotion of the career of Cornutus Tertullus of Perge, the friend of Pliny with whom he became prefect of the Treasury of Saturn in early 98 CE. Cornutus Tertullus was married to Plancia Magna, priestess of Artemis at Perge, and may have been an (adopted) Plancius himself; the Plancii of Perge were especially devoted to the cult of Artemis. Diana on the denarii resembles the cult statue of the Temple of Diana Planciana in Rome, which bears the family's eponym.

B) PORTRAITS OF TRAJANIC WOMEN ON ROMAN PROVINCIAL COINS, FAE AMIRO (UNIVERSITY OF TORONTO MISSISSAUGA)

It is usually assumed that when a new portrait model was introduced at Rome, it would be sent to the provinces for copying. Provincial coin portraits of Plotina, Matidia and Marciana, the three Trajanic women who appeared on imperial coinage, suggest otherwise. While these women each had one canonical portrait type at Rome, these appear on only about half of their types on+ provincial coins, with others depicting these women instead using models of Flavian women. The Trajanic women also appear on a significantly smaller percentage of provincial coins during Trajan's reign than the Flavians or Sabina in their respective administrations. These data suggest that models of Trajanic women's portraits were not sent to the provinces thoroughly or consistently. This runs counter to the traditional model of portrait type dissemination, which assumes a static process of each new official model being automatically introduced to the provinces for coin and statuary production.

C) A RECONSIDERATION OF AN AUREUS IN THE NAME OF PLOTINA AVG DIVI FROM CAMPANA'S COLLECTION, MARIA CRISTINA MOLINARI (MUSEI CAPITOLINI/MEDAGLIERE)

An aureus in the name of Plotina Avg Divi with the reverse VESTA TRAIANI PARTHICI from Marquis Giampietro Campana's collection is re-examined here.

The coin's authenticity, supported by various scholars including P. L. Strack and H. Mattingly, was deemed unlikely in the latest edition of RIC II, 3, especially in connection with other issues of Plotina from the Hadrianic period. Further stylistic and historical considerations, however, allow us to relate the aureus to the very latest issues of Trajan, thus confirming its authenticity.

D) ΘDIVUS TRAIANUS AUGUSTUS PARTHICUS PATER, BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)

This paper presents new research on two rare types of Roman imperial coins issued early in Hadrian's reign, celebrating the emperor's adoptive father.

The first part of the talk provides an update on the author's study of the denarius type RIC II.3, no. 2963 (obv. bust of Trajan, rev. Hadrian sacrificing at an altar), which was published in vol. 178 of NC (2018). This is the only signed issue of restored denarii produced under Hadrian.

In the second part of the paper, a die-study of the sestertii RIC II.3, nos 104–105 will be presented. This type features the deified Trajan enthroned to the left on the reverse: it is one of very few full-length depictions of Divus Traianus seen on imperial coins. The type will be discussed in its iconographic, historical and

archaeological contexts, with a special focus on current research on the temple of the deified Trajan.

**39. ROME 5. ROMAN IMPERIAL COINAGE 2, CHAIRED BY KYRYLO MYZGIN (UNIVERSITY OF WARSAW)**

A) GEOGRAPHICAL TARGETING IN ROMAN MONETARY PROPAGANDA – A CRITICAL REVIEW, KAMIL KOPIJ (ISTITUTE OF ARCHAEOLOGY, JAGIELLONIAN UNIVERSITY), GRZEGORZ SOCHACKI (ISTITUTE OF ARCHAEOLOGY, JAGIELLONIAN UNIVERSITY)

Over the past decade, efforts have intensified to demonstrate that Roman authorities deliberately targeted selected messages to specific population groups (socially or geographically defined). In our paper, we would like to present the results of a re-evaluation of these attempts (above all, those published by Elkins, Maunders and Ellithorpe, thus concerning coins of various emperors with architectural depictions, coins of Domitian and 'Dacian' issues of Trajan). Our research is based on a statistical analysis of finds, especially of the monetary hoards included in the CHRE database. In addition, we will present the results of a spatial analysis of the distribution of Hadrian's coin types with depictions of personifications of different provinces.

B) QUITE THE FATHER?! RESEMBLANCES OF EMPEROR PORTRAITS AFTER THE INAUGURATION OF A NEW ROMAN EMPEROR, SIMONE KILLEN (KOMMISSION FÜR ALTE GESCHICHTE UND EPIGRAPHIK)

Immediately after the acclamation of a Roman emperor, the mint of Rome issued coins in the name of the new princeps. Within these first issues, coin portraits were sometimes minted which resembled more closely the portrait of the deceased emperor than that of the new one.

This resemblance can be explained by the fact that those in charge at the mint were not yet familiar with the portrait of the new emperor. It seems that the rapid minting of "new" coins was more important than the correct reproduction of physiognomic characteristics of the new emperor. Using selected examples from the first two centuries AD, the conditions and mechanisms of the continuation/changes of imperial portraits in this transition period will be examined. Additionally, an attempt will be made to draw conclusions from these observations about the organisation of the mint of Rome and responsibilities with regard to coin designs.

C) SURVEY OF DAMAGED AUREI WHICH HAVE SUBSEQUENTLY BEEN "REPAIRED": IS THIS A PERVASIVE PROBLEM?, RONALD BUDE (UNIVERSITY OF MICHIGAN)

It was suspected that a surprising number of originally holed or otherwise damaged aurei have been "repaired" over the last century and have subsequently entered the market undisclosed. A survey of the Coin Archives digital database of auction results of the last ~20 years was performed identifying 453 damaged aurei (scratches, nicks, or holes). Eight were subsequently "repaired" and re-entered the market free of defects and without description of the intervening "repairs". Because of the short time interval of the preliminary survey, between one to twenty years for any one coin, a much larger study has commenced using pre-digital sources (auction



catalogues and the ANS card file with auction results up to 100 years old). It is hypothesized that a much longer time period for potential repair will result in a larger percentage of “repaired” coins than was identified in our pilot study, perhaps revealing a pervasive problem.

**40. ROME 6. ROMAN IMPERIAL COINAGE 3, CHAIRED BY BARTOSZ AWIANOWICZ (NICOLAUS COPERNICUS UNIVERSITY, TORUŃ)**

**A) THE GOLD COINAGE OF HADRIAN 117-128 CE, MARTIN BECKMANN (MCMASTER UNIVERSITY)**

The chronology of the coinage of Hadrian is notoriously problematic. This paper presents the results of a die analysis of 1,800 aurei of Hadrian dating to the first twelve years of his reign. These coins proved to have been struck by 403 obverse and 369 reverse dies. The links between these dies make it possible to reconstruct the chronology of many of the coin types in this period, at times with great accuracy. The study also reveals important details about the volume of aureus production and the organization of the Roman mint in this period.

**B) VOTA COINS ON THE OCCASION OF IMPERIAL ANNIVERSARIES FROM ANTONINUS PIUS TO DIOCLETIANUS (138-294 A.D.), JULIA SOPHIA HANELT (JOHANNES GUTENBERG-UNIVERSITÄT MAINZ)**

Roman vota coinage issued on the occasion of imperial anniversaries is known primarily as a phenomenon of the fourth century. Numismatists who study late ancient coinage are sooner or later bound to stumble upon the typology of vota legends (e.g., VOT X MVLT XX) within a wreath, a feature which is typical for these coins. However, coin types explicitly naming imperial anniversaries first appeared under Antoninus Pius, and continue to be issued almost without a break by Roman emperors in the 3rd century. In my dissertation I examine these special coins from this period to develop a fundamental understanding of their typology, origins, and development before their peak in the fourth century.

In this paper I will present the preliminary results of this project, focusing on typology, its significance, and changes in meaning. Another question addressed is whether this coinage can serve as dating tools for the actual anniversary festivities.

**C) INITIATORS, STATUS, DEGREE OF TOLERANCE OF AUTHORITIES AND OTHER KEY FEATURES OF IRREGULAR RADIATES: UPDATED OVERVIEW, FABIEN PILON (UMR 7041 / ARSCAN / ASSOCIATION LA RIOBÉ)**

Radiates minted in huge quantities in Gaul, Germania and Britain in imitation of the antoniniani of the Gallic emperors (mainly) during the last quarter of the 3rd century, occupy a prominent place in the monetary circulation and the numerous hoards of the period. Although there is a broad consensus identifying this coinage as necessity coins, major questions remain unresolved concerning the status (private or public) of the issuing mints and their initiators. This paper will present the conclusions we have reached, based on the areas of production and circulation of radiates, and on the consequences we propose to draw from them in terms of imperial and provincial tolerance. It will also review the main characteristics of this coinage, particularly in the light of recent recently discovered hoards.

D) NATUS VINCERE: THE IMAGE OF EMPEROR GALLIENUS (253-268) THROUGH THE ROME'S MINT COINAGE, DAVID SERRANO ORDOZGOITI (UNIVERSIDAD COMPLUTENSE DE MADRID)

We propose to reconstruct, using numismatic evidence, how the mint of Rome projected the image of Gallienus (253-68), one of the most important and enduring emperors of the period of military anarchy. The most interesting statistics will be highlighted, and particular attention paid to the study of the distribution, denominations, deities and different reverses and legends involved, an essential propaganda tool for the ruling house, and a clear sign of the relationship between central power and the army. We will also compare the data provided by the mint of Rome with that of other contemporary mints, such as those of Milan, Cologne, Siscia or Viminacium, and rival mints, as Cologne during the reign of the enemy, the founder of the Imperium Galliarum, Postumus.

**41. ROME 7. ROMAN IMPERIAL COINAGE 4, CHAIRED BY KYRYLO MYZGIN (UNIVERSITY OF WARSAW)**

A) FACING PORTRAITS OF THE EMPEROR IN THE 260S AD, MICHELE LANGE (SFB 1391 / UNIVERSITÄT TÜBINGEN)

Facing portraits of the emperor are often discussed in the art of late antiquity, but such discussions rarely focus on imperial coinage, where the facing portraits of Gallic emperor Postumus are mark an important step. This paper will argue that these coins represent a decisive step in the development of the facing imperial busts. Facing portraits on the reverse of Roman city coinage of the Severan period are well known, whereas tetrarchic rulers such as Maxentius, Constantine and Licinius use nimbate frontal portraits to signify their divine qualities. Postumus' coins serve as an intermediary between these two phases by adopting a mode of representation on the obverse side which previously reserved primarily for gods such as Sol/Helios and Jupiter Ammon. His images did not adopt explicitly divine attributes such as the nimbus, but relied rather upon a specific image formula in order to create a new theomorphic ruler image.

B) THE STRIKING OF AUREI AT EASTERN MINTS DURING THE TETRARCHY (293-313/314), JAY DHARMADHIKARI (SOCIÉTÉ FRANÇAISE DE NUMISMATIQUE)

The minting of aurei at Antioch and Alexandria (Eastern diocese) has been the subject of few publications since the works of K. Pink (1931), C.H.V.Sutherland (1967), P. Bastien (1967) and G. Depeyrot (1995). More generally, the minting of gold coins in the third and fourth centuries has been the subject of several high quality studies (notably Bagnall/Bransbourg 2019) but no in-depth study on the meaning of gold coinage for these two eastern mints until the introduction of the solidus by Constantine.

The proposed paper aims to present the gold coinage during the Tetrarchy minted in the Eastern mints with especially a number of unpublished aurei for Antioch and Alexandria in the period 293-313/314.

C) A NEW CAST CONTORNIATE FROM ROME, CLAUDIA FERRO (SOVRINTENDENZA CAPITOLINA AI BENI CULTURALI)

The paper presents an unpublished cast contorniate, discovered during the urban excavations in the area of Argiletum and now preserved in the Capitoline Coin Cabinet along with other 47 specimens also awaiting publication.

The first part focuses on the contorniate, its material and the production technique, which suggests that this object had a magical use. In the second part, the place of discovery of the contorniate coin will be compared to other similar finds known in Rome and from other contexts, in order to formulate possible hypotheses about the function and the social status of the users of these consumer goods.

**42. ROME 8. GOLD IN THE ROMAN EMPIRE, CHAIRED BY GEORGE A. GREEN (ASHMOLEAN MUSEUM, UNIVERSITY OF OXFORD)**

A) TRACING ROMAN GOLD STOCKS WITH LA-ICP-MS ANALYSIS OF COINS FROM THE SECOND PUNIC WAR TO THE END OF THE FIRST CENTURY CE, ARNAUD SUSPÈNE (UNIVERSITÉ D'ORLÉANS / CNRS IRAMAT-CEB), MARYSE BLET-LEMARQUAND (CNRS / UNIVERSITÉ D'ORLÉANS IRAMAT-CEB)

A large data set of LA-ICP-MS analyses of Roman gold coins sheds light on the development of gold coinage under the Republic and the Early Empire. As is well known, gold coinage was a latecomer in Roman monetary history and large issues remained rare until the age of Caesar. After Caesar however, gold coinage became a regular feature of the Roman monetary system. This major change in the history of Roman money raises many questions about logistics, gold stocks, and mints. The chemical fingerprints of Roman gold coins reveal the flows of gold stocks in the Roman world over three centuries. The main result is that there is not a fully homogeneous gold stock in use in the Roman world during this period and that chemical relationships can often be established between gold minted by Rome at a given time and foreign coins struck previously.

B) THE ROMAN COINAGE UNDER THE ANTONINES: AN ECONOMY OF SILVER, NOT GOLD, GILLES BRANSBOURG (AMERICAN NUMISMATIC SOCIETY)

With *Money and Government in the Roman Empire* (1994), Richard Duncan-Jones revolutionized ancient economic history by estimating the value of coinage in circulation in the mid-second century CE Roman empire through numismatic and statistical methods. His work implied an anomalously high monetization ratio for an ancient economy, given past and current estimates of Roman GDP. This paper offers a new model of the money supply. Based on recent die studies of Hadrian's gold coinage, it uses Monte Carlo simulation to estimate the value of centrally-minted precious metal coins produced under Hadrian, and then of the total coinage in circulation ca 160 CE. The results suggest a somewhat lower money supply, with much less gold, but more silver than expected. However, the results are not quite low enough to explain away the high monetization ratio, implying a more prosperous and trade-oriented Roman economy than currently thought.

C) THE CIRCULATION OF ROMAN GOLD AUREI IN THE 3RD CENTURY AD, ROGER BLAND (ROYAL NUMISMATIC SOCIETY)

In a 2013 paper ('What happened to gold coinage in the 3rd c. A.D.?', JRA 26) I showed that while gold coins of this period are scarce as single finds and in hoards, die-studies show that production was as high as in the 2nd century. Aurei ceased to be struck to a consistent weight standard at this time, pointing to a change in their use. It was suggested that the State became better at recovering gold coins, so that there were fewer to be hoarded or lost. The Oxford coin hoard project now gives us a rich dataset of hoards and many finds of Roman gold from eastern Europe have also come to light. This talk will examine the evidence in the light of these new data, seeking to understand better the transition from the early Roman monetary economy which was fiduciary or 'chartalist' to the late Roman 'metallist' economy.

D) ROMAN GOLD COINS FROM BARBARICUM, KYRYLO MYZGIN (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)

Intensive study in recent years of Roman gold coins found in the Barbaricum has fundamentally altered our understanding of their presence and prominence here, as well as our knowledge of the periods when they arrived. Moreover, the finds of Roman gold coins in former barbarian territories are key to understanding certain economic processes in the Roman Empire. An example is a hypothesis of A. Bursche (2013) about several tons of Roman gold fallen into barbarian hands after the defeat of Decius' army at Abritus in 251. Using new data, I focus primarily on the dynamics and chronology of the inflow of Roman gold coins of different period to the territory of Barbaricum, addressing also the issue of their functions.

**43. ROME 9. ROMAN IMPERIAL AND PROVINCIAL COINAGE, CHAIRED BY MARIUSZ MIELCZAREK (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY, POLISH ACADEMY OF SCIENCES)**

A) INTERFERENCE IN ANCIENT NUMISMATICS IN THE OSSOLINEUM IN WROCLAW AND THE NATIONAL MUSEUM IN WARSAW, ANNA ANZORGE-POTRZEBOWSKA (UNIVERSITY OF SILESIA IN KATOWICE)

The paper discusses intervention on ancient coins, mostly struck on the territory of the Roman State now preserved in the Ossoliński National Institute in Wrocław and the National Museum in Warsaw. My focus are marks of deliberate alterations observed on the surface of coins – types of intervention, the possibilities and limits for their identification and interpretation. I propose to examine modifications which may have originated in antiquity (consequently, this leaves out marks made by collectors), and might shed light on the personal or institutional attitudes to the content placed on the coins. As such the paper looks into the uses of coins other than their original purpose – cases compatible with *damnatio memoriae* (including acts that were not sanctioned by law).

B) WHAT IS A TYPE? AN EMIC PERSPECTIVE FROM THE ANCIENT WORLD, GEORGE WATSON (SWANSEA UNIVERSITY)

Although typological analysis forms the basis of much numismatic study, it is well recognised that types themselves are modern constructs that are a useful unit of analysis, but whose relationship to the minting process is arbitrary, since different

scholars define types in different ways. This paper asks whether the concept of a type might actually have existed in antiquity, and if so, how types were conceived of, communicated, and utilised. Drawing on examples from the Roman provincial and Roman imperial coinages, the paper will seek to get inside the minting process and offer an emic perspective on the division of designs into coherent units in the ancient world.

C) THE MYTHICAL PAST OF THRACE AND ITS REFLECTION IN THE SELECTED MONETARY ISSUES OF HADRIANOPOLIS, MAREK JURKOWSKI (UNIVERSITY OF SILESIA)

The paper examines the reflection of the mythical origins of Thrace in some interesting monetary issues of Hadrianopolis. These include coins from the times of Gordian III with the image of Orestes, Iphigenia, and Pylades – one of only a few images of Orestes in the Roman provincial coinage. This legendary founder of Hadrianopolis (originally Orestias) is shown with his sister and cousin returning through Thrace from Tauris. Another reference to the region's tradition is the presence of Triptolemus (inventor of agriculture who visited Thrace) on the coinage of Hadrianopolis issued under Caracalla and Gordian III. Thrace was visited also by Heracles who killed here the cruel king Diomedes – a deed commemorated on coins issued under Commodus. These coins illustrate the role played by this medium in preserving and constructing the memory of the local past, and are at present a valuable source for research on the cultural identity of Thrace.

D) FRÜHKAISERLICHE MÜNZEN ALS BELEG FÜR DIE PRÄSENZ DER LEGIO VIII AUGUSTA IN NOVAE (BULGARIEN), RENATA CIOŁEK (UNIVERSITY OF WARSAW)

Der Beitrag behandelt römische Münzfunde aus der frühesten Phase des Legionslagers in Novae (Bulgarien). Als solches konzentriert sie sich auf julisch-claudische Prägungen aus der Zeit bis zur Regierung Neros, die mit dem Ende der Stationierung der Legio VIII Augusta in Novae zusammenfällt. Der Vergleich von veröffentlichten Funden und neueren Exemplaren aus der Forschung des Zentrums für Altertumsforschung Südosteuropas der Universität Warschau mit dem Geldsystem des zeitgenössischen Roms ordnete diese Münzen eindeutig der frühen Phase des Lagers, der Zeit seiner Errichtung, zu und allgemein der Beginn der römischen Präsenz an der unteren Donau. Das Vortrag wird auch Münzen erwähnen, die im Vergleich zum gesamten Geldpool von außergewöhnlicher Bedeutung sind.

**44. ROME 10. ROMAN PROVINCIAL COINAGE 1, CHAIRED BY ANDREW BURNETT (BRITISH MUSEUM)**

A) THE DRACHMS OF DYRRHACHIUM AND APOLLONIA DRACHMAS: WITNES TO THE RISE AND FALL OF THE POWER OF DACIANS, SILVIU PURECE (LUCIAN BLAGA UNIVERSITY OF SIBIU)

The drachms of Dyrrhachium and Apollonia occupy a special place in the monetary landscape of Dacia of the 1st century BC. Large quantities of these coins arrived north to the Danube region as a result of the economic and political events taking place in the region. The popularity of these coins sparked a widescale process of counterfeiting. Despite their importance the drachms of Dyrrhachium and Apollonia, with the type cow suckling calf are still insufficiently understood. Recent numismatic and archaeological researches furnish new clues to understanding the

cause of the coin flow to Dacia and also the hoarding process. All these developments seem to be related to the rise and fall of the power of the Dacians, while the drachm distribution is an indicator of political connections between the power centre and the local elites.

B) DRACHMAS FROM LYCIA, AMISUS AND CAESAREA MINTS IN SERBIAN AND EUROPEAN COIN HOARDS (AN UPDATE), MIRJANA VOJVODA (INSTITUTE OF ARCHAEOLOGY), SAŠA REDŽIĆ (INSTITUTE OF ARCHAEOLOGY)

Eight silver coin hoards from the territory of present-day Serbia (the province of Upper Moesia, and parts of the provinces of Lower Pannonia and Dalmatia) include thirteen drachms from Asia Minor mints of Lycia, Amisus and Caesarea (Cappadocia). Eight drachms belong to the mint of Lycia, four were issued by the mint of Amisus and just one was coined in Caesarea.

The aim of the paper is to supplement the otherwise excellent article by Barbara Zając from 2015 on the drachm finds of these mints in European coin hoards. In addition, the analysis will deal with the incidence of certain issuers of coins by mint, and an attempt will be made to compare the reverse types of drachms of each mint (where the types are known) from individual reigns to determine the existence of specific patterns in their distribution within the European hoards.

C) COUNTERMARKS ON THE COINS OF BITHYNIA AND PONTUS IN THE ROMAN PERIOD, BARBARA ZAJĄC (INDEPENDENT RESEARCHER)

Countermarks are marks placed on the coins that can define their value, user, and territory of circulation. They could have been put there by the mints on their own coins or by other centers because, e.g., production was insufficient. Sometimes marks were made on coins from an earlier period, often badly preserved to confirm their value or return them into circulation.

Countermarks have been identified on many different coins issued by some cities in the Roman province of Bithynia and Pontus. The countermarks include dates, value signs, busts of deities and emperors, as well as symbols of an unknown meaning. Some of the coins had countermarks of other cities, suggesting a wider circulation than the territory of their local center. During the presentation, individual types of countermarks, their possible chronology, and possible reasons for their placement on some coins of Bithynia and Pontus during the Roman period will be discussed.

D)  $\Theta$ NICAEA VS. NICOMEDIA – NEW NUMISMATIC INSIGHTS INTO A CIVIC RIVALRY, SASKIA KERSCHBAUM (GOETHE UNIVERSITY FRANKFURT)

The mint of Nicaea was one of the most prolific mints in Roman Bithynia. Situated at important crossroads and in a fertile landscape the city could boast of its natural and economic riches, and used them to compete for prestige and titles. Its chosen rival was the neighbouring city of Nicomedia. For this challenge Nicaea used the coins in deliberate communication strategies which either focused on text or image: at first, Nicaea prioritized its titles but under Antoninus Pius changed focus to depictions of its cults. This paper seeks to explain how and why Nicaea changed this strategy, and how other apparently unique aspects of civic identity were used to keep up with the growing importance of Nicomedia.

#### 45. ROME 11. ROMAN PROVINCIAL COINAGE 2, CHAIRED BY JEROME MAIRAT (UNIVERSITY OF OXFORD)

##### A) Θ PANORAMA NUMISMATIQUE: HÉROS FONDATEURS MYTHIQUES AU III<sup>E</sup> SIÈCLE, AGATA KLUCZEK (UNIVERSITY OF SILESIA IN KATOWICE)

Les héros fondateurs appartiennent, comme d'autres figures mythiques, à la mémoire collective et à l'imaginaire collectif d'une société ou d'un groupe dans le monde romain. Ils étaient présentés dans les images monétaires reflétant les ambitions des villes et de leurs élites. J'examine les représentations sur les monnaies frappées au III<sup>e</sup> siècle, c'est-à-dire la période qui a fait des occasions à la popularité des thèmes mythologiques et des héros fondateurs. Il s'agit d'un résultat de la (re)fondation d'une colonie romaine d'Orient, mais avant tout d'un reflet du jubilé de 1000 de la fondation de Rome et d'un écho de cet anniversaire dans le monnayage impérial et provincial. Le problème est important. Néanmoins seulement une interaction (inspiration ou compétition?) entre les motifs choisis (la louve romaine et les motifs locaux originaux) et une production de variantes nouvelles des schémas iconographiques connus font l'objet d'une analyse.

##### B) THE SULCUS PRIMIGENIUS ON CIVIC COINS IN THE ROMAN PROVINCES, ROBYN LE BLANC (THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO)

This paper discusses the Roman foundation ritual of the sulcus primigenius on 37 provincial coinages from the first century BCE to the third century CE. This ritual involved plowing a boundary for the new settlement, and was employed during the foundation of colonies in emulation of Romulus' performance of the rite at Rome. On civic coinages, the ritual was usually represented by a togate founder plowing with two oxen (e.g. RPC I, 304; RPC IV.3, temp. No.6316; RPC IX, no.1576), or an abbreviated version of this scene (e.g. a plow and oxen at Sinope, RPC II, 725). This paper traces the development of these designs, linking changes in the details of these types to changes in the status and nature of colonial settlements which occurred between the Late Republic and the third century. Regional differences and various strategies of localizing this imagery are also considered.

##### C) CIVIC COINS REFLECTING COLONIAL TRANSFORMATION, SZYMON JELLONEK (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)

Between the 1st c. BC and the 3rd c. AD cities across the Roman Empire could aspire for a colonial status. A new colony, modelled on Rome, imitated it in urban design, government system etc. This transformation would be reflected in the colonial coins.

In general, the Roman colonial coinage features a few distinctive features. First of all, most of them have a Latin inscription. Next, the status of a 'colonia' and additionally titles such as Iulia, Felix etc. are commonly mentioned. The main characteristic of colonial coins are universal iconographic motives: a yoke of oxen with a priest to commemorate the colonial foundation; military symbols (aquilae, etc.) highlight the military past of the veterans; the statue of Marsyas, a symbol of colonial liberty.

On the other hand cities when raised to the status of a colonia usually already had a long tradition of civic coinage. Therefore, in this paper I will discuss how coins reveal the approach taken by the authorities in the process of transition.

D) DISSEMINATING IMPERIAL AUTHORITY: NUMISMATIC RELATIONS BETWEEN CENTER AND PERIPHERY DURING THE REIGN OF MARCUS AURELIUS, ELISABETH GÜNTHER (KLASSISCHE ARCHÄOLOGIE, UNIVERSITÄT TRIER), SVEN GÜNTHER (INSTITUTE FOR THE HISTORY OF ANCIENT CIVILIZATIONS / NORTHEAST NORMAL UNIVERSITY)

While scholarship and corpora such as RIC and RPC suggest separate imperial and regional spheres of money recent research stresses the interrelations and interactions between center and periphery in terms of political, economic but also iconographic-cultural exchange. Building on our own studies of the coinage of Edessa and Carrhae which resemble imperial coin types associated with the Parthian campaign of Lucius Verus (Günther 2021) this paper broadens the perspective on the phenomenon and analyzes the iconography of Roman provincial coins for similarities to imperial coin types during the reign of Marcus Aurelius. Based on the analysis of different coin types and insights from machine-learned pattern recognition we argue that similarities ("distances") between imperial and provincial coin types confirm close contacts and exchange between the center and peripheries. This leads us to explore the historical framework and developments of the dissemination of the imperial authority during the long 2nd century AD.

**46. ROME 12. ROMAN PROVINCIAL COINAGE 3, CHAIRED BY MARGUERITE SPOERRI BUTCHER (HEBERDEN COIN ROOM, OXFORD / ASHMOLEAN MUSEUM)**

A) THE RELATIONSHIP BETWEEN APOLLO DIDYMEUS AND THE ROMAN EMPEROR AS REPRESENTED IN THE MILESIAN COINAGE, JULIUS ROCH (COIN CABINET BERLIN)

I will address the question of whether and to what extent the depiction of Apollo Didymeus could refer to the emperor and his family. This will be discussed on the basis of two examples:

An imperial cult of Caligula was established in Miletus during his reign. We find a coin type with the bust of Apollo on the reverse dating from this period. I will stress the idea of understanding this as a reference to the joint worship of Caligula and Apollo in Didyma.

The second example is from the reign of Trajan and shows Apollo Didymeus accompanied by a tripod and snake on the reverse. I examine whether this unique motif can be linked to the personal relationship between the emperor and the oracle. Finally I will present some conclusions about the meaning of local motifs and how they integrate Roman authority into the civic identity of Miletus.

B) ⊖REMARKS ON THE IDENTITY OF THE WARRIOR GOD ON ARIASSOS COINS, ESRA TÛTÛNCÛ (SULEYMAN DEMIREL UNIVERSITY GRADUATE SCHOOL OF SOCIAL SCIENCES)

The identity of the warrior god portrayed on the reverses of Roman provincial coins of Ariassos in Pisidia is open to debate. He could be the god Ares or the warrior-hero Solymos since the iconography of their depictions on coins is similar. Ancient sources confirm the existence of both cults in Pisidia. Some archaeological evidence also suggests that there is a temple of the deity in Ariassos, as a Pisidian shield occurs on the lintel of this building. The aim of this study is to compare the iconography of



the warrior-god or warrior-hero depictions on the coins of Ariassos with similar images on coins of the other cities in the same region and neighbouring regions, and to confirm the identity of the god, supporting our conclusions with archaeological data.

C) A NEW YEAR, AN OLD ERA, AND THE SAME DATE? DATING IN EARLY ROMAN CILICIA, CHRISTIAN SCHINZEL (MÜNZKABINETT WINTERTHUR)

The collection of the Winterthur Coin Cabinet (Münzkabinett Winterthur) includes a bronze coin of King Philopator (II.?) of Cilicia. The dated coin shows a known type of this king, but uses an era different from the one used on other coins of the same type. This raises questions about the use of different eras in the coinage of one realm, city, or even the same ruler. The paper thus tries to provide a possible answer as to when and why some coins were dated, while the majority of the same type was not.

D) VALUE MARKS OR SEMESTERS AT POMPEIOPOLIS?, ANDREW BURNETT (BRITISH MUSEUM)

Under Gordian III, Soli-Pompeiiopolis in Cilicia made coins inscribed with ΑϚ, interpreted as coins of 6 assaria. However, the earlier coins for Alexander and Maximinus are sometimes inscribed ΒϚ, whose interpretation has long remained a puzzle. The same letters ΑϚ and ΒϚ also occur on some fairly small coins of Sidon during the first century AD.

Clearly ΑϚ and ΒϚ cannot then be value marks. What then are they? All are also dated by a year, according to a relevant era for each city. So it seems possible that ΑϚ and ΒϚ might qualify the year date in some way, and they refer to the first and second period of six months of the year. Such 'semesters' are attested at a number of Greek cities.

The implications for our understanding of Roman provincial denominations will be explored.

**47. ROME 13. ROMAN & BYZANTINE EGYPT, CHAIRED BY CHRIS HOWGEGO (UNIVERSITY OF OXFORD)**

A) NUMI PLUMBEI ANTINOËNSI (LEAD TESSERAЕ OF ANTINOOPOLIS), GIOVANNI MARIA STAFFIERI (CIRCOLO NUMISMATICO TICINESE)

After the "unusual" death of Antinous in the Nile (October 130 A.D.), Hadrian founded in the proximity of the accident the city of Antinoë (Antinoopolis) with a temple dedicated to the deified young favourite, rituals in his memory, an organised cult for his worship and so on. The same period sees the appearance of lead tesserae with many representations similar to those placed on Alexandrian coins depicting Antinous and the Egyptian pantheon with the puzzling engraved dates from year 2 to year 25. The author will examine some questions about Antinoë and the remarkable "numi plumbei".

B) THE ALEXANDRIAN COINAGE OF COMMODUS. A DIE STUDY, MONA ASHOUR (FACULTY OF ARTS, ALEXANDRIA UNIVERSITY-EGYPT)

The Alexandrian coinage of Commodus (AD 175-192) is dominated by billon tetradrachms with the head or bust of the Emperor mainly accompanied by the legend Μ(ΑΡΚΟΣ) Α(ΥΡΗΛΙΟΣ) ΚΟ(ΜΜΟΔΟΣ) ΑΝΤΩ(ΝΙΝΟΣ) ΚΕΒ(ΑΣΤΟΣ) ΕΥ(ΚΕΒΗΣ).

This paper discusses a die study of 2,189 coins which shed light on the output of the Egyptian mint of that period. The metrological and iconographic studies led to a revision of the propaganda of the Emperor through coinage. While the low ratio of coins to obverse dies (1 for 2 approximately) is not conclusive, it sheds light on how the Emperor focused on certain types, which ultimately led to his deification (as shown by the overwhelming presence of Zeus on the reverse) and mirroring his representations as Heracles. The series struck by Commodus in Alexandria also suggest a change from the iconographical syncretism developed by his predecessors on bronze coinage.

C) THE COIN CIRCULATION IN MAREA, A BYZANTINE CITY ON THE PILGRIMAGE ROUTE TO ABU MENA, PIOTR JAWORSKI (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)

Marea is an archaeological site approximately 40 km west of Alexandria, on the southern shore of Lake Mareotis. The 'Golden Age' of Marea was in the Byzantine period, related to the development of the Christian pilgrimage centre in Abu Mena, nearby. Probably in the 5th c. a large city with an impressive layout was built in Marea, a convenient transfer point for travellers between Alexandria and Abu Mena. Since 2000, comprehensive archaeological research at Marea has been conducted by the University of Warsaw in cooperation with the Archaeological Museum in Krakow, a project which yielded around 7,700 coins. The relatively high number of finds from a single site recovered from well-defined archaeological contexts, provide a good picture of the monetary circulation in a large Byzantine city located in the hinterland of Alexandria.

D) TWO HOARDS OF LATE ROMAN GOLD COINS IN THE EGYPTIAN MUSEUM OF CAIRO, FATMA MOHAMED (THE EGYPTIAN MUSEUM)

The Egyptian Museum of Cairo holds a very large numismatic collection of which a substantial part are gold coins, mainly from the bequest of King Farouk's collection. Two small groups of coins stand apart, acquired through customs seizure, one of them in Gaza. The assemblage consists of gold solidi of the reigns of Valentinian I and Valens. One group of 25 coins are mostly Restitutor Reipublicae issues of Valentinian I and Valens from various mints but there is also a single coin of Constantius II. The second group of 59 coins has the same core of Restitutor solidi of Valentinian I and Valens coins but includes some coins of Theodosius II and Leo I. We take this occasion to make an overview of hoards of this type known in the region and to show how these two groups fit the hoarding pattern in 4th and 5th century Egypt.

**48. ROME 14. FINDS AND CIRCULATION 1, CHAIRED BY CHARLES PARISOT-SILLON (IRAMAT-CEB / CNRS & UNIVERSITY OF ORLEANS)**

A) TRESORS MONETAIRES DES III<sup>e</sup> ET II<sup>e</sup> SIECLES AVANT J.-C. CONTENANT DES DENIERS DANS LES BALKANS ET EN GRECE, ELENI G. PAPAETHYMIU (WARWICK UNIVERSITY, RESEARCH FELLOW, RACOM PROJECT)

Nous examinons les trésors monétaires des III<sup>e</sup> et II<sup>e</sup> siècles avant J.-C. contenant des deniers républicains, dans l'aire géographique qui s'étend de l'Adriatique à la mer Noire et les régions situées au sud du Danube jusqu'à la mer

libyenne. L'objectif de cette étude est de déterminer, suite à l'étude des trésors, la période chronologique de la pénétration et de l'usage du denier aux transactions de cette zone, qui sera traitée selon les subdivisions géographiques de l'époque républicaine, à savoir l'Illyricum Supérieur et Inférieur, le Barbaricum, la Thrace et la Grèce. Le nombre relativement faible des trésors comportant des deniers, en comparaison à l'ensemble des enfouissements découverts sans ce numéraire, comporte plutôt des dépôts mixtes contenant peu de deniers (deniers avec des monnaies d'autres cités, royaumes ou ethnies), que des entreposages avec exclusivement des deniers, suggérant que le numéraire romain n'avait pas pénétré les marchés dans cette période chronologique précise.

B)  $\ominus$  THE CIRCULATION OF ROMAN REPUBLICAN COINAGE IN THE IMPERIAL PERIOD – PATTERNS AND DEVIATIONS, KATHARINA HUBER (AUSTRIAN ACADEMY OF SCIENCES / UNIVERSITY OF VIENNA)

First results of my PhD project which deals with the circulation of Roman Republican coins in the Imperial period (c. 30 BC – AD 300) will be presented. My study is based on a comparative analysis of the structure of coin hoards from the Roman Empire. The information contained in these hoards is crucial for our understanding of the mechanisms of coin supply, coin circulation and especially the use of Republican coins in the Imperial period. The influence of Imperial coinage reforms on the circulation of Republican denarii is visible, and therefore some of the reasons for the withdrawal from circulation of the bulk of pre-imperial denarii. In short, the study of the circulation patterns of Republican coins from the reign of Augustus onwards revealed some patterns that were expected, but also some new ones. Some of these findings could even be called deviations – hence the title.

C) FIRST INSIGHTS OF MONETARY CIRCULATION INTO ANCIENT ARMENIA, ANAHIDE KEFELIAN (OXFORD UNIVERSITY, ASHMOLEAN MUSEUM)

Studies on the monetary circulation of Ancient Armenia have been scarce until today. This paper addresses the state of research by putting forward initial insights into the monetary circulation of the Greater Armenian Kingdom through the analysis of hoards dated from the 1st century BCE to 428 CE. Located at the limits of the Roman Empire and on the edges of the Parthian Empire, the Greater Armenian Kingdom is an important case study because of its geographical location and geopolitical landscape. The paper investigates the impact of the fall of the Armenian Artaxsiid Royal Dynasty around the beginning of the Christian Era on the monetary circulation and more specifically how the lack of Armenian issues affected the use of other coinages within the Kingdom. These data are the results of the ongoing Marie Curie Project ROCCAA held at the Ashmolean Museum of Oxford University.

D) SINGLE FINDS AND A HOARD FROM A RURAL SETTLEMENT IN THE CIVITAS CANANEFATIUM (THE NETHERLANDS), PAUL BELIËN (NATIONAL NUMISMATIC COLLECTION, DE NEDERLANDSCHE BANK)

During a major archaeological excavation in The Hague (Netherlands), the remains of a rural settlement from the Roman period were unearthed. The finds from this settlement near Forum Hadriani, capital of the Civitas Cananefatium, were rich by Dutch standards. One of the finds was a hoard consisting of 107 denarii (period Nero –

Marcus Aurelius), six silver bracelets, a silver-plated fibula and the remains of a necklace of small glass beads. Together with other finds from this site, including coins, the hoard can teach us more about coin use and coin loss in this part of the Roman Empire.

**49. ROME 15. FINDS AND CIRCULATION 2, CHAIRED BY MARKUS PETER (AUGUSTA RAURICA / UNIVERSITÄT BERN / SWISS INVENTORY OF COIN FINDS)**

**A) THE ANTONINE DENARII FROM MESOPOTAMIA, EDWARD DANDROW (UNIVERSITY OF CENTRAL FLORIDA)**

During Lucius Verus' Parthian War (AD 164-7), a certain mint (or mints) in Osrhoene produced a series of denarii to pay Roman troops. The identity of these mint cities has been a matter of speculation, with some such as Hill (1922) attributing them to "uncertain mints", while Babelon (1893) assigned one group with the reverse legend "ΒΑCΙΑΛΕΥC MANNOC ΦΙΛΟΡΩΜΑΙΟC" to Edessa and those with the reverse legend "ΥΠΕΡ ΝΙΚΗC ΡΩΜΑΙΩΝ" to Carrhae. Now more than 180 specimens are known, which is an opportunity for a more systematic reassessment. In this paper I provide the current state of my research with an overview of our evidence and a summary of the different types and their distribution. I relate die and production patterns, and conclude with metallurgical analysis. Laying out this evidence, we can more conclusively understand the purpose of the coins and perhaps identify their mints.

**B) COINS FINDS FROM THE INSULAE 3, 13 AND 15 IN AVENTICUM/AVENCHES (SWITZERLAND), ISABELLA LIGGI ASPERONI (SITE ET MUSÉE ROMAINS AVENCHES)**

This paper will deal with coins found in three insulae of Aventicum/Avenches (CH), capital of the Helvetii during the Roman period. Two recently excavated insulae (3 and 15) have provided testimony of houses constructed soon after the integration into the Roman Empire. Insula 13 hosted two luxurious houses, probably properties of high ranked personages. The archaeological context of the coin finds and their contribution to the chronology of different insulae will be discussed. Next to considering coin circulation, the provenance of the coins in different domestic structures will be analysed in greater detail and, where possible, their relation to other archaeological objects. As regards stratigraphy, we will consider in which type of archaeological layers (construction/occupation/destruction) coins occur, and what it means for their interpretation.

**C) FOUNDATION DEPOSITS IN NORTHERN AND EASTERN GAUL: WHAT POSSIBLE CONTEXTS?, LUDOVIC TROMMENSCHLAGER (DÉPARTEMENT MONNAIES, MÉDAILLES ET ANTIQUES BNF)**

While foundation deposits over very diverse periods and regions are well-known to both archaeologists and numismatists nevertheless these are often not noted in scientific literature or archaeological reports. Indeed, only the most obvious and best-documented cases are generally considered as foundation deposits. Consequently, studies on this subject have almost exclusively tended to address exceptional or obvious deposits which are easily demonstrated by the presence of several currencies together, or by the specific identification of a monument or by the

repeated action And yet, less obvious contexts may also be expected to yield a foundation deposit.

D) THE MONETIZATION OF THE RURAL COUNTRYSIDE IN THE GERMAN RHINELAND, RAHEL OTTE (GOETHE-UNIVERSITÄT FRANKFURT A. M.)

My research is based on recently collected but not yet published data on coin finds from the rural hinterland of the German part of the Lower Rhine limes, i.e. from the villa landscape in the loess area. The monetization of this area has not been studied yet, as numismatic research is focused on the forts and urban centres on the Rhine. The composition of the data is unique, since it includes Celtic and Roman coins from amateur metal detectorist finds, excavations and local museum collections.

This paper uses this data to address questions concerning the spread and development of coin use from the early Roman period up to the 5th century. Of special interest are spatial concentrations and differences in chronological and denominational patterns displayed by different types of rural settlements (*vici*, *villae rusticae*, rural sanctuaries). For this purpose, the techniques developed in applied numismatics have been used.

**50. ROME 16. FINDS AND CIRCULATION 3, CHAIRED BY VINCENT DROST (ECOLE NATIONALE SUPERIEURE DES SCIENCES DE L'INFORMATION ET DES BIBLIOTHEQUES)**

A) MULTIPLE DE 2 SOLIDI DE CONSTANTIN IER DE L'ATELIER DE TREVES TROUVE EN FORET DE COMPIEGNE (OISE), LAURENT SCHMITT (SFN, SENA), MARIE-LAURE LE BRAZIDEC (UMR 5140 ASM, MONTPELLIER / 5608 TRACES, TOULOUSE),

La publication d'un multiple d'or inédit de Constantin Ier pour l'atelier de Trèves est l'occasion de faire le point sur la date de l'introduction du solidus dans les domaines de Constantin, de dresser un inventaire des multiples de l'atelier de Trèves, de les comparer avec des pièces uniface apparues récemment sur le marché numismatique et de revenir sur les trouvailles exceptionnelles effectuées dans la région depuis le XIXe siècle et qui viennent confirmer l'importante géographie, économique et stratégique de la forêt de Compiègne dans l'Antiquité Tardive.

B) LATE ROMAN COIN HOARDS FROM ARCHAEOLOGICAL EXCAVATIONS IN LAMEGO'S CASTLE (PORTUGAL), ALICE BAETA (FLUP)

This project started with excavations in Lamego by the company Arqueologia & Património between 2011 and 2016, which brought hundreds of Roman coins to the surface. The goal was to catalogue all of them, interpret their stratigraphic distribution and reconstruct the coin groups as they were at the time of loss. Thus, two groups were identified; one with 161 coins and another with 700; the remaining 132 coins were considered "dispersed losses".

Analysis confirmed that the two groups date to between the late third and early fifth century. The main types identified were GLORIA EXERCITVS, VICTORIAE DD AVGG Q NN and FEL TEMP REPARATIO (FH3); consequently, the majority had been minted in the reign of Constantius II. The mints represented by the largest number of coins were Rome and Arelate, followed by Constantinopolis. A comparison with Late Roman series from northern Portugal showed a similar pattern.

C) THE CLAUSTRUM ALPUM IULIARUM: A FRONTIER FOR MONETARY CIRCULATION IN THE LATE ROMAN PERIOD, ANDREA STELLA (UNIVERSITY OF PADUA)

A very recent study of monetary circulation in Roman Aquileia during Late Antiquity included an analysis of patterns of coin distribution across the north eastern border of the Diocesis Italicensis. It was found that during the period under study the defensive system known as Claustrum Alpium Iuliarum became a closed frontier for the circulation of coins between Italy and the Balkans. This area played a key role in the major military events of the Late Roman period and, because of its strategic position and role, most of the usurpers chose Aquileia as headquarters. Within the territory under their authority, the need for a regular supply of their armies imposed a strict control of the monetary production and circulation, in fact, a “monetary autarchy”, documented by the distribution of the coin finds. Apart from the numismatic aspect, this evidence can shed further light on the usurpations.

D) ΘCOINS FROM THE EXCAVATIONS AT DIBSI FARAJ, NORTHERN SYRIA (1971-1974), MASSIMILIANO MUNZI (SOVRINTENDENZA CAPITOLINA AI BENI CULTURALI)

In the early 1970s rescue excavations funded by the Dumbarton Oaks Center and Kelsey Museum (Michigan University) were conducted at Dibsi Faraj (Syria). Except for preliminary reports neither the excavations nor the materials recovered (1,676 coins were found) were subsequently published. The archive of the excavations is currently preserved at Durham University.

Roman and Byzantine coins had been catalogued in a preliminary manner by Richard Harper, the excavation director. For Arab coins he requested the collaboration of two experts in Islamic antiquities, Priscilla Soucek and Muhammad El-Kholi (Damascus National Museum).

With no access to the coins, whose location is currently unknown, Harper’s hand-written forms and Soucek and El-Kholi’s reports must be the corner-stone of my reassessment of the numismatic finds, made within the frames of the publication project coordinated by Anna Leone.

A synthesis of the monetary circulation at Dibsi Faraj in Antiquity and the medieval period will be presented.

**51. ROME 17. FINDS AND CIRCULATION 4, CHAIRED BY FERNANDO LÓPEZ-SÁNCHEZ (COMPLUTENSE UNIVERSITY OF MADRID)**

A) THE REGINA TURDULORUM HOARD (CASAS DE REINA, BADAJOZ) AND THE DIVO CLAUDIO ISSUES, DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)

This contribution reports on an important Spanish hoard with 818 imitative antoniniani of Divo Claudio type (post 270), minted in copper alloy. I will analyse its relationship to other Hispanic and European hoards. It is possible to study these antoniniani from the point of view of their styles, characteristic of different workshops in Italy, Gaul and Africa. I will also comment on the survival of Divo Claudio coins in the Spanish archaeological record based on later hoards.

B) THE ROMAN HOARD OF TOMARES: A COIN FIND “TOO BIG TO STUDY” – PRELIMINARY RESULTS, RUTH PLIEGO (UNIVERSITY OF SEVILLE), ENRIQUE GARCÍA VARGAS (UNIVERSITY OF SEVILLE)

The discovery in 2016 of the Tomares Tetrarchic hoard was undoubtedly one of the most important cultural events to have taken place on the Iberian Peninsula in recent times. A team made up of members of several centers and departments of the University of Seville is currently working on the hoard in an interdisciplinary way involving a historical-numismatic study and a metallography analysis. Laying the foundations for the study of this hoard described in the title of a recent conference (Trieste, 2018) as “too big to study” has been an enormous challenge. The micro-excavation of nos. 10 and 11 has provided the material on which this initial work is based. With a significant number of coins studied (around 10% of the total), it is now possible to advance the preliminary results of the research of this colossal hoard.

C) ANCIENT COIN FINDS IN ARCHAEOLOGICAL CONTEXTS OF ALGECIRAS BAY (CADIZ, SPAIN), ALICIA ARÉVALO-GONZÁLEZ (UNIVERSIDAD DE CÁDIZ), ELENA MORENO-PULIDO (UNIVERSIDAD DE CÁDIZ)

In this paper we present the results of recent research projects – SAMOIMAR CEIJ-C04.2; PY20\_01295 WONDERCOINS-HIS; 5147126418-126418-4-21 MARIT-SIS-accomplished in the Bay of Algeciras. They focused on the collection and analysis of the coinage from ancient times found on different archaeological sites in this region.

This work is intended primarily to extract information about what the coin evidence can contribute to the knowledge of the movement of people and goods in this key point of nautical activity and maritime trade in the region of the Straits of Gibraltar during ancient times.

D) A COIN GROUP FROM THE LATRINE OF THE ROMAN VILLA OF VILAUUBA (CATALUÑA, ESPAÑA), MARC BOUZAS (UNIVERSITAT DE GIRONA), PERE CASTANYER (GRUP DE RECERCA ARQUEOLÒGICA DEL PLA DE L'ESTANY), JOAN FRIGOLA (UNIVERSITAT DE GIRONA), JOAQUIM TREMOLEDA (GRUP DE RECERCA ARQUEOLÒGICA DEL PLA DE L'ESTANY)

The balneum of the Roman villa of Vilauba was excavated in 2014. The archaeological site is located in the northeast of the ancient Roman province of Hispania Tarraconensis, now in the municipality of Camós (province of Girona, Catalonia, Spain). In the west part of the thermal complex, which was built during the second half of the 2nd century AD, a small room was identified as a latrina, crossed by a water evacuation channel built of tegulae. Found over the tegulae was a group of forty coins. Mostly AE4, the coins were dated to the second half of the 4th century AD.

In the present paper we analyse in detail the composition of this fairly uniform group of coins, and address also some other problems, such as chronology, the value of this group and possible reasons for its concealment.

**52. ROME 18. FINDS AND CIRCULATION 5, CHAIRED BY LUDOVIC TROMMENSCHLAGER (DÉPARTEMENT MONNAIES, MÉDAILLES ET ANTIQUES BNF)**

**A) THE BEAURAINS (ARRAS) HOARD: 100 YEARS LATER, VINCENT DROST (ÉCOLE NATIONALE SUPÉRIEURE DES SCIENCES DE L'INFORMATION ET DES BIBLIOTHÈQUES)**

This paper offers an update on the famous Beaurains hoard, found in Northern France exactly a hundred years ago. Dating to the beginning of the 4th century, the hoard is one of the most important coin finds of Late Antiquity, particularly because of spectacular gold medallions it contained. It was partly dispersed on the very evening of its discovery and scholars have been trying to put it back together ever since. The quest goes on as new specimens from the hoard regularly appear on the market, making it possible to complete the catalog. As for the physical preservation, parts of the hoard are kept in museums all over the world, and significant acquisitions have been made recently by French institutions.

**B) USES AND USERS OF GOLD COINS IN CIVITAS AEDUORUM DURING THE ROMAN EMPIRE, KÉVIN CHARRIER (ÉCOLE PRATIQUE DES HAUTES ÉTUDES / UMR 8210 ANHIMA)**

While there are several syntheses discussing the uses and users of Roman gold coins in Gaul, we propose to focus here on a single case study dedicated to the civitas Aeduorum. This area has the advantage of having yielded a large corpus of more than 100 single gold finds along with at least 13 hoards, composed exclusively of gold. The corpus covers the period from the late 1st century BC until the late 5th century AD. Based on several representative examples we will analyse the diversity of practices linked to these coins (donativum, monetary jewellery, losses, offerings, etc.). We will focus also on archaeological context of these finds which provide many elements of interpretation. All of this data will help us better understand the question of the uses and users of gold coins in a western city during the Roman period.

**C) ⊖TWO SILVER INGOTS FROM THE MID-4TH CENTURY, ALENKA MIŠKEC (NATIONAL MUSEUM OF SLOVENIA)**

The National Museum of Slovenia has in its collection two silver ingots from the mid-4th century, unfortunately, without information about their context of discovery. The ingots are in the shape of a double axe-head, which is the commonest form of Late Roman silver ingots. Their weight corresponds to that of a Roman pound. Both have on them a stamped portrait of the Roman Emperor Constantius II dated to 350–351. In addition to the portrait, one of the ingots has a punched POLIPI inscription and the other two stamped inscriptions that read EOR NKA and EOPTOC / NKA. The XRF analyses have confirmed a 96–98% purity of silver known to have been used in the silver ingot production. Similar ingots were fairly common in the 4th century, out of this group, the paper focuses on the extremely rare examples stamped with imperial portraits.

**D) THE UNDERWATER COIN DEPOSIT OF GRAN CARRO, IN LAKE BOLSENA, BARBARA BARBARO, (SOPRINTENDENZA ARCHEOLOGIA, BELLE ARTI E PAESAGGIO PER LA PROVINCIA DI VITERBO E PER L'ETRURIA MERIDIONALE), SAMUELE RANUCCI (SEGRETARIATO REGIONALE DEL MINISTERO DELLA CULTURA PER L'UMBRIA)**



The Gran Carro settlement is known for the exceptional conservation of the remains on the bottom of Lake Bolsena. It has been the subject of research since 1959, but only recently has it been possible to prove that it includes three sectors: the currently submerged area, which contains the remains of pile-dwellings (First Iron Age, late 10th-9th century BC); the so-called Aiola, a wide elliptical structure formed of rough stones, interpreted provisionally as an outdoor ritual site (Late Bronze Age, 11th century BC); and an area on dry land (Middle Bronze Age, facies of Grotta Nuova).

Since 2020, underwater investigations have led to the discovery of dozens of Late Roman coins and a few bronze objects in an area of this site between the Aiola and the modern shore. The paper discusses the coin finds and examines the nature of the deposit.

**53. ROME 19. FINDS AND USE – BARBARICUM 1, CHAIRED BY ARKADIUSZ DYMOWSKI (INDEPENDENT RESEARCHER)**

**A) KALKRIESE AND ROMAN ARMY PAY, MAX RESCH (DEPARTMENT FOR NUMISMATICS AND MONETARY HISTORY, UNIVERSITY OF VIENNA)**

Regardless of the exact dating of the battle fought at Kalkriese, this findspot is our best insight into Roman army pay of the early Imperial period. As there are no underlying layers of prior monetary usage in the region, and the coin supply came to a sudden halt after the Roman troops left, the insight gained into the legionaries' purses is unique. Additionally, the composition of the coin finds is drastically different from other military findspots in Germany, with higher percentages of precious metal coins and countermarked Aes coinage. An ongoing research project aims to re-examine all the coins found at Kalkriese and to establish the findspot as a benchmark for further analysis of coin supply within the Roman army in the early Imperial period. This paper will present some of the possibilities the coins found at Kalkriese offer for our understanding of this matter.

**B) FROM THE SESTERTII TO THE SOLIDI, THE COINAGE OF HADRIAN'S WALL AND BRITANNIA'S NORTHERN FRONTIER, DOUGLAS CARR (NEWCASTLE UNIVERSITY)**

This paper presents the results of my PhD research which examines the numismatic evidence from the northern frontier of Roman Britain. This analysis is the result of the creation of a database containing detailed records for c.38,000 Roman coins found in northern England and southern Scotland. Previous studies have been largely restricted to discussions of coins from the military communities based along Hadrian's Wall itself rather than seeking to encompass a broader frontier zone. The study area of this research has included the Wall itself but also its wider setting by covering southern Scotland and northern England. This broad geographic area has allowed the examination of the usage of coinage not just amongst the military communities along the Wall but differences in usage between the military and non-military communities inhabiting the frontier and between those living beyond and behind the Wall.

C) ANCIENT COINS EAST OF THE DANUBE, LAJOS JUHÁSZ (EÖTVÖS LORÁND UNIVERSITY)

The systematic research on the coin finds from the Hungarian Barbaricum, i.e. the region to the east of the Danube, was initiated with the adoption of the AFE-RGK database. The metal detector finds and major excavations carried out over the last decades have considerably increased the number of coin finds in Hungary. The exciting new material makes it possible to revise the previously published data and to outline new regional trends across the area in question. One of the most interesting topics is the role of the Devil's Dykes and the military in the numismatic history of this territory. The paper aims to summarize the results of the last years of research.

D) LATE ROMAN GOLD COINAGE (275-498 AD) FROM THE BARBARICUM, NICOLETA DEMIAN (THE NATIONAL MUSEUM OF BANAT)

The paper deals with Late Roman gold coinage (hoards and isolated finds) dated between 275 and 498 AD found in the Barbaricum, in the region between the Tisa, Mureş, Danube rivers and the Timiș-Cerna corridor. This historic and geographic region, known as Banat, nowadays lies in south-western Romania and north-eastern Serbia. The region has yielded 110 of so Roman gold coins: 80 of so coins belong to three hoards: Borča, Denta and Starčevo, and 30 coins are isolated finds from 24 localities, especially from the Banat Plains. Based on archival information, the structure of a group of 23 coins from the Denta hoard (considered lost) is reconstructed here for the first time. The coins were part of the collection of Ormos Zsigmond and next of the National Museum of Banat collections in Timișoara (today two coins from this important discovery are preserved).

**54. ROME 20. COIN FINDS AND USE – BARBARICUM 2, CHAIRED BY ALEKSANDER BURSCHE (UNIVERSITY OF WARSAW)**

A) ROMAN DENARIUS HOARDS IN DENMARK, A METHODOLOGICAL UPDATE, RASMUS HOLST NIELSEN (ROYAL COLL. OF COINS AND MEDALS, NATIONAL MUSEUM OF DENMARK)

In 2010 H. Horsnæs published the first of two volumes of *Crossing Boundaries*, in which she moved beyond lists of coin finds by approaching the material from an archaeological viewpoint as well as presenting a fully updated publication of the Roman coinage found in Denmark. In this project, I have attempted to update the material further by focusing primarily on the Roman denarius hoards found since 2008. By discussing the methodologies of metal detecting within the Danish law and its inherent challenges, I have sought to shed light on the quality of data within the modern Danish borders. I have shown that, whilst the conclusions regarding the presence of Roman denarii in Denmark have not changed since 2008, by applying new theories to the material we can further improve the way in which we approach the material as scholars. In addition, I have updated the comprehensive picture of Roman denarii found in Denmark.

B) ROMAN IMPERIAL GOLD MEDALLIONS, THE NEW FINDS FROM VINDELEV, DENMARK, HELLE W. HORSNÆS (NATIONALMUSEET, THE ROYAL COLL. OF COINS AND MEDALS)

The imperial gold medallions of the Late Roman Empire are manifestations of power and prestige, and no doubt were used as visible emblems of status in a gift exchange from the emperor both to his entourage and to foreign peers. The recently found gold hoard from Vindelev, Denmark, and particularly the four large Roman gold medallions from 4th century AD that were part of this deposit, add to our knowledge of high status networking in the transitional period from the Late Antique to Early Medieval Europe.

C) NORTH SEA GOLD ECONOMY IN THE AGE OF “GIFT EXCHANGE”, C.450–C.760, KEVIN HOFFMAN (YALE UNIVERSITY)

This paper examines the corpus of gold coins and coin-like objects from the North Sea area in a broadly construed Merovingian period, c.450–c.760. While Grierson’s position on a non-economic use of gold in the early middle ages has generally carried the day, there have been others, such as Michael Metcalf and Mark Blackburn, who have voiced varying degrees of dissent. Based on the quantity and distribution of these gold finds from archaeological sites and other finds—both single and hoarded—it seems there has been a degree of scholarly undervaluing of the economic role of these objects. The quantities and distributions of the objects present variation by region which indicates a greater economic sophistication than is normally allowed in areas that might have been more economically integrated, such as East Anglia and the southern North Sea littoral, while other areas are peripheral—Brittany and Wessex, for example.

D) FROM LOCAL FINDS TO GLOBAL PICTURE – THE MIGRATION PERIOD GOLD HOARDS IN THE WESTERN POMERANIA, ANNA ZAPOLSKA (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)

There is a general consensus on the influx of solidi in the second half of the 5th c. – which were brought to Scandinavia via Pomerania (the Lower Vistula basin). Another claim is that at the beginning of the 6th c. this influx continued via, for example, Western Pomerania. However, this theory is contradicted when we take a closer look at the nature of these finds. In my paper, I will focus on the latest gold hoards and demonstrate that their appearance is connected to a broader gold circulation in the Baltic zone which took place in the Late Migration Period. These hoards confirm the presence of Scandinavian settlers in Western Pomerania, and are generally related to the archaeological Dębczyno Group. Gold hoards are another element, next to settlements and cemeteries, which define that culture unit. I will try to prove the origin of these hoards and at least of some of the newcomers to the region.

**55. ROME 21. MANUFACTURE AND USE OF COUNTERFEIT ROMAN IMPERIAL DENARII IN BARBARICUM, ORGANIZED BY ARKADIUSZ DYMOWSKI (UNIVERSITY OF WARSAW) AND KYRYLO MYZGIN (UNIVERSITY OF WARSAW), CHAIRED BY JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)**

Until recently there was a widespread conviction that Roman denarii from 1st-2nd centuries AD discovered to the north of the Danubian limes and to the east of the Rhine limes, almost invariably genuine coins of official issue, should be treated only as an evidence of the influx of Roman coinage to Barbaricum and their redistribution within this region. However, nowadays we could make a hypothesis that the products of unauthorised workshops spread in the barbarian territories to the same extent, or even more so, than within the Empire. The pool of counterfeit Imperial denarii is represented by e.g., plated coins (denarii subaerati) and coins cast of silver-like base metal alloys (denarii flati). One of the most surprising outcomes of recent studies is that at least some of these coins, both denarii subaerati and denarii flati, were manufactured locally in the Barbaricum. This is sufficiently supported by materials from Ukraine where the remnants of workshops producing counterfeit denarii have been recently discovered.

The conclusion that the Barbarians not only used, but also produced counterfeit denarii is of great importance for the research on the use of Roman coinage in the territory outside the limes. We may suppose that Roman Imperial denarii were used in the barbarian society as a currency, but not to the same extent as within the Empire. They could serve as a standard value, also as a means of payment and/or means of exchange apparently resembling the currency circulation. In this context the most probable hypothesis about the counterfeit denarii in Barbaricum could be very simple: they were made for material gain and to deceive the users, like other counterfeit coins produced for centuries in various parts of the world.

**A) DENARII FLATI, KYRYLO MYZGIN (UNIVERSITY OF WARSAW)**

Recent years have seen an increase of information about new finds of unofficial copies of Roman imperial denarii made by casting and a progress in research. While earlier workshops for the production of such coins were known in the Roman provinces, currently there is more evidence for the existence of such workshops in the Barbaricum. At the moment, the greatest concentration of the production of cast denarius coins (at least six workshops) is noted on the territory of modern Ukraine, which in the Late Roman archaeological period was inhabited by the communities of the archaeological Chernyakhiv culture. Most of these coins are made of copper, tin and/or lead-based metal alloys, but some of them are made of high-quality silver as well. In my paper, I propose to use the Latin word “flati” for cast copies of Roman coins, which actually means “manufactured by casting”.

**B) COUNTERFEIT ROMAN IMPERIAL DENARII DISCOVERED IN WESTERN MOLDAVIA (ROMANIA), LUCIAN MUNTEANU (ROMANIAN ACADEMY, INSTITUTE OF ARCHAEOLOGY FROM IAȘI), GABRIEL-MIRCEA TALMAȚCHI (THE NATIONAL HISTORY AND ARCHAEOLOGY MUSEUM OF CONSTANȚA)**

Made either by striking or casting, counterfeit Roman Imperial denarii have been attested on the territory of western Moldavia (Romania). Denarii subaerati,

produced by striking, are the most numerous, with approximately the same number noted in hoards (more than 30 pcs.), and among single finds (more than 20 pcs.). Finds of cast denarii are limited at present to specimens found in a single hoard (Iezer), and an individual find. The material of all the cast coins determined by XRF analysis is Cu-Sn-PB alloy. It is difficult to establish if counterfeit denarii found in Western Moldavia were manufactured within the Barbaricum, or were imported from the Roman provinces (Dacia or Moesia Inferior). Other issues related to this specific category of coinage under discussion include their chronological frames and the identity (Dacian or Goth)? of local user communities.

C) IRREGULAR ROMAN COINS FROM ROMAN AND MIGRATION PERIOD SETTLEMENTS IN WESTERN LESSER POLAND, JAN BULAS (ARCH FOUNDATION), JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY), BARBARA ZAJĄC (INDEPENDENT RESEARCHER), SZYMON JELLONEK (UNIVERSITY OF WARSAW)

In recent decades interest in finds of irregularly issued Roman coins in the Central and Eastern European Barbaricum has increased significantly. In the area of the Przeworsk culture, the starting point was excavation of a Roman and Migration period settlement in Jakuszowice where a significant number of subaerati were identified. Over the last few years the intensification of the process of coin find registration and the increased number of archaeological excavations of Roman and Migration period settlements in western Lesser Poland have resulted in a significant increase in the material available for research. This new research demonstrated the presence of irregular Roman denarii other than subaerati (e.g. tin-lead bronze imitations). In this paper we present the results of the analysis of coin finds from twenty Roman and Migration period settlements in western Lesser Poland, with particular reference to irregular issues.

D) MANUFACTURE AND USE OF ROMAN IMPERIAL DENARII SUBAERATI IN BARBARICUM, ARKADIUSZ DYMOWSKI (UNIVERSITY OF WARSAW)

A major increase in the volume of finds of Roman Imperial denarii subaerati (plated denarii) in Barbaricum noted in recent years has contributed to expanding our understanding of the occurrence of these coins on this territory. It is more than likely that some of these subaerati were manufactured in eastern areas of the Barbaricum at least since the end of the 3rd century. Of course this does not mean that all subaerati found in Barbaricum were made in Barbaricum, but this is still a very surprising conclusion since until recently all the subaerati recovered in Barbaricum were interpreted as imports from the territory of the Empire. Thanks to new finds the research on subaerati turns out to be crucial for understanding of the role of Roman Imperial denarii among the Barbarians until the mid-first millennium CE.

**56. LATE ANTIQUITY AND EARLY MIDDLE AGES 1. ITALY, CHAIRED BY ANDREA SACCOCCI (UNIVERSITÀ DEGLI STUDI DI UDINE)**

A) COIN CIRCULATION IN LATE ROMAN VELIA (CAMPANIA-ITALY): PRELIMINARY DATA, FLAVIA MARANI (UNIVERSITÀ DEGLI STUDI DI SALERNO)

The city of Elea-Velia, a Phocaeen foundation on the Tyrrhenian coast of South Italy, have been explored from the 1960s. More than 10,000 coins have been recovered during archaeological investigations. The study of the coins, still in progress,

is conducted by the Chair of Greek and Roman Numismatics of the University of Salerno (DiSPaC).

A substantial percentage of finds are late Roman coins, datable to the 4th and 5th century. The aim of this contribution is to present an overview of the evolution of monetary circulation in the city and surrounding territories in the period from the 4th to the 6th century, paying particular attention to the widespread presence of the lowest denomination coins. The coin finds from contexts in Velia are reconsidered through a comparison with pottery finds and numismatic evidence currently available from the excavations in Naples.

B) LATE ANTIQUE COIN CIRCULATION IN ROMAGNA: THE EVIDENCE FROM AD NOVAS (CESENATICO, ITALY), ELENA BALDI (WASHINGTON UNIVERSITY), DENIS SAMI (OXFORD ARCHAEOLOGY EAST)

Between 2008 and 2014, the University of Leicester (UK) in collaboration with the Museo della Marineria (Cesenatico, IT), investigated the Roman site of Ad Novas near modern Cesenatico. During the 2006 evaluation and 2008-14 campaigns, a total of 525 coins were recovered; 85% of the assemblage dates from 1st century BC to 5th century AD.

Despite the geographical proximity to the Ostrogoth and Exarchate courts in Ravenna, coins from the late-5th to the 7th centuries were not documented at Ad Novas, although issues of Byzantine Emperors were recovered recently in fields not far from the site.

When written sources and finds seem to suggest a continuation of the settlement into the 6th and early 7th centuries, the lack of numismatic data suggests important changes in the monetary exchange, economy and social structure of the site occurred in the second half of the 5th century.

C) THE USE OF COINS IN TOMBS IN VENETO DURING LATE ANTIQUITY AND THE MIDDLE AGES, NOÉ CONEJO (UNIVERSITÀ DEGLI STUDI DI PADOVA)

It is traditionally accepted that the use of coins in classical funerary contexts was linked to the famous myth of Charon, the ferryman who carried souls to the afterlife in exchange for one or more coins. However, it seems that this practice continued throughout Late Antiquity and the Middle Ages, despite the fact that these individuals were in a Christianised society where pagan practices were substantially restricted. Within the framework of the MORTI project (Money, Rituality and Tombs in Northern Italy during Late Antiquity) (H2020-MSCA-IF-2020-101025031-MORTI), coins from several Late Antique and Medieval necropolises located in the Veneto region have been analysed in order to identify elements which could explain this funerary practice during this period.

D) THE SM MARK ON BRONZE ISSUES OF THE PERIOD OF HONORIUS, STEFANO BRUNI (INDEPENDENT RESEARCHER)

Since the late 380s all the bronze coins struck by Western mints were of the smallest AE4 denomination. Starting from 404, the mint of Rome resumed the issuing of AE3 coins, characterised by the presence of the S M mark (Sacra Moneta) associated with the mint mark. The S M mark always appears in subsequent issues of the mint of Rome until 417-418, after which it is no longer found in Western coins.

This paper aims to connect this mark to the presence of the emperor or members of his comitatus in the place of issue. The S M mark would have been used to highlight not only the context of issue but also its function: the coins would have been minted according to the needs or purposes of the comitatus, perhaps to supply the arca vinaria or, in connection with adventus ceremonies, for distribution to the people as congiaria.

## 57. LATE ANTIQUITY AND EARLY MIDDLE AGES 2. SPAIN, CHAIRED BY DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)

A) LATE ROMAN CLIPPED AND TRIMMED NUMMI IN VIGUERA (NORTHERN SPAIN), JOSÉ MARÍA TEJADO SEBASTIÁN (UNIV. OF LA RIOJA, SPAIN), FERNANDO LÓPEZ-SÁNCHEZ (COMPLUTENSE UNIVERSITY OF MADRID)

In the oppidum of Viguera (La Rioja, Northern Spain) a large number of clipped and trimmed bronze coins have been found. Most of the specimens discovered were original AE3 coins, struck throughout the 4th century but converted into AE4 at an uncertain date. A careful examination of these coins shows there are calculated ranges every 0.20 g. This phenomenon suggests that whoever was installed at the oppidum wanted a suitable array of small bronze fractions for a short period of time. In all probability the coins were altered during the first two decades of the 5th century. We discuss in our presentation how clipped siliquae and clipped and trimmed bronze coins should be studied in the West as a parallel phenomenon.

B) LATE ANTIQUE CURRENCY IN EASTERN IBERIAN PENINSULA: THE CASE OF VALÈNCIA LA VELLA, ÒSCAR CALDÉS (INSTITUT CATALÀ D'ARQUEOLOGIA CLÀSSICA, TARRAGONA, SPAIN)

This paper aims to present the currency of the Late Antique settlement of València la Vella (Riba-Roja de Túria, València), excavated since 2016 by the Institut Català d'Arqueologia Clàssica, with a chronological sequence of late 6th century AD to late 7th century AD, the dating confirmed, among other items, by more than 250 coins recovered from layers dated to the 6th and 7th century. Furthermore, the historical circumstances which led to the settlement's establishment somewhere between 560 and 580, and the variety of coins found there will be analyzed. In addition, new archaeological methodologies applicable to archaeological contexts with coins will be presented. Finally, a global view of the study area of a PhD research project which includes the dioceses of Dertosa and Valentia, will be given, to put these coins within a geographical context.

C) LATE ROMAN AND LATE ANTIQUE COINS FROM THE EXCAVATIONS AT TORTOSA'S CATHEDRAL SQUARE, XAVIER SICART CHAVARRIA (GRUP DE RECERCA SEMINARI DE PROTOHISTÒRIA I ARQUEOLOGIA DE LA UNIVERSITAT ROVIRA I VIRGILI (GRESEPIA), TARRAGONA, SPAIN), ÒSCAR CALDÉS (INSTITUT CATALÀ D'ARQUEOLOGIA CLÀSSICA, TARRAGONA, SPAIN), RAMON FERRÉ ANGUIX (GRUP DE RECERCA SEMINARI DE PROTOHISTÒRIA I ARQUEOLOGIA DE LA UNIVERSITAT ROVIRA I VIRGILI (GRESEPIA) / INSTITUT CATALÀ D'ARQUEOLOGIA CLÀSSICA (ICAC), TARRAGONA, SPAIN)

This paper aims to investigate the monetary circulation during the Late Roman Empire and Late Antiquity in the city of Dertosa. To do that, we reviewed a large

number of coin finds from the archaeological site close to the cathedral. The excavation uncovered significant remains in a high-status sector next to the walls, with evidence of great activity between the 4th and the 8th centuries. This analysis has allowed us to study an important number of imitations of official Roman currency and some little hoards, one of them made up of halved coins. Other important finds include two Visigothic tremisses, Vandal, Late Roman and Byzantine bronzes from Northern Africa and Eastern Mediterranean, furnishing remarkable information about the monetary circulation in this area of Ebro River mouth.

D) NUMISMATIC ARCHAEOLOGICAL CONTEXTUALISATION IN THE CENTRE OF THE PENINSULA DURING THE EARLY MEDIEVAL PERIOD (5TH-10TH CENTURIES AD): RECCOPOLIS, TOLEDO AND GUADALAJARA, MANUEL CASTRO PRIEGO (ALCALÁ UNIVERSITY)

The paper presents a series of numismatic assemblages recovered from early medieval urban contexts. All of them point to the continuity of the urban model at the centre of the Iberian Peninsula during the 8th century. At the same time, the copper coins recovered from the area around Guadalajara highlight the emergence of new semi-urban spaces as a result of the period of the formation of the Umayyad State in al-Andalus. There is, therefore, a duality between centres that become secondary and these new spaces as a result of a new design of the territorial powers. In all of this, the coinage is part of a debate in which various archaeological records are actively participating.

**58. LATE ANTIQUITY AND EARLY MIDDLE AGES 3. FLAME, DIGITAL NUMISMATICS, AND THE LATE ANTIQUE-MEDIEVAL TRANSITION, ORGANIZED AND CHAIRED BY MARK PYZYK (PRINCETON UNIVERSITY)**

This panel showcases new research emerging out of Princeton University's Framing the Late Antique and early Medieval Economy (FLAME) Project, an online database/web-interface focused on coin finds of the Late Antique and Early Medieval period (325–750 CE). Launched in May 2021, FLAME's new Circulation Module makes available information on more than 700,000 coins (spread among 6,625 coin hoards and excavations) from 734 mints, ranging from Portugal to India. FLAME brings together more than 35 international scholars, each contributing region- and period-specific numismatic expertise.

The Late Antique to Early Medieval transition remains a major historical topic, critical to the emergence of the European economy of the Renaissance and Early Modern periods. It is a period of change indeed – but of what kind, where and when? Recent syntheses have focused on regional variation and non-teleological accounts of economic change. However, numismatic evidence has not constituted a major body of evidence for this period, owing to the daunting nature of employing coinage as large-scale historical data. FLAME provides a standardized, significant, and growing body of evidence for the economic history of this period.

The papers in this panel use FLAME to illuminate historical problems, some macro-regional, some micro-regional, using FLAME to tie together and query previously scattered and heterogeneous evidence. In so doing, they better integrate traditional scholarly questions with innovative digital tools. The result is expected to



help move economic scholarship on this period forward, showcasing methods and insights that we hope other scholars take up.

A) VISIGOTHIC MONETARY CIRCULATION: HOW MANY COINS ARE WE TALKING ABOUT?, RUTH PLIEGO (UNIVERSITY OF SEVILLE)

The study of Visigothic monetary circulation is one of the key issues in the field of Visigothic numismatics. The most complete work on the subject is almost half a century old and many things have changed since then; new hoards and isolated finds have entered the corpus of Visigothic coinage. Recently, partial studies on the Visigothic kingdom have used numismatic evidence to support theories concerning taxation, trade between different areas of the Iberian Peninsula, and gaps in activity and circulation in certain areas. But how many coins are we really talking about? In this paper, we present the progress made on this issue in the context of the FLAME (Framing the Late Antique and early medieval economy) project.

B) DISTRIBUTION OF COINS IN LATE ANTIQUITY AND EARLY MIDDLE AGES IN SOUTHERN ITALY (325-725 AD): A COMPARISON BETWEEN BORDER AND INLAND AREAS, DOMENICO LUCIANO MORETTI (STUDIORUM UNIVERSITÀ DI BOLOGNA), GIUSEPPE SARCINELLI (UNIVERSITÀ DEL SALENTO)

This paper will focus on the monetary distribution in southern Italy in the Late Antiquity and Early Middle Ages. Thanks to the information about discoveries of coins collected in FLAME, it was possible to amass a large series of data deriving from excavations and single findings. In addition to the quantitative analysis of individual emissions and their areas of origin, a distributional analysis was added to identify interpretative frameworks of the presence of economic activity in the border areas and places of contact with other regions, to be compared with similar data from inland areas. We will also try to understand whether the decrease or increase in the volume of coins issued by a specific mint and their circulation in a given area is related to commercial upheavals in the Mediterranean after the fall of the Roman Empire.

C) LOCAL ECONOMIES AT THE END OF THE LATE ANTIQUITY. A CASE STUDY, AIKATERINA PEPPA (PARIS 1 PANTHÉON -SORBONNE)

This study seeks to understand how the economic paradigm shift observed at the end of the Late Antiquity reshaped local economies. During the second half of the sixth century the region of the southern Balkans underwent many economic changes followed by a prolonged recession. This recession played a major role in the transformation of the urban centers, a process which differed by region. The main aim of this study is to identify the local variation of large-scale changes and to examine their long-term consequences at a micro-level, taking into consideration several variables, such as artisanal activity, specialization and coin circulation. The numismatic datasets of the FLAME project will provide the main framework for the analysis of the evolution of the local economies.

D) CHANGES IN COIN CIRCULATION IN THE NORTHERN BALKANS (6TH-8TH C.): INTERSECTIONS OF ECONOMIC AND SCIENTIFIC EVIDENCE FOR THE “BARBARIAN INVASIONS”, ILIA CURTO-PELLE (PRINCETON UNIVERSITY)

The invasions of the Slavs, Avars, Antes, and Bulgars of the Balkan provinces of the Byzantine Empire during the 6th and 7th centuries have been used to explain the changes in coin circulation observed in the Northern Balkans in this period. The FLAME Project database represents a unique accumulation of mapped data that can be used to challenge some of the monocausal explanations offered in past scholarship. My project investigates how FLAME's numismatic data can be used in conjunction with other types of evidence, such as archeological and pollen data, to better qualify the societal and economic changes in the Balkans during this period. The conclusion reached is that economic patterns of supply and demand and societal changes better explain earlier narratives of invasion, depopulation and loss of political control.

**59. LATE ANTIQUITY AND EARLY MIDDLE AGES 4. ROME & BARBARIAN KINGDOMS, CHAIRED BY RUTH PLIEGO (UNIVERSITY OF SEVILLE)**

A) THE ASSERTION OF POWER ON THE COINS OF GUNTHAMUND (484-496) AND THRASAMUND (496-523), AURÉLIEN ROS (EPHE)

After dating the coinage of Huneric (477-484), Gunthamund (484-496) and Thrasamund (496-523) this paper aims to question whether the imitations of the obverses which depict Honorius and Gunthamund respectively were indeed issued by Gunthamund and Thrasamund. The representation of Honorius on the “Anno K” issue (stuck under Huneric) is the same as that of Gunthamund on some of his denarii before his portrait became individualised. The bust of Thrasamund on his early denarii also looks like very much like the bust of Gunthamund (before a similar individualisation of the portrait of this ruler). However, these two imitations are not to be found on the coins of later kings. These results allow us to investigate the transmission of power in the Vandal kingdom and furnish new insights into the political and institutional crisis of 484. After this crisis, the new king Gunthamund decided to consolidate his power by adopting a new titulature: Dominus noster rex.

B) CURRENCY USES AND CIRCULATION IN SOUTHERN GAUL IN THE 5TH AND 6TH CENTURIES: THE CASE OF BRONZE COINS, MARIE-LAURE LE BRAZIDEC (UMR 5608 – TRACES, TOULOUSE)

The circulation of money in the 5th and 6th centuries remained poorly understood for several decades, mainly as regards bronze coins. Several discoveries of recent decades, as well as the data brought in by the most recent excavations, have now made possible some significant advances for the region of southern Gaul. They have also enabled the resumption of the study of several groups of ancient discoveries, in the light of the new finds.

We wish to present here the first synthesis of these new data and elements of reflection on the characterization of these late bronze coins.

C) MODELING THE LIFETIME IN CIRCULATION OF VISIGOTHIC GOLD COINS, DAVID YOON (AMERICAN NUMISMATIC SOCIETY)

Circulation of coinage involves not only travel through space but also movement in time: coins enter circulation, then circulate for some longer or shorter

amount of time, with greater or lesser intervals of immobility, and finally leave circulation. The amount of time that coins are in circulation is an essential factor determining the monetary supply of the economy. For the Visigothic kingdom of the early medieval Iberian Peninsula, the evidence of coinage is particularly important for studying the economy, since there are very few other types of information. This paper discusses the assumptions involved in modeling circulating lifetime and evaluates the possibilities relative to the limited hoard evidence available for the Visigothic kingdom. On this basis, some hypotheses about the temporal dimension of Visigothic circulation are proposed.

**60. EARLY BYZANTINE, CHAIRED BY MARCIN WOŁOSZYN (LEIBNIZ INSTITUTE FOR THE HISTORY AND CULTURE OF EASTERN EUROPE (GWZO), LEIPZIG // INSTITUTE OF ARCHAEOLOGY, UNIVERSITY OF RZESZÓW)**

**A) THE MINT PROVENANCE OF MIB 229 DECANUMMIA OF JUSTINIAN IN THE LIGHT OF ARCHAEOLOGICAL FINDS AND XRF ANALYSES, EMIL MALEWICZ (IAIE PAN)**

Decanummia of type MIB 229 in Hahn's typology were produced over a relatively long period. The earliest of these coins bear a mark of the 26th year of Justinian's reign, the latest date from the 38th year of his reign. Their mint has long been a matter of numismatic debate. Numismatists have attributed these coins to Italian mints: Ravenna (DOC) or Rome (BMC, MIB) and they undoubtedly share some elements of the style characteristic of the better studied west Byzantine coins. However, the small number of archaeological finds and the very modest documentation in local museum collections makes it difficult to determine the exact place of their production.

In my paper, I will present the finds of MIB 229 decanummia from archaeological excavations in Sicily. Studies on these finds supported by the XRF analyses provide the basis for a hypothesis on the Sicilian origin of these coins.

**B) NEW EVIDENCE AND NEW IDEAS: THE SILVER COINAGE OF CONSTANS II. REVISITED, NIKOLAUS AUE (UNIVERSITY OF VIENNA)**

During the Early Byzantine period (498—720) silver was by far the least used metal for minting coins. As a result, most studies and reference works have focused on gold and copper coinage. In the year 615, however, the hexagram was introduced, reviving silver as a day-to-day currency in the East. To this day this denomination is little understood. Moreover, thanks to the coin trade and hoards, even more previously unknown silver coins have been discovered. While examining these developments, even the highly regarded *Moneta Imperii Byzantini* Vol. III. (1981) has proven to be partially outdated. A detailed study regarding the imperial silver coinage from 610—720 is therefore warranted. For the sake of brevity, this presentation will focus on the reign of Emperor Constans II (641—668) whose silver coinage has proven to be significantly more extensive than previously thought.

C) A SMALL BYZANTINE HOARD FROM THE DESERT OF ASWAN, ELENA BALDI (WASHINGTON UNIVERSITY), ANTONIO CURCI (UNIVERSITA' DI BOLOGNA), MARIA CARMELA GATTO (POLISH ACADEMY OF SCIENCES)

In January 2020, during the fieldwork carried out by the “Aswan-Kom Ombo Archaeological Project” in the desert hinterland of Aswan, southern Egypt, a small Byzantine hoard was brought to light.

The hoard consists of 8 folles and 15 dodecanummi, struck at the mints of Constantinople, Antiochia and Alexandria, with a starting and closing date of AD 512 – AD 641.

The coins were found scattered near an amphora of the same period, among the rocks of one of the hillocks of the desert plateau overlooking the inner part of Wadi Kubbaniya, the major desiccated river intersecting the Nile Valley from the west, north of Aswan.

Why was the small hoard hidden in such a remote area? Could this be a votive or religious deposit? How does this hoard add to our knowledge of monetary circulation during the Byzantine period in this area and its connections to the Mediterranean?

**61. EARLY MIDDLE AGES 1. MEROVINGIANS & CAROLINGIANS, CHAIRED BY ARENT POL (UNIVERSITEIT LEIDEN)**

A) MEROVINGIAN UNIFACE OBOLS, PHILIPPE SCHIESSER (SENA)

Some of the Merovingian obols, fractions of the Merovingian denier in 670-750 have the distinction of being uniface. Unlike in the Germanic environment, in the French tradition this type of coinage is exceptional. The aim of this paper is to complement the corpus with new coins which have appeared on the market, have been reported in private collections or in public collections. The corpus now includes around 100 coins. This study makes it possible to examine their metrology through a statistical study. The corpus also makes it possible to discuss techniques of production because the study of the dies shows that the same dies were used both for deniers and obols. In addition, the circulation area of these Merovingian obols can be suggested because the minting workshops are grouped in a region between the south of Neustria and the north of Aquitaine.

B) FRANKISH IMAGE POLITICS ON COINS AND SEALS IN CULTURAL COMPARISON, DANIEL SEELBACH (GOETHE-UNIVERSITÄT FRANKFURT)

In this paper we report on the "The Ruler in the Mass Media. Frankish image politics on coins and seals in cultural comparison", a dissertation completed at the Goethe University Frankfurt. The extent to which Frankish emperors and kings conveyed political messages through coins and seals in the period from 500 to 1000 is examined. In addition, I discuss interactions and differences to the media of neighboring dominions and cultures, such as the Byzantine Empire and the Lombardic, Visigothic and Anglo-Saxon kingdoms. This lays the groundwork for discussing the political pictorial history of early post-Roman Europe. Furthermore, I describe the differences within the Frankish world created by the fragmentation of the empire in the aftermath of the death of Louis the Pious. The paper also focuses on the interplay of the related media of coins and seals, as well as on the adoption by the Franks of the outdated Western Roman imagery.

C) BISKUPIEC – THE FIRST HOARD OF CAROLINGIAN COINS FROM POLAND, MATEUSZ BOGUCKI (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY, POLISH ACADEMY OF SCIENCES / COMMISSION OF NUMISMATIC STUDIES POLISH ACADEMY OF SCIENCES)

Until 2020 only three Carolingian coins had been discovered in Poland, in the Truso emporium. The situation changed in 2020 and 2021 when members of the "Gryf" Association discovered some XPISTIANA RELIGIO coins in Biskupiec (Warmia, NE Poland). As a result of the excavations by the Museum in Ostróda, and the Institute of Archaeology and Ethnology, a total of 131 XPISTIANA RELIGIO coins of Louis the Pious, Lothar I and Charles the Bald were discovered. This is the first hoard of Carolingian coins discovered in Poland, and one of the few in general that consists only of XPISTIANA RELIGIO type. The hoard consists of 128 deniers of Louis the Pious, one of Lothar I and two of Charles the Bald – all three from the very beginning of their reign, therefore this hoard is initially dated to around 840 AD.

D) THE COINAGE OF THE KINGDOM OF ITALY FROM LOUIS II TO BERENGAR II (855–961): A REAPPRAISAL, LUCA GIANAZZA (INDEPENDENT RESEARCHER)

With the death of Lothair I (840), the denarii issued in the Kingdom of Italy stopped bearing the name of the mint of origin. They adopted the representation of a church in the form of a tetrastyle temple accompanied by the legend XPISTIANA RELIGIO, which would remain in sole use until 905/10th c., and were later after progressively abandoned during the 10th century.

This situation gives rise to many uncertainties in the classification of coins, complicated further by homonymous names of kings of Italy in that period.

Thanks to the availability of a new coins from excavations, and a large group of specimens recently rediscovered in public and private collections, it is now possible to develop a much more reliable chronology of the coins of the Kingdom of Italy than hitherto, identifying specific stylistic and figurative peculiarities which help to identify with a greater accuracy their mint of origin.

**62. EARLY MIDDLE AGES 2. EAST-CENTRAL EUROPE, CHAIRED BY MATEUSZ BOGUCKI (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY, POLISH ACADEMY OF SCIENCES / COMMISSION OF NUMISMATIC STUDIES POLISH ACADEMY OF SCIENCES)**

A) THE INFLOW OF ISLAMIC COINS ON THE LESSER POLAND TERRITORIES IN THE EARLY MIDDLE AGES, DOROTA MALARCZYK (THE NATIONAL MUSEUM IN KRAKOW)

The material covered by our analysis includes finds from Lesser Poland, the historical and geographic provinces which takes in the present-day voivodeships of Poland: Lesser Poland, Subcarpathian, a large part of Świętokrzyskie, Lublin, as well as southern part of Masovia and the eastern areas of Silesia. As compared to other regions of Poland (Pomerania, Greater Poland, Central Poland, Silesia), the number of coin hoards containing Islamic coins and their isolated finds from Lesser Poland is negligible. According to the "Frühmittelalterliche Münzfunde aus Klempolen" inventory (FMP. Inventar I, 2013) out of 121 finds, only 13 sites with dirhams have been recorded, including two hoards of Islamic coins from Lublin-Czechów (tpq 882/3) and Przemyśl (tpq ca. 10th c.), six hoards of a mixed composition (three of them date

to the 11th c.) and a few single finds. The paper seeks to recover the circulation of Islamic coins in the Middle Ages in Lesser Poland.

B) PATHS AND DIVERSIONS: EXAMINING ECONOMIC NETWORKS OUTSIDE OF KYIVAN REACH IN THE TENTH CENTURY, STEPAN STEPANENKO (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE UMR 8167)

The historiographic tradition of ninth and tenth century Eastern European economic flows used to see the Dnieper and the Volga routes as the chief sources of Islamic silver. This is supported by the wealth of coin finds deriving from the extensive academic focus on this particular area while alternate routes were not accorded their due attention. However, unpublished archived archaeological records, new research and numismatic finds have now revealed a lively economic connection between the Black Sea and the Baltic passing through western Ukraine and Poland.

This paper presents an overdue compilation of ninth and tenth-century coin hoards from Western Ukraine, jointly with previously unavailable archaeological data. Archaeological research in Ukraine has identified sites with imported high status goods and evidence of vigorous production. The material reveals an economic entity which visibly left behind its immediate eastern neighbours, offered a viable trade route outside of the apparent Rus and Scandinavian control, and was an opportune area for conquests.

C) THE EARLIEST RUSSIAN COINAGE? TWO GROUPS OF IMITATIVE DIRHAMS FROM THE LATE NINTH TO THE MID-TENTH CENTURY, VIACHESLAV KULESHOV (STOCKHOLM NUMISMATIC INSTITUTE)

The paper will discuss two very distinct groups of imitative dirhams found in Middle Viking-age coin hoards in Eastern Europe and Scandinavia. The first group is datable to c.890-900 AD. The second group is datable to c. 950-960 AD. Both groups differ significantly in the design and techniques from earlier and contemporary imitative coinages of Khazaria and Volga Bulgaria, and are seen to represent tentative episodes of minting silver under the Riurikid rulers of Rus.

D) TOWARDS A CATALOGUE OF EARLY MEDIEVAL DIRHAM IMITATIONS, MAREK JANKOWIAK (UNIVERSITY OF OXFORD)

This paper presents an update on the die catalogue of dirham imitations produced somewhere between the Islamic world and the Baltic area in the 9th and 10th centuries. I am currently preparing it for publication on the basis of the work of Gert Rispling from Stockholm. I will briefly present this coinage before reviewing the issues related to the organisation of such an extensive body of material, such as the precise scope of the catalogue, the most effective ways of presentation, or integration with a searchable online database. I will conclude with some historical implications of this coinage, looking in particular at its contribution to the understanding of the trade between northern Europe and the Islamic world in the 9th and 10th centuries.

**63. MIDDLE AGES 1. VIKING AGE AND MEDIEVAL MONETISATION – SCANDINAVIAN AND THEORETICAL PERSPECTIVES, ORGANIZED BY SVEIN GULLBEKK (MUSEUM OF CULTURAL HISTORY / UNIVERSITY OF OSLO) AND JON ANDERS RISVAAG (NTNU UNIVERSITY MUSEUM), CHAIRED BY SVEIN GULLBEKK**

Viking Age and Medieval Monetisation – Scandinavian and theoretical perspectives

In recent years there has been an increased scientific interest in research on monetisation processes and the related beginning of coinage economies in various European regions of the Middle Ages. These more recent research approaches are by no means limited to the subjects of numismatics and monetary history but draw important impulses from the economic, social and cultural-historical areas as well as archeology and financial history.

Monetisation developed as a term in Scandinavian numismatics in the late 1980s and early 1990s and has since then been a key concept in studies of medieval monetary issues there. In these discussions new terms and related concepts have been coined and adapted for medieval contexts nationally, regionally and locally such as ‘Monetarität’, ‘monetary economies’, ‘money economies’, ‘monetary regimes’ and so forth. Monetisation is per se a process describing the use and adaption of coins and monetary means of exchange. How the term is to be used in interpretation of medieval monetary realities has been debated for decades among Scandinavian scholars.

This session is closely related to the one proposed by Dr. Johannes Hartner (Vienna) and Professor Rory Naismith (Cambridge), who also list eight contributors on the subject of medieval monetization with emphasis on the Continent and The British Isles.

We – S.H. Gullbekk and J.A. Risvaag – would like to tie up with their excellent efforts and suggest two additional sessions with emphasis on Scandinavia and theoretical perspectives for wider discussions on "monetisation" from a Scandinavian and theoretical perspectives.

**A) MONEY AND MONETIZATION FROM AN URBAN AND MERCHANT PERSPECTIVE, CHRISTOPH KILGER (DEPARTMENT OF ARCHAEOLOGY AND ANCIENT HISTORY, UPPSALA)**

The idea of monetization has had a long and successful standing in Scandinavian scholarship. It has been a successful concept for studying the development of medieval economies and the introduction of coinage. At the same time, the significance of towns, merchants and other specialists in monetization has barely been touched upon and discussed. According to Aristotle money is a precondition for the existence of urban life in the Greek polis. Money is a necessary means of meeting the demands and needs of urban professionals. To be accepted as a common conventional means of payment Aristotle stresses the imaginary value of money, something which is implemented and commanded by “nomos” the force of law. Thus, towns and their populations act as economic drivers. In my presentation, I want to develop my thoughts on towns as nurseries, and merchants as pioneers =>avant-garde of monetary practice. Furthermore why is money commensurable and how is it related to “nomos”.

B)  $\ominus$ IMITATING MONETISATION: COINS AND MONETARY PRACTICE IN EVOLVING WEIGHT ECONOMIES, NANOUSCHKA MYRBERG BURSTRÖM (STOCKHOLM UNIVERSITY)

In Viking-Age Scandinavia, traditional economic practices, using foreign coins and silver primarily as bullion, started evolving into monetary markets around the year 1000. The process was slow and uneven, but it is clear that it unfolded in a mutual understanding between the neighbouring countries. Initially, the first Scandinavian coinages were all imitative, gradually developing into local variations. This process is not unique in the European coin history, rather, a recurrent phenomenon. Imitation seems to play an important role for the very imagination of what a domestic coinage and monetary practice could look like and work. Imitation therefore serves as a link between old and new practices and means of exchange, and as a motor for change. Iconography, silver content and weight were all involved in the transformation of the traditional bullion economy into one that could initially only have been imagined by the travelled few.

C)  $\ominus$ RURAL MONETISATION IN MEDIEVAL DENMARK IN THE LIGHT OF DETECTOR FINDS, JENS CH. MOESGAARD (STOCKHOLM NUMISMATIC INSTITUTE, STOCKHOLM UNIVERSITY)

The popular image of the medieval peasant is that he or she did not use coins. Nevertheless, written sources show that rents and taxes were paid by the common people in cash, alongside payments made in kind. Finds from rural church floors show that they had coins in the church. But what about everyday life? Until a generation ago, not much evidence was available, but now metal detector finds are increasing rapidly in Denmark where a solid collaboration with official archaeologists has been established since the late 1970s. Based on my recent case-study of western Zealand, the detector finds now show that coin finds have been recorded in every rural parish. They were absent only where no detection had taken place. Most finds post-date the mid-13th c. Many came to light in fields outside villages, suggesting widespread daily peasant coin use. In conclusion, the detector finds show a profound monetisation of the countryside.

D)  $\ominus$ MONETARISATION WITHOUT COINS – VIKING ECONOMIES IN THE BALTIC SEA REGION, GITTE INGVARSDON (HISTORICAL MUSEUM AT LUND UNIVERSITY)

Coins are money but money is not limited to coins. If we disregard this fact, research in monetisation seems inextricably linked to investigating the degree of coin use in societies. This paper suggests the introduction of a non-minted currency in the Baltic Sea region at the turn of the first millennium. Based on evidence of the Bornholm (Denmark) Viking hoards it explores whether this currency – standardised melts of purified silver – triggered a monetisation process on the island of Bornholm in the first decades of the 11th century. Furthermore, the nature and use of melts is put into perspective by comparing it to another contemporary currency, the Anglo-Scandinavian imitations minted in Lund and Sigtuna in present-day Sweden.



E) MONETISATION AS A PROCESS: DENMARK DURING THE PERIOD 1074-1241, THOMAS POULSEN (MUSEUM ØSTJYLLAND)

The term monetization has been the subject of repeated discussions in recent decades in the fields of Scandinavian numismatics, archeology and history. Its very broad definition has often been a cause of concern. In my recently completed Ph.D. dissertation, *Coin and power, the monetization of Denmark 1074-1241*, I have carried out my analyses based on the notion of monetization as a process rather than an end goal. Instead of focusing on when a monetary economy is established, the dissertation analysis focuses on the degree of monetization. Thus by focusing on the process, the need to define fixed boundaries that the monetization process must cross before we can discuss a monetized society is avoided.

In my presentation I will describe the most significant changes in Denmark's monetization process during the period 1074-1241, as well as the significance these changes had for society, and the further development of the monetization process.

F) SMALL ANONYMOUS BRACTEATES: MONETISATION IN THE DYNAMIC 12TH CENTURY?, LINN EIKJE RAMBERG (MUSEUM OF ARCHAEOLOGY, UNIVERSITY OF STAVANGER)

The first Norwegian coins were issued since the middle of the 11th century. Around 1100 the coins were gradually reduced in size, until they became the smallest bracteates in Medieval Europe. These bracteates were anonymous, making attribution to an issuer difficult. The output of coinage shows that the bracteates, if in circulation, could have been accessible to a large part of the population, for use in a wide range of situations. However, an analysis of the milieu and context of discovery indicates that these coins mostly were used for religious and social purposes, while purely economic use is difficult to confirm. The 12th century in Norway was a period of frequent changes in power, but also a time of an urban development, large-scale building activity and emergence of new social structures. In this paper I will discuss the different functions of coins and their significance in the Norwegian society during the 12th century.

G) COINS AND THE COLONISATION OF THE EASTERN LANDS: MONETISATION ON THE PERIPHERY OF EUROPE, FRIDA EHRNSTEN (NATIONAL MUSEUM OF FINLAND)

The 12th century sees the beginning of the Swedish colonisation towards the east which ultimately caused the area of present-day Finland an integral part of the Swedish kingdom and Christian world. The process of monetisation was essential for the economic colonisation of the territory referred to in Swedish as Österlanden (Easternlands). Today coins are the most tangible evidence for the introduction of the new regime, the new religion, and the new social order.

Coins were used in restricted environments and for certain purposes. The limited access to money made coins powerful objects. When coins started circulating on a wider scale the units of account did not always follow the official monetary standards. The coin circulation was part of a heterogeneous economic system, affecting different members of the society on various levels.

In this paper I will discuss whether the process of monetisation developed differently on the medieval periphery of Europe compared to core areas of monetization, e.g. Sweden and Germany.

H) WHEN WAS MONETISATION ACHIEVED? NORWEGIAN PERSPECTIVES, JON ANDERS RISVAAG (NTNU UNIVERSITY MUSEUM)

During the last decades the term 'monetisation' has increasingly been used in Scandinavian studies on coinage, money and its use, and economy in the Middle Ages. And yet, the term remains somewhat obscure, its definition largely idiosyncratic. In this paper I explore the question of 'when was monetisation achieved?'. The answer to the question may differ considerably depending on the approach.

Analyses of the size of coin production and availability of cash in different parts of society tend to address issues such as where the coins were in use, for what purposes, and how we understand monetisation as concepts, both medieval and modern. A central feature was the widespread use of commodities as means of payment and standard values. The level of coin use in comparison to other means of payment provides an important dimension of monetisation seldom considered in studies which use numismatics as a starting point.

**64. MIDDLE AGES 2. MONETISATION IN MEDIEVAL EUROPE. FORMS, PROCESSES AND TENDENCIES FROM THE 8TH TO THE 13TH CENTURY, ORGANIZED BY JOHANNES HARTNER (COIN COLLECTION, MUSEUM OF FINE ARTS, VIENNA) AND RORY NAISMITH (UNIVERSITY OF CAMBRIDGE), CHAIRED BY SVEIN GULBEKK (MUSEUM OF CULTURAL HISTORY, UNIVERSITY OF OSLO) AND RORY NAISMITH**

In recent years there has been an increased scientific interest in research on monetisation processes and the related beginning of coinage economies in various European regions during the Middle Ages. These more recent research approaches are by no means limited to the subjects of numismatics and monetary history but draw important impulses from the economic, social and cultural-historical areas as well as from archaeology and financial history.

Meanwhile the term "Monetisation" appears to be almost too abstract to describe the actual monetary processes, structures and dimensions that underlie these complex developments – only ostensibly monetary, but also social and economic. There is a lack of theoretical concepts and general definitions that can only be achieved through interdisciplinary and comparative approaches and discourses.

For this reason, we would like to submit two sessions with four speakers each, to promote the postulated "monetisation" in large parts of Europe (Scandinavia, Poland, France, Austria / southern Germany) from the 8th to the 13th century, to grasp the content and to define various forms of expression of these processes. Individual detailed studies will be presented and controversially discussed within this platform. The resulting comparison is expected to lead to theoretical and generally valid conclusions about medieval monetisation processes (factors, conditions and definitions).

This session is closely related to the one submitted by Professor S.H. Gullbekk (Oslo) and Professor J.A. Risvaag (Trondheim), which also lists eight papers on the topic of medieval monetisation, with a focus on the Scandinavian region. These two sessions have been coordinated with each other.

A) WHO USED SILVER MONEY IN WHICH MARKETS? SOME REFLECTIONS ON HYBRID ECONOMIC FORMS IN 12TH- AND EARLY 13TH-CENTURY PIAST POLAND, DARIUSZ ADAMCZYK (GERMAN HISTORICAL INSTITUTE IN WARSAW)

The key to understanding the level of monetary use is to reconstruct the quality of the division of labour and the accumulation of competence. The question of the degree of monetisation of local markets appears to be of central importance. What significance did the markets play? Who generated the demand for goods and services that went beyond the usual compulsory fiscal levies and labour duties? Where and when were coins used? Finally, can the spread of the market and an economic logic of action be understood as a linear process? In order to answer these questions, a set of indicators needs to be developed, combining the written sources with the numismatic and archaeological material.

B) TWO STAGES OF MONETIZATION IN 13TH-CENTURY BOHEMIA: COIN RENEWAL AND DEBASEMENT, ROMAN ZAORAL (CHARLES UNIVERSITY, FACULTY OF HUMANITIES)

The paper presents two stages of monetization in 13th-century Bohemia: coin renewal (*renovatio monetae*) connected with short-lived coins (*deniers*, *pfennigs*, *bracteates*) and debasement reflected the circulation of long-lived coins (*groschen*). With references to the coin hoards of *Levínská Olešnice* (Eastern Bohemia) and *Fuchsenhof* (Upper Austria), which dated back to the 1280s, the author argues that coin renewal did not necessarily result in devaluation; the quality of coins rather depended on the amount of silver which was at the state's disposal. At the same time, he points out that the coin renewal had also negative consequences in form of short-term fluctuations in the price level, in the velocity of money, and in the real output and the volume of trade. In this sense, the changeover to Prague *groschen* represented the completion of the process of monetization which began in Bohemia in the 9th century with the first Bohemian *deniers*.

C) MONETISATION OF MEDIEVAL EUROPE IN RESEARCH HISTORY, MIKA BOROS (UNIVERSITY OF OSLO)

Particularly in recent years, there has been an increasing interest in the research on monetisation in the European Middle Ages which generated some relevant publications. A significant input came mainly from the fields of economic and social history.

In my talk I propose to outline the history of research into the monetisation in the Middle Ages, discussing the impact of different past approaches on future research of interest. What questions have already been asked, and how did this affect later research trends in different regions of Europe? What are the difficulties and possible advantages for future research.

D) COIN JEWELLERY IN TIMES OF MONETISATION: SCANDINAVIA C. 1000–1300, FLORENT AUDY (NATIONAL HISTORICAL MUSEUMS)

Different indicators have been used to investigate the level of monetisation in early medieval Scandinavia, such as patterns of coin loss or volumes of coin production. In this paper, it is argued that coin jewellery can also provide interesting insights into the subject. What happened to the ancient practice of wearing coins as

pendants or brooches when coins began to be produced in Scandinavia? Are there correlations between level of monetisation and fashion for coin jewellery at the local level? The insights provided by coin jewellery are very valuable: they clearly show that monetisation not only affected how coins were used, but also how coins were perceived as objects.

E) THE BEGINNING OF COINAGE IN 12TH CENTURY AUSTRIA. MONETISATION AS AN ESSENTIAL FACTOR IN THE EXPANSION OF THE COUNTRY, JOHANNES HARTNER (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN, VIENNA)

In the 11th and 12th century complex transformation processes took place in Eastern Austria, resulting in the consolidation of the manorial and the economic structures. There was a growth of urban markets and regional trading areas, and an increase in the construction of fortifications. In the context of the expansion of the country, these developments contributed to a comprehensive formation of rulership.

An important factor insufficiently taken into account in past research is Austrian coinage, introduced at this time, approximately in the first third of the 12th century – previously, the region had managed without minting own coins.

This raises the question of the intention behind the minting coins, and the significance of the beginning monetisation for the emerging territorial authorities of the advancing expansion of the country.

F) MONETISATION PROCESSES IN MEDIEVAL VISUAL MEDIA, ALEXANDRA HYLLA (SALZBURG MUSEUM)

Social and economic change left its mark on medieval art. This is true also of the progressing monetisation of European society between the 8th and 13th centuries. This talk will focus on possible correlations between regional tendencies and perception of monetisation processes, and the representation of coins or money in visual art. What influence of the regional status of coined money is shown by the visualisation of money or coins e.g., in figurative monumental sculpture, book illumination or precious metalwork of similar origin and date? Furthermore, the impact of monetisation on the most common and far-reaching visual medium, coinage itself, will be explored: at the early stage of the monetary economy how were coins designed? How do images, flans and inscriptions change parallel to the spread of money? Which supra-regional parallels are to be found?

G) THE BUYIDS AND THE CESSATION OF THE INFLUX OF ISLAMIC DIRHAMS INTO 10TH CENTURY EASTERN EUROPE, MICHAŁ MALICZOWSKI (UNIVERSITÄT WIEN)

More than 50,000 Islamic dirhams have been recovered on the post-1945 territory of Poland. While most had been minted by the Abbasid Caliphs and the Iranian Samanid dynasty, the Buyid coinage constitutes merely a fraction of this pool (approx. 300 coins). This however, does not reflect the significance of the Buyid dynasty within the political and economic landscape of the Islamic world in the 10th & 11th century. In addition to a detailed analysis of the role played by Buyid coins found in Polish hoards, the paper examines how the developments in the Islamic world influenced Polish hoarding practices in the 10th century. Finally, we explore whether the economic shift towards Western Europe engendered by the strengthening of Piast rule could have influenced Islamic coin production.

H) RETHINKING MONETISATION IN EARLY MEDIEVAL ENGLAND, RORY NAISMITH (UNIVERSITY OF CAMBRIDGE)

Instead of focusing on the limitations of the relatively scarce and high-value early medieval currency, this talk asks instead why such coins might have been made. In early medieval England the manufacture of coin was probably driven by a wide range of functional demands, but a narrower segment of society, with the needs of the elite was paramount. This dichotomy can be traced from the seventh century onwards, but will be explored at more depth with reference to the tenth- and eleventh-century English coinage, which carries the names of numerous mint-places and moneyers. It will be demonstrated that moneyers were integrated into networks of elite demand, and occupied a middling position that allowed them to deal both with high- and low-status elements of society.

65. MIDDLE AGES 3. NEW PERSPECTIVES ON MEDIEVAL COINAGES: COIN FINDS, CIRCULATION AND RECENT RESEARCH, ORGANIZED BY MARTIN ALLEN (FITZWILLIAM MUSEUM, CAMBRIDGE), MARCUS PHILLIPS (INDEPENDENT RESEARCHER), JULIAN BAKER (ASHMOLEAN MUSEUM, OXFORD), RICHARD KELLEHER (FITZWILLIAM MUSEUM, CAMBRIDGE) AND CHAIRED BY RORY NAISMITH (UNIVERSITY OF CAMBRIDGE)

This session, sponsored by the Medieval European Coinage Project of the Fitzwilliam Museum, Cambridge, will present new research by authors mainly working on the silver coinages of Western Europe and the Mediterranean world.

Recent coin finds have provided new insights into the organisation of the English royal coinage after the Norman Conquest of 1066 and local coinages during the civil war of the reign of King Stephen (1135-54). The reporting and publication of coin finds has also greatly increased our understanding of coin production and use in other parts of the medieval world. In complex numismatic contexts such as the Low Countries and the Latin East, new research is resolving many remaining problems in the coinages of various mints.

The speakers are Martin Allen, 'New discoveries in the Anglo-Norman coinage of 1066-1158', Julian Baker, 'Areas of circulation of medieval Greek *deniers tournois* in the light of recent finds', Richard Kelleher, 'New thoughts on the coinage of Crusader Edessa and Antioch', and Marcus Phillips, 'How to catalogue the *gros au lis*: Flanders or France?'

A) ⊖ NEW DISCOVERIES IN THE ANGLO-NORMAN COINAGE OF 1066-1158, MARTIN ALLEN (FITZWILLIAM MUSEUM, UNIVERSITY OF CAMBRIDGE)

The Chew Valley hoard has greatly increased knowledge of the first English coinage of William I after his invasion of England in 1066 and the degree of continuity in mints and moneyers from the last coinage of Anglo-Saxon England. Single finds recorded by the Fitzwilliam Museum's Corpus of Early Medieval Coin Finds (EMC) have provided many coins of mints or moneyers new to their coinage type between 1066 and the end of the English periodic recoinage system in 1158. Understanding of the complex regional coinages of the civil war of King Stephen's reign (1135-54) has been considerably advanced by new finds.

B) AREAS OF CIRCULATION OF MEDIEVAL GREEK DENIERS TOURNOIS IN THE LIGHT OF RECENT FINDS, JULIAN BAKER (ASHMOLEAN MUSEUM, OXFORD)

Deniers tournois coinages were issued in enormous quantities in medieval Mainland Greece and adjoining territories (Achaia, Athens, etc.) in the 13th and 14th centuries. The database of coin finds, within the primary and secondary (especially in Italy, Albania-Macedonia-Bulgaria, and Anatolia) areas of circulation, has augmented steadily over the last decade and we are now able to view the usage of such coins in different and more precisely defined historical contexts.

C) NEW THOUGHTS ON THE COINAGE OF CRUSADER EDESSA AND ANTIOCH, RICHARD KELLEHER (FITZWILLIAM MUSEUM, UNIVERSITY OF CAMBRIDGE)

Drawing on newly available material and coins in museum collections this paper offers a revision on the classification of some of the Crusader coinages of Edessa and Antioch. Three areas will be considered: 1) the light folles of Baldwin II of Edessa; 2) the folles of Bohemond I at Antioch; and 3) the billon deniers of Raymond of Poitiers at Antioch. Both new specimens that have appeared in trade over the past fifteen years, and coins in public collections in Europe and North America, provide compelling evidence that a revision of these classifications in both timely and necessary.

D) HOW TO CATALOGUE THE GROS AU LIS: FLANDERS OR FRANCE?, MARCUS PHILLIPS (INDEPENDENT RESEARCHER)

Cataloguers sometimes prefer to stick with old, discredited, attributions rather than use new ones. One reason is that modern classifications tend to get ever more complicated; the French gros tournois series being a case in point. The gros au lis is a relatively scarce type of gros tournois which, it used to be thought, were struck in Bruges between 1298 and 1302. In the 1997 publication, *The Gros Tournois* this attribution was shown to be untenable on both coin and written evidence. This has generally been totally ignored. The problem is that it is still not clear where the type does belong. Consequently all of the specimens in the Grierson collection at the Fitzwilliam Museum are still in the Flanders cabinet. In MEC the proposed solution is to move them all to France, but is this too drastic given the uncertainty over the issue?

**66. MIDDLE AGES 4. MEDIEVAL ISLAMIC COINAGE, CHAIRED BY DOROTA MALARCZYK (THE NATIONAL MUSEUM IN KRAKOW)**

A) AUTHORITIES ON THE ISLAMIC COINAGE OF THE EASTERN IRANIAN TERRITORIES (8TH-11TH CENTURIES), ARTURO ANNUCCI (UNIVERSITÀ DI NAPOLI L'ORIENTALE)

The period between the Abbasid revolution (c.120s/c.740s) and the battle of Dandanqan (431/1040) is an extremely complex one for the Islamic regions of the eastern Iranian areas (Zābulistān, Kābulistān, Sistān, and Khurāsān). A detailed analysis of the monetary history of these regions is essential for understanding the changes these territories underwent. Preliminary results of a historical analysis of the coinages of the dynasties ruling over the area in this period will be presented, with a focus on the figures and authorities appearing on coins. These figures reflect the political transformation (and fragmentation) of the area from the beginning of the Abbasid

period to the Turkic period and could give important information on the functioning of mints and administrative organization as well.

B) MINE, RESIDENCE, OR HOME – THE MEANING OF "MA'DIN AMÎR AL-MU'MINÎN" ON Umayyad COINS, LUTZ ILISCH (EX FORSCHUNGSSTELLE FÜR ISLAMISCHE NUMISMATIK, TÜBINGEN)

The original understanding of the term ma'din amîr al-mu'minîn was that of a mine providing gold for caliphal dinars. But the appearance of the expression on copper coins, especially as an epithet following the mint name al-Madîna has challenged this interpretation and numerous alternatives with references to the Arabic lexicography offering other meanings were discussed over more than the last thirty years without arriving at a common consensus. Apart from linguistic considerations the present paper will follow a different approach of historical contextualisation of the mintage years 89, 91, 92 and 105 H. to arrive at an understanding of the term.

C) SICILY AND AL-ANDALUS: TRADE RELATIONSHIPS AND MONETARY CIRCULATION IN THE XITH CENTURY, CAROLINA DOMÉNECH-BELDA (UNIVERSITY OF ALICANTE)

Recent findings show that Sicilian coins are abundant in several hoards recovered on the Iberian Peninsula, dated to the 11th century. These Sicilian coins are Fāṭimid issues struck in the mint of Palermo when the island was no longer under direct Fāṭimid control but under the rule of the Kalbid dynasty. Most of these coins are half and quarter dirhams and quarter dinar fractions, even though the dirhams and dinars were the currency most used in Fāṭimid Empire. This paper analyzes the impact of this foreign currency on al-Andalus, its integration into the Andalusian monetary circulation and the intensity of this phenomenon, its chronology, the commercial relations between Sicily and Iberian Peninsula in the 11th century, and finally, the role of Sicily as a Mediterranean commercial centre.

D) ONCE MORE INTO THE BROACH: THE MAMLUK COINS FROM CODRINGTON, JRASBB, 1881-82, WARREN SCHULTZ (DEPAUL UNIVERSITY)

In 1882 a hoard of 448 gold dinars and fragments, and approximately 1200 silver dirhams and fragments was found in Bharuch, India. Prior to dispersal, these coins were studied by Codrington who published a partial catalogue. Most of these coins were from the Mamluk Sultanate of Egypt and Syria, and many were subsequently incorporated into the foundational work of Mamluk numismatics, Paul Balog's *Coinage of the Mamluk Sultans in Egypt and Syria* (1964). In the 140 years since Codrington's article and the many decades since Balog's book appeared, our knowledge of Mamluk numismatics has expanded tremendously. In this paper I reexamine these coins in light of this development by providing some new identifications, corrections to Balog's transfer of this data into his corpus, the incorporation of this evidence into an updated understanding of the metrology of Mamluk precious metal coinage, and an updated catalog list with links to modern works.

**67. MIDDLE AGES 5. 12TH-13TH CENTURIES, THE MEDITERRANEAN, CHAIRED BY LUCA GIANAZZA (INDEPENDENT RESEARCHER)**

A) "LATIN" IMITATIONS OF HYPERPYRA OF JOHN III VATATZÈS—A COINAGE OF GEOFFREY II OF VILLEHARDOUIN?, ROBERT LEONARD (AMERICAN NUMISMATIC SOCIETY)

The hyperpyra of John III Vatatzès of Nicaea were imitated in such quantity that the Florentine merchant Francesco Pegolotti noted them as "latin" gold hyperpyra. In 2000 Ernest Oberländer-Târnoveanu published guidelines on how to recognize the imitations, based on a Romanian hoard. This paper presents additional guidance for identifying "latin" imitations and distinguishing them from modern counterfeits, and proposes that their issuer was Geoffrey II of Villehardouin, Prince of Achaea, circa 1236-1243; Geoffrey II offered an annual subsidy of 22,000 hyperpyra to Latin Emperor Baldwin II in 1236, and continued supporting the Empire as late as 1243. Hoard evidence will be offered in support of this proposal, and a possible mint site suggested.

B) THE 'BAYINDIR/1988' HOARD OF BYZANTINE THIRTEENTH-CENTURY BILLON TRACHEA, CEREN ÜNAL (CELAL BAYAR UNIVERSITY), ELENI LIANTA (INDEPENDENT RESEARCHER)

The aim of this paper is to present for the first time a new Byzantine coin hoard which was discovered in Bayindir. The hoard consists of 113 billon trachea. The paper demonstrates the significance of the hoard with reference to its overstrikes, and to the numerical predominance of Theodore I Lascaris' Second Coinage, which is abundant in Turkish hoards and almost absent from Greek deposits. The evidence of the present hoard is supplemented with another published hoard of Turkish provenance, the 'Ağacik' hoard, which marked the beginning of putting on record a large range of hoard evidence from Turkey. The 'Bayindir' hoard is a strong indicator of the diffusion of the Nicaean coinage in the western coastland of Asia Minor during the second decade of the 13th century A.D, and offers new insights into the economic activity of Theodore I, who fought against his Byzantine rivals, the Latins and the Turks.

C) THE CIRCULATION OF THE COINAGE OF LUCCA IN EMILIA-ROMAGNA IN THE 11TH-12TH CENTURIES, MATTIA FRANCESCO ANTONIO CANTATORE (UNIVERSITÀ DI VERONA), DOMENICO LUCIANO MORETTI (ALMA MATER STUDIORUM-UNIVERSITÀ DI BOLOGNA)

The analysis of the written sources and finds will be used to propose a preliminary overview of the circulation of the coinage of Lucca north of the Tuscan-Emilian Apennines. Traditionally the territory of Emilia-Romagna has been regarded as an area of overlap of two different "monetary areas" which emerged in the eleventh century when mints began to strike coins with different types. Presumably, economic and political dynamics were involved. It seems that a decisive role in the circulation of this currency was played by the Canossa family which dominated a large territory between Tuscany, Emilia-Romagna and Lombardy. An initial analysis of the data shows that different monetary areas influenced the Emilia-Romagna region, but between the



11th and 12th century the coinage of Lucca took over this territory, except in Parma and Piacenza districts.

**68. MIDDLE AGES 6. 10TH – 12TH CENTURIES, CENTRAL AND NORTH EUROPE, CHAIRED BY JENS CH. MOESGAARD (STOCKHOLM UNIVERSITY)**

A) MLADÁ BOLESLAV-PODLÁZKY 2011. A UNIQUE BOHEMIAN FIND OF DENARII, WEIGHTS AND JEWELRY BEFORE 999, LUBOŠ POLANSKÝ (NATIONAL MUSEUM, PRAGUE)

The find in Mladá Boleslav-Podlázky from 2011 contains a combination of denarii, weights and jewellery which is unique for Bohemia. At least 15 Bohemian denarii from the end of the reign of Duke Boleslav II (972–999) date the deposit to the year 999. The new coin evidence helped to refine the attribution of a previously anonymous type of denarius to Cacz, the new Vyšehrad Mintmaster. This is the first find in Bohemia to contain a larger number of weights, at least 10 different types. A set of brass-plated iron weights include 5 in the shape of a bipolar flattened spheroid and 1 polyhedral specimen. The other 4 weights are made of lead and have different shapes. The find also includes three pearls and a piece of raw crystal.

B) VIKING-AGE GERMAN COINS STRUCK ON SQUARE FLANS – PURELY A NORDIC IMITATION PHENOMENON?, EEVA JONSSON (UNIVERSITY OF TURKU)

There is a small group of Sancta Colonia imitations struck on square flans. They are heavy and their style is barbarized and it is supposed that they are of Nordic origin. However, the best known group of German imitations struck on square flans are Duisburg imitations, probably produced somewhere in southern Scandinavia. Furthermore, there are some Goslar and other imitations which I believe are technologically close to their prototypes struck in Germany and could be considered as German. The paper will present a survey of German imitations on square flans from Swedish and Finnish finds and discuss their dating and origin.

C) POURQUOI BOLESLAS LE VAILLANT SUR SES DENIERS SE NOMMA-T-IL DVX INCLITVS?, STANISŁAW SUCHODOLSKI (INSTITUT OF ARCHAEOLOGY AND ETHNOLOGY OF POLISH ACADEMY OF SCIENCES)

Le titre inclitus n'était pas utilisé dans toute l'Europe depuis le temps des Visigoths. C'est Boleslas le Vaillant (Bolesław Chrobry), duc de Pologne (992-1025), qui plaça l'inscription: BOLIZLAS DVX INCLITVS sur l'un type de ses deniers. Il y en a 3 variantes qui imitent les modèles saxons du 10/11e s. (A et B) ainsi que le modèle anglosaxon – d'Ethelred II (C). Tous les deniers du type (A, B, C) apparaissent dans les trésors enfouis après l'an 1018. L'auteur suggère que l'émission est liée avec les relations de Boleslas avec l'Empire et personnellement avec le roi / l'empereur Henri II. Les deniers des variantes A et B ont été frappés en 1013 en corelation avec la paix de Mersebourg, tandis que celui de la variante C, en 1018, en corelation avec la paix à Budziszyn/Bautzen.

D) ARCHAEOLOGICAL STUDY IN THE PLACES OF HOARDS FINDS IN BELARUS, LUDA TOLKACHEVA (NATIONAL HISTORICAL MUSEUM OF THE REPUBLIC OF BELARUS), ROMAN KRYTSUK (INDEPENDENT RESEARCHER)

Archaeological study at the site of the hoards finds a whole series of perspectives. In this regard, this method of field research is actively used by European archaeologists, but the situation in Belarus is absolutely different. Trying to solve the problem, the National Historical Museum of the Republic of Belarus conducted several expeditions to the places where the hoards from museum collection were found. This was useful for understanding the hiding context of these hoards, but also completed the collection with coins that weren't found by the finder.

**69. MIDDLE AGES 7. 12 TH-13TH CENTURIES, POLAND, CHAIRED BY BORYS PASZKIEWICZ (UNIVERSITY OF WROCLAW) / MAREK JANKOWIAK (UNIVERSITY OF OXFORD)**

A) THE DISCOVERY OF THE SECOND MEDIEVAL HOARD FROM SŁUSZKÓW, MICHAŁ ZAWADZKI (THE ROYAL CASTLE IN WARSAW – MUSEUM), ADAM KĘDZIERSKI (THE INSTITUTE OF ARCHEOLOGY AND ETHNOLOGY PAN)

The first Słuszków Hoard was found in 1935. Dated to the first years of the 12th century, it contained 13,061 coins, mainly late cross pennies, 7 silver flans and 33 silver ornaments. For many years, numerous attempts were made to establish the exact findspot, but without success. In 2020, during a new archaeological survey a second hoard was unexpectedly discovered in Słuszków, similar in chronology and composition to the first deposit. Not less importantly, its ceramic container was only slightly damaged – all the coins had remained within, which enabled a thorough investigation of the site of discovery and the pot itself. The second hoard numbers about 6,500 coins and a few ornaments, including four gold rings. Both finds must be related and most likely were hidden at the same time.

B) MEDIEVAL HOARD OF GŁOGÓW — UNSOLVED MYSTERY OF POLISH COINAGE FROM THE END OF 12TH C., KRYSZTOF KSIĄŻEK (MUZEUM ARCHEOLOGICZNO-HISTORYCZNE W GŁOGOWIE)

Polish coinage of the late 12th century remains an unsolved mystery in many ways. Written sources and archaeological evidence for this period were scarce until the discovery in October 1987 in Głogów of one of the largest hoards in Poland and Europe. The hoard comprises nearly 23,000 small silver deniers and fragments. The earliest coins are issues of German margraves and bishops from the 11th/12th century. Then there are coins of the Polish duke Boleslaus III the Wrymouth (1102-1138) and his sons, from the early phase of the feudal fragmentation. These have a reliably substantiated attribution and chronology. The latest group are a few types of denier, counted in hundreds and thousands. Their attribution is very problematic — a possible source is Silesia, part of Poland. The study of this group of coins can shed new light on at least a part of the mystery of late 12th-century Polish coinage.

C) ORIGINS OF THE RECOINAGE IN POLAND IN THE LIGHT OF NEW RESEARCH, GRZEGORZ ŚNIEŻKO (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY OF POLISH ACADEMY OF SCIENCES)

The first mention in written sources confirming periodic recoinage in Poland relates to the 1170s suggesting a well-developed process. Therefore its origins

presumably go back to an earlier period, the reign of Bolesław III the Wrymouth (1102–1138). Coins of six types were attributed to this ruler. According to the current state of research, some types were replaced by others from the beginning of his rule as a part of recoinage.

However, the latest numismatic studies show that the volume of this issue was not uniform. It increased significantly in the second half of the prince's reign, which is reflected not only by a greater number of dies, but also the structure of the die-chains. These data suggest that Bolesław introduced recoinage during his reign and its beginnings were not a cyclical process. Moreover, unlike in other European countries, only one, central mint was in operation.

**70. MIDDLE AGES 8. 12TH-13TH CENTURIES, EASTERN EUROPE, CHAIRED BY GRZEGORZ ŚNIEŻKO (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY OF POLISH ACADEMY OF SCIENCES)**

A) A HOARD OF TWELFTH CENTURY ITALIAN DENARI FROM THE AREA OF TERNOPIL', UKRAINE, BORYS PASZKIEWICZ (UNIVERSITY OF WROCŁAW)

By 2021, traces of a high-medieval settlement were identified in the vicinity of Ternopil'. Finds included an ingot of bronze-lead alloy and a hoard of forty-one coins, spread over a small area. All the coins come from twelfth century Italy: forty from Lucca and one from Genoa. This discovery is particularly remarkable in context of coin finds from Halych Ruthenia. Recent finds revealed a minor influx of coins from the west during the twelfth century — the presence of Polish coins among them suggests that their path ran through Poland. On the other hand, the Ternopil' hoard has no analogies in Poland and points to closer contacts with Italy, through Pannonia or, perhaps, through the Black Sea. In this paper, we will examine this phenomenon more closely, describing the circumstances and the essence of these contacts.

B) FUR MONEY OF ANCIENT RUS'?, DZMITRY HULETSKI (EUROPEAN HUMANITIES UNIVERSITY)

Most researchers now agree that fur money was in circulation in 11th-13th century Rus'. This form of commodity money was in use only in the cultural and political borders of Early Rus' and did not spread beyond its borders. The paper examines the known written accounts handed down by travellers to Rus' in the Middle Ages and second-hand eyewitness reports about its customs, and discusses the financial side of the fur money circulation. A few attributed finds of fur money seals are presented.

C) SILVER PAYMENT INGOTS IN EASTERN EUROPE. GENESIS AND DATING, ILYA SHTALENKOV (BELARUSIAN NUMISMATIC SOCIETY)

The author presents an up-to-date chronological classification of silver payment ingots from Eastern Europe that circulated in 11th-15th centuries, describing eleven main types classified by morphology and weight. Based on past and most recent finds from two last decades, new types of payment ingots such as Lithuanian triangular, Volhynian worm-shape, and local varieties of Novgorod-type rouble and poltina have come to light. To look into the origin of standard silver payment ingots and specify their circulation time, the author also examined finds of stamped silver payment ingots from Eastern Europe, publishing their new varieties and classifying them as Western, Russian and Tartar. Our main goal is to introduce to western

numismatists current trends and new developments in the research on medieval silver payment ingots in Eastern Europe.

D) SILVER INGOT FROM CHEŁM (13TH CENTURY). PRELIMINARY REPORT, MARCIN WOŁOSZYN (LEIBNIZ INSTITUTE FOR THE HISTORY AND CULTURE OF EASTERN EUROPE (GWZO), LEIPZIG, GERMANY // INSTITUTE OF ARCHAEOLOGY, UNIVERSITY OF RZESZÓW, POLAND), TOMASZ DZIĘNKOWSKI (INSTITUTE OF ARCHAEOLOGY, MARIA CURIE SKŁODOWSKA UNIVERSITY, LUBLIN, POLAND), STEPHEN WILLIAM MERKEL (DEUTSCHES BERGBAU-MUSEUM BOCHUM)

One of the most intriguing problems in East European medieval numismatics is the cessation of minting around mid-11th century, followed by a coinless period which lasted until the second half of 14th century. One form of commodity money in use at the time was the grivna. Several types of these silver standard payment ingots are distinguished depending on their shape and weight.

In Poland the first silver payment ingot came to light in 2016. This Kiev-type grivna was excavated by archaeologists in Chełm on the site of the residence of Prince/King Daniel Romanovich (phase I; rubble of building D1). The time of the construction of building D and D1 was apparently in the 1230s-50s (TL dating of bricks).

Future analysis of the material of the grivna found in Chełm (including Lead Isotope Analyses [S. Merkel]) is expected to shed light on the source of this silver.

**71. MIDDLE AGES 9. MONETARY SYSTEMS IN TRANSITION IN MEDIEVAL CENTRAL ITALY, ORGANIZED BY WILLIAM DAY (MEDIÉVAL EUROPEAN COINAGE PROJECT, FITZWILLIAM MUSEUM), CHAIRED BY ELINA SCREEN (FITZWILLIAM MUSEUM)**

This session, sponsored by the Medieval European Coinage Project of the Fitzwilliam Museum, Cambridge, will present new research on Medieval Central Italian coinages. Italian numismatics is a strong and vibrant field, but many important questions remain to be answered about mint activity and moneys of account in Italy, about the complexity of Italy's monetary areas and about the diffusion of Italian coinages beyond Italy. The session will explore moments of transition in mints and monetary areas as well as the spread of Florentine gold florins and their unsigned imitations to Poland. The topics include the definitive cessation of the papal-imperial coinage in the mint at Rome, the transition from communal minting authority to papal authority in the Papal States, developments in systems of account in the Este dominions to facilitate exchange throughout the Italian kingdom, and the unsigned imitations of Florentine gold florins appearing in the Zalewo hoard (Poland). It will focus on current research towards Medieval European Coinage, vol. 13, on Central Italy while highlighting the wider contribution of the Medieval European Coinage project to the field. Confirmed speakers include established scholars Professor Andrea Saccocci and Dr William R. Day Jr., as well as the early career scholars Dr Mariele Valci and Dr Massimo De Benetti. Dr Elina Screen, General Editor of Medieval European Coinage, will chair the session. It will be of significant interest to scholars working on Italy and on medieval numismatics more generally, given the wide relevance of the session themes for anyone working on the history of mints, minting authorities, account systems, monetary areas and imitation coinages.

A) FROM LOCAL AUTHORITY TO PAPAL AUTHORITY: CENTRAL ITALIAN MINTS DURING THE EXPANSION OF THE PAPAL STATES, 14TH-15TH CENTURIES, WILLIAM DAY (FITZWILLIAM MUSEUM)

In Central Italy, as the popes consolidated authority over their territorial state and as cities drifted into (and sometimes out of) papal control, mints accordingly passed from communal and/or seigniorial authority under the authority of the popes or their representatives (and sometimes back again). Although the precise moment of transition is often clearly indicated in the relevant documentary and/or numismatic evidence, it is occasionally obscure. This paper considers the manner in which the transition is reflected in the written sources, on the coins themselves and in other evidence such as coin finds to highlight similarities and differences across mints while improving our understanding of the chronology of papal coinages outside of Rome especially in the 14th and 15th centuries.

B) NEW RESEARCH ON THE GOLD FLORIN OF FLORENCE AND ITS IMITATIONS (1252-1351): THE CASE OF THE ZALEWO AND ŚRODA ŚLĄSKA HOARDS (POLAND), MASSIMO DE BENETTI (PROGETTO COLLEZIONE DI VITTORIO EMANUELE III, MEDAGLIERE DEL MUSEO NAZIONALE ROMANO, ROMA)

The paper presents the results of the PhD research project on "The first 100 years of the gold florin of Florence (1252-1351)", carried out at the Universities of Granada (Spain) and Ca' Foscari of Venice (Italy). The research has involved several museums and institutions in Europe, with the acquisition of new data on documentary sources, archaeological finds and numismatic collections. Through the examination of the most significant specimens contained in two Polish hoards discovered in 1991 and 1988, the history of the Florentine gold florin over the course of a century will be outlined, presenting a complete classification of privy marks, updated chronologies and a new field of investigation: "unsigned" imitations of the Florentine gold florin. It thus offers a new key for understanding the production and circulation of this coin and its various imitations on European markets during the first half of the 14th century.

C) THE COINS OF THE ESTE DOMINIONS AND THEIR ROLE IN FACILITATING EXCHANGE THROUGHOUT THE ITALIAN KINGDOM (12TH -15TH CENT.), ANDREA SACCOCCI (UNIVERSITÀ DEGLI STUDI DI UDINE)

The paper analyses the role of the coins of the Este mints (Ferrara, Modena and Reggio) in the development of Italian monetary circulation between the 12th and 15th centuries, a role which certainly goes beyond the borders of the small territories they belonged to. This conclusion is based partly on coin finds, but also on the diffusion of certain coin names in archival documents and sources in general. Since these tend to record units of account or values rather than actual coins, it is quite evident that in the Este territories, located between Tuscany and Veneto, a monetary system was created that linked the currencies of the two most commercially developed areas in Italy.

D) ROME AND COINAGE IN THE TENTH CENTURY: POSSIBLE REASONS FOR THE CLOSURE OF THE MINT, MARIELE VALCI (ISTITUTO ITALIANO PER GLI STUDI STORICI, NAPLES)

This article will focus on the economy and coinage in Rome between the eighth and tenth centuries, when the city and its mint were under papal control. It will first discuss the reasons why Rome had a small-scale monetary economy even when, in relative terms, it was a large centre with complex political structures. The diverse functions of Roman coinage, and specifically of the Antiquiores, and the metal supply strategies followed by the Rome mint will be explored to answer this question. This analysis will lead to the second key question of the paper, which is why the papacy decided to stop the production of Roman pennies and then close the mint of the city at the end of the tenth century.

**72. MIDDLE AGES 10. 13 TH-14TH CENTURIES, CENTRAL AND NORTHERN EUROPE, CHAIRED BY ROMAN ZAORAL (CHARLES UNIVERSITY, FACULTY OF HUMANITIES, PRAGUE)**

A) ONCE AGAIN ON EARLY MINTING IN RIGA, LIVONIA, IVAR LEIMUS (ESTONIAN HISTORY MUSEUM)

Different opinions have been expressed about early minting in Riga. Mostly, the authors have relied on the first written source of 1211 which prescribed the minting standard in Riga, although even a much later date of 1225 has also been considered possible. A recent hoard from Western Estonia, consisting of German, Swedish, Gotlandic and English coins as well as silver bars and ornaments, contained also a penny of the Bishop of Riga. Since the tpq of the whole hoard (124 coins so far) is ca. 1200 (Short cross penny, class 4b), the Riga coin cannot be much younger either.

B)  $\ominus$ MINTING UNDER THE BOHEMIAN KING OTAKAR II IN AUSTRIAN LANDS IN THE SECOND HALF OF THE 13TH CENTURY, DAGMAR GROSSMANNOVÁ (MORAVIAN MUSEUM), TOMÁŠ KREJČÍK (MASARYK UNIVERSITY)

After the extinction of the domestic Babenberg dynasty, the Bohemian king and Moravian margrave Přemysl Otakar II († 1278) came to power in Austrian Lands. He gradually seized control over Lower and Upper Austria, Styria, Carniola and Carinthia. His policy was to ensure economic development: founding cities, protecting trade routes and minting coins. The government of Přemysl Otakar II gradually took over the existing mints in the area. The Bishop of Olomouc Bruno of Schauenburg († 1281), the administrator of Styria in 1262-1268, probably also minted coins in Styria at that time. Coin minting in the Alpine countries was part of the monetary development in which Přemysl Otakar II continued in the footsteps of the last Babenbergs.

C) DIE ENTWICKLUNG DER STERLINGNACHAHMUNGEN IN WESTFALEN IM 13. UND 14. JAHRHUNDERT, LARS BLUMBERG (DEPARTMENT OF NUMISMATICS AND MONETARY HISTORY AT THE UNIVERSITY OF VIENNA)

Am Beginn des 13. Jahrhunderts begannen weltliche und geistliche Herrscher in Westfalen einen neuen Münztyp zu prägen. Anstelle des umlaufenden Kölner Pfennigs ahmten sie die gleichwertigen englischen Sterlinge nach. Die ersten Sterlingnachahmungen prägten Kaiser Otto IV. (1198/1208 – 1218) in Dortmund, die Bischöfe von Münster und die Grafen von Schwalenberg. Die Entwicklung dieser Nachahmungen soll in dieser Arbeit dargelegt werden.

Basierend auf den nachgeahmten Vorbildern aus England, Irland und Schottland und den regionalen Varianten in Westfalen können verschiedene Gruppen von Sterlingnachahmungen bestimmt werden, die an dieser Stelle präsentiert werden sollen. Von besonderem Interesse sind dabei jene Münzstände, die die Nachahmungen über das Ende des short-cross Typs hinaus fortsetzten, wie die Reichsmünzstätte Dortmund, die Bischöfe von Münster, die Herren von der Lippe und die Grafen von Schwalenberg.

D) INFLUENCE OF THE STERLING ZONE ON SILESIAN COINAGE IN THE KWARTNIK PERIOD, DAWID MACIEJCZUK (UNIVERSITY OF WROCLAW)

The Silesian coinage at the turn of the thirteenth and fourteenth centuries is still poorly understood. We know over a hundred types of Silesian kwartniks, stylistically and typologically a very mixed group. Most kwartnik types are without a legend, and references in the written sources are scarce. Therefore, for the time being these coins must remain largely anonymous.

Stylistic analogies have been identified to coins in the sterling zone. The influence of this sterling zone was through trade contacts, especially with Flanders. The sterling of the pollardi type has been indicated as the closest analogy to Silesian kwartniks. These coins were primarily minted in Namur (in the Low Countries) in 1282-1299. Ryszard Kiersnowski drew particular attention this back in the 1960s. However, in the light of the current sources, comparative base and technological possibilities, this problem requires another revision.

**73. MIDDLE AGES 11. MEDIEVAL MONETARY ECONOMY, CHAIRED BY PETR VOREL (UNIVERSITY OF PARDUBICE)**

A) THE SECRETS OF EMERGENCY DEBASEMENTS, ROGER SVENSSON (IFN)

The paper analyzes how minting authorities can increase seigniorage through emergency debasements. It examines mechanisms and incentives created by the authorities to withdraw bullion and old/foreign coins from circulation for re-minting. Firstly, in the early phase of an emergency debasement cycle, there are price-lags between the price of silver and consumer prices, since the latter prices are “rigid”. This created an incentive for the people to surrender their bullion and foreign coins for minting. Secondly, in a later phase of a debasement cycle, both good and bad coins will circulate side by side. If the common people cannot see the difference between good and bad coins, experts (for example silversmiths) can collect good coins and hand them in for re-minting and make an arbitrage. Theories are supported by empirical data from France and Sweden. The papers closes with an analysis of social groups who might profit or suffer from emergency debasements.

B) TYPOLOGICAL AND METALLURGICAL ANALYSIS OF BOHEMIAN AND POLISH COIN FROM DĘBRZNIK HOARD, PAWEŁ MILEJSKI (OSSOLIŃSKI NATIONAL INSTITUTE), LUKÁŠ KUČERA (DEPARTMENT OF ANALYTICAL CHEMISTRY, FACULTY OF SCIENCE, PALACKY UNIVERSITY)

The hoard from Dębrznik (Lower Silesia) was discovered in 1961. Numbering 6,300 coins it is one of the largest such deposits from this area. The hoard includes Bohemian, Silesian, Lusatian, Polish, German and Hungarian coins. The tpq of 1526 is

established by the Bohemian coins of Ferdinand I. In our paper, we propose to focus on the Bohemian coins, including Prague groschen of Wenceslas IV, Vladislaus II and Ferdinand I, small coins of Vladislaus II, Louis II and Ferdinand I, Krnov groschen of Matthias Corvinus and hellers of the Kłodzko county. We move on to present Polish coins from the deposit – half-groschen of Jogaila, Casimir IV, John I and Sigismund I. All of these coins were tested using the XRF method, selected specimens also using the hydrostatic weighing method. In total, we will present the typological division and the elemental composition of approximately 1750 coins from the Dębrznik hoard.

C) WHEN SMALL CHANGE WAS NOT A BIG PROBLEM, ANDREAS WESTERMARK (SVERIGES RIKSBANK), ROGER SVENSSON (IFN)

During the Middle Ages and early modern times, coinage was often characterized by a shortage of small change. The main reason was the higher cost of production of low denominations, which encouraged the authorities to mint higher denominations. Another factor was that small change was better as a means of payment than larger denominations, which led the people to hold on to the small coins. In this study we present several methods used by the authorities in the Middle Ages to solve the problem of this shortage of small change. One of them was reducing the production cost for small denominations by minting bracteates.

**74. MIDDLE AGES 12. ASIA, CHAIRED BY HELEN WANG (BRITISH MUSEUM)**

A) CHINESE SILVER INGOTS FOUND IN 10TH CENTURY SHIPWRECK, LYCE JANKOWSKI (MUSÉE ROYAL DE MARIEMONT)

A wreck with its entire cargo was discovered in 2004 in the Java Sea off the town of Cirebon. Chinese coins found on board helped to date the shipwreck to the 10th century. The main cargo consisted of iron ore, tin and silver ingots and ceramics from China and present-day Thailand. The accompanying cargo consisted of semi-precious stones, objects made of gold and other metals, glass beads of different origin (Egypt, Iran, India and Sri Lanka). The wreck itself has been the subject of a thesis, and the ceramics were discussed in several publications. However, no in-depth study was made of the silver ingots. This presentation aims to establish a typology based on the excavated material and to compare it with historical sources on the production of ingots in China and their circulation in Southeast Asia.

B) TURKISH SULTANS OF BENGAL AND SELJUK SULTANS OF RUM: MOVEMENT OF MOTIFS, LEGEND, CALLIGRAPHY ON COINS, SUTAPA SINHA (UNIVERSITY OF CALCUTTA, INDIA)

Bengal, a provincial kingdom of medieval India flourishing since early 13th century had a significant and consistent coinage of its governors and sultans from the very beginning of the Sultanate. A comparative study of this coinage reveals marked influence from the coinage of Seljuq Sultans of Rum (Anatolia) confirmed by the use from the beginning of the horse rider motif, the legend pattern in Arabic and typical calligraphy, enclosure variety and other features. The Governors of Bengal appointed since the 2nd decade of 13th century AD by Sultans of Delhi followed coin types of Seljuq Sultans rather than the coin type issued by their overlord ruling over northern and north-western India. In the present paper an attempt will be made to delve into



the reasons behind the decision to imitate Seljuq Sultan's coinage made by Sultans of Bengal for three centuries of their rule.

C) NUMISMATIC EVIDENCE FOR A BRIEF RESTORATION OF ROYAL POWER IN ARMENIA IN THE 15TH CENTURY: A PRELIMINARY NOTE, ARAM VARDANYAN (NATIONAL ACADEMY OF SCIENCES)

A unique manuscript kept in the Matenadaran in Yerevan shows that towards the end of the rule of the Qara Qoyunlu Jahan Shah (1438-1467), in 1465 the Armenian nobility declared Smbat from the Artsrunid house of Sefedinian the king of Armenia. His power, which apparently lasted only two years, extended to Akdamar Island, Van and Vostan cities. The two cities represented a single unified fief which since 14th century had belonged to Hakkari Kurds.

Recently a small group of undated silver tankas minted in the name of Jahan Shah turned up on the coin market. One of these coins, different in terms of its overall design bears the name of the Wān (Van)-Wastān (Vostan) mint on both sides. The crude style of this coin might identify it as an imitation of a Qara Qoyunlu coin, but upon closer examination, this specimen could have been struck by authorities representing Smbat Sefedinian-Artsruni.

**75. LATE MIDDLE AGES. EUROPE, CHAIRED BY MARCUS PHILLIPS (INDEPENDENT RESEARCHER)**

A) ⊖TRANSYLVANIA, A FORTRESS OF JOHN HUNYADI'S COINAGE AND MONETARY POLICIES IN THE MID-15TH CENTURY, PAUL GABRIEL DUMITRACHE (HERITAGE AND COMMUNITY DEVELOPMENT ASSOCIATION)

John Hunyadi is known in historiography as a leading figure of the High Middle Ages for his involvement around the mid-15th century in the struggle against Ottoman expansion in the Balkans. However, numismatic studies show that his economic and monetary policies are less well known. Our study, a comprehensive analysis of a coin collection in the National Museum of History of Romania, leads us to make some innovative hypotheses about silver coinage in Transylvania under John Hunyadi. By this time the monetary markets of Transylvania, and of Wallachia as well had found themselves under a heavy pressure from Ottoman currency. Therefore, to oppose the Ottoman expansion in Europe it was imperative to deploy a monetary strategy to increase and strengthen Hunyadi's political power. In making this happen, the Florentine mint masters based in Transylvania played the most critical role in the silver coinage reform attempts.

B) TRADE ROADS IN THE LIGHT OF THE MOLDOVAN MONETARY FINDS, LILIA DERGACIOVA (LIBRARY OF THE ROMANIAN ACADEMY, NUMISMATIC DEPARTMENT)

Coin finds are an excellent indicator of economic relations of any state. They allow us to identify a network of commercial and trade activity that each state was involved in.

Based on finds of Moldovan coins from the 14th-15th century, the author will discuss the involvement of this principality in the international trade along the so-called "Moldovan Trade Route" linking Central Europe with the Crimean Peninsula. The author will focus on coin finds recorded on the southern coast of the Black Sea (especially those minted in Italian colonies). Coins recovered in the Podolian Principality and Poland will be examined as well.

C) THE EARLY COINAGE OF MIRCEA THE ELDER, CRISTIANA TĂTARU (NATIONAL HISTORY MUSEUM OF ROMANIA)

The coinage of Mircea the Elder (1386-1418) is the most researched topic in Romanian medieval numismatics, justifiably so since most of the Wallachian coins which survive in public collections are issues of Mircea. The main purpose of this paper is to take a closer look at the earliest coins of this Wallachian prince in order to highlight the political and economical situation of Wallachia in the first years of Mircea the Elder's reign. He inherited the Wallachian throne from his brother Dan I (ca. 1383-1386), whose sudden disappearance, or a shift in the power relations with his brother Mircea, is marked on coins in a very peculiar way.

D) DEAD MAN'S CHEST – PURSE OF MEDIEVAL SILVER COINS FROM ROYAL DANISH SHIPWRECK REVEALED BY X-RAY  $\mu$ CT SCANNING, GITTE INGVARSDON (HISTORICAL MUSEUM AT LUND UNIVERSITY)

In 1495, Gribshunden, the flagship of King John of Denmark and Norway, burned and sank in the Baltic Sea en route to a political summit in Sweden. Recent archaeological excavation of the shipwreck produced a cemented lump identified using microscale X-ray computed tomography ( $\mu$ CT) as the remains of a purse containing 100+ silver coins. This purse is uniquely informative for several reasons. First, unlike other coin hoards, the date and circumstances of its loss are documented. This reverses the usual situation where coins are used to establish the dating of archaeological features and allow scientists to pose novel questions. Second, this was an unintentional loss, so the coins represent money in circulation and intended for common use, as opposed to hoards, offered as donations or deposited as savings. Third, King John himself was sailing aboard the ship when it sank; these coins were officially sanctioned and therefore offer insights into the king's monetary policy.

**76. MEDIEVAL AND MODERN TIMES 1. THE COINAGE AND PAPER CURRENCY OF MEDIEVAL AND EARLY-MODERN JAPAN, ORGANIZED AND CHAIRED BY HISASHI TAKAGI (OSAKA UNIVERSITY OF ECONOMICS)**

This session reviews recent numismatic studies in Japan. It particularly focuses on bronze coins circulating in the 16th century, paper currency issued in the early-modern period, and a collection in a museum in Europe which includes gold and silver coins from Japan.

Conventional numismatic discourse on medieval and early-modern Japan has tended to focus on the identification of numismatic resources themselves. However, for the purpose of further discussion and subsequent development, this session will instead adopt perspectives generated by scholars working in social-economic historical studies. The background to this session thus lies in the development of analytical methods for the study of the monetary system in medieval Japan based on the integrated disciplines of numismatic archaeology and historiography, and in numismatic research focused on paper currency and credit money theory.

The presentations in this session will therefore showcase the following groundbreaking case studies: rethinking the definition of *Bitu*, a subcategory of bronze coinage in 16th-century Japan; a numismatic study of paper currency issued by feudal

domains in the Tokugawa period; a numismatic study of private paper currency in the Tokugawa period; and a study of Japanese coins preserved in a museum in Europe.

The common element in the first three presentations is the innovative focus on the common people as a determinant of the circulation of various types of currency. In addition, this session seeks to relativize conventional money commodity theory, or 'metallism', by showing the historical experiences of pre-modern Japan. Moreover, the last presentation will illustrate the history of the collection of Japanese coins in 19th-century Europe by discussing a collection in the National Museum of Denmark.

A) THE COINAGE AND PAPER CURRENCY OF MEDIEVAL AND EARLY-MODERN JAPAN, HISASHI TAKAGI (OSAKA UNIVERSITY OF ECONOMICS), SHIN'ICHI SAKURAKI (ASAHI UNIVERSITY), YASUSHI KOGA (KYUSHU SANGYO UNIVERSITY), DAISHI CHIEDA (DOHO UNIVERSITY)

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B) JAPANESE COINS IN THE NATIONAL MUSEUM OF DENMARK, SHIN'ICHI SAKURAKI (ASAHI UNIVERSITY)

This paper will introduce the Japanese coins in the collection of the National Museum of Denmark. In particular, the collection made by William Bramsen (1850-1881) in Japan in the early Meiji period (1871-1880) covers all Japanese coins and is outstanding in both quality and quantity. It includes examples of all the so-called Twelve Imperial Coins from the Wadōkaichin coins (708) to the Kengentaiho coins (958). The Medieval and Early Modern periods are represented by the high-quality Musashi Sumigaki koban and the Taikō enbu-kin, which share similarities in design with Western coins, and coincide with the period when Japanese gold and silver coins shifted from weight to denomination. This paper also presents images of early modern gold and silver coins, Kan'ei tsūhō coins and prize coins to provide a brief history of Japanese currency.

C) RETHINKING THE DEFINITION OF BITA, A SUBCATEGORY OF BRONZE COINAGE IN 16TH-CENTURY JAPAN, HISASHI TAKAGI (OSAKA UNIVERSITY OF ECONOMICS)

Bitā is a subcategory of bronze coin in circulation between the 16th and 17th century in Japan.

Conventional discourse has described the historical significance of bita negatively, since bita originated from low quality domestically produced coins or deteriorated imported coins and people tended to avoid using it.

However, recent studies have come to describe bita positively and interpret it as a symbol of the early modernisation of the monetary history in Japan, since bita is the origin of Kan'ei-tsuho, namely, the standard bronze coin issued by the Tokugawa Shogunate. The Tokugawa Shogunate set the value level of both Kan'ei-tsuho and the bita, and assigned the production of the latter to private merchants. This suggests that bita is on a continuum with Kan'ei-tsuho both as regards their value and production system.

The devaluation of bita started after the introduction of Kan'ei-tsuho in the 1630s and the suspension of the usability of bita in the 1670s.

D) YAMADA HAGAKI (山田羽書: AN INVESTIGATION OF JAPAN'S OLDEST PRIVATE PAPER CURRENCY, DAISHI CHIEDA (DOHO UNIVERSITY))

Yamada Hagaki (山田羽書) is Japan's oldest private paper currency. It was issued by the town of Yamada (山田) in Ise (伊勢国, Ise Province, the gateway town (伊勢神宮前町) to Ise Shrine, from around 1610 to the beginning of the Meiji era. Yamada Hagaki is categorized as a private paper currency (私札), and, as the root of banknotes such as the domain paper currency (藩札), is thought to be indispensable to Japanese monetary history.

However, further research is required to better understand the history of Yamada Hagaki. This report examines the Yamada Hagaki in the 17th and 19th centuries. Having observed the evolution of the design of Yamada Hagaki over time, I was able to propose a method for estimating the age of private paper currency based on their design and present my own idea of why such historical changes were observed.

E) COMPETITION BETWEEN PAPER MONEYS: A CASE OF JAPANESE EARLY MODERN LOCAL ECONOMY, YASUSHI KOGA (KYUSHU SANGYO UNIVERSITY)

This study analyzes the diversity of paper money circulation in early modern Japan invoking the socio-economic background that created a competitive situation among paper money. In early modern Japan, many kinds of paper currency with various characteristics appeared. There was domain paper currency issued by feudal lords, private currency issued by wealthy merchants, and community-based currency issued by local communities. The situation in which multiple paper moneys circulated together within a single regional economic area remains unclear, because there is a tendency for each paper money to be studied individually. Therefore, this study focuses on the circulation of multiple paper money in a local economic area with a population of about 300,000 in the mid-19th century Japan. The result of analysis indicates that about 100 kinds of paper money circulated in a single economic area, circulating competitively based on various factors such as the control of local communities.

**77. MEDIEVAL AND MODERN TIMES 2. MONETA SACRA, CHAIRED BY CECILIA VON HEIJNE (NATIONAL HISTORICAL MUSEUMS SWEDEN)**

A)  $\Theta$  MONETARY DEPOSITS IN GRAVES (VAUD, SWITZERLAND): BELIEFS AND FUNERARY PRACTICES IN THE MIDDLE AGES, CARINE RAEMY TOURNELLE (MUSÉE CANTONAL D'ARCHÉOLOGIE ET D'HISTOIRE)

Whether found in a purse attached at the belt or resting on different parts of the body, coins found in graves suggest rites and customs associated with burial. Like the clothing of the deceased, are coins a mark of social status? Local coins have been found alongside more exotic issues, what can we deduce from this? Did foreigners bury their own in the diocese of Lausanne, did the members of the local community choose coins then in circulation, or was there a deliberate selection of coins not used in daily trade to make an offering to the deceased? In this case, the deposit is no longer a price to be paid, a viaticum like the obolus to Charon, but becomes purely symbolic, as suggested by Roman coins present in a grave. The composition of the deposits in the places studied, their location in the burial site, and the historical context make it possible to examine the regional situation.

B) THE COINS OF THE CLUNY HOARD (FRANCE, 12TH CENTURY), VINCENT BORREL (CNRS), MARC BOMPAIRE (EPHE/CNRS--CENTRE ERNEST BABELON), ARIANNA D'OTTONE RAMBACH (ISTITUTO ITALIANO DI STUDI ORIENTALI), MARC PARVÉRIE (EDUCATION NATIONALE), GUILLAUME SARAH (CNRS-CENTRE ERNEST BABELON)

In September 2017, an excavation survey at Cluny Abbey (France, Saône-et-Loire) led to the discovery of an exceptional hoard hidden in the 12th century. Composed of silver and gold artefacts, it includes more than 2160 deniers and obols minted in France (mostly in the name of the Cluny Abbey), 21 Almoravid dinars minted in the Western Islamic World (Spain and Morocco), a gold ring with a Roman intaglio and two other gold artefacts.

Five years later, even if this hoard has kept some of its secrets, the research focused on the coins and other items helps to understand how and why the treasure was formed and buried.

This paper will focus specifically on different studies of the coins made by members of our team. In France, this treasure is the first well documented hoard from the 12th century containing both gold and silver coins.

C) COIN FINDS IN CHURCHES: THE CASE OF HEITENRIED/ST. MICHAEL (FRIBOURG, SWITZERLAND), ANNE-FRANCINE AUBERSON (SWISS INVENTORY OF COIN FINDS)

Excavations of St. Michael church in Heitenried (Fribourg, Switzerland) brought in 440 coins and 32 religious medals.

Numerous graves were dug around and inside the church. One question that arises is whether a link can be established between the large quantity of small coins and the presence of numerous burials of perinatal deaths (respite sanctuary?). Indeed, most of the coins are small denominations, most likely to represent offerings.

Almost 86% of the coins were issues of the city of Fribourg from 1435 to the late 18th century. This provides an opportunity to review the dating of some of these issues.

The study of this material in relation to the well-dated stages of the church architecture history will make it possible to draw up a monetary map which is quite meaningful in terms of the use of money over several centuries.

D) ⊖ WHY WERE COINS PLACED ON BELLS?, STEFANO LOCATELLI (THE ITALIAN ACADEMY FOR ADVANCED STUDIES IN AMERICA / COLUMBIA UNIVERSITY)

This paper aims to provide a broader understanding of money, its role and value as a material object in Renaissance culture. By recounting the material history of a specific artefact, the fifteenth-century Friulian 'bell of Dante' decorated with a tercet from Dante Alighieri's *Paradiso* and fourteen impressions of gold and silver Italian coins, not only will it offer new insights into a previously neglected practice involving coins, but will also illuminate money's centrality within the sensory world of the Renaissance. Moreover, the comparative study of the use of money, and especially of coinage, in other contemporary rituals in Italy and Europe, will allow us to appreciate people's behaviour, religious beliefs and attitudes to money in different cultural and geographical areas.

**78. MODERN TIMES 1. CENTRAL EUROPE, CHAIRED BY FRANK BERGER (HISTORISCHES MUSEUM FRANKFURT)**

A) THE GOLDEN AGE OF POLISH COINS IN HUNGARY DURING THE OTTOMAN ERA, ZSOLT DEZSŐ NAGY (DAMJANICH JÁNOS MUSEUM)

The Ottoman Era was a period of permanent changes. However many wars afflicted the Hungarian Kingdom, its economic system could still develop, even if it took more time than expected. The Hungarian monetary system faced a huge problem, which was the lack of smaller denominations. The Habsburg rulers tried to integrate and standardize different economic and monetary systems found within their empire into a single system. On the one hand, the establishment became more and more professional. On the other, the Hungarian everyday transactions required a larger volume of circulating smaller denominations than were available. In my paper, I will discuss the appearance, circulation and disappearance of Polish silver coins from the Hungarian coin circulation pool in Ottoman Hungary.

B) SWISS COINS IN CIRCULATION AT THE IMPERIAL COURT IN PRAGUE IN THE EARLY 17TH CENTURY, PETR VOREL (UNIVERSITY OF PARDUBICE)

Over the course of several decades between the middle of the 16th and the start of the 17th century, several types of Swiss silver coins became a very important part of the money circulation in Bohemia. The influx of Swiss coins into this territory was considered by the then economists and politicians of the day as one of the reasons for the rapidly rising prices. However, the real reasons were different, related to the important role of the European financial center, such as was the Imperial Court in Prague. In this paper, the author clarifies the role of Swiss coins in the Bohemian money circulation pool of the time. On the basis of surviving written and material sources we set out to reconstruct the exact procedures used in Prague to verify the metrological quality of circulating Swiss coins.

C) MONETARY CIRCULATION IN SILESIA BETWEEN THE STATE BANKRUPCY AND THE REFORM OF LEOPOLD I: THE EVIDENCE OF THE GŁOGÓW HOARD, MARZENA GROCHOWSKA-JASNOS (MUZEUM ARCHEOLOGICZNO-HISTORYCZNE W GŁOGOWIE)

The subject of the paper will be the monetary circulation in Silesia in the period after the great monetary reform (1623) of Ferdinand II, aimed at ending the great inflation (Kipper und Wipperzeit), which affected monetary units in the Holy Roman Empire, the Kingdom of Bohemia, Silesia included. This study looks into the monetary situation on the market during the Thirty Years' War and ten years later. Thanks to the Głogów Hoard, hidden after 1656, we can see that this monetary system was still valid just before Leopold I carried out the monetary reform in 1659. As early as 1658, Leopold I had all the hereditary lands of the Austrian Habsburgs adopt the Vienna mark (281 g) as the metrological basis for minting coins, in order to standardize the denominations and remove local coins from circulation.

D) COPPER AS A MINTING METAL IN THE EARLY MODERN PERIOD: THE SPECIAL IMPACT OF WESTPHALIA, STEFAN KÖTZ (COIN CABINET OF THE LWL MUSEUM OF ART AND CULTURE / WESTPHALIAN STATE MUSEUM, MÜNSTER, GERMANY)

Alongside silver and gold, copper is the third typical minting metal, an integral part of many of the coinage systems of Greek and Roman antiquity. In medieval Europe, however, silver currency prevailed, supplemented by gold from the 13th century onwards; copper served as an additive to the silver alloy, which could lead to crises when misused. Between the 16th and 18th centuries, copper became established across Europe as the material of the lowest denominations (token coins). In Germany, there was a first copper boom during the Kipper and Wipper period (1618-1622), but it did not take hold until the 18th century. This was different in Westphalia: here, in the 16th and 17th centuries, country towns minted copper coins only; this credit money had advantages, but also disadvantages, and many a sovereign took this as an example. The paper will emphasize this special impact of Westphalia on to the development of the trimetallic coinage system in Germany.

**79. MODERN TIMES 2. WESTERN EUROPE, CHAIRED BY MARTIN ALLEN (FITZWILLIAM MUSEUM, UNIVERSITY OF CAMBRIDGE)**

A) THE ENGRAVERS OF JAMES VI'S 9TH SCOTTISH COINAGE (1605-9), CAMERON MACLEAN (THE UNIVERSITY OF GLASGOW)

The identities of the engravers of James VI's 9th Scottish coinage (1605-9) have not been satisfactorily established in the secondary literature. Burns (1887) and Cochran-Patrick (1875 and 1876) posited conflicting attributions. Cochran-Patrick ascribed the work to Thomas Foulis, an engraver based at the Edinburgh mint, whereas Burns credited James Acheson, an engraver employed at the Tower Mint, London. Burns' attribution is echoed by Bateson and Holmes (2017), Galloway (1986), and Farquhar (1908).

This paper will utilise published and unpublished Scottish mint records and conduct a detailed study of relevant coins in the collection of The Hunterian museum, Glasgow, to demonstrate that the 9th coinage was jointly engraved by both Foulis and Acheson. These sources will also be used to distinguish between the coins engraved by Foulis and Acheson. Overall, this will serve to illustrate how engravers at the Scottish and English mints cooperated to design and produce the 9th coinage.

B) FOR 'CHANGE AND CHARITIE' OR POWER AND PROFIT? AN OVERVIEW OF BRITISH 17TH-CENTURY TRADE TOKENS, LAURA BURNETT (UNIVERSITY OF EXETER)

Non-state coinages have not received the same level of scholarly attention as state issues. Yet they have huge potential to help us understand not just non-state coinages of today but also money more broadly, how types become accepted and successful, or not. With over 10,000 issuers within 25 years British 17th-century trade tokens provide an excellent field for exploring these themes and many others.

This paper will present the initial results of my ongoing PhD research. It will provide a new national overview of this para-numismatic phenomenon and of token issuers. It will explore issuers' motivations through numismatic and textual evidence. The tokens will be a springboard to wider questions around money issuer motivations using cross-period and international comparisons. In doing so it will provide broader insights into non-state coinages and credit instruments, with a particular focus on power relationships of issuers and acceptors, and on monies of the poor.

C) LES OUTILS MONÉTAIRES D'AUGUSTIN DUPRÉ POUR LE FRANC, LAURENT SCHMITT (SFN, SENA, CEN, ANS, BNS, SNRB, ÖNG, SHN, ADE, ADF), XAVIER BOURBON (SFN, SENA, ADF), PHILIPPE THÉRET (SFN, SENA, ADF)

Au moment du passage au système décimal et au Franc (1795), Augustin Dupré est graveur général des Monnaies depuis 4 ans. Jusqu'à cette date le graveur général se contentait de produire les poinçons qui étaient envoyés aux ateliers. Le graveur particulier de chaque atelier prenait alors le relais pour produire les coins.

Pour la première fois, il devient responsable de la production des pièces destinées à l'ensemble des ateliers de Paris et de province.

La communication porte sur les outils monétaires de cette période d'une dizaine d'années (1795-1803), outils qui vont évoluer dans leur forme (les coins vont passer d'une forme carrée à une forme cylindrique) et dans leur processus de création (on passe du sur-mesure artisanal à une multiplication des pièces plus « industrielle »). Toutes les étapes et techniques de création de ces outils seront détaillées et richement illustrées par des objets du Musée de la Monnaie de Paris.

D) REAL FAKE. RESEARCH ON EMERGENCY COINAGE IN THE NETHERLANDS, JAN PELSDONK (TEYLERS MUSEUM)

A couple of years ago, I was able to analyse some 10,000 coins and medals in the collection of Teylers Museum, Haarlem, the Netherlands, with a handheld X-ray fluorescence (XRF) analyser. Since then, I have been working on my own through this data. In this paper I present the data from 196 emergency coins from the period 1529-1814, mainly produced in the Low Countries (the Netherlands and Belgium) in the Eighty Years' War (1568-1648).

Some 50 of these emergency coins were in the private collection of the founder of the museum, Pieter Teyler van der Hulst. These objects were collected before his death in 1778. This provenance is of some use in the research on later copies and forgeries. The XRF-measurements provide us with new information about the moment of production. There appears to be information hidden underneath the surface of the coins...



**80. MODERN TIMES 3. EUROPE AND COLONIES, CHAIRED BY JÉRÔME JAMBU (UNIVERSITÉ DE LILLE / CNRS)**

A) MODERN COINS UNDER THREAT: AN ITALIAN PRISONER PROSECUTED BY THE ALLIED GOVERNMENT IN SICILY (1943), ANTONINO CRISÀ (GHENT UNIVERSITY, DEPARTMENT OF ARCHAEOLOGY)

Giuseppe Marra, an Italian soldier, was captured by the Allies in Sicily during Operation Husky (July 1943). Marra was prosecuted by a military court of the Allied Military Government of the Occupied Territories (AMGOT) for looting 24 Sicilian silver coins of Philip III (1598-1621) and Philip IV (1621-65). My paper examines new records to report on this event.

First, I contextualise the episode within my current ERC project Cultural Heritage in Danger: Archaeology and Communities in Sicily during the Second World War (1940–45). I then present the numismatic data afforded by the records. Thirdly, I assess the role of Captain Hammond (1903-2002), Monuments Officer of the AMGOT, in seizing the coins and delivering them to the Museum of Palermo. This information is essential to better understand how military authorities acted to safeguard antiquities in a war context, particularly when troops plundered coins illegally.

B) THE OTTOMAN CAMPAIGN OF 1595 IN WALLACHIA – NUMISMATIC EVIDENCE, MARIUS BLASKÓ (INSTITUTUL DE ARHEOLOGIE “VASILE PÂRVAN”), EUGEN NICOLAE (INSTITUTUL DE ARHEOLOGIE “VASILE PÂRVAN”)

The authors discuss an episode of the Long Turkish War (1593-1606), the Ottoman campaign of 1595 in Wallachia, in the light of the numismatic material. A range of Wallachian coin hoards ending in or around 1595, whose dating is based on either European coinage or Ottoman coins of Murad III, provides information on the actions of the Wallachians and their allies to prevent and repel the Ottoman attack and on the great devastation caused by the war. The structure of these deposits offers new data regarding the main transformations occurring in coin circulation compared to the pre-war period: the changes to Ottoman coinage, its gradual replacement with European coinage (mainly Hungarian and German) as the dominant currency, and the increasing role of the emerging high-value silver coins, the thalers.

C) MONEY PLURALITY IN THE EARLY MODERN COLONIAL CONTEXT: THE MASCARENE ISLANDS’ CASE, JULIETTE FRANCOISE (UNIVERSITY OF GENEVA / UNIVERSITY PARIS 1 PANTHÉON-SORBONNE)

The Mascarene Islands (Mauritius and Réunion), a French overseas territory during the 18th century, are an interesting case for examining the complexity of money in a colonial context. The specificity of the Mascarene monetary system is largely linked to the insular and colonial context that shapes the means of currency provision and monetary practices.

I wish to explain the diversity of means of payment instruments that circulate in this micro-territory: French colonial coins, foreign coins such as the Spanish dollar or pieces of eight, paper money issued by the French colonial administration, letters of exchange and payment receipts that change hands.

Using numismatics and French archives, this paper has three objectives: first, to present the monetary plurality and its causes; second, to highlight the conversion mechanisms that enable the Mascarene monetary system to function as a whole;

third, to examine the consequence of this monetary configuration on money credibility and on economic activity.

**81. MODERN TIMES 4. MONETARY SOVEREIGNTY IN THE UNITED STATES: 18TH AND 19TH CENTURIES, ORGANIZED AND CHAIRED BY JESSE KRAFT (AMERICAN NUMISMATIC SOCIETY)**

Ever since 1676, when Edward Randolph commented on the coinage of the Massachusetts Bay Colony—“as a marke of soveraignty they coin money”- monetary sovereignty in the British colonies was a topic of interest. By the late 18th century, when the fledgling United States was in the process of creating itself, the iconography of the national coinage became a topic of discussion. While the coinage itself was an expression of monetary sovereignty, the legal definition of the imagery as “an impression emblematic of liberty” was a further declaration of sovereignty by the United States from their former colonial power. Meanwhile, George Washington was vehemently against his own portrait on the face of the nation’s coinage. Ironically, Washington’s bust is currently on all 25¢ coins and \$1 bills from the United States. This topic of monetary sovereignty in the United States can add value to the study of American history, economics, and numismatics. Sovereignty is often discussed only within a European framework—revolving around monarchs, imperialism, and struggles between Continental powers. While the topic has begun to broaden to include the monetary sovereignty of the British colonies and early Federal period—through the works of Jonathan Barth, Jane Knodell, and Farley Grubb—expanding these notions through the long 19th century will prove fruitful in understanding the complexities of long-term building of monetary sovereignty. Examples of possible topics for papers include building sovereignty through numismatic imagery; the inability to commit to monetary sovereignty and the need for foreign coinage; international monetary strategies of late-19th centuries as antithesis to sovereignty; and American monetary sovereignty from the view of the European powers who lost its control. The potential audience of the session includes parties interested in nation building, the power of imagery, colonial America and 19th century United States, and, of course, numismatists.

**A) A DESIRE FOR MONETARY SOVEREIGNTY: THE CIRCULATION OF FOREIGN COINAGE IN THE UNITED STATES IN THE 18TH AND 19TH CENTURIES, JESSE KRAFT (AMERICAN NUMISMATIC SOCIETY)**

Until the middle of the 19th century, the United States did not have the means to provide its population with a steady supply of domestic coinage. Prior to this, as the Founding Fathers attempted to define a national coinage, concerns of monetary sovereignty permeated their discussions. They understood that a national coinage was an important part of exhibiting sovereignty, but had little resources to achieve these goals. While successful in defining the United States monetary system, implementing one proved even more difficult. As Spanish-American coinage (and others) continued to dominate the channels of circulation, people who wished for monetary sovereignty called for an “American coin” to replace those of other realms. Despite various attempts to fulfil these wishes, generations of Americans continued to use non-domestic coins as a means of circulation.

B) IMAGE AND REPUBLICAN SOVEREIGNTY: NEGOTIATING THE NUMISMATIC ICONOGRAPHY OF THE EARLY AMERICAN REPUBLIC, DOUGLAS MUDD (AMERICAN NUMISMATIC SOCIETY)

In 1792 George Washington refused to have his name and portrait placed on the proposed coinage for the fledgling United States. Why? This question has become harder to answer in the last century since placing the images of dead Presidents on coinage has become commonplace – including that of George Washington. The symbolism of the images placed on money has lost much of its significance.

The answer is to be found in the Founding Father's perception of money as a conveyor of political ideals. This perception was inherited from European ideas about money that, in turn, derived from Roman Republican monetary concepts. It is intimately connected to the core American problem of the period – how to forge a new nation of thirteen bickering States. This discussion explores the numismatic history behind the Founding Fathers' concepts of the relationship between money and sovereignty and the imagery appropriate for a Republic.

C) LADY LIBERTY AS A SYMBOL OF UNITED STATES SOVEREIGNTY, MARY N. LANNIN (AMERICAN NUMISMATIC SOCIETY)

When the Coinage Act of 1792 authorized the national monetary system of the United States, Congress stipulated that “there shall be an impression emblematic of liberty” on the obverse of each coin. Immediately, those responsible for designing the coins rendered this into a female personification of the concept. Through the course of the nineteenth century, females were making headway in their rights as both individuals and as a group. During this period, the United States Mint continued to design and strike coins with allegorical images of women, essentially using them as the face of monetary sovereignty. This talk discusses the paradox of women as an allegory and as a marginalized, second-class group.

D) TRADING DOLLARS: INTERNATIONAL MONETARY CONFERENCES AND AMERICAN MONETARY POLITICS, 1867-1896, JONAH ESTESS (AMERICAN UNIVERSITY)

The United States issued the Trade Dollar between 1873 and 1885. It became increasingly more competitive in global trade during this period. Congress intended for the new coin to replace the silver dollar, which it demonetized in 1873, as American merchants' coin of choice while trading in East Asia. Most Trade Dollars, however, circulated domestically. Historians of American money and the state seldom study connections between the Trade Dollar, demonetization, and American participation in the Paris monetary conferences (1868–1892). This paper places high global negotiations and empire-building in context with domestic politics and money's materiality. It argues that global competition to control silver flows met its match in American monetary politics of the late nineteenth century. This collision of business interests and social aspirations created the largest political movement related to the American money question, leaving hopes for a multi-national monetary system unfulfilled until establishment of the Eurozone.

**82. MODERN TIMES 5. CONTEMPORARY COINS & NOTES (19TH-21ST CENTURIES), CHAIRED BY JESSE KRAFT (AMERICAN NUMISMATIC SOCIETY)**

A) MAKING SMALL CHANGE WITHOUT A MINT: THE CUT COINS OF THE FRENCH WEST INDIES (LATE 18TH C.-EARLY 19TH C.), JÉRÔME JAMBU (UNIVERSITÉ DE LILLE)

At the end of the 18th century, the shortage of small change in the Caribbean Islands was such that the local authorities decided on their own initiative to make coins themselves. In the absence of local mints a practical solution was adopted and spread rapidly in these small territories, whatever the empire they were attached to. The solution was to cut into smaller pieces the large silver coins then available: the Hispanic-American pieces of eight. It appears from recent studies that the initiative was French, more precisely, from the Grenadine islands. Even the name moco, used in the early 19th century to describe these cut coins, comes from Guadeloupe, and does not have the same meaning attributed to it in the past. The success of the mocos was revealed notably because of their immediate falsification which could even lead to the production of “false reals” for collectors in Paris during the Universal Expositions.

B) INFRINGING HOLLAND GOLD DUCATS IN THE RUSSIAN EMPIRE, IVAN SINTCHOUK (INDEPENDENT RESEARCHER)

The pseudo-Netherlands chervonets of the Imperial Cabinet was minted in the Russian Empire between 1770 and 1867. Intended primarily for internal circulation it became the official means of payment in the Russian Empire in 1773 on the initiative of Count Z.G. Chernyshev, the Belarusian Governor-General. The overvalued rate of the unauthorized chervonets made of cabinet gold in the Dutch appearance was supported by mandatory acceptance into government payments at a price of 3 roubles apiece. The key question for research is the question “What is to be the rate of gold «Holland» ducats to silver?” Cankrin's reform was used to a large extent for the hidden devaluation of the gold chervonets.

The present study was carried out using a large number of documents from the archives of St. Petersburg, Minsk and Vilnius.

C) CUBAN COMPLEMENTARY NOTES, TOM HOCKENHULL (BRITISH MUSEUM), ZOREIDI SOLORZANO ARIAS (NUMISMATIC MUSEUM)

Cuban 'notas complementarias' are certificates awarded to citizens in recognition of their contribution to State activity through voluntary work and payments to state organisations. This paper looks at their design and function within the Cuban economy, suggesting that their introduction and aesthetic is inspired by revolutionary scrip money and bonds issued in the 1950s.

**83. MEDALS 1. FEMALE RULERSHIP & ROYAL REPRESENTATION ON MEDALS FROM 17TH TO 18TH CENTURY, ORGANIZED BY YLVA HAIDENTHALLER (LUND UNIVERSITY) AND ANNA LÖRNITZO (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN), CHAIRED BY YLVA HAIDENTHALLER**

Although male rulers tend to dominate the early modern historical narrative, there were also successful women who, for decades, directed the diverse political affairs of their dominions, leaving a significant numismatic imprint as they commemorated their deeds and achievements on medals.

While gender research is already an increasing area of the historical sciences, it is only rarely applied in numismatic studies. Many aspects regarding the role of women in coinage remain unexplored. However, studies on the depiction of female rulers on coins and medals are of particular interest because they add to the understanding of royal image-making.

The aim of this session is to focus on female ruler's iconography on medals. The lectures will examine the medal production of European Empresses and Queens regnant from the 17th to the 18th century, namely Queen Christina of Sweden (reg. 1632–1654), Queen Anne of Ireland and England (reg. 1702–1714), (Empress) Maria Theresa of Austria (reg. 1740–1780) and Empress regnant of Russia Catherine the Great (reg. 1762–1796).

The contributions will address aspects such as the public representation through portraits on coins and medals, the interaction between the court and media through official medals, the target audience of their medals, as well as the distribution and commercialisation of medals. The papers will touch upon whether these monarchs employed specific female imagery or male representation codes to underline their position, emphasising dynastic inheritance, and how they portrayed topics such as succession or warfare.

These four rulers offer -not least by their geographic variety – an opportunity for a comparative approach to the study of the iconography of female rulership. Eventually, this session is expected to broaden the insight into early modern royal representation on medals.

A) THE NORDIC MINERVA AND HER MEDALS: QUEEN CHRISTINA'S ICONOGRAPHIC STRATEGIES DURING HER REIGN IN SWEDEN, YLVA HAIDENTHALLER (LUND UNIVERSITY)

As patron of the arts, Queen Christina was actively engaged in the design and production of her medals. She invited medal artists from abroad to work for her at the Swedish court and sought the development of medal art. Most of all, she launched a unique iconographic style. In contrast to her predecessors and successors, Queen Christina employed an antique-inspired imagery unusual for that time.

This paper presents a wide array of Christina's medals produced during her reign as Queen of Sweden (1632–1654), from adolescence to abdication, which illustrates this unusual female rulership. It will show how she utilised medals to negotiate dynastic inheritance, female codes, and discuss how she merged tradition and novelty to promote herself as a Nordic Minerva.

B) LES MEDAILLES DE LA REINE ANNE, 1702-1714, THOMAS COCANO (SAPRAT, EPHE – PSL)

This talk will deal with the representation of Queen Anne on the medals of the Royal Mint in London during her reign, from 1702 to 1714.

We propose to address the link between coins and the first medal of the reign, and the evolution of her bust during her reign.

Finally, we propose to address the evolution of production of medals during her reign, as a part of the royal representation as female ruler of early 18th-century England.

C)  $\Theta$ KING AND MOTHER. POLITICS AND GENDER ASPECTS ON MEDALS OF EMPRESS MARIA THERESA (R. 1740-1780), ANNA LÖRNITZO (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN)

Images play a major role in the media strategies of politicians, who aim to increase their prestige and authority. That is of course the case nowadays and it was already so in the days of Empress Maria Theresa. By then, medals had become suitable tools of propaganda and historiography. Nowadays, they are unique sources on the visual culture and royal image-making. During Maria Theresa's lifetime, more than 200 different types of medals were created for her commemoration. The whole spectrum of her medals comprises subjects of sovereignty, domestic as well as military affairs, and the Habsburg-Lorraine dynasty.

This contribution sets out to examine medals as a medium of representation and visual communication from an iconographic point of view. It explores the image created by medals of Maria Theresa and her reign by analyzing the iconography of her portraits and the reverse depictions from the perspective of politics, dynastic issues and especially gender aspects.

**84. MEDALS 2. POLAND, CHAIRED BY TOM HOCKENHULL (BRITISH MUSEUM)**

A) HOLDING, HANDLING, FLIPPING: REMARKS ON THE PERCEPTION OF MEDALS (15TH TO 17TH CENTURIES), AGNIESZKA SMOŁUCHA-SŁADKOWSKA (NATIONAL MUSEUM IN KRAKÓW)

Unlike coins, medals were not bound by any restrictions of size or weight. Cast or struck, they were usually larger, thicker and more three-dimensional than the flat coins, sometimes with the obverse and/or reverse shaped in high relief. This phenomenon is especially noticeable in the facing and three-quarter facing portraits frequently seen on medals. However, the compositional scheme of medals, usually similar to that of coins and quite repetitive, was definitively not a fixed standard (as evidenced by e.g. a variety of medal shapes, and inconsistency in the orientation of die axes). In my talk I wish to focus on some artistic devices resulting from the three-dimensionality of medals and those regarding their tangibility. Further I will examine and shortly discuss the ways different medals were or could have been handled and perceived by their owners.

B) THE LIFE OF MARIA KLEMENTYNA SOBIESKA-STUART (1702-1735) WRITTEN IN MEDALS AND THEIR SYMBOLIC MEANINGS, FRANCESCA CECI (MUSEI CAPITOLINI), JAROSŁAW PIETRZAK (UNIwersytet Pedagogiczny Kracowie)

The paper aims to present the figure of the titular Queen of Great Britain Maria Klementyna Sobieska-Stuart based on medals which commemorate the most important moments in her life. The medals were minted by the top-class medalist Otto Hamerani at the request of Popes Clement XI and Benedict XIV. The medals commemorate the princess's escape from captivity in Ambras Castle, her triumphal journey to Montefiascone for her marriage with James Edward Francis Stuart, the glory of the royal couple, the birth of her sons and the death of the queen. So far, the collection has not been the subject of any special consideration. It is an invaluable resource for research owing to the symbolism of representations which refer to

mythological archetypes, strongly rooted in the European art of portraiture. All of them testified the importance of the Stuart legacy and present an overview of their unsettled life.

C) THE PRIZE MEDALS OF THE STANISLAUS II AUGUSTUS REIGN, JULIUSZ ZACHER (THE ROYAL CASTLE IN WARSAW – MUSEUM)

The 18th century was the time when the whole Europe widely introduced the award or prize medals not only as a gift or token of gratitude to commemorate the merits of an individual or an institution, which was an established practice, but also a specific type of a universal medal. Like many other rulers of the Enlightenment, king Stanislaus II Augustus introduced this type of medal (e.g. Merentibus in the Polish-Lithuanian Commonwealth) as a valuable royal prize awarded to a wide range of distinguished or famous and illustrious people, not only Polish nobles, but also to foreigners. The paper analyses the types of prize or award medals manufactured during the reign of the last Polish king.

D) POLISH EMIGRATION MEDALS BETWEEN THE NOVEMBER UPRISING AND THE JANUARY UPRISING (1831-1862), WITOLD GARBACZEWSKI (THE NATIONAL MUSEUM IN POZNAŃ)

After the fall of the November Uprising many Poles were forced to leave the Kingdom of Poland, going into exile – mainly to France – in a movement known as the Great Emigration. In exile Poles formed several political groups engaging in wide-scale political and propaganda activity. Medals must be included among the means used to advance the Polish cause and keep the national spirit alive. They were issued mostly by the conservative-aristocratic political faction centered around Prince Adam Jerzy Czartoryski. These medals proclaimed the glory of the people who had rendered a great service to the Polish emigration, keeping alive the idea of an independent Poland, serving both as prizes awarded to distinguished non-Polish politicians, and as valuable souvenirs for fellow Poles in exile and in partitioned Poland. The medals were created by leading Polish and French artists, and are also excellent examples of the medallic art.

**85. MEDALS 3. EUROPE, CHAIRED BY AGNIESZKA SMOŁUCHA-SŁADKOWSKA (NATIONAL MUSEUM IN KRAKÓW)**

A) PLAGUES, EPIDEMIC DISEASES AND NATURAL DISASTERS THROUGH PAPAL MEDALS, ELEONORA GIAMPICCOLO (VATICAN APOSTOLIC LIBRARY)

On March 27th, 2020 a special event moved the whole of humanity regardless of religious beliefs: the Pope of the Catholic Church, alone in a completely empty Piazza san Pietro, and in the darkness of a rainy evening, raised a prayer to the God of all people to free us from the terrible pandemic that is overwhelming our lives. It is not the first time that Peter's successors have performed such gestures on the occasion of plagues, epidemic diseases and natural disasters. Some papal medals are linked to these actions of the Supreme Pontiffs, issued to commemorate the measures taken to alleviate people's sufferings, to thank God for his intervention in facing such tragic events, and to immortalize in metallic form the prayers of the Popes in times of troubles. This contribution intends to illustrate some of the most significant of these metallic records issued over the centuries by Popes and present their history.

B) CURRENT RESEARCH ON MEDALLIC ART IN GERMANY, JOHANNES EBERHARDT (MÜNZKABINETT DER STAATLICHEN MUSEEN ZU BERLIN)

Contemporary medals provide an artistic commentary on perspectives on history and culture. Topics range from global phenomena to subjective emotions. As such, contemporary medallic art has great potential as a source for several disciplines. Next to numismatic expertise the study of medals requires knowledge of social, political, and cultural spheres as well as historical events.

From the time of its inception the Münzkabinett in Berlin has maintained its role of a centre of research on medallic art. The German Society of Medallic Art and the Gitta-Kastner-Research-Foundation (as an institution of the Numismatic Committee of the Federal States of Germany) support research on medallists and their work. A major focus is placed on assessing art medals in a digital environment.

The aim of this paper is twofold. Firstly, it will provide an overview of current research projects. Secondly, it attempts to contextualize German research structures on medallic art in a more global perspective.

C) THE LLOYD'S MEDAL FOR SAVING LIFE AT SEA, TOM HOCKENHULL (BRITISH MUSEUM)

This paper explores the stylistic and compositional influences on the Lloyd's Medal for Saving Life at Sea, engraved by William Wyon in 1836. It suggests that Wyon, who is credited with the original design, assembled a collage of disparate elements which nevertheless act in harmony, resulting in a successful and enduring example of neoclassical composition.

**86. DIE STUDIES 1. 21ST CENTURY APPROACHES TO DIE STUDIES, ORGANIZED BY LUCIA CARBONE (AMERICAN NUMISMATIC SOCIETY), LIV M. YARROW (CUNY, GRADUATE CENTER), CAROLINE CARRIER (ENS-LYON); CHAIRED BY LUCIA CARBONE**

Since its inception over 150 years ago, die studies have become an essential part of the numismatists' tool kit because they aid in two major ways: (A) to reconstruct striking processes at a mint, and (B) to quantify the number of dies used to strike an issue. The first is widely accepted; the latter remains partly controversial. Even those who accept that quantification is possible and useful bemoan the fact that die studies are so laborious that it would be impossible to complete enough die studies of large enough issues to say anything particularly meaningful about the ancient money supply, let alone the ancient economy. However, new technologies seem to provide new possibilities. While no computer-aided die study has been published yet, using machine vision or computer aided measurement akin to facial recognition to speed the die study process seems now within reach, as in the case of ANS-sponsored CADS. Cooperative approach and open access databases provide yet other possibilities. Indeed, over the last few years, three projects have aimed to put online die studies: the Roman Republican Die Project (ANS), the SILVER project for the Greek coins including the Roman period (ENS Lyon) and the Iron Age Coin in Britain (Oxford). The data of thousands of die studies will be made available online for the first time and this resource will grow with new publications. It is a new important step for numismatics and one that will open new research paths to ancient economy studies based on these big data and on interdisciplinary approach. This panel thus



aims to explore these new approaches to die studies, showing in which way it could be possible –paraphrasing M. Crawford – to solve “the practical problem that counting all the dies used to strike would be the work of several lifetimes.” (M.H. Crawford, RRC, 641).

A) DEVELOPMENTS IN THE COMPUTER-AIDED DIE STUDY (CADS), ZACHARY TAYLOR (AMERICAN NUMISMATIC SOCIETY)

Numismatic die studies are notoriously labor intensive to conduct by hand, and often take years to complete. Recent years have seen an uptick in computational approaches to die studies, taking advantage of computer vision and unsupervised clustering techniques to both improve accuracy and greatly reduce time required. This paper presents recent developments in the Computer-Aided Die Study (CADS), one such project that aims not to replace the numismatists’ role, but instead to aid and empower their efforts. CADS provides a suite of tools that aid in conducting die studies, ranging from initial high-accuracy die clustering to integrating new material into a completed study. CADS is an ongoing project at the American Numismatic Society, and is a continuation of previous work in collaboration with Trinity University.

B) THE ROMAN REPUBLICAN DIE PROJECT (RRDP): HISTORY AND METHODOLOGY, LUCIA FRANCESCA CARBONE (AMERICAN NUMISMATIC SOCIETY), LIV MARIAH YARROW (BROOKLYN COLLEGE, CUNY), ALICE SHERPLESS (AMERICAN NUMISMATIC SOCIETY)

In early 2019 the American Numismatic Society partnered Richard Schaefer in the Roman Republican Die Project, aiming at making available to the public his archive of over 300,000 pictures of Roman Republican Coinage, likely the largest die study ever undertaken. The first part of this project consisted of the digital preservation of Schaefer’s archive and was completed in June 2019. The second phase of this project, still ongoing, consists in the quantification of Schaefer’s die counts as recorded in these images, with a specific focus on the coinage issued between 90 and 75 BCE. These statistical data are gradually becoming accessible through Coinage of the Roman Republic Online. We envision a much more ambitious third phase after all the existing data is publicly available in which we create a research group and digital tools to expand on Schaefer’s work, incorporating new specimens and increasing coverage of all issues.

C) INTEGRATING DIE STUDIES INTO THE ROMAN REPUBLICAN KNOWLEDGE GRAPH, ETHAN GRUBER (AMERICAN NUMISMATIC SOCIETY)

The Coinage of the Roman Republican Online (CRRO), a joint American Numismatic Society and British Museum collaboration, was published online in early 2015. This digital corpus, based on Michael Crawford's 1974 Roman Republic Coinage, has since drawn together more than 60,000 example specimens from dozens of collections. More recently, the information system on which CRRO lies has been expanded to accommodate the Roman Republican Die Project. Some 10,000 coins from the archival research cards and binders of Richard Schaefer are presently entered into a database, linking to unique identifiers that reflect his die attributions. The link between die IDs to specimens to types enables a relatively instantaneous generation of die link charts and network visualizations. While much work remains to

complete the digitization of Schaefer's die study, these digital tools reveal patterns more rapidly to a broader audience without the time-consuming data aggregation process that once defined die studies.

D) THE ONLINE DIE STUDY DATABASE OF THE ERC « SILVER », CAROLINE CARRIER (ÉCOLE NORMALE SUPÉRIEURE DE LYON)

This talk gives an overview of the online Greek die study database developed by the ERC "SILVER". Based on the two "Recueils quantitatifs des émissions monétaires" by Fr. de Callataÿ (1997, 2003) whose different categories of data it reproduces, it expands the number of cases to more than 1000. The site allows for the interoperability with other websites, quantitative data for each series and an overview of the obverse dies for the recorded series. Furthermore, each die has a dedicated page to which institutions with online catalogues can link their coins. The database also includes die studies authors pages and an interactive map showing the die studies according to several criteria. Although the database was conceived for Greek coins, we plan to add the data of Republicans and Imperials. This will allow for the first time a quantitative study of coins produced throughout the ancient Mediterranean.

E) 21ST CENTURY APPROACHES TO DIE STUDIES: WHAT ROLE CAN AN INSTITUTION LIKE THE BNF PLAY?, JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE)

The massive digitization of numismatic collections leads to questioning the role that an institution like the BnF can play in the digital numismatic world. In addition to the typological approach already developed on several linked open data portals, it is possible to consider the die as another way to gather/distinguish ancient coins issues. Thanks to several hundred thousand coins digitized, accessible via the IIF protocol and an adequate standardized cataloguing, the BnF can contribute to this development.

F) THE ROMAN REPUBLICAN DIE PROJECT (RRDP): PRELIMINARY FINDINGS, LUCIA FRANCESCA CARBONE (AMERICAN NUMISMATIC SOCIETY), LIV MARIAH YARROW (BROOKLYN COLLEGE, CUNY), ALICE SHARPLESS (AMERICAN NUMISMATIC SOCIETY)

This paper will present the preliminary findings from the second phase of the Roman Republican Die Project, with data focused on the important historical period of 90 to 75 BCE. Findings from RRDP allow for updates to Crawford's RRC from the addition of previously unobserved control marks to the revision of Crawford's typologies. Most important, however, are the possibilities of quantification that are made possible through the transcription of Schaefer's materials into digital formats, available through the RRDP database and CRRO.

G) BRONZE COINS BETWEEN MAGNESIA AND MACEDON: A NEW DIE STUDY OF THE COINAGES OF EASTERN MOUNT OSSA (THESSALY, GREECE), ANNA MAGDALENA BLOMLEY (UNIVERSITY OF OXFORD)

The proposed paper will present the results of a new regional study, which brings together the Late Classical and Hellenistic bronze coinages of five mints in the eastern foothills of Mount Ossa (Thessaly, Greece): Eureai, Eurymenai, Homolion, Meliboia and Rhizous. Combining a detailed die study with a close examination of the five mints' topographic context, the paper not only works towards a better

understanding of the introduction and development of Thessalian bronze coinages, but also helps to assess to what extent Late Classical and Hellenistic civic coins are genuinely local in design, production and function. Methodologically, the paper explores the potential of a “topographically embedded” approach to ancient fiduciary coinages, placing the study of Mount Ossa’s bronze coins at the intersection of numismatics and landscape archaeology.

H) WILLIAM TAYLOR AND THE FIRST COINAGE OF THE REPUBLIC OF LIBERIA, BILL DALZELL (CNG, LLC)

From their founding in 1847, the Republic of Liberia vigorously sought to ensure both their political and financial independence from the imperial nations then asserting dominion over the African continent. To this end, the Republic struck a limited series of one and two cent copper pieces, dated 1847 and 1862, respectively. These were produced by William Taylor of London, who is perhaps better known for the multitude of restrikes he produced of the coins from the Soho mint. Despite the limited series, the picture is complicated by a myriad of patterns, proofs, and restrikes produced by Taylor for his own profit, seemingly long after the official orders were filled. Careful examination of the dies, focusing on die breaks, changes, and alterations, must be combined with the scant contemporary accounts and archival resources available to reconstruct this important series in its entirety and begin to place it in proper context.

**87. EXONUMIA 1. ANCIENT AND BYZANTINE WEIGHTS: FROM DATABASES TO HISTORICAL ANTHROPOLOGY, ORGANIZED BY CHARLES DOYEN (UCLouvain / FNRS) AND PIERRE CHARREY (UCLouvain / FNRS), CHAIRED BY CHARLES DOYEN**

Research on ancient and Byzantine weights has undergone an impressive development in the last decades. Historical metrology has now become an autonomous and dynamic field of research.

In line with the pioneering studies of the second half of the 19th century, ancient weights used to be studied as para-numismatic and epigraphic items. This antiquarian and erudite approach was then refined throughout the 20th century with the development of scientific archaeology. During the past few decades, scholars were then focused on creating various corpora of weights produced in the same region, the publication of museum collections, and the completion of many individual archaeological reports.

Since the relevant data were scattered throughout thousands of publications, the study of ancient Greek weights on a large scale in time and space required the creation of an efficient database. This long-term work has been carried out since 2016 by an international network of about 30 scholars in the framework of the Pondera Online project.

Within a few years, the Pondera Online database (UCLouvain) has become a game-changer in the field and already contains over 15,000 ancient weights. This collaborative tool now makes possible undertaking historical and anthropological studies on a new level. Each period, from the Greek city-states to the development of Roman and then Byzantine imperialism, raises its own problems: e.g. metrology and territorial sovereignty, organisation of state control, anthropology of gestures,

technological innovations and massive standardisation, religious ideology and economic rationality, etc.

Historical metrology allows for a new perspective on the political economy and monetary practices in ancient and Byzantine times. Four case studies presented by young scholars, each dealing with the Greek-Hellenistic, Roman, and Late Antique/Byzantine eras, will demonstrate the new autonomy acquired by the discipline and will outline a few promising perspectives for ancient history in general.

A) NEW TRENDS IN THE HISTORY OF WEIGHTS AND MEASURES: THE LEGACY OF WITOLD KULA'S HISTORICAL METROLOGY, GRÉGORIE CHAMBON (EHES)

Witold Kula, considered one of the founders of the Polish school of social and economic history linked to the French school of Annales, was at the origin of the current called "historical metrology". Since its founding work in the 1970s, which focused on the logic of traditional measurement systems, studies of weights and measures systems now take into account both the technical aspects and the social context of measuring and weighing. These studies are no longer strictly dependent on economic history. The idea was often to go beyond the quantitative approach and to develop methods by combining archaeological and epigraphic data in order to understand the far-reaching implications of metrology and economy in ancient societies. This paper will focus on these methods, which illustrate new trends in the history of weights and measures.

B) FOR GOOD MEASURE: THE CONTROL OF MEASURING INSTRUMENTS IN THE ANCIENT GREEK MARKET, LOUISE WILLOX (UCLouvain)

The obligation to use certified weights and measures is a recurrent topos in Greek literary and epigraphic sources relating to market regulations. Magistrates were required to provide merchants with measuring instruments and weights and to control the use of official weights and measures in transactions. These controls took the form of countermarks or other types of marks on the instruments and gave legal status to them. These mechanisms were put in place notably to prevent fraud and to preserve confidence in the economic system. In this paper, we propose to study the customs and regulations surrounding the daily use of weights and measures in the market and the role of public authorities in the control of measuring and exchange instruments. Our aim is to shed new light on the modalities of economic transactions as well as on the practices and representations of weighing operations in the ancient Greek world.

C) ON THE SCALE OF THE EMPIRE: WEIGHTS DESIGN AND LATE ROMAN IDEOLOGY (4TH-8TH C.), PIERRE CHARREY (UCLouvain / FNRS)

For four centuries, Roman merchants, collectors and money changers used normalized weights. These unparalleled instruments soon became a medium for a homogenous repertoire of forms and images. The precious materials, the iconography and the inscriptions engraved by the imperial factories encapsulate an array of references to the visual culture of citizens. Actors of an ecumene that was both Roman and Christian, those weights signified to the people their inclusion in the same political community. It is the cultural implications of this metrological revolution that this paper seeks to uncover. Indeed, the semiotics of the weights could play a

significant role in their reception. Integrated into a control device comprising techniques and discourses, the aesthetics of measure ensures the acceptance of tax payments at the heart of densely monetarized trade. Eventually, it appears that these small monuments bring to light a unique phenomenon in the production of political representations.

D)  $\ominus$ WEIGHING AFTER DEATH: EARLY MEDIEVAL SCALES AND WEIGHTS IN A FUNERARY CONTEXT, BENDEGUZ TOBIAS (AUSTRIAN ACADEMY OF SCIENCES)

The vast majority of scales and especially weights are known to us today without an archaeological context. If we look at the few examples that come from archaeological findings, we can detect a significant difference between the Mediterranean area and the region north of it. While in the Mediterranean region these instruments are mainly found in settlements, outside the Mediterranean region they are primarily found in connection with burials. The subject of this paper are scales and weights in the grave context. As will be demonstrated, in many cases it is difficult to identify the role these instruments played in the burial ritual and their original purpose.

**88. EXONUMIA 2. COIN WEIGHTS & TOKENS, CHAIRED BY CHARLES DOYEN (UCLouvain / FNRS)**

A) THE REUSE OF ROMAN COINS IN THE ISLAMIC WORLD, FEDERICA GIGANTE (UNIVERSITY OF OXFORD), JEROME MAIRAT (UNIVERSITY OF OXFORD)

This paper will introduce a group of Roman coins repurposed in Islamic times through the use of countermarks. The practice of countermarking coins is normally associated with the appropriation and transformation by a different authority of coins already in circulation. The coins under analysis, however, struck between the second and fourth centuries AD, show very little sign of wear, thus revealing that they had not been in continuous usage since Roman times but, rather, had been rediscovered and then transformed to be reused in a new context. Instead of being melted down for metal, or kept as antiquities, these coins were countermarked and repurposed to different uses, possibly as weights and measures. This paper will present a preliminary catalogue of such coins as examples of spoliation across several centuries and several civilizations, will analyse their geographical distribution, and will explore the implications of their reappropriation in Medieval times.

B) FINDING THE 'MISSING PIECES': LATE MEDIEVAL AND RENAISSANCE COIN WEIGHTS FROM ENGLAND AND WALES, MURRAY ANDREWS (KULTURHISTORISK MUSEUM / UNIVERSITY OF OSLO)

Copper-alloy weights were used throughout the late medieval and Renaissance periods to control and monitor the circulation of gold coins, and their presence on archaeological sites offers a unique means of evaluating the nature and extent of gold circulation in places that otherwise lack gold coin finds. This paper uses more than 1000 finds of fourteenth- to sixteenth-century coin weights from England and Wales to explore long-term dynamics in the circulation of gold coinage, and assesses the significance of this dataset in the light of historical and coin find evidence.

C) BARCELONA, CENTER OF PRODUCTION OF MONETARY SCALES (18TH-19TH CENTURIES), ALBERT ESTRADA-RIUS (GABINET NUMISMÀTIC DE CATALUNYA / MUSEU NACIONAL D'ART DE CATALUNYA)

The paper proposes an approach to modern monetary metrology through the study of Barcelona as a manufacturing center of scales to weigh currency. To this end, the unpublished documentation from the Farriols workshop in Barcelona, now kept in the Gabinet Numismàtic de Catalunya (Museu Nacional d'Art de Catalunya), will be examined. The workshop and a shop were founded in the 18th century and continued to operate during the 19th century, always in the hands of the same family. A study will be made of the unpublished documentation, the activity of the workshop examined in the context of guilds, public interventionism of the Bourbon municipality officers and the material needs of currency control.

D) THE MAJORCAN CHURCH LEAD TOKENS: A NUMISMATIC SYSTEM TO CONTROL PRIEST PRESENCE DURING MASS, JAUME BOADA-SALOM (SOCIETAT CATALANA D'ESTUDIS NUMISMÀTICS)

In the 16th century, a unique system of control over priests' participation in the masses was introduced in the Cathedral of Majorca. It consisted of one or several lead tokens that were handed at a precise moment of the rite, to be exchanged for currency at the end of the month. Although the system had been introduced at a troublesome time in the history of this Mediterranean island, its advantages were important enough for it to be extended to most Majorcan parishes and remained in use until the late 19th or early 20th century. It also gave a material support to the so-called "ecclesiastical benefit" system, which had become an essential resource for financing the Catholic Church since the Middle Ages. The tokens may be studied from many angles. They include the way they were made using moulds, their illegal use as a local currency, and even their counterfeiting, and more.

**89. MODERN TECHNOLOGIES IN NUMISMATICS, CHAIRED BY KEVIN BUTCHER (UNIVERSITY OF WARWICK)**

A) ADHERING TO A WEIGHT STANDARD IN ANCIENT COINAGE BASED ON THE EXAMPLE OF CISTOPHORI, WOLFGANG BRETZ (RUHR UNIVERSITY BOCHUM INSTITUTE OF ARCHAEOLOGICAL STUDIES), BAERBEL MORSTADT (RUHR UNIVERSITY BOCHUM INSTITUTE OF ARCHAEOLOGICAL STUDIES)

As part of an interdisciplinary project a wide range of non-destructive and destructive examinations of cistophori were carried out in order to answer archaeometallurgical questions. The destructive testing methods include the examples minted before 39 BC. The non-destructive testing methods include those minted up to the Hadrianic era. Destructively examined coins delivered information about the structure of the patina and their microstructure. These enabled conclusions to be made about production processes. A significant discovery is the presence of foreign particles (conventionally called planchet defects) which we called capsules. In our opinion, those capsules were used to achieve a standard weight for underweight planchets according to the Aeginetic standard. These capsules could be detected metallographically in the sections of 10 out of 16 coin halves as well as in non-destructive computed tomography scans.

B) COMPARATIVE METAL ANALYSES OF ORIGINAL AND COUNTERFEIT ANCIENT COINS – SOME EXAMPLES FROM BULGARIA, MARINA DOYCHINOVA (REGIONAL HISTORY MUSEUM OF SOFIA)

The spread of ancient coins counterfeits leads to historical and social distortions. Considering this, the need for adequate measures rises. In the last two years, the active collaboration of Bulgarian and international researchers within the framework of the ACCS Network and the project “Measuring Ancient Thrace” has provided a sustainable basis and new perspectives in this direction.

There is a dangerously increasing diversity in the production methodologies of the forgers. The Regional History Museum of Sofia, as a leading institution of cultural heritage preservation, has a substantial collection of both genuine and counterfeit numismatic objects. This paper will present the comparative results from XRF analyses of the chemical composition of a representative selection of pairs of original specimens and their counterfeits from this collection. These results may provide priceless information which can contribute to forgery detection cases.

C) USING MODERN TECHNOLOGIES FOR THE 3D VIZUALIZATION OF THE ROMAN IMPERIAL COINS, KLARA BURIANOVA (DEPARTMENT OF AUXILIARY SCIENCES OF HISTORY AND ARCHIVAL STUDIES, PHILOSOPHICAL FACULTY, UNIVERSITY OF HRADEC KRALOVE)

Nowadays, one of the most widely used non-destructive methods is digitization, both two-dimensional and three-dimensional. It provides many opportunities in presenting the cultural heritage to the general and professional public.

I will discuss the procedures used in the digitization of the coins of the Roman Empire, from which three-dimensional computer models are created through 3D digitization methods. I will also discuss digitization of small objects, AE3 and AE4 coins in particular.

D) RE-IMAGINING THROUGH RE-IMAGING: RTI HELPING US SEE MUSEUM COLLECTIONS IN A NEW LIGHT, ELIZABETH BENGE (THE ART INSTITUTE OF CHICAGO)

During the pandemic, museum visitors became increasingly reliant on the internet for acquiring information about collections they could not visit in person. In 2020, curatorial and imaging staff at the Art Institute of Chicago launched a project to investigate how Reflectance Transformation Imaging (RTI) can be used to present ancient inscribed works to new virtual audiences. Digitally exhibiting ancient Greek and Roman coins from the collection that are unsuitable for physical display due to their worn conditions is a primary goal of this project. This paper further explores the benefits to virtually manipulating a light source to reveal different subtleties of detail over the limitations of examining a standard 2D image. The project hopes to make a case for our web developers to build an interactive RTI viewer to use on the museum collections website, which is increasingly becoming the primary platform for publishing academic content of our collections.

## 90. NUMISMATIC DATABASES, CHAIRED BY ETHAN GRUBER (AMERICAN NUMISMATIC SOCIETY)

### A) NUMISTA: BUILDING A COLLABORATIVE UNIVERSAL NUMISMATIC DATABASE, XAVIER ROGÉ (NUMISTA), ANDREI JIPA (ETH ZÜRICH)

One of the largest online numismatic catalogues is hosted by Numista, serving as a knowledge base for coins, banknotes, medals, tokens, and other related items. The catalogue, numbering currently more than 280,000 types, is entirely free to access and addresses private collectors, museums, and researchers alike. The distinguishing features of Numista are (i) its collaborative nature, the catalogue being edited by its audience and (ii) its universal scope, aiming to record all numismatic items from all periods and places. This paper presents the Numista relational database, which contains tables for numismatic objects and their attributes, such as mints, materials, and engravers. The catalogue is accessible through the Numista website and through an application programming interface (API), which facilitates the exchange of information with other databases. Recently, Numista has started to implement linked data methodologies, and has semantic links to numismatic and general data sets.

### B) FROM CLOSED CATALOGUES INTO LINKED OPEN NUMISMATIC DATA IN FINLAND, ELJAS OKSANEN (UNIVERSITY OF HELSINKI), FRIDA EHRNSTEN (NATIONAL MUSEUM OF FINLAND), HEIKKI RANTALA (AALTO UNIVERSITY)

This paper will investigate digital numismatic collections management challenges and potential solutions using the national collections at the National Museum of Finland and the Finnish Heritage Agency as a case study. Concentrating on coin finds, we will discuss digital heritage challenges that stem from combining heterogeneous older and modern catalogues and data, and in designing sustainable institutional solutions that serve the needs of multiple user audiences (e.g. collections management, scientific researchers, non-professional numismatists and the general public). We will present the new project DigiNUMA which aims to develop a new Finnish public data service for numismatic heritage through data harmonisation and Linked Open Data principles in concordance with the principles of pan-European undertakings such as Nomisma.org and AriadnePlus. The possibilities that such technological platforms offer for deploying digital citizen science/crowd-sourcing data enhancement will be discussed.

### C) THE COIN HOARDS OF THE ROMAN REPUBLIC ONLINE DATABASE: REFLECTIONS AND DEVELOPMENT AFTER NINE YEARS, KRIS LOCKYEAR (INSTITUTE OF ARCHAEOLOGY, UCL)

The Coin Hoards of the Roman Republic database started in 1989 as part of a master's dissertation. It was greatly expanded for my PhD, and then again for subsequent publications especially my book in 2007. The database was a personal research database, and hoards which fulfilled my personal research objectives were targeted. In 2011, I was approached by the late Rick Witschonke with a view to making the data available via the American Numismatic Society's website. I was initially reticent as the data had not been collected with a view to being a resource database. This paper reviews how the online database has been received and used, and then outlines the development of the database since 2013 and the differences between versions 1 and 2 of the online resource.



## 91. COLLECTIONS 1, CHAIRED BY ADAM DEGLER (OSSOLIŃSKI NATIONAL INSTITUTE)

### A) THE NUMISMATIC COLLECTION OF FRANCESCO CAPRANESI: THE COINS OF THE ALLIES DURING THE SOCIAL WAR, SIMONE CAPPELLACCI

Throughout his life, the Roman merchant, antique dealer and scholar of the first half of the 19th century, Francesco Capranesi acquired an extensive original numismatic collection, now lost. The existence of this collection is confirmed by his will, preserved today in the State Archive of Rome. After outlining the general features of the said numismatic collection, this paper aims to examine one specific group: coins minted by the Allies at the time of the Social War (91-88 BC). In addition to other pieces of direct evidence which characterize Capranesi as the first owner of a unique gold coin minted during the Social War (today preserved at the Cabinet des Médailles in Paris), this core group substantiates his activity as a first-class antique dealer and collector of unique coins deriving from Samnium.

### B) THE COLLECTION OF SILVER ORIENTAL COINS STORED IN THE ODESSA ARCHAEOLOGICAL MUSEUM, DMYTRO YANOV (ODESSA ARCHAEOLOGICAL MUSEUM OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE)

The collection of silver Oriental coins from the Odessa Archaeological Museum numbers 2564 pieces. It includes the issues of 42 various states and dynasties, from Spain and Maghreb to Japan. The chronological range of this collection covers the period from the 2nd century BC to the 1920s. Only a small group of coins from this collection was published, while its greater part still remains unknown to scholars.

The collection has been amassed since 1839, when the museum belonged to the Odessa Imperial Society for History and Antiquities. During World War II, a part of the collection and numismatic inventory books were lost. Unfortunately, due to this circumstance, the provenance of most of the coins from the collection is no longer known. Despite this, the collection is of interest to researchers – for example, for the study of the coin fineness and weight standard, as well as for the compilation of catalogs.

### C) CHARLES PHILIPPE DE BOSSET'S COIN COLLECTION IN THE BRITISH MUSEUM, AMELIA DOWLER (BRITISH MUSEUM)

Charles Philippe de Bosset (1773-1845) was a Swiss soldier and British imperial official, who became Governor of Cephalonia in 1810. During his time on the Ionian Islands and elsewhere in the Mediterranean, he built up a large collection of Greek coins and archaeological material. This paper focuses on the numismatic collection which was part donated and part sold to the British Museum in 1815-1818.

The de Bosset collection includes coins from excavations on Ithaca, and Greek coins from a wide variety of mints across the Mediterranean. The origins of these coins have been difficult to trace in many cases due to the complex nature of their acquisition at the British Museum. This paper therefore sets out the evidence for de Bosset's original collection and the coins in the British Museum today.

D) DIES AND PUNCHES FROM THE ROYAL MINT – A NEW COLLECTION AT KBR (ROYAL LIBRARY OF BELGIUM), FRAN STROOBANTS (ROYAL LIBRARY OF BELGIUM)

In November 2015, the collection of dies and punches of the Royal Mint of Belgium was transferred to KBR (Royal Library of Belgium). This collection of about 15,000 objects, consists of tools from the old mint workshops of the Southern Netherlands and the Kingdom of Belgium. This material has been preserved for centuries under the name of the Musée des instruments monétaires, and has been systematically enlarged by deposits and gifts from engravers, associations and institutions.

This paper aims to present the first analysis of this newly acquired collection. In its first part, the broader context of the material is outlined, through a brief overview of the history of the old mint workshops. The second part of this paper focuses on the collection itself, outlines its history and transfer to the KBR, discusses the current state of the collection, and proposes an action plan for future management and access.

**92. COLLECTIONS 2, CHAIRED BY PAWEŁ GOŁYŹNIAK (JAGIELLONIAN UNIVERSITY)**

A) POLISH COINS AND MEDALS AT THE AMERICAN NUMISMATIC SOCIETY, DAVID HILL (AMERICAN NUMISMATIC SOCIETY)

At various times over the years, the American Numismatic Society's members and leaders have demonstrated an interest in Polish numismatics. One of the ANS's early presidents built a sizeable collection of Polish coins and medals. It was loaned to the Society after his death but was withdrawn after a few years. For a while, the Polish section of the ANS's cabinet was developed mostly through small donations. There were some purchases along the way, too, such as a small group of Jan Wysocki medals obtained from the noted Polish numismatist Marian Gumowski. An expansion came in 1948, 1949, and 1950, when Polish émigré Count Alexandre Orłowski donated over 2,000 Polish coins and medals to the ANS. This paper will examine the development of the Polish section of the ANS's cabinet and have a look at some of the pieces found there.

B) HISTORY OF COLLECTING: PARALLEL LIVES OF SAMUEL-JEAN POZZI AND FENERLY BEY, MARY LANNIN (AMERICAN NUMISMATIC SOCIETY)

Coins not only have an ancient history, but a modern one. By the early 20th century, Samuel-Jean Pozzi (1846-1918) and Fenerly Bey (?-1911) had assembled important collections of ancient coins that are now scattered among various museums and private collections. These prominent men were both practitioners and teachers of gynecology and students of numismatics—thus, alike in their vocations and avocations. In the early 1900s, from Paris and from Constantinople, their collections were dispersed, each under unusual circumstances.

C) POSSIBILITIES AND LIMITS OF PROVENANCE RESEARCH IN NUMISMATICS, CHRISTIAN STOESS (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT)

Two major trends have determined the work in museums in recent years: digitization and provenance research. Numismatic provenance research is currently mainly carried out by non-numismatists, though. On the one hand, these specialized provenance researchers use methods and sources that numismatists are not very

familiar with and therefore may be expected to contribute potentially new insight. On the other hand, provenance researchers often unfortunately reach their limits when trying to classify serially produced objects like coins and medals. In this lecture we propose to shed light on this process.

### 93. HISTORY OF COLLECTING, CHAIRED BY DANIELA WILLIAMS (AUSTRIAN ACADEMY OF SCIENCES)

#### A) CENTURIES OF COIN-COLLECTING IN LOWER AUSTRIA. A) THE CANONRY KLOSTERNEUBURG 1700-1970, EDITH SPECHT (CHORHERRENSTIFT KLOSTERNEUBURG)

The monastery was founded in 1114 on the site of a Roman camp by Margrave Leopold III of Babenberg and his wife, the Salic Princess Agnes of Waiblingen at their residence in Klosterneuburg.

Right from the very beginning the monastery was a place of scholarship and learning, as is well documented by its sizeable library, and interest taken by the canons in coins and medals. The regularly updated inventories go back to the 1750s, and are a work still in progress. This paper looks into the evolution of the collection and in the diverse systems of cataloging it.

#### B) CENTURIES OF COIN-COLLECTING IN LOWER-AUSTRIA. B) THE CANONRY OF KLOSTERNEUBURG 1970-2010, WOLFGANG SZAIVERT (DEPARTMENT OF NUMISMATICS AND MONETARY HISTORY)

After the publication of ancient coins in this collection, the focus shifted to the treatment of modern coins and medals. The publication in a form valid at the time – that of a printed book – is now almost obsolete, and the internet is becoming the medium of choice. Before that, however, one has to consider how to arrange the objects of the collection in boxes in the first place. We have put the Talerkabinett from Klosterneuburg online on a newly created page that is also intended to present other Austrian collections, because it is precisely these collections that contain special pieces which often go unnoticed in large collections but suddenly appear here and seek the light of day.

#### C) CENTURIES OF COIN COLLECTING IN LOWER AUSTRIA. C) FUTURE AVAILABILITY OF DATA MATERIAL, MARTIN BAER (THE STATE COLLECTIONS OF LOWER AUSTRIA)

In the last 200 years significant numismatic collections have been established in Lower Austria. Museums, archives, monasteries and the “Landessammlungen Niederösterreich” own jointly more than 300,000 objects of different age. In addition to the purchased and donated items there are also coin finds. In spite of this abundance of material it is hardly used in scientific works due to the fact that the material is not accessible online.

This will be changed with the use of a new online database developed specifically in accordance with the concept and principles of Linked-Open-Data. In contrast to typical databases for objects this database makes use of a system known from OCRE: Type descriptions are created to which the objects are linked. Thus everyone benefits from the work of others and in the end it facilitates the digitization and maintenance of data.

The focus has been on Lower Austria, but could easily include further collections.

D) A DATABASE OF COIN COLLECTORS: THE PROJECT NUMISMATES, THOMAS FAUCHER (CENTRE D'ÉTUDES ALEXANDRINES, CNRS)

Marcel Jungfleisch, a famous numismatist who lived in Cairo in the first half of the 20th century, made an impressive work of collecting data on coin collectors. His work, held by the Institut français d'archéologie orientale in Cairo, consists of 17,461 paper cards representing about 16,000 individuals with information (for part of them) such as their birth and death dates, place of residence, the type of coin collected, and a bibliography concerning their collections. These data have been digitized and are currently entered into a database that will be available online, offering a unique tool for our discipline. The database will be proposed as an open source data (following the path of the Fontes Inediti Numismaticae Antiquae (FINA) project) according to the rules of the Linked Open Data, and providing useful links to other online resources (Wiki, ISNI, Ark, VIAF, Geonames, etc.) as well as hosting archives of individuals.

**94. COLLECTIONS, GALLERIES, EXHIBITIONS, CHAIRED BY MICHAEL ALRAM (AUSTRIAN ACADEMY OF SCIENCES)**

A) CURATING YALE'S NEW GALLERY OF NUMISMATICS, BENJAMIN HELLINGS (YALE UNIVERSITY ART GALLERY)

For the first time ever, a specially designed gallery dedicated to numismatics was opened at the Yale University Art Gallery in spring 2022. The gallery displays the depth and breadth of the Yale Numismatic collection, the largest numismatic collection at any American university.

Although the numismatic collection at Yale dates to the early 19th century, never before has it been exhibited in a dedicated gallery, with frequent rotating exhibitions. The new gallery offers an intimate space for visitors to experience the full scope of Yale's numismatic holdings.

This talk will describe the long transformational process from the founding of the collection to the creation a special gallery within a Yale museum – where it currently comprises over 60% of the objects – and the selection of objects on display. The gallery development is the first of many more numismatic developments to come to Yale.

B) INFLATION – A GERMAN TRAUMA? A MUSEUM EXHIBITION ON THE OCCASION OF THE HYPERINFLATION OF 1923, FRANK BERGER (HISTORISCHES MUSEUM FRANKFURT)

Inflation had never been a topic of a museum exhibition. With the outbreak of World War I the gold standard was given up. In Germany the war was financed by war bonds and by printing money. Already by 1919, the mark had lost 90 % of its value. Despite the galloping inflation until 1922 there was full employment. But finally in November 1923 the mark went under. The currency reform made a 1 billion paper Mark equal to 1 new Rentenmark. The exhibition tries to generate an easily interpretable graphic image of this financial and economic process.

C) REALLY BIG MONEY: THE DEVELOPMENT OF THE SMITHSONIAN'S NEW MONEY GALLERY FOR CHILDREN, ELLEN FEINGOLD (SMITHSONIAN INSTITUTION)

What does a money gallery designed for children look like? This paper will explore the process of developing the Smithsonian's new money gallery called Really BIG Money. The exhibition is designed for elementary-aged children and features some of the National Numismatic Collection's biggest objects – in size, denomination, and quantity – selected for their potential to surprise and delight young visitors. Created through a close partnership between curators and educators, the interpretation of these objects is shaped by existing curriculum on money and economics with the aim of supporting classroom learning and improving financial literacy. This paper will explain the ways in which very large monetary objects can help children practice creative thinking and learn about the world around them. It will also highlight the digital aspects of this project that enable children and educators to access Really BIG Money worldwide.

95. COLLECTING, ROBBING AND FAKING, CHAIRED BY CLIVE STANNARD (UNIVERSITY OF WARWICK)

A) THE 1831 THEFT AT THE BIBLIOTHEQUE ROYALE, PAUL FROMENT (BIBLIOTHEQUE NATIONALE DE FRANCE)

In 1831, a group of thieves entered the Cabinet des médailles of the Bibliothèque nationale de France (then the Bibliothèque royale) and robbed a significant quantity of gold coins, medals and most of Childeric's treasure. This was a severe loss to one of the richest collections in the world, which can still be felt nowadays: the series of Roman and Syracusan coins, medals of Louis XIV and Napoleon I suffered particular damage. Overlooked archives and a new approach to the records at hand can help assess the dimensions of the disaster suffered by the Cabinet, and improve the understanding of the making of the medallic policy during the reign of Louis XIV for example, but also, the way the theft was addressed immediately after it was committed and in the years that followed. What lessons can be learned by public institutions from the 1831 theft?

B) YAKI-NAOSHI (焼き直し): HOW A 19TH CENTURY CRAZE FOR EAST ASIAN ARTS PROPELLED IMITATION TOKUGAWA COINAGE INTO NUMISMATIC COLLECTIONS WORLDWIDE, EMILY PEARCE SEIGERMAN (YALE UNIVERSITY ART GALLERY)

Imitation Chinese knife and spade money and Japanese obans are dotted throughout many numismatic collections. The apex of East Asian imitations held in the Yale University Art Gallery's Numismatic Department is a framed display of Tokugawa era coinage. These object types were not made for coin collectors or enthusiasts, but to satiate a growing Western, middle-class interest in arts of the East. The Western fascination with the Far East known as Japonisme created a market demand for affordable, decorative arts pieces evocative of an idealized Asian or oriental aesthetic. Despite purposeful creation for display in middle-class homes, numerous numismatic collectors, auction houses, and museums acquired similar framed objects. This paper investigates the purpose of material culture created in the image of numismatic objects but unintended for numismatic function through the lens of fake Chinese and Japanese coins.

C) FRANCESCO GNECCHI AND THE "IMPRONTE EX VATICANE", DANIELA WILLIAMS (AUSTRIAN ACADEMY OF SCIENCES)

The "impronte ex Vaticane" are one of the sources given by Francesco Gnecci (1847-1919) in his work on Roman Medallions (1912). With these words Gnecci referred to a series of casts of ancient coins that he viewed at the beginning of the 20th century. He assumed that they all reproduced ancient coins kept in the Vatican collection before 1798. Research carried out on a similar set of casts recently discovered sheds light on the nature of the objects viewed by Gnecci and shows that they reproduce coins from several collections and that they belong to one of the sets made by Filippo Aurelio Visconti between the end of the 18th and the beginning of the 19th century.

**96. GRAFFITI ON MONEY: CULTURAL PRACTICES FROM ANCIENT TO MODERN TIMES, ORGANIZED ELISABETH GÜNTHER (UNIVERSITÄT TRIER) AND SUSANNE BÖRNER (UNIVERSITÄT HEIDELBERG), CHAIRED BY ELISABETH GÜNTHER**

Coins and banknotes are more than the embodiment of any economy's circulation and legal regulations. By passing through people's hands, they shape and frame certain audiences. With their specific imagery and legends, they provide distinct messages, depending on the duration and circulation of a given currency. While these features have already attracted scholarly attention, later incisions and secondary writings on money have remained largely unexplored to date.

In our session, we examine graffiti as secondary graphic carvings on coins and banknotes, added later in their life cycles. In contrast to the carefully planned, official messages placed on money, we will investigate graffiti from the perspective of individual reactions to such official money frames. We shall explore the extent to which these graffiti were providing comments on current issues, attempting to spread unofficial/illegal information, express emotions, disagreement with, or re-framing of, certain ideas conveyed by a given numismatic object.

Our underlying hypothesis is that graffiti enable the study of the economic, politico-ideological, semantic, and aesthetic framework of coins and banknotes from a new perspective. Graffiti give insights into epigraphic, linguistic, onomastic, historical, and ethno-sociological aspects, helping to understand them as a testimony of cultural practices and dynamic human-object interactions. While coins and banknotes per se provide specific affordances to stimulate such practices, graffiti complement, corrupt, or even ignore the established official and standardized written/pictorial layout, adding new semantic layers to these innate affordances of money. In this way they offer as well as create new levels of interpretation, depending on the audience's knowledge and expectations ("frames").

Since graffiti appear in every age and in many different cultural contexts this session is explicitly dedicated to comparing aspects of graffiti on money which transcend cultures, space, and time.

A) GRAFFITI ON MONEY – THEORETICAL CONSIDERATIONS, ELISABETH GÜNTHER (KLASSISCHE ARCHÄOLOGIE, UNIVERSITÄT TRIER)

This paper will provide the theoretical framework for the session's topic "Graffiti on money: Cultural practices from ancient to modern times". Coins and banknotes embody abstract concepts of value and exchange, depending on their

economic, political, cultural, and social contexts. Simultaneously, they are part of material culture – objects – that interact with their recipients and users respectively. Due to their material qualities, they preserve and store secondary alterations such as writings, scratches, erasures, and graffiti, thus mirroring a “biography”. Such alterations, including graffiti, are phenomena which occur from ancient to modern times, depending on the materiality of coins/banknotes and the knowledge and expectations of their users. These factors will be modelled with the theoretical concepts of “affordances” and “frames”, to shape a methodological approach to the study and discussion of graffiti on coins. Finally, this approach will be illustrated with different examples from ancient to modern times.

B) MORE THAN JUST A SCRATCH. ON THE SIGNIFICANCE OF GRAFFITI ON ROMAN GOLD COINS, FRIEDERIKE STAHLKE (HEIDELBERG UNIVERSITY)

A significant number of Roman gold coins that have come down to us bear graphic engravings. Even though these are a common phenomenon they have rarely been studied comprehensively. Based on individual specimens, attempts have been made to establish viable theories on the social or monetary background of numismatic graffiti. This paper will present preliminary results of an extensive material study dedicated to this special type of writing, with the focus on hoards of Roman gold coins from the Imperial period. Special attention will be paid to the perception of writing, as far as it can be reconstructed. The new approach of examining and comparing a large number of Roman gold coins bearing graffiti provides new insights, which will allow us to better understand this intriguing social practice.

C) NOT ONLY POSTUMUS. ROMAN AND BYZANTINE GOLD COINS WITH GRAFFITI IN THE COLLECTION OF THE OSSOLINEUM, ADAM DEGLER (OSSOLIŃSKI NATIONAL INSTITUTE)

There are several ancient Roman and Byzantine gold coins in the collection of the Ossolineum. Some of them have different marks on their surface, including lines and marks that can be interpreted as letters. Apart from single letters, there are examples of longer inscriptions, perhaps names. I propose to present a wider perspective on the phenomenon of graffiti on coins and present the results of my studies regarding the history of these coins. I explore the reasons for the presence of a relatively large number of coins in the Ossolineum's collection with such marks and invite a discussion of this problem with the participants of the session.

D) GRAFFITI ON CHINESE CURRENCY. IMAGES – TEXTS – CONTEXTS, DUODUO ZHANG (IHAC)

Analyzing graffiti on current Renminbi banknotes this paper examines the reasons and socio-economic and cultural circumstances of the appearance of graffiti on Chinese money. Classified according to the currency value, graffiti on RMB appear on larger (50 yuan and 100 yuan) and smaller denominations of banknotes as well as on coins (below 20 yuan). Usually, names written on larger denominations testify of the need of payment verification. Graffiti on small denominations, however, owing to their higher circulation speed, have become a vehicle ? for advertisements. In this group the phenomenon of graffiti on coins is less attested, probably due to the inconvenience of writing on them; however graffiti with different political, social, or

cultural-religious messages are frequent on low-value banknotes. From a historical perspective, graffiti on Chinese currency contribute to our understanding of the current social and cultural dynamics beneath the legal level that forbids any kind of alteration of currency.

**97. COINING TECHNIQUES, CHAIRED BY THOMAS FAUCHER (CENTRE D'ÉTUDES ALEXANDRINES, CNRS)**

A) FROM COPPER TO COINS: THE TECHNOLOGICAL SKILLS OF AN ANCIENT MANUFACTURING PROCESS, ALEXANDRE BODET (INSTITUT DE RECHERCHE EN ARCHEOMATÉRIAUX-CENTRE DE RECHERCHE EN PHYSIQUE APPLIQUÉE À L'ARCHÉOLOGIE / UNIVERSITÉ BORDEAUX MONTAIGNE)

Compared to studies that already have tackled this topic, but only for a specific coinage or period, our sample of coins (more than 150 specimens from around the Mediterranean Sea and struck between 5th c. BC and 3rd c. AD) adds to our understanding of different coin manufacturing processes on a large geographical and chronological scale. These data will help to refine the quantification of the ancient monetary production.

Through chemical analysis (XRF, EDX) made on coin sections, we first identified metallurgical recipes used during Antiquity. We then conducted metallographic analyses to determine thermic and mechanical processes applied. With these data, we can identify different steps of the coin production process and even at this early stage identify coins with a more complex metallurgical history than only casting and minting. Furthermore, the impact of minting on the microstructure of coins and productivity of the dies was quantified with Vicker's hardness tests on our sample.

B) FLAN FABRICATION AND MINTING PREPARATION FOR COPPER ALLOY COINS IN ANTIQUITY, JEAN HOURMOUZADIS (MÜNZKABINETT BERLIN), NIKOLAI ILIEFF (MÜNZKABINETT BERLIN)

Traces of working on cast flans for bronze coins were observed at first on Ptolemaic issues of the 3rd – 1st century BC. The traces consist of a centering mark and concentric grooves.

During the late 2nd and the 1st century BC irregular straight grooves appeared on the copper alloy coins of the Pontic Kingdom. Based on experiments made by the authors and other characteristics they were hand-saw traces. Mithridates VI had a coin manufacturing system organised in great detail including different materials. The technologies spread with his military expeditions in Asia Minor. Using this information, quite precise minting dates can be determined for coins issued outside of the Pontic Kingdom.

After the 2nd century AD very regular parallel straight grooves appear on the Roman Provincial coinage of Asia Minor. They indicate that the flans were cut from cast metal rods, using a machine-saw.

C) THE SLOW BUT STEADY DIFFUSION OF MINTING PRESSES IN THE 16TH CENTURY, JOS BENDERS (NTNU & KU LEUVEN)

The literature on the use of early minting presses is highly scattered. The basis for the most recent overview in English is selective (Cooper, 1988), and omits many sources in German. This omission is serious, as minting presses were mainly developed



in German-speaking regions. Many of these are included in an overview in German (Meding, 2016), yet this book does not cover the Baltic area. Thus, one could say there is a double myopia in documenting the early history of minting presses. This likely leads to an overemphasis of the importance of aspects promoting or hindering minting press use. In an effort to partly remedy this, I present an extended overview of minting presses' evolution. Particular attention is paid to the role of different parties involved: the press builders, the rulers of states, and minting personnel, and their interactions.

## ROUND TABLES

### 1. NUMISMATICS IN A DIGITAL WORLD, ORGANIZED AND MODERATED BY ANDREW MEADOWS (ASHMOLEAN MUSEUM, OXFORD)

This round table will offer a brief survey of the ways in which new technologies have transformed the way in which we approach the discipline of numismatics and will seek to engage the audience in discussion of the potential to ask new questions of our evidence and organise it in new ways.

One axis of discussion will be provided by the different types of technological advance we have seen in the last few years:

- Metadata: Knowledge Organisation Systems, International Authority Files, Linked Open Data
- Artificial Intelligence: Natural Language Processing

What can these approaches offer us severally, or in concert?

A second axis will approach the question from ways in which we work with numismatic material:

- Collection Management and Cataloguing
- Knowledge Organisation: Corpora and Iconography
- Archaeological contexts: Finds and Hoards

It is hoped that the session will also serve as the introduction to a number of more specialised paper sessions to follow in the Congress Programme.

Broader Aims

This roundtable is intended to form a sequel to previous, similar sessions held at the Congresses in Madrid, Glasgow and Messina. We intend it to serve as an 'introduction' to a series of paper sessions that are being proposed by various members of the Nomisma community.

#### LIST OF PANELISTS:

- a) Ethan Gruber, (ANS)
- b) Karsten Tolle, David Wigg Wolf (Frankfurt)
- c) Ulrike Peter, (BBAW, Berlin)
- d) Frédérique Duyrat, Julien Olivier (BnF Paris)
- e) Bernhard Weisser, (SMK Berlin)



- f) Pere Pau Ripollès, (Universitat de València)
- g) Jerome Mairat, (University of Oxford)
- h) Clare Rowan, (University of Warwick)
- i) Charles Doyen, (UCLouvain / FNRS)
- j) Andrew Meadows, (University of Oxford / Ashmolean Museum)

Duration: 180 min.

**2. THE COIN HOARDS OF THE ROMAN EMPIRE PROJECT - 10 YEARS ON! UNUM FIAT EX PLURIBUS, ORGANIZED BY CRISTIAN GAZDAC (ASHMOLEAN MUSEUM OXFORD), CHRISTOPHER HOWGEGO (ASHMOLEAN MUSEUM OXFORD), MARGUERITE SPOERRI-BUTCHER (ASHMOLEAN MUSEUM OXFORD), MODERATED BY CRISTIAN GAZDAC**

The year 2013 witnessed the start of the Coin Hoards of the Roman Empire Project as a joint initiative of the Ashmolean Museum and the Oxford Roman Economy Project.

This international collaborative project fills a major lacuna in the digital coverage of coin hoards from antiquity. It aims to collect hoards of all coinages in use in the Roman Empire between approximately 30 BC and AD 400 (and later where appropriate). Imperial coinage forms the main focus of the project, but Iron-Age and Roman Provincial coinages in circulation within this period are also included to give a complete picture of the monetary systems in the West and the East. The single gold coins are also included as, sometimes, they may have functioned as hoards.

The project has become a true network of scholars and friends, currently involving 48 institutions from 25 countries and 62 collaborators.

Phase I (2013-2018) saw the collection of hoard data from all Roman provinces and the input of a selection of hoards at the level of the individual coin. 12,144 hoards and single gold coins, amounting to 3.5 million coins, were entered by the core team and collaborators.

Phase II (2019-2023) extended the range of the project to include Roman hoards and individual coins from outside the Empire. The focus is on the completion of geographical coverage and on the daunting task of systematically recording hoards at the level of the coin (RIC numbers and full descriptions), where such data are available.

The Warsaw International Numismatic Congress offers the perfect occasion to discuss the research potential of the project and how to exploit the chronological and geographical range of so much data. It will also enable some of the project's collaborators to showcase their contributions, and offer an opportunity to discuss the agenda for the future.

**LIST OF PANELISTS:**

- a) Cristian Gazdac, (Ashmolean Museum, Oxford)
- b) Arkadiusz Dymowski, (Department of Numismatics and Museology, Faculty of Archaeology, University of Warsaw, Poland)
- c) Mariangela Puglisi, (University of Messina, Italy)

- d) Rahel Ackerman, (Inventar der Fundmünzen der Schweiz, Bern, Switzerland)
- e) Varbyn Varbanov, (Regional History Museum of Russe, Bulgaria)
- f) István Vida, (Hungarian National History Museum, Budapest, Hungary)

Duration: 90 min.

### **3. PUBLISHING CATALOGUES IN MEDIEVAL NUMISMATICS: BEST PRACTICE IN THE INTERNET AGE, ORGANIZED AND MODERATED BY ELINA SCREEN (FITZWILLIAM MUSEUM, UNIVERSITY OF CAMBRIDGE)**

The publication of illustrated coin catalogues making reliable data available to scholars has advanced the study of numismatics enormously. Since the early twentieth century, the printed sylloge format pioneered by the *Sylloge Nummorum Graecorum*, including detailed catalogue entries and photographs of every coin, has been especially important in enabling die-studies. In today's digital age, internet databases and online catalogues provide new ways to make large collections of coins available. Both approaches have advantages and constraints. Print catalogues are expensive to produce and harder to update but provide a stable version of record. Online databases can be updated more flexibly, but changing technology can make it hard to maintain access over time, and the quality of the data and images can depend on the subject expertise of those inputting the data (finder-submitted metal detector finds, for example). Hybrid publication, providing additional online materials alongside printed catalogues, also has its challenges. This round table, sponsored by the Medieval European Coinage project, will discuss best practice to ensure reliable catalogue data is available in stable, accessible and sustainable ways today and in the future. Contributors from different publication projects will be invited to speak for 5 minutes on challenges, opportunities and future paths of catalogue publication in the digital age (using a maximum of 3 powerpoint slides to support their presentation), to generate new perspectives on familiar problems and to share ideas and practices, and to stimulate wider discussion. Confirmed contributors include Dr Rory Naismith (*Sylloge of the Coins of the British Isles* project) and Dr Elina Screen (Medieval European Coinage project). Other leading digital and print numismatic publication and database projects will be approached to contribute. This session will be of interest to all users of online and print catalogues as well as those involved in publishing coin collections.

Further projects will be approached, including the *Sylloge Nummorum Graecorum* and leading database projects, in order to have approx. 5 short presentations with different perspectives, followed by a general discussion.

#### **LIST OF PANELISTS:**

- a) Rory Naismith, (Department of Anglo-Saxon, Norse and Celtic, University of Cambridge)
- b) Dr Elina Screen, (Fitzwilliam Museum, Cambridge)
- c) Dr Mateusz Bogucki, (Institute of Archaeology and Ethnology, Polish Academy of Sciences / Commission of Numismatic Studies Polish Academy of Sciences)
- d) Dr. Adrian Popescu, (Fitzwilliam Museum, Cambridge)

Duration: 90 min.

#### 4. TOWARDS A NEW PARADIGM FOR COIN CIRCULATION WITHIN THE ROMAN EMPIRE, ORGANIZED AND MODERATED BY LIESBETH CLAES (LEIDEN UNIVERSITY)

The purpose of this round table is to elaborate on the various factors behind coin circulation patterns in order to constitute a new paradigm which can be integrated into the currently accepted model of coin circulation within the Roman Empire (27 BC – AD 235).

No direct evidence has survived to testify the decision-making processes of the Roman imperial authorities regarding coin production or distribution. According to the consensus reached by extrapolating conclusions from small sets of coin hoard data, the Roman Empire minted coins primarily to pay Roman troops stationed at the frontiers. In order to acquire coins to pay taxes to Rome, inhabitants of rural and urban regions sold wares and provided services to the army. According to this deductive model, presented by Hopkins in 1980, Roman coins which entered circulation returned as taxes in Rome. This resulted in homogeneous coin pools in the military and non-military provinces. Although this view has been firmly entrenched in the scholarly debate and followed in numerous handbooks, there is remarkably little empirical evidence to support it. Moreover, more recent studies, such as Howgego 1994, van Heesch 2009, Kemmers 2006 and Hellings 2016, have even demonstrated that other factors in Roman coin circulation have to be taken into account as well.

This round table will bring together a number of speakers to discuss various factors behind coin distribution and transfers, from an understanding of the coins' particular aspects such as metal, denomination and iconography. In the plenary discussion, these aspects can be related to patterns of coin circulation within the Roman Empire, opening a debate on the distinctive (regional) agencies behind these patterns, the differences in coin patterns between the east and west, and finally, the best methodological tools to analyse coin circulation patterns.

##### THE PROGRAM:

- a) Introduction to the round table – Liesbeth Claes, (Leiden University), duration: 15'
- b) Andrew Brown, (British Museum / Portable Antiquities Scheme), An Island of Circulation: Coinage in Roman Britain; duration: 12+3'
- c) Alessandro Bona, (Università Cattolica del Sacro Cuore di Milano / University of Warwick), Coin circulation in Milan between the first and the second century AD: new data from archaeological contexts; duration: 12+3'
- d) Andrea Casoli, (Coin Cabinet Historische Museum Basel), Circulation patterns south vs. north of the Alps in Switzerland; duration: 12+3'
- e) Coffee break (20')

- f) Johan van Heesch, (Royal Belgium Coin Cabinet), Decades without bronze minting in the first century AD: significance and impact on the coin circulation; duration: 12+3'
- g) Suzanne Frey-Kupper, (University of Warwick), Provision of AE denominations, including (very) small change in the early Principate from sites in the Western Mediterranean and reasons, duration: 12+3'
- h) Markus Peter, (Universität Bern), Taxes and trade, and what else? Aspects of coin supply in the Roman West; duration: 12+3'
- i) Conclusion session (all panelists); duration: 25'

Duration: 180 min.

**5. ENTANGLED EXCHANGES: MONEY, COINAGE AND COLONIAL PROJECTS, ORGANIZED AND MODERATED BY FLEUR KEMMERS (GOETHE UNIVERSITY FRANKFURT AM MAIN), NANOUSCHKA MYRBERG BURSTRÖM (STOCKHOLM UNIVERSITY)**

A central theme in colonial history and postcolonial theory is the role of economy in the establishment of power structures. Money, as means of exchange and as means of payment, plays important roles in the introduction of new practices, value standards and material realities. Commodification processes strongly affect power relations in the interactions between coloniser and colonised. Surprisingly, coinage was rarely discussed in this connection and numismatic scholarship has not really contributed much to the debate.

Postcolonial perspectives have developed in cultural-historical research since the 1990s. In this process, the study of the material culture of colonisation has crystallised as a central component of the field. As we have postulated before, coins have much to gain from being investigated from a theoretical standpoint and a material culture perspective. Thus, bringing coinage prominently into the debate on ancient and recent colonial practices seems long overdue.

Coinage offers unique opportunities to study interactions and effects of the meeting between colonisers and colonised, as well as economic, political and ideological interactions between colonisers and their state of origin. Be it the Greek colonies in Southern Italy or the European colonial enterprises of the Modern period, coins reflect historical events as well as hybridisation processes. They are characterised as entangled between local groups, colonial power and global networks. We suggest that the study of coins and other means of exchange – adopted, adapted or refuted – may reveal less apparent and under-communicated processes, values and discourses in the study of colonial environments and projects.

We aim to discuss particularly interesting cases, raise awareness of the numismatic material's potential within the field of postcolonial studies, and investigate theoretical and methodological keys for such studies.

### THE PROGRAM:

- a) Introduction, Fleur Kemmers and Nanouschka Myrberg Burström; duration 15'
- b) John Creighton, (University of Reading, UK), Massalia's radically different monetary impact: north and south; duration 15'
- c) Georgia Galani, (Stockholm University, Sweden), Provincial minting under early Roman hegemony: the case of the Greek East; duration 15'

Discussion of both papers: 15'

- d) Rory Naismith, (Cambridge University, UK), Viking money and colonisation in ninth-century England; duration 15'
- e) Florent Audy, (Ekonomiska Museet, Royal Coin Cabinet, Stockholm, Sweden), Hybrid dirhams on Rus' markets. Coins and colonisation along the Varangian trade routes in the tenth century AD; duration 15'

Discussion of both papers: 15'

- f) Nanouschka Myrberg Burström, (Stockholm University, Sweden), Crusades, colonies and coins: Western colonial strategies in the medieval Eastern Mediterranean; duration 15'
- g) Karin Pallaver, (University of Bologna, Italy), East African societies, colonialism and the materiality of money; duration 15'

Discussion of both papers: 15'

- h) General concluding discussion: patterns, processes and discrepant experiences (Fleur Kemmers and Nanouschka Myrberg Burström) 30 minutes.

Duration: 180 minutes

**6. POMPEII, MINTURNAE, MASSALIA, HISPANIA: NUMISMATIC EVIDENCE FOR WESTERN MEDITERRANEAN TRADE, 200-50 BC, ORGANIZED BY CLIVE STANNARD (UNIVERSITY OF WARWICK) AND ALEJANDRO G. SINER (UNIVERSITY OF VICTORIA, CANADA), MODERATED BY CLIVE STANNARD**

In central Italy, a period of rapid economic growth followed the Second Punic War. It saw deep monetisation of markets, but also a severe dearth of small change. This obliged communities and social groups to make their own local, non-state coinages. A new understanding of these coinages at Minturnae and Pompeii, and in Latium generally, as well as coin finds from Minturnae and Rome, throw new light on burgeoning trade with Carthage, Gaul and Hispania, as well as with the Greek East.

- At Pompeii, the non-state coinages imitated Carthage, Ebusus, Massalia and Rome. Some relate to the wine trade to Gaul during the period before Pompeii's defeat by Sulla in the Social War (89 BCE), as finds near Massalia show.
- There seem to be separate coinages associated with different groups of traders from Pompeii and Minturnae.
- Minturnae was active in the exploitation of the rich coastal silver/lead mines around Cartagena in the second century BCE, and those of the Sierra Morena in the interior, during the first century.
- Bronze coins and lead pieces with 'Italo-Baetican' types are found in both Latium and Baetica. They appear to have been made between about 150 and 50 BCE by a trading group which used the port of Minturnae.
- This group seems to have managed a *publica societas* handling agricultural goods at Corduba in the first century, and to have been involved in Roman politics in the 80s.

The Round Table will explore the social and legal nature of Campanian maritime trade, and its development over time, using numismatic, archaeological, epigraphic and historical data.

#### **PART 1: THE EVIDENCE AND NEW INFORMATION**

- a) Clive Stannard, (Department of Classics and Ancient History at the University of Warwick) "Introduction"
- b) Alejandro G. Sinner, (University of Victoria, Canada), "Economy, Trade and Commercial Circuits in the Roman West (3rd c. BCE – 1st c. CE)".
- c) Clive Stannard, (Department of Classics and Ancient History at the University of Warwick), "Pompeii and Minturnae: Numismatic evidence for trade with Carthage, Massalia and Spain".
- d) Marta Barbato, (Ministero delle Cultura, Italy, Direzione generale Archeologia, belle arti e paesaggio, Funzionario archeologico), "Foreign and non-state coinage from the Roman sottosuolo".
- e) Suzanne Frey-Kupper, (Department of Classics and Ancient History at the University of Warwick), "Sicily and adjacent Islands at the crossroads of the Western Mediterranean: Cities and trade routes, and the role of their coins".
- f) Jean-Albert Chevillon, (Président du Groupe Numismatique du Comtat et de Provence), "Les reflets de Carthage dans les monnayages de l'Hispanie et de la Gaule".
- g) Koenraad Verboven, (University of Ghent), "Small change for men, but a great leap for Romankind. Deep monetisation in Roman Italy, 200-50 BCE".

- h) Michele Stefanile, (Scuola Superiore Meridionale), “Minturnae, Puteoli, Delos, Carthago Nova: Long distance Mediterranean trade during the Late Republican Age on the basis of the epigraphic evidence”.
- i) Albert Ribera i Lacomba, (Arqueologo del Ayuntamiento de Valencia, Jefe de la Sección de Arqueología (SIAM) del Ayuntamiento de Valencia desde 2003 y Director Técnico del Centro Arqueológico de l’Almoína), “The ceramic evidence for central Italian trade with Carthage, Gaul and Spain”.
- j) Bartolomé Mora Serrano, (Catedrático de Arqueología, Universidad de Málaga), “The Spanish silver/lead mines”.
- k) Alfred Hirt, (Department of Archaeology, Classics and Egyptology, University of Liverpool), “Mining and Roman imperialism. Mining, metal supply, provincial administration”.

## PART 2: PANEL DISCUSSIONS

- a) Roman and Campanian settlement and trade, led by Michele Stefanile.
- b) Mining and Roman Imperialism: Mining, metal supply, provincial administration, led by Alfred Hirt.
- c) The social and economic institutions of trade in the western Mediterranean in the last two centuries BCE, led by Koenraad Verboven.
- d) Conclusions, and opportunities and priorities for further work, led by Suzanne Frey-Kupper.

Duration: 180 min.

## 7. SAMARIAN COINS IN LIGHT OF EARLY INDIGENOUS LEVANTINE COINAGES, ORGANIZED AND MODERATED BY HAIM GITLER (ISRAEL MUSEUM) AND OREN TAL (TEL AVIV UNIVERSITY)

Within the framework of our current research program “A Corpus of Samaritan Coinage” we aim to update and re-evaluate different numismatic aspects of the coinage of Samaria from the late Persian period. The Samaritan mint, being one of the first mints to strike coins in the southern Levant, established the use of indigenous coins in the area along with the mints of Philistia, Judah and possibly Edom. The goal of our endeavour is to present a corpus of all the types of Samaritan coins at hand and to put forward a new typology and chronology for the mint.

Previous systematic studies have identified circa 250 Samaritan coin types. Currently, the research program has defined over 330 types, strengthening the conclusion that Samaria was one of the most versatile mints in the ancient Levant.

The Round Table, entitled: “Samaritan Coins in Light of Early Indigenous Levantine Coinages”, wishes to bring together a group of scholars whose field of



expertise relates to Levantine Coinages from this period, in order to discuss questions of chronology, metrology, iconography, economy, ethnicity, religion, autonomy and political and cultural affinities in the region by employing comparative analysis of contemporaneous material from Asia Minor through Phoenicia, Ancient Syria, Palestine and Jordan.

#### LIST OF PANELISTS:

- a) François de Callatay, (Royal Library of Belgium)
- b) Wolfgang Fischer-Bossert, (Österreichisches Archäologisches Institut, Wien)
- c) Donald Ariel, (Israel Antiquities Authority)
- d) Koray Konuk, (Centre National de la Recherche Scientifique)
- e) Frédérique Duyrat, (Directeur du département des Monnaies, médailles et antiques Bibliothèque nationale de France)
- f) Mayaan Cohen, (Tel Aviv University)
- g) Peter van Alfen, (Chief Curator American Numismatic Society)
- h) Mati Johananoff, (Tel Aviv University)
- i) Novella Vismara, (Independent Researcher)
- j) Gil Davis, (Australian Catholic University)
- k) Josette Elayi, (Independent Researcher)
- l) Francis Albaredo, (Ecole Normale Supérieure (LGL-TPE), France)
- m) Patrick Wyssmann, (Universität Bern, Institut für Altes Testament)
- n) Jarosław Bodzek, (Jagiellonian University)
- o) Yoav Farhi, (Independent Researcher)

Duration 90 min.

**8. ANCIENT COINS COUNTERFEITS, ORGANIZED BY DILYANA BOTEVA-BOYANOVA (SOFIA UNIVERSITY "ST. KLIMENT OHRIDSKI") AND ILYA PROKOPOV (SOFIA UNIVERSITY "ST. KLIMENT OHRIDSKI"), MODERATED BY VALENTINA GRIGOROVA-GENCHEVA (FIRST INVESTMENT BANK / UNIVERSITY OF SOFIA "ST. KLIMENT OHRIDSKI").**

The production and spread of counterfeit numismatic cultural heritage objects is a global problem with a negative effect on society, and serious legal, economic, and scientific consequences. Counterfeit objects tarnish the historical environment. They undermine historical reconstructions, cause a scholarly precaution and deprive the research of untypical, even unique, and hence important originals. The forgeries affect the market of heritage objects (auctions, exchanges between museums and collectors, etc.), and enter various collections (both institutional and private). Currently, there is no exact information concerning the extent to which the "products" of coin counterfeiters have spread worldwide.

The digital era presents entirely new aspects of this problem. There are new opportunities for both the further spread of counterfeit objects, but also for a more effective prevention of cultural heritage forgery. This makes it crucial to initiate a strong scientific discussion on the topic. Only an international and interdisciplinary collaboration can offer concepts and innovative solutions to this pressing issue and its destructive influence.

The proposed concept of a congress podium discussion would be an important opportunity to present new initiatives on the issue and to promote promising, effective and long-lasting networking, able to provide the needed joint and stable international efforts.

This podium discussion is expected to find its potential audience in a wide circle of international experts and stakeholders, such as museums, auction houses, university collections, etc.

#### **PODIUM DISCUSSION STRUCTURE:**

- a) Targeted opening – short presentation of the podium discussion structure; introduction of the topic – up to 10 min.
- b) Panelist introductions - up to 5 min.
- c) Moderator-curated questions directed to the panelists – 10 min. per panelists
- d) Questions from the audience directed to a panelists(s) – 30 min.
- e) Summary, thank you and final administrative remarks – 5 min.

#### **LIST OF PANELLISTS:**

- a) Ilya Prokopov, (Sofia University “St. Kliment Ohridski” / SWU "Neofit Rilski" Blagoevgrad)
- b) Dilyana Boteva-Boyanova, (University of Sofia “St. Kliment Ohridski”)
- c) Arne Kirsch (SINCONA AG)
- d) Jonas Emmanuel Flueck, (SNG)
- e) Jan Köster, (Berlin-Brandenburg Academy of Sciences and Humanities, TELOTA - IT/DH)

Duration: 90 min.

#### **9. MINIMI, RECICLAJE Y CIRCULACIÓN MONETARIA ENTRE LOS SIGLOS IV-IX D.C., ORGANIZED AND MODERATED BY DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)**

Este taller tiene como objetivo tratar el papel que ha tenido el nummus (AE3-AE4) y otras denominaciones en la circulación monetaria occidental, con especial incidencia en Hispania o la Península Ibérica. Por otro lado, la documentación del nummus en contextos tardíos ha provocado que al nummus tradicionalmente también se le denomine minimus, un concepto quizás más adecuado a la hora de estudiar la moneda circulada, deteriorada y a veces recortada. Hoy día se pone de relieve que, pese al cese del aprovisionamiento monetario tras la caída de Roma 476 d.C.), la circulación monetaria siguió existiendo. En efecto, el papel de la calderilla (o "Small Change") y su reciclaje han dibujado un nuevo panorama. Es solo a partir del siglo VI d.C., en el caso particular de la Península Ibérica, cuando entra a la escena una nueva nómina de tipos monetarios emitidos en cobre y/o bronce, enmarcados dentro de la esfera local. Seguramente estos nuevos minimi surgieron dentro de un contexto de

carestía monetaria, arrastrada desde hace siglos. Paralelamente el dominio bizantino provocaría que una serie de labras de 4 nummi se acuñara en Carthago Spartaria y, seguramente, también en Malaca. La perduración de todas estas piezas junto a la anterior romana y otras foráneas representarán el grueso de la circulación, incluso hasta fechas medievales, ya con al-Ándalus.

#### THE PROGRAM:

- a) David Martínez Chico, (Universitat de València), El tesoro de Regina Turdulorum (Casas de Reina, Badajoz) y las emisiones divoclaudianas
- b) Fernando López Sánchez, (Universidad Complutense de Madrid) y José María Tejado Sebastián, (Viguera Castle Project. Grupo de Investigación en Patrimonio y Paisajes Culturales), La continuidad en el uso de nummi tardorromanos en el Castillo de Viguera (La Rioja)
- c) Òscar Caldés Aquilué, (Institut Català d'Arqueologia Clàssica (ICAC) y Xavier Sicart Chavarria, (GRESEPIA-URV), Estudio comparativo de circulación tardía en València la Vella y en la Catedral de Tortosa (ss. V-VIII d.C.)
- d) Alberto Martín Esquivel, (Universidad de Salamanca) y Cruces Blázquez Cerrato, (Universidad de Salamanca), Nummi tardoantiguos en Gallaecia y Lusitania
- e) Manuel Castro Priego, (Universidad de Alcalá de Henares), Contextualización arqueológica numismática en el centro peninsular durante época altomedieval (ss. V-IX d.C.): Recópolis, Toledo y Guadalajara
- f) Carolina Doménech Belda, (University of Alicante), Circulación y uso de la moneda tardoantigua en contextos altomedievales en El Tolmo de Minateda (Hellín, Albacete)

Duration: 90 min.

#### 10. LA NUMISMATIQUE ANTIQUE ET MÉDIÉVALE DU MAGHREB – ÉTAT DES LIEUX, ENJEUX ACTUELS, ORGANIZED AND MODERATED BY ANTONY HOSTEIN (ECOLE PRATIQUE DES HAUTES ETUDES-PSL, PARIS)

Intitulée « La numismatique antique et médiévale du Maghreb », la table-ronde proposée vise à mettre la lumière sur une région:

- très riche en découvertes monétaires (anciennes et actuelles);
- très monétarisée durant l'Antiquité et le Moyen Âge;
- caractérisée par des circulations monétaires variées, qui recouvrent des réalités historiques très diverses: monnayages numides, carthaginois, romains, vandales, byzantins, arabo-musulmans.

Paradoxalement c'est une région où les découvertes demeurent mal connues en raison de leur dispersion dans la bibliographie ou de leur publication partielle. C'est

un vaste territoire qui, malgré son unité géographique, est marqué dans le domaine de la numismatique par un éclatement de l'information.

Pour les périodes anciennes, l'état de la recherche se caractérise par des lacunes dans la publication des monnaies de fouilles. Ces lacunes témoignent d'un désintérêt relatif vis-à-vis de la documentation numismatique dans la région qui s'explique pour plusieurs raisons – absence d'utilisation des détecteurs de métaux dans le cadre de fouilles programmées, nombre insuffisant de numismates bons connaisseurs des faciès locaux et formés à la conservation et à l'identification, préjugés et pesanteur historiographiques, etc. À ces problèmes s'ajoutent des enjeux patrimoniaux importants puisque de nombreux sites ont été détruits récemment par la pression immobilière ou font l'objet de pillages réguliers (on pense à la situation en Libye). On le voit donc, les pays du Maghreb constituent aujourd'hui un vaste territoire dont la richesse documentaire pourrait être davantage exploitée aussi bien en matière de conservation, d'étude que de valorisation patrimoniale.

Fort de ce constat, il va s'agir dans le cadre de la table-ronde, à travers des exposés variés de 15mn, de présenter la recherche numismatique actuelle au Maghreb. La table-ronde, qui se conclura par une discussion générale, réunira des spécialistes dont plusieurs sont rattachés à des institutions du Maghreb. Le public visé est large.

#### **THE PROGRAM:**

- a) Laurent Callegarin (Université de Pau), Anthony Hostein (Ecole Pratique des Hautes Etudes-PSL Paris), Ruth Pliego, (Université de Séville), Vivien Prigent, (Directeur de recherches au CNRS, Paris), Arnaud Suspène (Université d'Orléans / CNRS IRAMAT-CEB), Suzanne Frey-Kupper (University of Warwick), "Inventorier, former, chercher: présentation du programme MONOM"
- b) Deux projets de recherches en cours
  - 1. Anthony Hostein (Ecole Pratique des Hautes Etudes-PSL Paris), "Tunisie: Tunis & Sfax"
  - 2. Elena Moreno Pulido (Universidad de Cádiz), Laurent Callegarin (Université de Pau), "Maroc: NUMAROC"
- c) Masters et thèses de numismatique en cours : l'exemple de la Tunisie / Current Masters and PhDs devoted to numismatics: the case of Tunisia
  - 1. Abdelhamid Fenina (Université de Tunis), "État des lieux"
  - 2. Jérémy Artru (Université d'Orléans), "L'or de Carthage"
  - 3. Aurélien Ros (EPHE), "Les Vandales"

Duration: 90 min.

**11. DIGITAL NUMISMATICS AND MUSEUMS: MOVING INTO THE MEDIEVAL AND MODERN PERIODS, ORGANIZED BY RAHEL C. ACKERMANN (SWISS INVENTORY OF COIN FINDS), CHRISTIAN WEISS (SWISS NATIONAL MUSEUM), KARSTEN DAHMEN (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT), BENEDIKT ZÄCH (MÜNZKABINETT UND ANTIKENSAMMLUNG DER STADT WINTERTHUR), MODERATED BY BENEDIKT ZÄCH**

Over the last decade a number of public numismatic databases started using linked open data, and thus made interoperability of numismatic data much easier. However, most of these databases concern ancient numismatics (OCRE, CRRO, PELLA, PCO, IACB etc.). Meanwhile, projects of digital medieval and/or modern numismatics are also underway, developed in a close cooperation with museums.

These museum collections, along with the core of national museums, represent the primary source of numismatic material available for research. In the past years a number of online museum databases have been created, some specifically for numismatic objects, others embedded in general online catalogues. In most cases the numismatic material originates from all periods, cultures, and countries. This vast variety in terms of time, space, monetary systems, 'national' traditions, and languages creates yet another challenge to digitisation and to standardised, multi-lingual digital concepts.

This round table will provide an opportunity to present and discuss projects using linked open data concepts and recent developments, concentrating on museums and on medieval and modern numismatics. Contributions may come from the whole range of digital numismatics: type and topic focused approaches, deep learning, image recognition and other areas are welcome.

A special focus should be on the following questions: what digital tools are needed, which ones can be developed in cooperation, and where do we need international coordination beyond the individual projects?

**THE PROGRAM:**

- a) Karsten Dahmen, (Staatliche Museen zu Berlin, Münzkabinett, Berlin), IKMK.net. Building a network of numismatic databases and portals for museum collections
- b) Frank von Hagel, (Staatliche Museen zu Berlin, Institut für Museumsforschung, Berlin), Enabling global interoperability by shaping data into concept-based object search
- c) Christian Weiss, (Swiss National Museum, Zürich), OSCAR – a new LOD-based type catalogue of Swiss coins
- d) Rahel C. Ackermann, (Swiss Inventory of Coin Finds, Bern), Linked open data on the way to the medieval and modern period: current state
- e) + 1 or 2 additional contributions

Duration: 90 min.

**12. PROMOTING NUMISMATICS IN A GLOBALIZED AND DIGITIZED WORLD, ORGANIZED BY STEFAN KRZNICEK (UNIVERSITÄT TÜBINGEN) AND SVEN GÜNTHER (NORTHEAST NORMAL UNIVERSITY), MODERATED BY STEFAN KRZNICEK**

In today's globalized and digitized world - particularly in the wake of the COVID-19 pandemic - we daily encounter fundamental changes in the ways and means of how information is being generated, shared, and received. Traditional concepts of communication have become increasingly replaced by digitized interactions and virtual social networks. While scholars working in the field of digital humanities have already successfully drawn on new technologies such as semantic web and linked open data for study and research, advanced forms of communication, however, have not yet received the attention they deserve, particularly their reach out beyond the confines of the academic world.

This round table aims at exploring this new relationship between the public and academia and will discuss methods to disseminate and share information beyond academia, and how best to connect with non-specialist audiences that have no or limited access to scholarly knowledge, particularly those individuals and groups in society marginalized from the academic discourse. To that end, international experts present their current projects at the interface of academic research and public outreach.

Believing it the duty of all numismatists to encourage and to promote an understanding of the discipline in society through equal-partner dialogue and effective forms of communication, the proposed round table is the most timely and necessary initiative to provide insights into the current state of outreach while presenting the viewpoints of a variety of highly visible activities. Focusing on how the internet is rapidly changing and transforming the relationship and communication between academia and the public, and the impact this change has on our work as scholars and members of society, this round table will facilitate a better understanding of the challenges that numismatics is facing in today's globalized and digitized world.

**THE PROGRAM:**

- a) A.J. Gatlin, (Coin Archives, LLC), Auction Data from the International Numismatic Trade: Building an Information Repository for Research and Commercial Use
- b) Marcus Cyron, (Wikipedia), Just some first steps of a Marathon – Numismatics and Wikipedia
- c) Ursula Kampmann, (Münzen Woche), Mind the Gap!
- d) Roberta L. Stewart, (Dartmouth College), Looking Closely, Writing History: Numismatic Methods in the Classroom and Museum
- e) Sven Günther, (Northeast Normal University), Sebastian Hanstein (Danisch Numismatic Society), Kevin Körner (Universität Tübingen), and Stefan Krmnicek (Universität Tübingen), Craveler. A Numismatic Game-Based Learning App

Duration: 90 min.

**13. ⊖ FINDING COMMON GROUND IN THE CULTURAL PROPERTY DEBATE, ORGANIZED AND MODERATED BY NATHAN ELKINS (AMERICAN NUMISMATIC SOCIETY) AND UTE WARTENBERG (AMERICAN NUMISMATIC SOCIETY)**

The collecting and study of ancient coins originally went hand in hand, much like the procurement and study other ancient objects in the Renaissance through the nineteenth century. The late nineteenth century saw the establishment of the first antiquities laws, which over the course of the next century increased with many nations beginning to protect their cultural property. Such laws target looting, unlicensed digging, and smuggling, but also limit importation of unprovenanced material into other countries. Despite many laws in place, coin collecting has become much more popular. With the advent of modern technology, such as metal detectors and drones, looting and illegal excavations in many countries continue.

Numismatists and collectors have joined the discourse on cultural property and the ethics of trading in ancient coins without collecting histories. An indication of growing interest in this topic is evidenced by the fact that, for the first time, the editors of the *Survey of Numismatic Research*, published in conjunction with this International Numismatic Congress, commissioned a chapter on “Provenance and Legal Issues.”

The debate among archaeologists, numismatists, collectors, and dealers is frequently emotional and polarizing; participants are often characterized as holding extreme positions on one side or the other, whatever the reality is. This roundtable seeks to recalibrate the “cultural property debate” as it relates to ancient coins, in attempt to identify common ground and establish practical approaches that preserve knowledge, deter looting, and protect the interests of collectors and research. A polarized debate will never lead to pragmatic and workable solutions.

Participants will speak about ethical guidelines established by the *American Journal of Numismatics* (Elkins), the scale of the trade in ancient coins (Wartenberg), legislative approaches to metal detecting (Wigg-Wolf), the role of publications in protecting coins from pillage (Markou), and a call for a new legal and ethical framework (Wisniewski). The organizers will then moderate a collegial discussion among attendees and participants.

**THE PROGRAM:**

- a) Nathan T. Elkins (American Numismatic Society), “The American Journal of Numismatics Ethical Guidelines: An Attempt at Balance,”
- b) Ute Wartenberg (American Numismatic Society), “Too Big to Fail? Size and Complexity of the Coin Market,” American Numismatic Society
- c) David Wigg-Wolf (Römisch-Germanische Kommission), “Public Metal Detecting: Blessing or Blight?”

- d) Evangeline Markou (National Hellenic Research Foundation) "Digitalisation and Publication to Protecting Coins in Forcibly Divided Places: The Case of Cyprus,"
- e) Anthony Wisniewski (Cultural Property Advisory Committee, U.S. Department of State), "Toward Developing Joint Principals in Sustaining an Ethical and Lawful Trade of Ancient Coins,"

Duration: 90 min.

## POSTERS

### 1. GREEK WORLD

- A) THE (WINGED) HORSE AS A MOTIF ON COINS FROM CORINTH AND MARONEIA, OLIVIA ULLRICH (WWU MÜNSTER)

This paper is a summary of my master thesis in which I collected all the coins from the poleis of Corinth and Maroneia from the Archaic through to the Hellenistic periods. These cities chose the (winged) horse as a motif, so I compared the various representations with other poleis in the Mediterranean. The overall concept was to study the movement of the horse. Next to the usual canon of the "flying Pegasus" used in Corinth, and the "prancing horse" of Maroneia, there are also very interesting exceptions. Among them I was able to identify some postures of the horse which nowadays are called "dressage movements" which were described already by Xenophon (430/25–354 BC) in his work "On Horsemanship". These coins illustrate how the horse could be captured in a significant moment of its movement or in its natural habitat, and show the further significance of the animal in different regions of the Mediterranean.

- B) NOTES ON THE COIN EPIGRAPHY OF MAGNA GRAECIA AND SICILY, SARA QUARTARONE (UNIVERSITÀ DEGLI STUDI DI MESSINA)

Epigraphy is one of the most neglected aspects of numismatics. Starting from a complete, albeit brief, examination of studies on coin legends undertaken so far, this work aims to catalogue and analyze inscriptions related to the issues of Magna Graecia and Sicily. The island of Sicily, controlled by different powers over the centuries first, Carthaginians, and next Greeks and Romans, has a rather complex linguistic history: the differences between the Euboean-Attic dialect and the Doric dialect are compounded by the influence of Oscan and of the Sicilian substrate. The determining factor is not limited to the linguistic aspect alone, the iconographic component also played a part: in fact, some coin issues testify to a close link between the type and the legend. Finally, this analysis will offer an in-depth look at the types and cases of the declension used in relation to the issuing mints.

- C) THE COINAGE OF ERYTHRAI AND HISTORIA NUMORUM ONLINE, ERSIN BAKIŞ (ISTANBUL UNIVERSITY)

This paper presents an overview of our research into the pre-Roman history and coinage of Erythrai in Ionia, which we are conducting within the framework of a PhD thesis undertaken at the Istanbul University. The typological arrangement of the



numismatic material is being recorded directly on Historia Numorum Online (HNO) and marks the start of the first Ionian mint of this collaborative project. In this paper, after a brief summary of the history of Erythrai, recent studies and excavations, our main purpose will be to introduce the city's pre-Roman coin types and explain their entry in the new Ionian volume of HNO.

D) DIACHRONIC AND DIATOPIC ANALYSIS OF A LIN LEMMA: HERMES WITH PETASOS, IVAN CAPARELLI, BENEDETTO CARROCCIO (UNIVERSITÀ DELLA CALABRIA)

We try to summarize for the first time the monetary occurrences of this type, sometimes poorly described due to heavy wear of the coins and imprecision of the descriptions.

Also addressed in our analysis is the diachronic and diatopic distribution of the type, made in line with the methodology of *Lexicon Iconographicum Numismaticae*, in an attempt to contextualise it and give historical-cultural interpretations drawing on the most recent historical and historical-religious studies, and some attested contacts with oriental peoples.

Using examples, histograms and maps we will highlight the beginnings of this phenomenon in the 6th century BC at Kyzikos, where the cult of Hermes was active and widespread; this sema continues to enjoy popularity in the 4th and 3rd centuries BC. The presence of the type decreases between the second century BC and second century AD, continuing to appear only in small provincial urban realities without reciprocal cultural links.

E) HELLENISTIC WEIGHTS AND MEASURES IN WESTERN ASIA MINOR (PROPONTIS, TROAS AND AEOLIS), THOMAS LEBLANC (UC LOUVAIN)

Within the framework of a PhD research project which is part of the *Pondera Online* collaborative project, I analyse the weights from several city-states in Western Asia Minor within three geographical areas: Propontis, Troas and Aeolis. For the first time this material will be studied from a global perspective. The poster presents the corpora of to date c. 600 weights and develops four complementary approaches: the typology of these weights (iconography, legend, metals, etc.), their metrology (reconstitution of the metrological structures of the city-states), their archaeological context, and anthropological value (their use in daily life). We will carry out local, regional and interregional analyses.

F) THE THREE-QUARTER FACING HEADS IN HELLENISTIC CARIAN COINAGE: A SIGN OF SUBMISSION? MATEUS DA SILVA (UNIVERSIDADE FEDERAL FLUMINENSE)

During the Hellenistic period, the tradition of Carian coinages with three-quarter facing heads dated back already at least a century, to the final years of the 5th century and the Rhodian three-quarter facing Helios coins. On the other hand, during the 4th century the Hecatomnids also issued coins with a three-quarter facing Apollo. Later still, in the 3rd century, a new wave of three-quarter facing heads, allegedly of Helios, sprung up in different mints across Caria. This phenomenon has been interpreted as a consequence of the growing Rhodian hegemony and its emission even as a sign of a submission of a polis to this regional power. But in this paper, we will address the possibility that this coinage was used by Carian poleis and

communities not just as a sign of the Rhodian economic and political domination, but also as a strategy to face and negotiate with this power.

G) A NEW MEMBER OF THE ANCIENT FALSIFIERS. SILVER COINAGE OF KING BALLAEUS, RENATA CIOŁEK (UNIVERSITY OF WARSAW)

The subject of the paper will be silver coins of Ballaeus, found during the excavations in Risan. Some of them turned out to be subaerates. The paper will focus on the nature of this coinage, on other previously known Illyrian silver coins, and attempt to answer this question: who cheated whom? Ballaeus - his subjects, or the subjects - their king?

H) NAVAL IMAGERY ON SELEUCID BRONZE COINAGE: THE CURIOUS CASE OF THE CITY OF ANTIOCH, PIM MÖHRING (NATIONAL NUMISMATIC COLLECTION, DE NEDERLANDSCHE BANK)

During the reign of Seleucus IV (187-175 BCE) bronze coins, depicting prow of galley, were minted in Antioch on the Orontes. This appears to be a unique and remarkable development. Antioch was a river city without naval traditions, with nearby Seleucia Pieria and Laodicea functioning as its port-cities. The ancient sources do not mention Seleucus undertaking any naval activity. On the contrary, he supposedly refrained from doing so, due to Roman restrictions. How then can the contradictory presence of naval imagery be explained? I will examine the assumption of low Seleucid naval activity from a historical perspective and explore possible explanations of the "prow" type within broader numismatic developments relating to naval imagery in a Mediterranean context. How does the prow relate to local traditions, military victories, or naval prowess? Where do Seleucus IV and Antioch fit in? And why is the "prow" predominantly shown on bronze coins?

## 2. ROME

A) NUMISMATIC DATA ON THE STATUS OF ARTAXATA DURING THE REIGN OF THE ARTAXIAD DYNASTY OF ARMENIA, SERHII LYTOVCHENKO (V. N. KARAZIN KHARKIV NATIONAL UNIVERSITY)

The report discusses rare coins with the inscription which translates as "metropolis of Artaxians", attributed to the mint operating in Artaxata (Artashat), the capital of Great Armenia. To date, there are eight alternative dates proposed for the time of issue of these coins. Of these the hypothesis of R. Vardanyan who attributes this coinage to 1/2 and 3/4 AD is the most reasoned. However, the explanation of the dates on the coins presented by R. Vardanyan in his articles did not convince many researchers, and other, alternative hypotheses were proposed. In our opinion, the numbers on the right: 67 (ΖΞ) and 69 (ΘΞ), indicate 66 BC, but this is not the "era of Pompey", as suggested, but the year Tigranes II the Great proclaimed Artashat the capital (metropolis), after the loss of Syrian possessions and the fall of the influence of the former capital Tigranakert.

B) SHIPWRECK HOARDS: A GEOGRAPHICAL ASSESSMENT OF COIN ASSEMBLAGES OCCURRING ON SHIPWRECK SITES WITHIN THE MEDITERRANEAN, JOSHUA SMITH (UNIVERSITY COLLEGE LONDON)

While the study of terrestrial coin assemblages has a long-standing history within the discipline of numismatics, coin assemblages occurring on shipwreck sites represent a resource that has yet to receive comparable examination. Although the term “hoard” is inclusive of coin assemblages found on shipwreck sites, their limited presence within prominent coin hoard databases is reflective of the challenges associated with documentation. Despite the current disposition, coin assemblages found on shipwreck sites offer a unique opportunity to expand the present inventory of coin hoards, while also providing a perspective on the contemporary use and geographical mobility of coins rarely offered by terrestrial coin assemblages. This poster presents the geographical dispersion of coin assemblages found on shipwreck sites within the Mediterranean Sea, classified by Hellenistic, Roman Republic, Roman Imperial and Byzantine periods. Furthermore, the potential contribution of such coin assemblages to circulation mapping and the reconstruction of the maritime economy is discussed.

C) THE COINS OF NICOPOLIS AD ISTRUM IN THE MEDAGLIERE OF THE VENERANDA BIBLIOTECA AMBROSIANA, GIANCARLO ALTERI (VENERANDA BIBLIOTECA AMBROSIANA), ELEONORA GIAMPICCOLO (VATICAN APOSTOLIC LIBRARY)

The coin Medagliere cabinet of the Veneranda Biblioteca Ambrosiana in Milan opened its doors to scholars on 3rd November 2015. Its collection includes more than 50,000 coins and medals. The opening marked the start of the work on cataloguing all the coins and medals of the Cabinet. The poster presents the core of the corpus of Roman Provincial coins of Nicopolis ad Istrum, a collection made unique not only by its quality, but also, and above all, by the quantity of this material which numbers almost a thousand pieces.

D) COINS AND CONQUEST; COIN HOARDING IN BRITAIN 200 BC – AD 96, ANNI BYARD (UNIVERSITY OF LEICESTER / ASHMOLEAN MUSEUM, OXFORD)

Covering the appearance of the first coins imported to Britain in the early second century BC, through to the development of insular trimetallic coinage, the Roman invasion of Claudius in AD 43 and beyond, this poster will present aspects of new research into the Iron Age to Roman transition in Britain from the perspective of coin hoards.

British ‘Celtic’ coinage has regional variation but only appears in the southeast of the country; are different coinages treated differently in varying parts of the coin-using regions? Where are these hoards appearing? How did Roman secular activity influence hoard deposition? These are just some of the questions this new research seeks to explore. Using landscape, traditional contextual archaeology, and numismatical techniques, I explore how and where, and indeed if, coin hoarding practices changed in Britain from the later Iron Age to the end of the Flavian period in AD 96.

E) OBJECTS ASSOCIATED WITH WEIGHING FROM THE ROMAN REPUBLICAN CAMP ‘CÁCERES EL VIEJO’ (EXTREMADURA, SPAIN), DIEGO BARRIOS RODRÍGUEZ (UNIVERSITY OF SALAMANCA), CRUCES BLÁZQUEZ CERRATO (UNIVERSITY OF SALAMANCA)

The metrological systems and weights have been important marks of identity of cultural groups throughout history, and in their patterns closely linked to the minting of coins. However, the analysis of this class of objects has been rare and undervalued, possibly because of their limited material and formal attractiveness.

We present here objects associated with the act of weighing from the Roman camp of Cáceres el Viejo (Extremadura, Spain). Most were excavated a century ago by Schulten and published in the past but without an analysis of their characteristics, parallels and possible functionality. Upon closer examination (weight, form, mark, material, etc.) they were linked to the presence of the Roman Army in this part of Hispania, in a camp abandoned probably due to the Sertorian War. They represent the earliest and largest group of pondera, statera, and scales recovered from a Roman Republican military context.

F) MONETARY CIRCULATION IN THE MINING AREA TERRITORIA METALLORUM – CASE STUDY OF THE TIMACUM MINUS SITE, MARIJA JOVIĆ (INSTITUTE OF ARCHAEOLOGY IN BELGRADE)

Timacum Minus continued as an administrative center of the Territoria metallorum mining area from the middle of the 2nd century until its destruction around the middle of the 5th century. Ever since its foundation at the end of the 1st century an urban settlement had developed around the military fort.

The numismatic finds from Timacum Minus fall into two categories: coins from a stratigraphic context and stray finds. By comparing the two categories we propose to test the relevance of stray coin finds analysis when made on its own, the value of stray coins as a sample, and the difference in the circulation of the two categories of finds. The end goal is to determine the influence of socio-economic circumstances on the monetary circulation in this specifically organized area, given the multiple roles of the military stationed in mining areas, who both defended and administered the Territoria metallorum.

G) HOARD OF ROMAN COINS FROM LUBAWKA IN THE KRUCZE MOUNTAINS. PRELIMINARY ARCHAEOLOGICAL AND NUMISMATIC INTERPRETATION, MATEUSZ MATULA (UNIVERSITY OF WROCŁAW), DAWID MACIEJCZUK (UNIVERSITY OF WROCŁAW), MARCIN BOHR (UNIVERSITY OF WROCŁAW)

The discovery of a hoard of thirteen Roman coins (2nd-century CE sestertii) in the Krucze Mountains leads us to revise the image of the Sudetes as an area almost completely devoid of human settlement in the Roman period. The hoard is absolutely unique in the context of the Central European Barbaricum. The find from Święta Góra (Lubawka) has a clearly symbolic character, connected with the spiritual sphere of ancient communities established in the region during the period of Roman influence. It confirms the use of the Sudetes mountain passes as a communication route between areas settled by the Przeworsk Culture in the north and by the Germanic tribes of the Upper Elbe cultures.

H) THE ROMAN HOARD FOUND IN UEKEN IN 2015 (CANTON OF AARGAU, SWITZERLAND), FANNY PUTHOD (SWISS INVENTORY OF COIN FINDS), MARKUS PETER (AUGUSTA RAURICA/UNIVERSITÄT BERN), PIERRE ZANCHI (SWISS INVENTORY OF COIN FINDS)

In 2015, a Roman coin hoard was unearthed in Ueken, in a remote field close to the Rhine limes. It consists of 4,084 coins dating from Gallienus to the Diarchy (tpq end 293), being thus one of the most significant Roman hoards known to date in Switzerland, and the largest from the late 3rd century AD. As such, it is a first-rate European source for the period between the monetary reforms of Aurelian and Diocletian.

The archaeological and numismatic study of this assemblage, carried out by a joint team of the Swiss Inventory of Coin Finds and of the Cantonal Archaeology of Aargau, helped to place the Ueken hoard in its historical context. A comparison with the contemporary hoard of Thun (2,304 coins), located close to the Alpine passes, reveals surprisingly strong similarities leading us to conclude that the Ueken hoard cannot be of a directly military origin.

I) RARE COIN TYPES OF PAUTALIA AND SERDICA, NIKOLAY DIMITROV (SOFIA UNIVERSITY "ST. KLIMENT OHRIDSKI")

The focus of research are coin types issued by two local mints in the province of Thrace – Pautalia and Serdica. Located in the western part of this Roman province, the two cities struck prolific coinage, starting in the second half of the 2nd century until the early 3rd century (with short interruptions within this period). The mint of Serdica went on to strike a restricted volume of coins also under the sole rule of Gallienus (260-268). A thorough analysis of the two coinages reveals several rare coin types, some of them apparently unique within the Roman provincial coinage. A part of these coin types reflect religious beliefs of the local population, while others demonstrate the impact on these two provincial cities of the Roman imperial cult, as well as its reception and expression in the local coinage.

J) PRELIMINARY REPORT ON THE VARZI HOARD (PAVIA, NORTHERN ITALY), ALESSANDRO BONA (CATHOLIC UNIVERSITY OF THE SACRED HEART), FLORENCE JEANNE MARIE CAILLAUD (UNIVERSITY OF BOLOGNA), ALESSANDRO CAVAGNA (STATE UNIVERSITY OF MILAN), CECILIA NORFINI (UNIVERSITY OF BOLOGNA), CLAUDIA PERASSI (CATHOLIC UNIVERSITY OF THE SACRED HEART)

A large hoard of radiates discovered in 2019 near Varzi (PV – Northern Italy) consists of more than 1,300 coins which date from Gallienus to Aurelian (based on a preliminary analysis). The specimens are in a very poor condition, probably due to the lack of a ceramic vessel to preserve them from a direct contact with the ground. This is confirmed by the absence of any ceramic fragments on the site of the discovery.

The Varzi hoard is one of a significant group of hoards deposited in the region during the second half of the 3rd century A.D., and smaller than some of them (Grumello Cremonese, Ceretto Lomellina, Ottobiano).

The coins are being restored at the University of Bologna as part of a degree thesis in 'Conservazione e Restauro', sampling different techniques to achieve effective results in readability and preservation of coins with a low percentage of silver.

K) MANAGING THE TOMARES HOARD WITH NUMISDATA/DÉDALO, ALEJANDRO GARCÍA LIDÓN (UNIVERSITY OF SEVILLA)

The Tomares Hoard, found in 2016 at the Olivar del Zaudín Park (Tomares, Sevilla), is one of the largest Roman monetary hoards ever found. Composed exclusively of nummi from the 16 active mints of the Tetrarchy period, specifically between c. 294 and 312 this hoard is a great source of information about this turbulent part of the Late Roman Period, offering insight into the situation in the Diocesis Hispaniarum.

The Tomares Hoard is at the epicenter of the advancement of Digital Numismatics in Andalusia and with the help of the Dédalo/Numisdata software will undergo a process of digitization to make its information available to researchers and the general public alike. This process will be displayed on the poster, and additionally as a sample of the results will be made available via QR code.

L) NOLI, OBSECRE, ISTUM DISTURBARE! LATE ROMAN COIN FORGERIES DISTURBING SCIENTIFIC RESEARCH, LARS RAMSKOLD (INDEPENDENT RESEARCHER)

This study presents several forgeries which – unless identified – disrupt early 4th c. Roman numismatics. Late Roman coin forgeries are nothing new and many public collections include forgeries, often unknowingly. In addition, forgeries in increasing numbers have been entering the commercial market. Undetected old and new forgeries pose the same problem: they disturb research by introducing false data. The outcome of studies may be skewed or outright wrong. New evidence shows that the famous PLVRA NATAL FEL coin, purportedly struck for Constantine I's 50th birthday, is a forgery. This "evidence" for the emperor's age must be disregarded. Other studies affected by forgeries include: Christian symbols on coins (SPES PVBLIC forgeries; "emperor holding labarum" forgeries); 1/24 pound silver AVGVSTVS / CAESAR medallions: false "trial strikes" of gold donatives, in themselves forgeries; in fact a flood of "Late Roman" forgeries in all metals threaten to disturb or obstruct whole areas of numismatic research.

M) THE ROMAN COIN DIE OF BASILIA / BASEL (CH), MYRIAM CAMENZIND (UNIVERSITY OF BERN), MARKUS PETER (SWISS INVENTORY OF COIN FINDS)

A late Roman coin die discovered during an excavation in the outskirts of the castrum of Basilia / Basel (CH) in 1999 was identified only in 2021. It turned out to be a heavily corroded iron lower die used to strike late Constantinian imitations of the FEL TEMP REPARATIO / falling horseman type.

In addition to a detailed presentation of the coin die and its classification in the context of the features of the excavation, the poster will discuss the significance of the coin die within the phenomenon of imitations in the 4th century AD, especially in the Rhineland.

N) MULTIDISCIPLINARY STUDIES OF COUNTERFEIT ROMAN IMPERIAL DENARII FROM BELARUS, VITAL SIDAROVICH (UNIVERSITY OF WARSAW)

The territory of Belarus is one of the peripheral zones of the distribution of cast barbarian copies of Roman Imperial denarii. Most Belarusian finds of these coins should be identified with the Wielbark culture whose sites are known in the south-

west of Belarus. Then again, the population of the Wielbark culture received cast coins from the related Chernyakhiv culture.

The study of the metallurgical composition of cast coins made using laser atomic emission spectroscopy showed that it can be very diverse – ranging from specimens made of base metals (copper, tin and lead) to coins with a very high silver content. It can be assumed that the functions of these barbarian forgeries within the barbarian society differed from the functions of the original Roman coins or that of struck barbarian imitations, as evidenced by the absence of cast copies in hoards of Imperial denarii.

O) DISTRIBUTION OF CASTING COPIES OF ROMAN DENOMINATIONS IN THE BARBARICUM TERRITORIES OF SOUTHEAST EUROPE. SOME ASPECTS, OLEH POHORILETS (THE STATE HISTORICAL AND CULTURE RESERVE “MEZHYBIZH”, ALEKSANDR NADVIRNYAK (THE STATE HISTORICAL AND CULTURE RESERVE “MEZHYBIZH”)

Qualitatively new information was obtained from a series of analyses of the elemental composition of alloys of coin samples, technological residues and casting waste.

However, the organization of a full-fledged, in accordance with modern methods of archaeological research of objects, remains among the first where it is assumed the presence of centers for the production of casting copies. For all its complexity - both organizational and financial - it is necessary to find ways to achieve this task.

P) PIXE AND XRF ANALYSIS OF PRODUCTS AND RESIDUES OF PRODUCTION OF CAST COPIES OF ROMAN DENARII IN THE CHERNYAKHIV CULTURE, OLEKSANDR BUHAY (INSTITUTE OF APPLIED PHYSICS, NATIONAL ACADEMY OF SCIENCES OF UKRAINE)

The analyzed coins belong to one of the most exciting categories of numismatic finds on the territory of Eastern Europe – they are copies of the Roman Empire denarii. In the Barbarian Fakers, Manufacturing and use of counterfeit Roman Imperial denarii in East-Central Europe in antiquity project, funded by the Poland National Centre of Science (2018/31/B/HS3/00137) and implemented at the Faculty of Archaeology, University of Warsaw, as part of which the present research is conducted, we have been tasked to determine chemical composition of samples associated with the production in the Chernyakhiv culture of cast copies of Roman denarii by the proton induced X-ray emission. The results of analysis showed that most of the samples are Cu-Sn-Pb three-component alloys. The zinc content does not exceed 5%, which means the absence of brass samples according to the classification of Roman copper alloys. Two samples from Vinnytsia region and Khmelnytsky region are silver.

Q) A HOARD OF SESTERTII AND CHAMPLEVÉ ENAMEL ORNAMENTS FROM THE MYRHOROD (UKRAINE), DMYTRO FILATOV (V.N. KARAZIN KHARKIV NATIONAL UNIVERSITY), MARYNA FILATOVA (V.N. KARAZIN KHARKIV NATIONAL UNIVERSITY), KYRYLO MYZGIN (UNIVERSITY OF WARSAW)

In 2020, near Myrhorod (Poltava oblast, Ukraine), a hoard was accidentally found which included 12 Roman sestertii from the time of Antoninus Pius, Marcus Aurelius, and Commodus, as well as ornaments made in the champlevé enamel technique (two bracelets, a brooch, and a chain), produced in the second half of 2nd - early 3rd centuries. This hoard should probably be associated with the population of the Kyiv archaeological culture. Most finds of Roman sestertii (single finds and hoards) on the territory of Eastern Europe forest-steppe and steppe zone with this culture are connected. The sestertii, which could have come from Central Europe or the Baltic region, could have been a metal source for the Kievan culture's jewelry.

R) A HOARD OF LATE ROMAN BRONZE COINS FROM MOSHNY (CENTRAL UKRAINE) AND ROMAN-BARBARIAN RELATIONS IN THE 4TH CENTURY, MAKSYM LEVADA (INDEPENDENT RESEARCHER)

A hoard of Roman coins recovered in 2005 outside the rural settlement Moshny (Cherkassy region, Central Ukraine) includes issues Constantius II to sons of Theodosius I, basically AD 383-388, of the same nominal value (AE2), mainly copper. Finds of hoards of Late Roman coins on the territory of the East European forest-steppe are very rare. Their main area of concentration within the range of the Chernyakhiv culture is in Moldavia and Romania, i.e. not far from the borders of the Roman Empire. Taking into account the data from written sources and new archaeological discoveries, the hoard of Moshny may be interpreted as evidence of the involvement of Gothic foederati in active coin circulation within the Roman Taurica.

S) COLLECTIVE COIN HOARDS FROM THE 4TH CENTURY FROM THE TERRITORY OF AVGUSTA TRAIANA/BEROE, MARIANA MINKOVA (REGIONAL MUSEUM OF HISTORY, STARA ZAGORA)

The author presents fourteen coin hoards, divided into four groups. The hoards from the villages of Arnautito, Gita, Byalizvor, Byalo pole belong to the second group, dated to 315-317 AD. The hoard from Rakitnitsa village containing coins minted until 324-326 AD, belongs to the third group. Two types of coin hoards are placed in the fourth group. The first subgroup includes the hoard from the village of Karanovo, and two other hoards from Enina buried around 361 AD. The second subgroup includes coins recovered in the region of Shipka-Sheynovo, and the necropolis of Avgusta Traiana, where all were used as Charon's obols. Coin hoards in the second and third group are mostly composed of folles. The fourth group predominantly contains bronze coins AE 4 and siliquae. The time and place of deposition of the coin hoards reflect the political and economic events in this region of the Roman province Thrace.

### 3. ORIENTAL NUMISMATICS

A) ⊖ THE COINAGE IN KHUZISTAN, ALEXANDER THE GREAT TO THE LAST SASANIANS, MICHAEL STAL (UNIVERSITY OF VIENNA)

On my poster I will present the first results from my PhD project concerned with the coinage in Khuzistan, from Alexander the Great to the End of the Sasanians (c. 325 BC – AD 642). Thus, the research project covers the periods of Seleucid,



Arsacid and Sasanian dominance in the territory of Khuzistan in the present-day Iran, as well as the aspirations for independence under local rulers (e.g. the Elymaian kings). Numismatic and economic processes such as the beginning of coin use, the start of local minting and their historical effects will be addressed, as well as possible geographical and chronological range of denominations and coin types, or their further use and/or adoption.

B) READING MINTS, YEARS AND NAMES ON EARLY ARAB-SASANIAN SILVER COINS, YNGVE KARLSSON (GOTHENBURG NUMISMATIC SOCIETY)

Reading old texts can be very difficult, and when it comes to Arab-Sasanian coins, we encounter the Pahlavi script and the Middle Persian language. The Persian language survived, but the Pahlavi script did not. On the early Arab-Sasanian coins we can see that the Arabic script and language are slowly taking over, culminating in the coin reform of Abd al-Malik in 78-79H. The mint names are the most stable Pahlavi features on the coins, whereas the “BSM ALLAH” legend in Arabic is seen from the very start around the edge. More than sixty names of people and seventy-five mint names written in the Pahlavi script can be found on the coins.

C) A CLASSICAL REVIVAL IN UPPER MESOPOTAMIA? SOME REMARKS ABOUT SOME ZANGID AND ARTUQID COINAGE, NICOLAS CONSIGLIO (MUSÉE D'ART ET D'HISTOIRE DE NEUCHÂTEL)

Several coin series minted in northern Syria and Upper Mesopotamia on the orders of several princes belonging to the Zangid (521-619/1127-1222) and Artuqid (495-811/1104-1408) dynasties have on them figurative representations imitating ancient coins. The article explores the significance of these images for the users of these coins in the Middle Ages. Geopolitics and the crusades, the ancestral ritual practices and the relationship of the populations to Islam, and the Turkish origin of the issuing authorities could offer a new insight.

D) MONGOL-CAUCASIAN NUMISMATIC HISTORY: NEW DATA ON THE “QARABĀGH” MINT IN THE 1230S AND 1240S, IRAKLI PAGHAVA (G. TSERETELI INSTITUTE OF ORIENTAL STUDIES)

Our objective is to discuss early Mongol monetary issues in the Caucasus. We focused on the coins bearing the mint name “Qarabāgh” and issued temp. Ögedei and Töregene. The anonymous bow type bearing this mint name has already been published. However, we discovered a specimen restruck from the silver drama (Georgian for dirham) of Queen Rusudan of Georgia (1223-1245) (2.37 g; reportedly, accidental find from the vicinity of Tiflīs). Stephen Album notes that these coins are “occasionally found overstruck on Rum Seljuk dirhams, especially on the lion & sun type” (coins of the latter type circulated widely within the Georgian Kingdom). We also discovered an as yet unique and previously unknown coin of mounted archer type bearing the mint name “Qarabāgh” previously unknown for this type (2.70 g, accidental find from the historical Hereti region of Georgia). Our data and research clarify the numismatic history of Mongol dominion in Caucasus.

#### 4. MEDIEVAL AND MODERN NUMISMATICS

A) 6TH-10TH CENTURY COINS IN THE COLLECTION OF THE GABINET NUMISMÀTIC DE CATALUÑA, MARIA CLUA MERCADAL (GABINET NUMISMÀTIC DE CATALUÑA, MUSEU NACIONAL D'ART DE CATALUÑA)

The Gabinet Numismàtic de Catalunya has in its collection a significant representation of issues from the 6th to the 10th centuries which need to be brought up to date in terms of classification and identification. In addition, research will be carried out into the provenance of the coins and their entry into the CNG. The composition of the collection will also be compared with that of other collections in Spain.

B) COINAGE IN NINTH-CENTURY NORTHUMBRIA: KINGS & VIKINGS, LUCY MOORE (UNIVERSITY OF YORK)

Copper-alloy stycas, minted in 9th-century Northumbria, are the most common early medieval English coins, but are in need of radical reappraisal. Until recently it was assumed that styca production stopped in 867 due to Viking attacks and civil war, but new research suggests that use and even production continued under Viking control. Comparison of these imitations with official Northumbrian stycas, and examination of stycas within their contexts (hoards, settlements, Viking camps), will enable a clearer understanding of their use and dating. This will provide new evidence for the impact of the Vikings on the 9th-century English economy.

This poster will introduce the key sites that my PhD thesis works on. It will demonstrate a new periodisation for the coinage, which enables close comparison between periods of styca production, including analysis of imitative types.

C) AN UNPROVENANCED EARLY MEDIEVAL HOARD IN THE COLLECTION OF THE OSSOLINEUM, BARBARA BUTENT-STEFANIAK (OSSOLIŃSKI NATIONAL INSTITUTE)

The poster reports on an early medieval hoard from an unknown location now in the collection of the Ossolinski National Institute in Wrocław. Surviving at present only as a fragment of the original deposit this early medieval hacksilver hoard was buried in the first half of the 11th century. It includes dirhams, German coins (11) and fifteen fragments of silver ornaments. The German coins are the largest group and were used to date the hoard.

D) THE FIRST 100 YEARS OF THE GOLD FLORIN OF FLORENCE (1252-1351): ANALYSIS AND NEW RESEARCH PERSPECTIVES, MASSIMO DE BENETTI (PROGETTO COLLEZIONE DI VITTORIO EMANUELE III, MEDAGLIERE DEL MUSEO NAZIONALE ROMANO, ROMA)

The Florentine gold florin, first minted in 1252, is widely recognized as one of the most famous coins of the Medieval West. A new monograph to be published by the Italian Ministry of Culture in the *Bollettino di Numismatica* sheds new light on this coinage, presenting the results of a recent PhD research project carried out at the Universities of Granada and Ca' Foscari of Venice in collaboration with several museums, including the Museo Nazionale Romano (Medagliere) where the collection of Vittorio Emanuele III is preserved. The work includes a complete and updated corpus of the different issues of the gold florin, also taking into account previously

unidentified “unsigned” imitations. The new book will be a valuable reference for historians, archaeologists and numismatists expected to contribute to a better understanding of the role that the gold florin played in the so-called Commercial Revolution of the Middle Ages in Europe.

E) PRELIMINARY RESULTS ON EPIGRAPHY, DIES AND VARIETIES OF THE GROS TOURNOIS OF ASTI (PIEDMONT, ITALY), LUCA ODDONE (SOCIO DELLA SOCIETÀ NUMISMATICA ITALIANA / PERITO NUMISMATICO CCIAA ASTI-ALESSANDRIA), ANGELO AGOSTINO (UNIVERSITÀ DEGLI STUDI DI TORINO), MARIA LABATE (UNIVERSITÀ DEGLI STUDI DI TORINO), TIZIANA CASERTA (MUSEO CIVICO D'ARTE ANTICA, PALAZZO MADAMA)

A study of the gros tournois of the Asti mint (13th-14th century) launched in 2015 has explored so far fifteen international museums and numerous private collections. Hundreds of public auction catalogues were also consulted. Ultimately seventy-three gros tournois were identified, confirming the rarity of this coin. The identity and sequence of dies have been studied using Arslan's methods, the original number of dies has been estimated with Carter and Esty's methods. When possible, XRF analyses were performed by the University of Turin and TQ, Technologies for Quality of Genoa. Seven main epigraphic and stylistic varieties were identified, two of which are still unpublished. For each coin we are trying to reconstruct its pedigree, with provenance and passages in public auctions. Three modern counterfeits obtained using the lost wax method have also been identified. We hope that new entry coins and dies enable us to obtain a complete chrono-typological sequence.

F) COINS OF THE PRINCIPALITY OF KYIV ISSUED BY GRAND PRINCE VLADIMIR OLGEROVICH, OLGA VENGER (K. D. USHYNSKY SOUTH UKRAINIAN NATIONAL PEDAGOGICAL UNIVERSITY)

Silver coins of Grand Prince Vladimir Olgerdovich (1362–1394) were minted on disks cut from a metal sheet. With this method there were no silver waste and a fairly high weight standard was ensured. Coin blanks were sub-circular or oval, between 8 and 15 mm in diameter, and 0.1 and 0.67 g in weight. Since there is no written evidence to confirm the operation of a mint in Kyiv the provenance of these coins is not fully understood. Currency was Hryvnia (weight 204.75 g). Coin stop consisted of 300 coins per one silver hryvnia. Money was minted of .900 fine silver, while bracteates and denarii were made of .500 and .600 fine silver.

Placed on the obverse was the prince's mark. There were several types of reverses: plexus and legend in circle with name of the Prince and with letters IS around circular frame.

G) FOR CITY AND CHURCH; SMALL CHANGE IN LATE MEDIEVAL GELRE, JOS BENDERS (NTNU / KU LEUVEN)

Producing small coins was often a costly affair in the later Middle Ages. The process is labour intensive, and therewith relatively expensive. As of the late fourteenth century their production had become so unattractive for the mint master that the ducal administration needed to take measures to ensure a minimum supply of petty coins. These measures were probably insufficient, which opened a market for seignorial mints. After their activities stopped around 1450, some cities in the Duchy

of Gelre were allowed to strike minor denominations. As these probably had a fiduciary character, a profit could still be made. The profits were generally assigned to the city's main church. This solution to supply small coins was typical for Gelre and may not have occurred elsewhere. The paper focuses on its evolution in the period 1450s-1543.

H) TERLINE AND A GOLD DOUBLE DUCAT OF GUGLIELMO IX PALEOLOGO (1512-1513) FOR ASTI MINT (PIEDMONT, ITALY), LUCA ODDONE (SOCIO DELLA SOCIETÀ NUMISMATICA ITALIANA / PERITO NUMISMATICO CCIAA ASTI-ALESSANDRIA)

In 1931 Maggiore-Vergano attributed to Guglielmo IX Paleologo, Marquis of Monferrato and governor of Asti, a terlina similar to the terline coined in Asti by Louis XII. Nothing more was known about this coin for ninety years, so the authors of the *Medieval European Coinage* expressed doubts about its existence. A census of Asti coins taken by his author in Italian and international museums led to the discovery of four terline of Guglielmo IX. The monogram GV identifies the Marquis of Monferrato and the legend LV D G ASTNSIS EX D (ominus) replaces those hammered on the previous terline of Louis XII. For the first time, the same monogram GV was also discovered on a gold double ducat in the Kunsthistorisches Museum of Wien, previously attributed to Louis XII. These findings definitively confirm that Guglielmo issued at least two types of coins in the Asti mint: terline and double ducats.

I) THE COAT OF ARMS OF VOLHYNIA ON COINS OF SIGISMUNDUS II AUGUSTUS, KING OF POLAND, ANDRII VENGER (K. D. USHYNSKY SOUTH UKRAINIAN NATIONAL PEDAGOGICAL UNIVERSITY)

At first the coat of arms of Volhynia on coins is in the form of a white cross on a red shield, as in 14th-century Lutsk under Prince Dmitry Gediminovich. Two centuries later, the coat of arms appears on silver półkopek and gold ducat coins of Sigismundus II Augustus, King of Poland. The date on the obverse is 1564, over the value of XXX (30 grosz). The shield with the cross of Volhynia is depicted on the reverse.

The gold ducats were minted with a Latin inscription "Sigismundus Augustus, King of Poland, Grand Duke of Lithuania". On the reverse was a shield with the cross of Volhynia, and a Latin inscription: "gold coin of the Grand Duchy of Lithuania".

The king's portrait is in three variants: with a short beard (1547–1548), with a long beard (1549–1561), with a long and forked beard (1563–1571).

J) ZEICHEN DER FALSCHEN GULDEN – PRINTS FROM THE LATE 15TH CENTURY REPORT ON COUNTERFEIT COINS, AGNES ASPETSBERGER (KUNSTHISTORISCHES MUSEUM WIEN)

The so-called 'Zeichen der falschen Gulden', prints from the late 15th century, warn of forgeries of gold coins, that are supposedly in circulation. Ten different printers located in the southern German region produced those prints, each describing and most of them also depicting the same five gulden.

Moreover, they report on the responsible forgers, who allegedly already had been caught and punished. The gold coins that served as models for the prints can be identified and placed in relation to the prints. Comparisons of the text and illustrations, as well as specifics of the prints can be used to show connections and

dependencies between them. The 'Zeichen der falschen Gulden' have a very unofficial character, and mention neither the issuer or the recipient. Furthermore, the poor quality of the illustrations and the insufficient description of the coins make it impossible to identify forgeries using those prints as a guideline.

K) FROM FLANDERS TO MILAN. A HOARD OF GOLD AND SILVER COINS FROM A 16TH CENTURY MASS GRAVE, ALESSANDRO BONA (CATHOLIC UNIVERSITY OF THE SACRED HEART)

Between 2018 and 2019, an archaeological excavation at the basilica of San Vittore al Corpo in Milan uncovered a mass grave with more than thirty corpses. During the excavation of one of the skeletons, a florin of Philip I of Habsburg issued in Antwerp (1500-1506) and thirteen silver coins came to light. The latter are currently impossible to identify (their restoration is planned in the coming months), but perhaps recognisable as Grossi or half Grossi minted in Flanders in the first half of the 16th century. These coins are exceptional in the panorama of the circulation of Milan during this period. The tomb in which they were found probably held the bodies of victims of an epidemic wave, hastily buried, perhaps for fear of contagion. In addition to the historical and archaeological context, the paper will provide a picture of the epidemics which struck Milan in the 16th century.

L) MONEY OF THE POOR: NON-STATE COINAGES AND THE CASE OF MID-SEVENTEENTH CENTURY BRITISH TRADE TOKENS, LAURA BURNETT (UNIVERSITY OF EXETER)

This poster will introduce my current PhD research on 17th century trade tokens. These privately issued, centrally produced, copper alloy 'trade' tokens are a mass phenomenon responding to particular economic and political circumstances between 1648 to 1672 in England, Wales and Ireland but have many international parallels. They will be considered in the light of international and cross-period models of monetisation, non-state coinage and credit. The poster will examine the claims made on the tokens themselves about their issuing and use, in particular the claim they are 'for the poor'.

By comparison to other forms of money the poster will aim to encourage readers to think more broadly about monies of the poor and the way certain credit instruments and forms of payment, from tokens to prepayment electricity keys, were, and are, associated specifically with the financially unsecure.

M) LANDESMUSEUM HANNOVER - THE RISE OF THE WELF DYNASTY AND ITS REFLECTION IN MEDALS, HÜLYA VIDIN (GOETHE UNIVERSITY FRANKFURT/LANDESMUSEUM HANNOVER)

With over 43,000 objects, the coins and medals of the Landesmuseum Hannover tell the story of Lower Saxony and Hanover from the Middle Ages to modern times. The historical focus of the collection is on coins related to the personal union of Great Britain and Hanover, 1714 to 1837. During this period, the kings of Hanover ruled Great Britain, and the power of the House of the Welf dating back to the 8th century increased greatly. Georg Ludwig was both King of Great Britain and Elector of Hanover. This poster explores changes in the coinage caused by the personal union. It also shows how medals were used to represent the new power of

the Welf dynasty. In addition to examining the iconographic and economic changes from the numismatic perspective, the poster will show the concept used by the Landesmuseum Hannover in presenting these medals.

N) PICTURING EMPEROR FERDINAND I ON MEDALS IN THE FIRST HALF OF THE 19TH CENTURY, ANDREA MAYR (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN, VIENNA)

The poster will present the author's dissertation project "Picturing Emperor Ferdinand I on Medals in the First Half of the 19th Century. The medal production between 1835 and 1848 in an art-historical and historical context" implemented between 2016 and 2020 at the Department of Art History at the University of Vienna (Austria). The dissertation focuses on medals during the reign of the Austrian Emperor between 1835 and 1848, and on four central topics to the widest possible extent: the biography and historical circumstances of the ruler, the medal holdings from his reign now in the Coin Collection of the Kunsthistorisches Museum Vienna, the question of the significance of the medal for Habsburg representation and the medal production at the Imperial Central Mint in Vienna of the period.

O) COUNTERFEITER MOLDS FOR CASTING POLISH COINS (1923-1924) FROM LVIV AND ITS REGION, ANDRII BOIKO-HAHARIN (THE NATIONAL BANK OF UKRAINE)

The study of counterfeiting in Ukraine and Poland is an area of numismatics much neglected until recently. The history of counterfeiting in the part of the Ukrainian lands integrated during the interwar period into the Second Polish Republic still remains a blank spot. A surge in the production of counterfeit Polish coins in the Lviv region during the interwar period is indicated by finds of tools used in casting counterfeit coins.

Four tools used to make counterfeit coins in the Lviv region presented here are markedly different in their quality, which suggests different owners and different levels of metal processing skill – some are quite sophisticated and others too simple to have been used in the process of coin counterfeiting at all.

## 5. GENERAL NUMISMATICS (COLLECTIONS, DIGITAL, ETC.)

A) COIN HOARDS IN THE VATICAN MEDAGLIERE: AN ATTEMPT AT RECONSTRUCTION, ELEONORA GIAMPICCOLO (VATICAN APOSTOLIC LIBRARY)

Many coin hoards entered the Vatican Medagliere over the centuries and as was common in the past, all coins belonging to a hoard would be separated and placed in different destination sectors. The project currently underway at the Vatican Medagliere aims to reconstruct these hoards - some of them have particularly interesting stories - through the study of archival documents and matching the listed coins with the actual specimens. The paper reports on the progress of our project, focusing on some of the most significant coin hoards, and the history of their discovery and their acquisition.

B) RISE FROM SLUMBER! THE GOTHA FROM THE FORGOTTEN BAROQUE TO THE DIGITAL COIN CABINET, MARJANKO PILEKIC (MÜNZKABINETT, STIFTUNG SCHLOSS FRIEDENSTEIN GOTHA)

Opened in 1713, the Gotha Coin Cabinet at Friedenstein Castle was one of the largest and most important coin collections in Europe in the 18th and early 19th centuries. Marked by a varied history until recently the numismatic collection felt the consequences of the Second World War. Although the coins removed to the USSR in 1945 were returned already in 1958, over 16,000 of the most important pieces in the collection were still missing. Most of these were ancient coins brought to Coburg by the ducal family as a precautionary measure and returned to Friedenstein in 2011. The collection now consists of 145,000 numismatic objects, from antiquity to modern times. They are to be digitised and made available online in the shortest possible time thanks to the “Gotha transdigital2027” project. A brief insight into the innovative approaches used in digitising this important collection will be given.

C) THE RECONSTRUCTION OF A LOST PRINCELY COLLECTION AND EARLY DEALINGS IN COINS, SIMONE VOGT (MUSEUM AUGUST KESTNER)

While still a hereditary prince of Hesse-Kassel, Wilhelm I (1743-1821) was an enthusiastic collector of coins and medals. He did not give up this passion as a reigning Elector. His collection was built up in Hanau. Taking office, Wilhelm I took the coins and medals with him to Kassel. When the Electorate of Hesse-Kassel was annexed by Prussia in 1866 the collection became public museum property but was sold in the 1920s. Thus, it is not preserved in its entirety, but the Kestner Museum in Hanover acquired a very large part of the Hanau medals at the 1927 auctions, so that the collection can be partially reconstructed. A reconstructed compilation of its holdings offers insight into the history of the coin trade because Wilhelm I built up his collection with the help of the banker Mayer Amschel Rothschild, who is considered the first coin dealer.

D) BYZANTINE COINS IN THE JOHN MAX WULFING COLLECTION IN ST. LOUIS, ELENA BALDI (WASHINGTON UNIVERSITY)

The John Max Wulfing Collection of Ancient Coins and Related Objects of the Washington University in St. Louis, with ca. 16,000 objects, ranks as one of the largest university collection in the United States. The coins were donated by John Max Wulfing, a St. Louisian businessman, a keen collector of Roman coinage.

A notable group in the collection are 633 coins of the Byzantine Empire, Anastasius to John VIII, with the largest series being coins issued by Justinian I.

In this poster I aim to introduce the overall evidence of the Byzantine coins, with particular focus on the hoard of 75 coins of Manuel I Comnenus (1143-1180). Despite their attribution to DOC IV.1 they show several legend variants which are not always fully compatible with the DOC classification, showing a great variety in production, and offer valuable insights into this period of numismatic study.

E) ARCHIVES AND COLLECTIONS OF THE ARCHAEOLOGIST AND NUMISMATIST ADRIEN BLANCHET: A VALORIZATION PROJECT, MARIE-LAURE LE BRAZIDEC (UMR 5608 – TRACES, TOULOUSE)

The French archaeologist and numismatist Adrien Blanchet (1866-1957) was the first to start developing several important corpora. In the process of collecting information and making syntheses for systematic publication he made quite a few monetary discoveries, laying the foundations for what would later become the Corpus des trésors monétaires antiques de la France (TAF).

Recent access to a part of its archives and its collections, which have remained unpublished, makes it possible to consider promoting all its scientific productions kept in several French institutions. This will involve presenting the various funds, then the work and actions to be carried out to make them known and make them usable by all.

F) ANCIENT GOLD COINS FROM MARIA AND DR. GEORGE SEVEREANU COLLECTION, DAN PÎRVULESCU (BUCHAREST MUNICIPALITY MUSEUM), AUREL VÎLCU (VASILE PÂRVAN INSTITUTE OF ARCHAEOLOGY. ROMANIAN ACADEMY)

The radiologist George Severeanu was a passionate collector of antiquities (1879-1939). His collection of archaeological objects includes ancient Greek pottery, clay statuettes, bronze and marble objects, Roman glassware, ancient gems and cameos. George Severeanu's numismatic collection, one of the most valuable in Romania, consists of approximately 9,000 objects from different historical periods. The numismatic material under analysis (62 items) consists of Greek gold and electrum coins struck in the 6th-3rd centuries BC in Asia Minor, Macedonia, Cyprus, Egypt, and Sicily, and additionally, Persian darics and Carthaginian staters. Observations will be presented on staters issued by Philip II, Alexander the Great and Lysimachus, some of them minted in the Greek cities on the Black Sea coast. All of the gold coins, some rare issues found in collections, were subjected to metal analysis.

G) AN INNOVATIVE APPROACH TO DISPLAYING A ROMAN COIN HOARD, JENNIFER GLOEDE (NATIONAL MUSEUM OF AMERICAN HISTORY, SMITHSONIAN INSTITUTION)

The National Numismatic Collection at the Smithsonian's National Museum of American History is opening an exhibition called Really BIG Money that was written and designed with elementary-aged visitors in mind. To represent money that is "big" in quantity, rather than size or denomination, it will feature approximately 170 coins from a Roman hoard arranged in the shape of one very large Roman coin. This innovative design is intended to engage our young visitors and spark their curiosity.

This project is a collections management challenge in that it requires a great deal of organization, documentation, and creativity to achieve the desired look for the display. Each coin will be individually mounted on a vertical panel and has a unique catalog number that must be tracked. This poster will describe these challenges presented by the design and detail the mounting process used.



H) RARE CASH - DIGITIZATION AND PUBLICATION OF CENTRAL GERMAN COINS FINDS, ANIKA TAUSCHENSKY (STATE OFFICE FOR MONUMENT PRESERVATION AND ARCHAEOLOGY IN SAXONY-ANHALT), VEIT DRESELY (STATE OFFICE FOR MONUMENT PRESERVATION AND ARCHAEOLOGY IN SAXONY-ANHALT), ERIK TROSTMANN (FRAUNHOFER INSTITUTE FOR FACTORY OPERATION AND AUTOMATION)

In cooperation with the State Coin Cabinet of the Moritzburg Art Museum in Halle (Saale) and the Fraunhofer Institute for Factory Operation and Automation, the State Office for Monument Preservation and Archaeology in Saxony-Anhalt has embarked on a digital recording and indexing of ca. 18,500 coin finds, medieval to modern age. The digitization and publication of coin finds from Saxony-Anhalt will create a database useful for reconstructing the currency and economic areas in Central Germany. The digitization is carried out using OSCAR (Optical System for Coin Analysis and Recognition) to scan and identify the coins through obtaining their individual “digital fingerprint”. In addition, 2½ D images of each coin are created in just a few minutes. The images and numismatic information on each coin are continuously made available to the public via the KENOM-database.

I) DIGINUMA: DIGITAL SOLUTIONS FOR EUROPEAN NUMISMATIC HERITAGE, ELIAS OKSANEN (UNIVERSITY OF HELSINKI), HEIKKI RANTALA (AALTO UNIVERSITY), EERO HYVÖNEN (AALTO UNIVERSITY)

This poster presents the interdisciplinary research project DigiNUMA (University of Helsinki and Aalto University, Finland), which develops a new model for harmonising national and international archaeological datasets for Digital Humanities analysis and public dissemination through Linked Open Data (LOD). DigiNUMA answers challenges and opportunities created by the need for digital solutions stemming from the vastly increased amount of numismatic finds information generated by metal-detecting in those countries (such as Finland and the UK) where recording schemes exist; the pan-European need to develop an internationally operable LOD infrastructure; and necessity of increasing the accessibility of Cultural Heritage data by different users, also from outside the scientific community. DigiNUMA examines the potential offered by ontological research and data harmonisation strategies in developing digital heritage data services to meet these challenges. It extends the FindSampo framework for archaeological finds (see: loytosampo.fi) into a transnational technical solution for Cultural Heritage data management and dissemination.

J) CORPUS NUMMORUM – A DIGITAL RESEARCH INFRASTRUCTURE FOR ANCIENT COINS, ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES), JAN KÖSTER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES), BERNHARD WEISSER (MÜNZKABINETT BERLIN), KARSTEN TOLLE (UNIVERSITY OF FRANKFURT /M.), CLAUS FRANKE (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES)

Corpus Nummorum is a joint project of the Berlin-Brandenburg Academy of Sciences and Humanities, the Münzkabinett Berlin, and the Big Data Lab of the University of Frankfurt. It indexes ancient Greek coins from various landscapes across collections and develops typologies. The coins and types are published on a multilingual website using numismatic authority data and FAIR principles.

As part of the project, the CN Editor was developed as a multifunctional web app that can fully handle the project's data entry workflow and provide extensive search and optimisation functions, as well as various evaluation options. This open-source tool has a modular structure. This allows the Editor to be quickly extended with new functions or adapted to other object types, which makes it interesting for projects beyond numismatics. CN forms a digital research infrastructure that allows and promotes the re-use of aggregated data and unrestricted collaboration with other persons or institutions.

K) IKMK.NET, KARSTEN DAHMEN (MÜNZKABINETT BERLIN), BERNHARD WEISSER (MÜNZKABINETT BERLIN)

Inaugurated on 20 May 2021 the [ikmk.net](http://ikmk.net) is a new web portal of public numismatic collections.

Public coin collections, which are using the documentation software of the Münzkabinett Berlin ([ikmk.smb.museum](http://ikmk.smb.museum)), are representing the ikmk family (currently 30 partner institutions). These include the Berlin and Vienna cabinets, the Herzog-Anton-Ulrich-Museum, the Münzkabinett Winterthur, and members of the Network of German University Coin Collections which can be browsed in a shared portal of more than 98,000 individual object entries.

Other coin collections in Germany, Austria, Switzerland, and Greece, will be joining [ikmk.net](http://ikmk.net).

Object entries share a common standard using identifiers and Linked Open Data. The use of [ikmk.net](http://ikmk.net) is free, and licensed by individual Creative Commons statements.

Any future developments of IKMK will be provided for free to all partners. The use of such shared concepts and identifiers will advance the exchange of data both internally and with international research networks and portals.

L) MEBIC MILAN COIN CABINET WEBSITE: NUMISMATIC COLLECTION LAGIOIA, GIULIA VALLI (GABINETTO NUMISMATICO E MEDAGLIERE), RODOLFO MARTINI (GABINETTO NUMISMATICO E MEDAGLIERE)

The large number of requests from researchers and collectors, and new ways to manage digital content offered by the most important international and Italian cultural institutes highlights the need to upload Milan Coin Cabinet collections, now known mainly from printed publications.

The aim is to make it easier to study the collections and to create a system to find pictures and information to promote research and to spread the heritage knowledge.

It isn't possible at this moment to upload the whole Coin Cabinet Collections (ca. 280.000 pieces): it is necessary therefore to start by selecting more significant groups or exemplary categories to start the process.

The first group is composed of around 200 ancient coins from the archaeological Lagioia collection, which is geographically organized and has been studied and published. The local provenance of many coins in the Lagioia group provides new clues for future research.

M) NUMISMATIC VISUAL ART PROJECT, OLIVIA DENK (UNIVERSITY OF BASEL)

Launched in 2020 the professional Instagram account “numismatisticious” is a visual art project of Greek numismatics in the digital age. The spectrum represented ranges from ancient Greek coins to modern drachmas, including banknotes. Via the social media platform of the Instagram the magnificent imagery of Greek coins and banknotes is transported into a new age. The aim of the "numismatisticious" project is to create a new dialogue between coins as art objects and people through artistic reinterpretation. Instagram offers an optimal virtual space for a digital educational offer that creatively addresses a broad public in a creative way.

N) LINKED OPEN DATA AND THE TRANSFORMATION OF COINAGE WEIGHT, JONAS VON FELTEN (SWISS INVENTORY OF COIN FINDS), MYRIAM CAMENZIND (UNIVERSITY OF BERN)

Can Linked Open Data capture the changes in value through changes in the weight of a Roman denomination, and identify them with historically documented events? With Linked Open Data, large amounts of information can be generated without affecting the quality of the data. Consequently, can Linked Open Data and the quantitative approach be used to make scientific statements? A SPARQL query is used for data acquisition to generate a list of all coins of a given denomination. All coins of the queried denomination from collections linked to OCRE are included in statistical analyses. Using this data basis we can show that the quantitative approach can generate good results even when the database is not controllable. Thus, we can demonstrate that historical events definitely coincide with changes in the weight of coinage.

O) ISLAMIC COIN STUDIES USING REFLECTANCE TRANSFORMATION IMAGING AS A NON-DESTRUCTIVE TECHNICAL EXAMINATION OF NUMISMATIC DATA DOCUMENTATION, ALMOATZBELLAH ELSHAHAWI (MINISTRY OF TOURISM AND ANTIQUITIES), ISLAM SHAHEEN (EGYPTIAN MUSEUM, CAIRO), HAMDY ABDULMONEM (THE MUSEUM OF ISLAMIC ART, CAIRO)

One of the most important technologies used in the documentation and examination of cultural heritage is Reflectance Transformation Imaging technique (RTI). Because of its many advantages RTI has been widely used in processes of digitization, interpretation, and virtual presentation of ancient coins. This research will focus on the use of the RTI technique in the study, examination, and interpretation of inscriptions of twelve Islamic coins in the Museum of Islamic Art in Cairo, and to provide an improved access of numismatists to this coinage. Despite the small size of the studied coins, and their lustrous surfaces, the RTI images delivered good results in the virtual exploration and interpretation of the selected coins, and helped to make them available to numismatists in a simple, effective and clear manner.

P) MODERN COUNTERFEITS OF COMMUNAL PERIOD COINS FROM ASTI MINT (PIEDMONT, ITALY), LUCA ODDONE (SOCIO DELLA SOCIETÀ NUMISMATICA ITALIANA / PERITONUMISMATICO)

In 2017 the author described four modern counterfeits of communal coins of Asti (1141-1336), two of which are now found in the Fitzwilliam Museum in Cambridge. Their stylistic and epigraphic details suggested they could be the work of

the infamous forger Luigi Cigoi. Two years later we identified a gros tournois with unique characteristics. An in-depth analysis and comparison of surface details helped to identify this piece with a reasonable certainty as a modern counterfeit made by lost-wax casting. This coin appears to be identical with a gros tournois kept in the Museo Civico d'Arte Antica in Turin. Currently, the discovery of a new Cigoi-style gros tournois and of a very suspicious cast of a gros tournois auctioned off in 1928, probably obtained by lost-wax casting, leads us to update the state of knowledge and opens up the way for future research.

Q) DEVELOPING A SYSTEMATIC APPROACH FOR THE DETECTION OF ANCIENT COIN COUNTERFEITING, MOHAMMAD RABABAH (TECHNISCHE UNIVERSITÄT BERLIN)

The forgery and counterfeiting of ancient coins has recently witnessed an alarming increase. This makes authentication of these coins and detection of fakes of a paramount importance. In this poster we propose a systematic step-by-step scientific testing methodology museums can use to confirm the authenticity of coins in their collections, and coins offered to them from different sources. The methodology proposed here involves testing authenticity of coins by subjecting them to a series of tests to determine physical and chemical properties and manufacturing technology using non-destructive scientific methods, including optical microscopy and Energy-dispersive X-ray Fluorescence.

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## SCHEDULE OF LIVE AND ONLINE EVENTS

**MONDAY, SEPTEMBER 12, 2022, 9.00-10.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**1. GREECE 1. GENERAL, CHAIRED BY WOLFGANG FISCHER-BOSSERT (AUSTRIAN ACADEMY OF SCIENCES)**

1. COINAGE AND CONSTRUCTION, JOHN MOORING (NATIONAL RESEARCH SCHOOL IN CLASSICAL STUDIES, AMSTERDAM)
2. THE SEARCH FOR ANCIENT SILVER MINES, FRANCIS ALBARÈDE (ENS LYON), JEAN MILOT (ENS LYON), MARKOS VAXEVANOPOULOS (ENS LYON), KATRIN WESTNER (ENS LYON), JANNE Blichert-Toft (ENS LYON)
3. ANCIENT GREEK COIN HOARDS (550 -350 BC). DELVING INTO THE ACQUISITIONS OF THE NUMISMATIC MUSEUM, GREECE, GEORGE KAKAVAS (NUMISMATIC MUSEUM, HELLENIC MINISTRY OF CULTURE AND SPORTS), CHARIKLEIA PAPAGEORGIADOU (RESEARCH DIRECTOR, INSTITUTE OF HISTORICAL RESEARCH, NATIONAL HELLENIC RESEARCH FOUNDATION), PANAGIOTIS TSELEKAS (ARISTOTLE UNIVERSITY OF THESSALONIKI, SCHOOL OF HISTORY AND ARCHAEOLOGY)

**MONDAY, SEPTEMBER 12, 2022, 11.00-12.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**2. GREECE 2. SOUTHERN ITALY, CHAIRED BY FEDERICO CARBONE (UNIVERSITY OF SALERNO)**

1. COINS AND COLONIAE: COSA COINAGE AS MECHANISMS OF SOCIO-ECONOMIC INTERACTIONS IN MIDDLE REPUBLICAN SOUTH ETRURIA, MELISSA LUDKE (FLORIDA STATE UNIVERSITY)
2. ⊖THE COINS OF LARINUM AND THE FRENTANI. REVIEWING THE EVIDENCE, VALENTINO PIVA ('SAPIENZA' UNIVERSITY OF ROME)
3. MEBIC – LAGIOIA COLLECTION: REMARKS ABOUT CIRCULATION OF BRONZE COINS BETWEEN APULIA AND WESTERN GREEK REGIONS, GIULIA VALLI (GABINETTO NUMISMATICO E MEDAGLIERE), NOVELLA VISMARA (UNIVERSITÀ DEGLI STUDI DI MILANO BICOCCA)
4. THE SAKKOS AS AN IDENTIFYING ELEMENT OF THE FEMALE STATUS: A CASE STUDY FROM LOCRI, MARIANNA SPINELLI (UNIVERSITY OF CALABRIA)

**MONDAY, SEPTEMBER 12, 2022, 14.00-15.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**3. GRECE 3. GREEK COIN ICONOGRAPHY IN THE DIGITAL ERA, ORG.: ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES) AND FRÉDÉRIQUE DUYRAT (BIBLIOTHÈQUE NATIONALE DE FRANCE); CHAIRED BY VLADIMIR STOLBA (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT / BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES)**

1. ICONOGRAPHIC AMBIGUITIES IN GREEK COINAGE: THE CORPUS NUMMORUM AND THE SO-CALLED TORCHES OF BYZANTION, ULRIKE PETER (BERLIN-BRANDENBURG



ACADEMY OF SCIENCES AND HUMANITIES), VLADMIMIR STOLBA (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT / BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES)

2. ARCH – AN ONLINE PROJECT OVERARCHING THE COINAGE OF THE GREEK WORLD, FRÉDÉRIQUE DUYPAT, JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE)
3. CHALLENGES OF CREATING A TYPE CORPUS OF EARLY ELECTRUM COINAGE, UTE WARTENBERG (AMERICAN NUMISMATIC SOCIETY)
4. BETWEEN GREEK AND ROMAN ICONOGRAPHY: IMAGING THE EMPEROR ON CIVIC COINAGE IN THE ROMAN EAST, DARIO CALOMINO (UNIVERSITY OF VERONA)

**MONDAY, SEPTEMBER 12, 2022, 16.00-17.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**4. GREECE 4. IBERIAN PENINSULA AND GALIA, CHAIRED BY ELENA MORENO PULIDO (UNIVERSIDAD DE CÁDIZ)**

1. A NEW CATALOGUE FOR THE ANCIENT IBERIAN COINAGES: MONEDAIBERICA.ORG, PERE PAU RIPOLLÈS (UNIVERSITAT DE VALÈNCIA), MANUEL GOZALBEZ (MUSEU DE PREHISTÒRIA DE VALÈNCIA), ALEJANDRO PEÑA (RENDER S.L.), FRANCISCO ONIELFA (RENDER S.L.)
2. AN EXAMPLE OF MONETISATION OF SW HISPANIA DURING THE REPUBLICAN PERIOD: MESAS DO CASTELINHO (PORTUGAL), BARTOLOMÉ MORA (UNIVERSITY OF MÁLAGA), CARLOS FABIÃO (UNIVERSIDADE DE LISBOA), AMILCAR GUERRA (UNIVERSIDADE DE LISBOA), SUSANA ESTRELA (UNIVERSIDADE DE LISBOA)
3. THE NEW BAETICAN LEAD TOKENS OF EUCLERATUS, DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)
4. THE FIRST CHALKOS OF GREEK MARSEILLE, JEAN-ALBERT CHEVILLON (GROUPE NUMISMATIQUE DU COMTAT ET DE PROVENCE)

**TUESDAY, SEPTEMBER 13, 2022, 9.00-10.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**5. GREECE 5. ITALY – SICILY 1, CHAIRED BY MARIANGELA PUGLISI (UNIVERSITÀ DI MESSINA)**

1. THE EARLY INCUSE COINAGE OF CROTON, STEFANIE BAARS (MÜNZKABINETT, STAATLICHE MUSEEN ZU BERLIN – STIFTUNG PREUßISCHER KULTURBESITZ)
2. THE COINAGE OF THURIUM AND ITS CONTEXTS – A DIE STUDY, MARC PHILIPP WAHL (VIENNA UNIVERSITY, DEPARTMENT OF NUMISMATICS AND MONETARY HISTORY)
3. COIN FINDS FROM ANCIENT MEDMA, TODAY ROSARNO (RC, ITALY), GIORGIA GARGANO (SOPRINTENDENZA ARCHEOLOGIA, BELLE ARTI E PAESAGGIO PER LA CITTÀ METROPOLITANA DI REGGIO CALABRIA E LA PROVINCIA DI VIBO VALENTIA)



4. COIN CIRCULATION IN LIPARI (SICILY) FROM THE GREEK TO THE ROMAN TIMES, LUDOVICA DI MASI (UNIVERSITY OF MESSINA)

**TUESDAY, SEPTEMBER 13, 2022, 11.00-12.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

6. GREECE 6. ITALY – SICILY 2, CHAIRED BY BENEDETTO CARROCCIO (UNIVERSITÀ DELLA CALABRIA - DIPARTIMENTO DI STUDI UMANISTICI)

1. PYRRHUS' THREAD: A NIKE AND HER TROPHY, CARLO LUALDI (UNIVERSITY OF WARWICK)
2. ALAISA/HALAESA (SICILY): THE ANCIENT SITE AND ITS MONETARY PROFILE, MARIANGELA PUGLISI (UNIVERSITÀ DI MESSINA)
3. THE HISTORICAL FIGHT OF ATHENIAN "OWL" AND SICILIAN "LIZARD" ON KAMARINA'S BRONZE COINS, MARIA CALTABIANO-CACCAMO (UNIVERSITÀ DEGLI STUDI DI MESSINA)
4. KEY-BEARER FEMALE FIGURE ON THE COINAGE OF ENTELLA (440-430 BC): ANALYSIS AND MEANING, JOSÉ MIGUEL PUEBLA MORÓN (INDEPENDENT RESEARCHER)

**TUESDAY, SEPTEMBER 13, 2022, 15.00-16.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

7. GREECE 7. SICILY AND BEYOND, CHAIRED BY SUZANNE FREY-KUPPER (UNIVERSITY OF WARWICK)

1. THE BRONZE COINAGE OF HIERONIMUS OF SYRACUSE BETWEEN POSTHUMOUS SERIES, PARALLEL STRIKINGS AND ORGANIZATIONAL CHANGES, BENEDETTO CARROCCIO (UNIVERSITÀ DELLA CALABRIA – DIPARTIMENTO DI STUDI UMANISTICI)
2. THE HOARD OF CALA TRAMONTANA IN PANTELLERIA (TRAPANI-SICILY): PRELIMINARY OBSERVATIONS, LAVINIA SOLE (UNIVERSITÀ DEGLI STUDI DI PALERMO)
3. THE COINAGE OF COSSYRA (MODERN PANTELLERIA), MARTIN ZIEGERT (FRITZ RUDOLF KÜNKER GMBH)
4. A SMALL PERSONAL TOUCH: GRAFFITI ON CARTHAGINIAN GOLD COINS, JÉRÉMY ARTRU (UNIVERSITÉ D'ORLÉANS / IRAMAT-CEB)

**TUESDAY, SEPTEMBER 13, 2022, 17.00-18.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

8. GREECE 8. NORTH-WESTERN GREECE AND MACEDONIA, CHAIRED BY JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)

1. THE COIN HOARDS FROM CAREVI KULI, STRUMICA (NORTH MACEDONIA), SANJA BITRAK (ARCHAEOLOGICAL MUSEUM OF NORTH MACEDONIA)





2. AUTONOMOUS AND EQUAL: THE KHAONES OF EPEIROS AND THE EPEIROTE KOINON IN 234/3 BC, WILLIAM BUBELIS (WASHINGTON UNIVERSITY IN ST. LOUIS, JOHN MAX WULFING COLLECTION OF ANCIENT COINS AND RELATED OBJECTS)
3. ⊖THE PALAIOPOLIS HOARD AND CIRCULATION OF DRACHMAS IN LATE HELLENISTIC CORCYRA, GEORGIA TSOVALA (ILLINOIS STATE UNIVERSITY), GOULIELMA-KYRIAKI AVGERINOY (EPHORIA ARCHAIOETON KERKYRAS), LEE BRICE (WESTERN ILLINOIS UNIVERSITY)

**WEDNESDAY, SEPTEMBER 14, 2022, 9.00-10.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**9. GREECE 9. THRACE, ULRIKE PETER (BERLIN-BRANDENBURGISCHE AKADEMIE DER WISSENSCHAFTEN)**

1. THE DEMETER COINAGES OF BYZANTIUM AND CHALCEDON, CONSTANTIN MARINESCU (INDEPENDENT RESEARCHER)
2. ⊖THE CAST COINS OF ISTROS – A REASSESSMENT OF METROLOGY, ADRIAN POPESCU (FITZWILLIAM MUSEUM)
3. MONETARY CIRCULATION IN ISTROS DURING THE FIRST HALF OF THE 3RD CENTURY BC, STELUȚA MARIN (THE BUCHAREST MUNICIPALITY MUSEUM)
4. ARCHAEOLOGICAL, HISTORICAL, AND TECHNOLOGICAL (XRF ANALYSES AND GIS) ASPECTS OF EARLY SILVER COINS AND COIN HOARDS FROM SOUTHWESTERN THRACE, NINA HADZHIEVA (REGIONAL HISTORY MUSEUM AT BLAGOEVGRAD)

**WEDNESDAY, SEPTEMBER 14, 2022, 11.00-12.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**10. GREECE 10. ADVANCES IN ARCHAIC ATHENIAN COINAGE: MORE ON MINES, METALS AND MONEY, ORG. AND CHAIRED BY KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY)**

1. A NEW CORPUS AND DIE STUDY OF ATHENIAN WAPPENMÜNZEN, KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY), GIL DAVIS (ACANS, MACQUARIE UNIVERSITY)
2. SILVER MINING IN ARCHAIC LAURION, SOPHIA NOMICOS (WESTFÄLISCHE WILHELMS-UNIVERSITÄT MÜNSTER)
3. A PLATED ATHENIAN WAPPENMÜNZEN GORGONEION TETRADRACHM AT ACANS, KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY), FILOMENA SALVEMINI (ACANS AND ANSTO), VLADIMIR LUZIN (ACANS AND ANSTO), SCOTT OLSEN (ACANS AND ANSTO)
4. NEW TECHNIQUES AND ANALYSIS OF ARCHAIC ATHENIAN COINS, GIL DAVIS (AUSTRALIAN CATHOLIC UNIVERSITY), LIESEL GENTELLI (ECOLE NORMALE SUPÉRIEURE DE LYON), JANNE BLICHERT-TOFT (CNRS), KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY), MARKOS VAXEVANOPOULOS (ECOLE NORMALE



SUPÉRIEURE DE LYON), FRANCIS ALBARÈDE (ECOLE NORMALE SUPÉRIEURE DE LYON)

**THURSDAY, SEPTEMBER 15, 2022, 9.00-10.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**11. GREECE 11. CENTRAL GREECE – PELOPONNESE, CHAIRED BY CATHERINE GRANDJEAN (UNIVERSITY OF TOURS)**

1. RELATIVE AND ABSOLUTE CHRONOLOGIES FOR 4TH-2ND CENTURY BCE CORINTHIAN COINAGE, LEE BRICE (WESTERN ILLINOIS UNIVERSITY)
2. ATHENA AND THE BELLEROPHON MYTH ON COINS FROM CORINTH AND BEYOND, ANGELA ZISKOWSKI (COE COLLEGE), LEE BRICE (WESTERN ILLINOIS UNIVERSITY)
3. THE (WINGED) HORSE AS MOTIF ON COINS FROM CORINTH AND MARONEIA, OLIWIA ULLRICH (WWU MÜNSTER)

**THURSDAY, SEPTEMBER 15, 2022, 11.00-12.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**12. GREECE 12. NORTHERN & CENTRAL GREECE, CHAIRED BY VASSILIKI STEFANAKI (NUMISMATIC MUSEUM, ATHENS)**

1. NEW THOUGHTS ON THE CHALCIDIAN COIN ICONOGRAPHY, OLIVIA DENK (UNIVERSITY OF BASEL)
2. NUMISMATIC EVIDENCE FROM ANCIENT CASSANDREIA AT CHALCIDIKE, NORTHERN GREECE, ELENI KLINAKI (EPHORATE OF ANTIQUITIES OF PIERIA / HELLENIC MINISTRY OF CULTURE), ANTONIA NIKOLAKOPOULOU (NUMISMATIC MUSEUM /HELLENIC MINISTRY OF CULTURE)
3. THE COINAGE OF HIPPIAS OF ATHENS IN THE LIGHT OF A NEW SPECIMEN, KORAY KONUK (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, INSTITUT AUSONIUS)
4. A HOARD OF ATHENIAN COINS IN THE EGYPTIAN MUSEUM OF ANTIQUITIES IN CAIRO, SAMAH GOHAR (THE EGYPTIAN MUSEUM)

**THURSDAY, SEPTEMBER 15, 2022, 14.00-15.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**13. GREECE 13. PELOPONNESE, CHAIRED BY KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY)**

1.  $\Theta$ COMMON CURRENCIES? THE COINAGES ATTRIBUTED TO THE ARKADIAN KOINON, DAVID WEIDGENANN (UNIVERSITY OF VIENNA/INSTITUTE FOR NUMISMATICS AND MONETARY HISTORY)
2. THE SILVER COINAGES OF ACHAIA AND AETOLIAN FEDERAL STATES: NEW NUMISMATIC AND HISTORICAL DATA, CATHERINE GRANDJEAN (UNIVERSITY OF TOURS), MARYSE BLET-LEMARQUAND (CEB-IRAMAT, CNRS & UNIVERSITY OF ORLÉANS), ELENI PAPAETHYMIU (UNIVERSITY OF WARWICK)



3. THE CORINTHIAN MINT OF DEMETRIOS POLIORKETES, MICHAEL IERARDI (BRIDGEWATER STATE UNIVERSITY)

**THURSDAY, SEPTEMBER 15, 2022, 16.00-17.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**14. GREECE 14. CRETE, CHAIRED BY ANDREW MEADOWS (NEW COLLEGE, OXFORD)**

1. CRETAN COINAGE: INSULARITY AND CONNECTIVITY, GIORGIA CAPRA (UNIVERSITY OF OXFORD)
2. THE COINAGE OF LYTTOS / CRETE: ICONOGRAPHY & DISTRIBUTION PATTERNS, KATERINA PANAGOPOULOU (UNIVERSITY OF CRETE / GREECE)
3. POLITICS AND WAR ON CRETAN GOLD COINAGE (4TH – 3RD C. BC), FEDERICO CARBONE (UNIVERSITY OF SALERNO), VASSILIKI E. STEFANAKI (NUMISMATIC MUSEUM)
4. THE COINAGE OF ANCIENT APTERA, EMMANOUIL MARINAKIS (UNIVERSITY OF CRETE / GREECE)

**FRIDAY, SEPTEMBER 16, 2022, 9.00-10.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**15. GREECE 15. DECODING THE MESSAGE: REVIEWING PROPAGANDA, COMMUNICATION AND LOCAL IDENTITIES ON THE COINAGES OF CLASSICAL AND HELLENISTIC CRETE, ORG. AND CHAIRED BY MANOLIS STEFANAKIS (UNIVERSITY OF THE AEGEAN)**

1. PROPAGANDA AND COMMUNICATION ON ANCIENT GREEK COINS: SETTING THE PRINCIPLES, NIKOLAOS PETROPOULOS (UNIVERSITY OF AEGEAN)
2. PROPAGANDA, COMMUNICATION AND ETHNICITY ON THE COINAGES OF CLASSICAL AND HELLENISTIC CRETE, FEDERICO CARBONE (UNIVERSITY OF SALERNO)
3. ⊖PROPAGANDA, COMMUNICATION AND RELIGION ON THE COINAGES OF CLASSICAL AND HELLENISTIC CRETE, MANOLIS I. STEFANAKIS (UNIVERSITY OF AEGEAN)
4. ECONOMIC CONTROL AS A FORM OF PROPAGANDA AMONG CRETAN MINTS, VASSILIKI STEFANAKI (NUMISMATIC MUSEUM ATHENS)

**FRIDAY, SEPTEMBER 16, 2022, 11.00-12.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**16. GREECE 16. ASIA MINOR 1, CHAIRED BY ANEURIN ELLIS-EVANS (UNIVERSITY OF OXFORD)**

1. SOME REMARKS ON EARLY ELECTRUM COINAGE FROM ASIA MINOR, WOLFGANG FISCHER-BOSSERT (AUSTRIAN ACADEMY OF SCIENCES)
2. HOARDS IN ANCIENT ANATOLIA: A STATISTICAL OVERVIEW, LEAH LAZAR (UNIVERSITY OF OXFORD)



3. MYSIAN MINTS, BERNHARD WEISSER (MÜNZKABINETT, STAATLICHE MUSEEN ZU BERLIN), ANDREA GORYS (BERLIN-BRANDENBURGISCHE AKADEMIE DER WISSENSCHAFTEN)
4. PRODUCTION CHARACTERISTICS OF ARCHAIC DRACHMS DEPICTING THE GORGONEION AND PROBLEMS WITH THEIR ATTRIBUTION TO PARION, ED SNIBLE (BRONX COIN CLUB)

**FRIDAY, SEPTEMBER 16, 2022, 14.00-15.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**17. GREECE 17. ASIA MINOR 2, CHAIRED BY BERNHARD WEISSER (MÜNZKABINETT BERLIN)**

1. ΘHELLENISTIC BRONZE COINS IN PHRYGIA: THE CASE OF ACMONEA, BARBARA HILTMANN (MUSEUM OF ARCHAEOLOGY AND HISTORY, LAUSANNE – SWITZERLAND)
2. TISNA IN AEOLIS AND ITS COINAGE, DINÇER SAVAS LINGER (AKDENIZ UNIVERSITY, DEPARTMENT OF HISTORY)
3. ΘPOTNIA THERON ON EARLY CAUNIAN COINS (CARIA) – IDENTIFYING COIN IMAGE AND QUESTIONING CRETAN ORIGIN, HÜLYA VIDIN (GOETHE UNIVERSITY FRANKFURT / LANDESMUSEUM HANNOVER)
4. PAYING WITH THE WOLF. SMALL CHANGE FROM LYCAONIAN LARANDA, KATHARINA MARTIN (WESTFÄLISCHE WILHELMS-UNIVERSITÄT)

**FRIDAY, SEPTEMBER 16, 2022, 16.00-17.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**18. GREECE 18. LEVANT AND PTOLEMAIC COINAGE, CHAIRED BY FRÉDÉRIQUE DUYPAT (BIBLIOTHÈQUE NATIONALE DE FRANCE)**

1. REFINING THE DATES OF JEWISH COINS USING ARCHAEOLOGICAL PROVENANCE: THE CASE OF ALEXANDER JANNAEUS, DONALD T. ARIEL (ISRAEL ANTIQUITIES AUTHORITY)
2. ANCIENT PTOLEMAIC BRONZE COINS IN THE J. PAUL GETTY MUSEUM: HISTORY AND PRESERVATION METHODS, ALMOATZBELLAH ELSHAHAWI (J. PAUL GETTY MUSEUM)
3. THE BEGINNING OF THE PTOLEMAIC GOLD COINAGE, AUGUSTIN ROCHE – LÉVÊQUE (ARCHÉOSCIENCES BORDEAUX)

**TUESDAY, SEPTEMBER 13, 2022, 9.00-10.30**

**AUDITORIUM MAXIMUM, HALL A – ANTIQUITY**

**19. GREECE 19. PTOLEMAIC COINAGE, CHAIRED BY JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE)**



1. THE MONETARY SYSTEM OF CLEOPATRA VII ON THE LIGHT OF HELLENISTIC AND ROMAN TRADITIONS, ÉPHÉLINE BERNAER-BABIN (UNIVERSITÉ DE MONTRÉAL)
2. A METROLOGICAL SURVEY OF PTOLEMAIC BRONZE COINS, DANIEL WOLF (INDEPENDENT RESEARCHER)
3. "PUT MONEY IN THY PURSE": THE CIRCULATION OF THE PTOLEMAIC BRONZE COINS IN THE PELOPONNESE, ALESSANDRO CAVAGNA (STATE UNIVERSITY OF MILAN)
4. PTOLEMAIC COINS IN SOUTHWESTERN ASIA MINOR: NEW ATTRIBUTIONS AND SUGGESTIONS, ÖMER TATAR (AKDENIZ UNIVERSITY, DEPARTMENT OF HISTORY)

**TUESDAY, SEPTEMBER 13, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**20. GREECE 20. DIGITAL DEVELOPMENTS IN HELLENISTIC ROYAL COINAGES, ORG. AND CHAIRED BY PETER VAN ALFEN (AMERICAN NUMISMATIC SOCIETY)**

1. HELLENISTIC ROYAL COINAGES. AN OVERVIEW, PETER VAN ALFEN (AMERICAN NUMISMATIC SOCIETY)
2. NETWORK ANALYSIS APPLIED TO HELLENISTIC MONOGRAMS, ETHAN GRUBER (AMERICAN NUMISMATIC SOCIETY)
3. OXUS-INDUS: A NEW TYPOLOGY FOR GRAECO-BACTRIAN AND INDO-GREEK COINS, SIMON GLENN (ASHMOLEAN MUSEUM / UNIVERSITY OF OXFORD), GUNNAR DUMKE (MARTIN LUTHER UNIVERSITY HALLE-WITTENBERG)
4. HELLENISTIC COINAGES – PLUGGING THE GAPS, ANDREW MEADOWS (NEW COLLEGE, OXFORD)

**MONDAY, SEPTEMBER 12, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**21. ANTIQUITY 1. SYRIA & ASIA, CHAIRED BY KLAUS VONDROVEC (KUNSTHISTORISCHES MUSEUM)**

1. PARTHIAN OCCUPATION IN SYRIA: NUMISMATIC EVIDENCE FROM ANTIOCH AND APAMEA, RAZIEH TAASOB (CHARLES UNIVERSITY)
2. THE COINAGE OF THE KINGS ATTAMBELOS IV AND V OF CHARACENE (A.D. 54/5 – 73/4), PATRICK PASMANS (ROYAL NUMISMATIC SOCIETY OF BELGIUM)
3. GRAECO-BACTRIAN GOLD: METAL ANALYSIS OF THE COINS OF THE BIBLIOTHÈQUE NATIONALE DE FRANCE USING LA-ICP-MS, SIMON GLENN (ASHMOLEAN MUSEUM), JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE), MARYSE BLET-LEMARQUAND (CNRS, IRAMAT-CEB)



**MONDAY, SEPTEMBER 12, 2022, 11.00-12.30; 14.00-15.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**22. ANTIQUITY 2. ANCIENT SOUTHERN ASIA MINOR IN ANTIQUITY: UNITY IN DIVERSITY?, ORG. AND CHAIRED BY WILHELM MÜSELER (INDEPENDENT RESEARCHER)**

1. LYCIAN HISTORY AND COINAGE AT THE TIME OF THE ACHAEMENIDS (WILHELM MÜSELER, INDEPENDENT RESEARCHER)
2. ANCIENT SOUTHERN ASIA MINOR IN ANTIQUITY: UNITY IN DIVERSITY? PAMPHYLIA, JOHANNES NOLLÉ (LUDWIG MAXIMILIANS-UNIVERSITÄT MÜNCHEN / AUKTIONSHAUS KÜNKER)
3. CARIA AND ITS COINAGE IN THE TIME OF THE ACHAEMENIDS, KORAY KONUK (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, INSTITUT AUSONIUS)
4. ARCHAIC AND CLASSICAL COINAGE OF CILICIA, JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)
5. LYCIAN HISTORY AND COINAGE IN HELLENISTIC AND ROMAN TIMES, WILHELM MÜSELER (INDEPENDENT RESEARCHER)
6. PAMPHYLIA IN HELLENISTIC AND ROMAN TIMES, JOHANNES NOLLÉ (LUDWIG MAXIMILIANS-UNIVERSITÄT MÜNCHEN / AUKTIONSHAUS KÜNKER)
7. CARIA AND ITS COINAGE DURING THE HELLENISTIC AND ROMAN PERIODS, KORAY KONUK (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, INSTITUT AUSONIUS)
8. COINAGE OF CILICIA IN THE HELLENISTIC AND ROMAN PERIODS, JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)

**MONDAY, SEPTEMBER 12, 2022, 16.00-17.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**23. ANTIQUITY 3. THE ISSUE OF AUTHORITY ON TOKENS OF THE ANCIENT MEDITERRANEAN, ORG. AND CHAIRED BY CLARE ROWAN (UNIVERSITY OF WARWICK)**

1. TOKENS IN THE ATHENIAN AGORA: NEGOTIATING AUTHORITY IN THE HELLENISTIC SOCIETY, MAIRI GKIKAKI (UNIVERSITY OF WARWICK)
2. ΘΑ GROUP OF LEAD TOKENS WITH NUMERICAL SIGNS FROM THE LATE HELLENISTIC ATHENS: FUNCTIONS AND AUTHORITY, IRINI KARRA (ACROPOLIS MUSEUM)
3. CRYPTIC, VISUAL AND LETTERED COMMUNICATIONS OF AUTHORITY ON ROMAN LEAD TOKENS, CLARE ROWAN (UNIVERSITY OF WARWICK)
4. ΘΙ TOKENS 'VOTA PVBLICA' DELLA ROMA TARDOANTICA: AUTORITÀ, PRODUZIONE E CIRCOLAZIONE, CRISTIAN MONDELLO (UNIVERSITY OF WARWICK)



**TUESDAY, SEPTEMBER 13, 15.00-16.30; 17.00-18.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**24. ANTIQUITY 4. ANCIENT THRACE – A REGION OF COINAGE DIVERSITY, ORG.: LILY GROZDANOVA (SU “ST. KLIMENT OHRIDSKI”), CHAIRED BY ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES) AND SELENE PSOMA (NATIONAL AND CAPODISTRIAN UNIVERSITY OF ATHENS)**

1. MONEY AND THE ODRYSIAN RULERS: PAYING THE PATRIOS PHOROS, SELENE PSOMA (NATIONAL AND CAPODISTRIAN UNIVERSITY OF ATHENS)
2. THE HEMIDRACHMS OF THE THRACIAN CHERSONESE AND THEIR POLITICAL ENVIRONMENT, JULIA TZVETKOVA (SOFIA UNIVERSITY)
3. PRE-ROMAN BRONZE COINAGE OF SETTLEMENTS ON THE THRACIAN CHERSONESE, ANGELA BERTHOLD (MÜNZKABINETT BERLIN)
4. THE EMERGENCY COINAGE OF CHARIDEMOS IN THE TROAD, DINÇER SAVAŞ LENGER (AKDENIZ UNIVERSITY – ANTALYA)
5. ADAIOS AND HIS COINAGE REVISITED, ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES), VLADIMIR STOLBA (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT)
6. ICONOGRAPHIC INTERACTIONS BETWEEN THE ROMAN PROVINCES OF THRACE, PONTUS BITHYNIA AND ASIA MINOR, MARINA TASAKLAKI (EPHORATE OF ANTIQUITIES OF RHODOPE, HELLENIC MINISTRY OF CULTURE AND SPORTS)
7. DIGITAL NUMISMATICS FROM THE USER PERSPECTIVE, LILY GROZDANOVA (SOFIA UNIVERSITY “ST. KLIMENT OHRIDSKI”), HRISTINA IVANOVA-ANAPLIOTI (UNIVERSITY OF ZURICH)

**WEDNESDAY, SEPTEMBER 14, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**25. ANTIQUITY 5. THE SYLLOGE NUMMORUM PARTHICORUM PROJECT (SNP), ORG. AND CHAIRED BY FABRIZIO SINISI (AUSTRIAN ACADEMY OF SCIENCES)**

1. THE SYLLOGE NUMMORUM PARTHICORUM PROJECT (SNP), MICHAEL ALRAM (AUSTRIAN ACADEMY OF SCIENCES), VESTA S. CURTIS (BRITISH MUSEUM)
2. DATABASE CHALLENGES FOR SNP VOLUMES 2 & 4, CHRIS HOPKINS (INDEPENDENT RESEARCHER)
3. FROM SNP 2 TO SNP 4: CHALLENGES ENCOUNTERED AND OUTCOMES GATHERED, ALEXANDRA MAGUB (BRITISH MUSEUM)



4. THE DRACHMS OF PHRAATES IV, ORGANIZATION AND PATTERNS OF PRODUCTION, FABRIZIO SINISI (AUSTRIAN ACADEMY OF SCIENCES)

**WEDNESDAY, SEPTEMBER 14, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**26. ANTIQUITY 6. GEORGIAN NUMISMATICS, ORG. AND CHAIRED BY TEDO DUNDUA (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)**

1. COIN ISSUES IN GEORGIA. GENERAL SURVEY - PRESENTATION OF THE ONLINE ENGLISH-GEORGIAN CATALOGUE OF GEORGIAN NUMISMATICS, TEDO DUNDUA (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)
2. COIN TYPES IN THE GEORGIA AND GRAECO-ROMAN WORLD, NATIA PHIPHIA (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)
3. COIN TYPES IN GEORGIA AND THE BYZANTINE WORLD, LERI TAVADZE (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)
4. BEYOND THE CATALOGUE OF GEORGIAN NUMISMATICS – NEW COIN FINDS FROM GEORGIA, EVGENI TCHANISHVILI (TBILISI STATE UNIVERSITY)

**THURSDAY, SEPTEMBER 15, 2022, 9.00-10.30; 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**27. ANTIQUITY AND MIDDLE AGES 1. DIGITAL APPROACHES TO COIN FINDS, ORG. AND CHAIRED BY MARGUERITE SPOERRI BUTCHER (HEBERDEN COIN ROOM, OXFORD / ASHMOLEAN MUSEUM) AND DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION, FRANKFURT A. M.)**

1. THE COIN HOARDS OF THE ROMAN EMPIRE PROJECT, MARGUERITE SPOERRI BUTCHER (HEBERDEN COIN ROOM, OXFORD / ASHMOLEAN MUSEUM)
2. THE COIN FINDS HUB - ITALY PROJECT: MANAGEMENT AND USE OF NUMISMATIC DATA FROM ARCHAEOLOGICAL CONTEXTS, FEDERICO CARBONE (UNIVERSITY OF SALERNO), RENATA CANTILENA (UNIVERSITY OF SALERNO), GIACOMO PARDINI (UNIVERSITY OF SALERNO)
3. ANTIKE FUNDMÜNZEN IN EUROPA, DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION), KARSTEN TOLLE (GOETHE UNIVERSITY FRANKFURT)
4. PUBLIC FINDS RECORDING PROJECTS, ANDREW BROWN (BRITISH MUSEUM)
5. ⊖ COIN FINDS FROM CARTHAGE, IVÁN FUMADÓ ORTEGA (UNIVERSITY OF VALENCIA)
6. DIGITALIZING ANCIENT COIN FINDS FROM SOUTH HISPANIA WITH DEDALO, ELENA MORENO PULIDO (UNIVERSIDAD DE CÁDIZ)





7. THE INVENTORY OF COIN FINDS FROM SWITZERLAND, RAHEL ACKERMANN (SWISS INVENTORY OF COIN FINDS), JONAS VON FELTEN (SWISS INVENTORY OF COIN FINDS)
8. ☉ COIN FIND CATALOGUE OF THE NUMISMATIC COMMISSION OF GERMANY – NEW PORTAL AND ITS INTEGRATION IN THE NUMISMATIC ONLINE WORLD, MARIO SCHLAPKE (THÜRINGISCHES LANDESAMT FÜR DENKMALPFLEGE UND ARCHÄOLOGIE)

**THURSDAY, SEPTEMBER 15, 2022, 14.00-15.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**28. ANTIQUITY AND MIDDLE AGES 2. COINAGE OF AND IN ANTIOCH ON THE ORONTES, ORG. AND CHAIRED BY ALAN STAHL (PRINCETON UNIVERSITY)**

1. THE LOCAL COINAGE OF SHORT-LIVED EMPERORS: ANTIOCHENE TETRADRACHMS IN THE THIRD CENTURY CRISIS, JANE SANCINITO (UNIVERSITY OF MASSACHUSETTS-LOWELL)
2. DIGITAL NUMISMATICS AND DATA VISUALIZATION FOR ANCIENT ANTIOCH, KRISTINA NEUMANN (UNIVERSITY OF HOUSTON), PEGGY LINDNER (UNIVERSITY OF HOUSTON)
3. COINS OF ANTIOCH AND THE TRANSITION FROM LATE ANTIQUITY TO EARLY BYZANTIUM (324-610 AD), PAVLA GKANTZIOS DRÁPLEOVÁ (INSTITUTE OF SLAVONIC STUDIES/CZECH ACADEMY OF SCIENCES)
4. DOROTHY WAAGÉ, SAVIOR OF THE NUMISMATIC RECORD OF THE ANTIOCH EXPEDITION, KIRSTIN OHRT (PRINCETON UNIVERSITY)

**THURSDAY, SEPTEMBER 15, 2022, 16.00-17.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**29. ANTIQUITY AND MIDDLE AGES 3. ASIA, CHAIRED BY GUNNAR DUMKE (MARTIN LUTHER UNIVERSITY HALLE-WITTENBERG)**

1. MONETARY CIRCULATION IN THE INDO-IRANIAN BORDERLANDS: COIN FINDS FROM ARCHAEOLOGICAL EXCAVATIONS AT BARIKOT, EHSAN SHAVAREBI (KUNSTHISTORISCHES MUSEUM WIEN, MÜNZKABINETT)
2. THE COINAGE OF PRATISHTHANA, A CITY STATE IN ANCIENT PUNJAB, KARAN SINGH (ORIENTAL NUMISMATIC SOCIETY)
3. METAL ANALYSIS OF GUPTA GOLD COINS, PANKAJ TANDON (BOSTON UNIVERSITY)
4. SILK ROAD IMITATIONS OF BYZANTINE AND SASANIAN COINS: EVIDENCE FROM SHORON BUMBAGAR IN MONGOLIA, ANRAN MAO (UNIVERSITY OF PARIS-SACLAY), CHI XU (RENMIN UNIVERSITY OF CHINA)



**FRIDAY, SEPTEMBER 16, 2022, 9.00-10.30; 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**30. ANTIQUITY AND MIDDLE AGES 4. MOVEMENT OF COINS IN ASIA – ARCHAEOLOGY NUMISMATICS AND NETWORKS – SILK ROAD, ORG. AND CHAIRED BY JOE CRIBB (HEBEI NORMAL UNIVERSITY/ORIENTAL NUMISMATIC SOCIETY) & EMILIA SMAGUR (POLISH CENTRE OF THE MEDITERRANEAN ARCHAEOLOGY, WARSAW UNIVERSITY)**

1. KUSHAN COINS IN XINJIANG PROVINCE, CHINA, JOE CRIBB (HEBEI NORMAL UNIVERSITY)
2. CHINESE COINS IN EASTERN CENTRAL ASIA - FROM THE HAN TO THE TANG DYNASTIES, HELEN WANG (BRITISH MUSEUM)
3. ANCIENT COIN PROFILE OF DHARMARAJIKA, TAXILA (PAKISTAN), GUL RAHIM KHAN (UNIVERSITY OF PESHAWAR)
4. THE CIRCULATION OF COINS IN THE NORTH KONKAN COAST: SOPARA CASE STUDY, EMILIA SMAGUR (POLISH CENTRE OF THE MEDITERRANEAN ARCHAEOLOGY, WARSAW UNIVERSITY), ANDRZEJ ROMANOWSKI (DEPARTMENT OF COINS AND MEDALS, NATIONAL MUSEUM IN WARSAW)
5. NETWORKS AND EXCHANGE: MONEY MOVEMENTS ACROSS THE INDIAN OCEAN, SHAILENDRA BHANDARE (ASHMOLEAN MUSEUM)
6. ROMAN COINS FROM INDIA: REVIEW OF THE EVIDENCE SINCE 1989, PAULA TURNER (INDEPENDENT RESEARCHER)
7. THE MOVEMENT OF ROMAN COINS INTO SOUTHEAST ASIA - WHAT DOES IT MEAN?, BRIGITTE BORELL (UNIVERSITY OF HEIDELBERG)

**FRIDAY, SEPTEMBER 16, 2022, 14.00-15.30; 16.00-17.30**

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**31. ANTIQUITY & MIDDLE AGES 5. FONTES INEDITI NUMISMATICAE ANTIQUAE (FINA) – ORG. AND CHAIRED BY BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)**

1. FONTES INEDITI NUMISMATICAE ANTIQUAE: REVIEW (2016-2021) AND PREVIEW, BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)
2. JACOPO STRADAS MAGNUM AC NOVUM OPUS: A COIN CORPUS OF THE 16TH CENTURY AND ITS DOCUMENTATION IN THE DATABANKS OF THE CENSUS AND TRANSLATIO NUMMORUM, VOLKER HEENES (FORSCHUNGSZENTRUM GOTHA DER UNIVERSITÄT ERFURT)
3. THE PASSIGNANO COIN COLLECTION AND ITS FATE, ANDREW BURNETT (BRITISH MUSEUM)



4. THE (EXTRA)ORDINARY CASE OF THE ZANE COLLECTION IN SEVENTEENTH- AND EIGHTEENTH-CENTURY VENICE, MICHELE ASOLATI (UNIVERSITÀ DEGLI STUDI DI PADOVA)
5. THE NUMISMATIC ACTIVITY OF APOSTOLO ZENO: THE ANALYSIS OF THE MANUSCRIPTS, ROBERTO TOMASSONI (INDEPENDENT RESEARCHER)
6. APOSTOLO ZENO'S LEGACY. THE ZENO COLLECTION IN ST. FLORIAN MONASTERY IN THE 18TH CENTURY, BASED ON THE CORRESPONDENCE BETWEEN JOSEPH KHELL AND GEORG PFISTERER, PATRICK FISKA (AUSTRIAN ACADEMY OF SCIENCES)
7. PHILIPP VON STOSCH (1691-1757) – HIS RESEARCH AND DOCUMENTARY STRATEGIES TOWARDS ENGRAVED GEMS AND COINS, PAWEŁ GOŁYŹNIAK (JAGIELLONIAN UNIVERSITY), HADRIEN RAMBACH (LILLE UNIVERSITY/UNIVERSITY OF TÜBINGEN), ULF HANSSON (SWEDISH INSTITUTE FOR CLASSICAL STUDIES IN ROME)
8. JAN CHRZCICIEL ALBERTRANDI (1737-1808) CORRESPONDENT OF JOSEPH ECKHEL, DANIELA WILLIAMS (AUSTRIAN ACADEMY OF SCIENCES)

**TUESDAY, SEPTEMBER 13, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL B – CELTS**

**32. CELTIC COINS 1. CELTIC COINS IN CENTRAL EUROPE, CHAIRED BY DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION)**

1. THE STORY OF THE ATHENA ALKIDEMOS COIN TYPE. GREEK GODDESS ON THE ROAD TO BOHEMIA, TOMÁŠ SMĚLÝ (ABALON S.R.O)
2. CELTIC COINS FROM THE CENTRAL SETTLEMENT OF HASELBACH (PB KORNEUBURG, NÖ), JIŘÍ MILITKÝ (NATIONAL MUSEUM, PRAGUE)
3. CELTIC GOLD IN BRANDENBURG – AN UNEXPECTED FIND OF 41 RAINBOW CUPS, MARJANKO PILEKIC (MÜNZKABINETT, STIFTUNG SCHLOSS FRIEDENSTEIN GOTHA)
4. THE CELTIC SMALL SILVER COINAGE OF THE UPPER DANUBE. A CASE OF EARLY MONETIZATION?, MARKUS MÖLLER (RÖMISCH-GERMANISCHE-KOMMISSION)

**TUESDAY, SEPTEMBER 13, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL B – CELTS**

**33. CELTIC 2. CELTIC & REPUBLICAN COINS, CHAIRED BY SYLVIA NIETO-PELLETIER (IRAMAT, CNRS-UNIV. ORLÉANS)**

1. TWO RECENT IRON AGE COIN HOARDS FROM BRITAIN, ELEANOR GHEY (THE BRITISH MUSEUM)
2. CELTIC COINS AND EVENT HISTORY – A STORMY RELATIONSHIP. THE CASE OF THE CIMBRI MIGRATIONS, JULIA GENECHESI (MUSÉE CANTONAL D'ARCHÉOLOGIE ET D'HISTOIRE, LAUSANNE / DIRECTRICE ADJOINTE), ENEKO HIRIART (CHERCHEUR CNRS IRAMAT-CRP2A, UMR 5060 UNIVERSITÉ BORDEAUX MONTAIGNE)



3. IL TESORO MONETALE DAL CARDO IV DI ERCOLANO NEL MEDAGLIERE DEL MUSEO ARCHEOLOGICO NAZIONALE DI NAPOLI (562 AR), EMANUELA SPAGNOLI (UNIVERSITÀ DEGLI STUDI DI NAPOLI "FEDERICO II")

**TUESDAY, SEPTEMBER 13, 2022, 15.00-16.30; 17.00-18.30**

**AUDYTORIUM MAXIMUM, HALL B – CELTS**

**34. CELTIC COINS 3. CELTIC NUMISMATICS IN THE DIGITAL AGE, ORG.: DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION) AND SYLVIA NIETO-PELLETIER (IRAMAT, CNRS-UNIVERSITÉ D'ORLÉANS), CHAIRED BY DAVID WIGG-WOLF AND KATHERINE GRUEL (AOROC\_CNRS- ENS-PSL)**

1. IMAGE RECOGNITION APPLIED TO THE HOARD OF LE CÂTILLON II, CHRISOWALANDIS DELIGIO (GOETHE UNIVERSITÄT FRANKFURT AM MAIN), KARSTEN TOLLE (GOETHE UNIVERSITÄT FRANKFURT AM MAIN), PHILIP DE JERSEY (CULTURE AND HERITAGE, STATES OF GUERNSEY)
2. THE CONTRIBUTION OF 3D DIGITALISATION TO THE STUDY OF CELTIC COINS OF THE RIEDONES (FR, 35), KATHERINE GRUEL (AOROC\_CNRS- ENS-PSL), CAROLINE PLUMEL (AOROC\_CNRS-ENS-PSL), BENJAMIN HOUAL (ATELIER D'ARCHEOLOGIE 3D GRENOBLE), OLIVIER MASSON (AOROC), THIERRY LEJARS (AOROC\_CNRS - ENS- PSL)
3. 3D SCANNING OF CELTIC COINS AND DEEP LEARNING TO IDENTIFY MONETARY DIES, SOFIANE HORACHE (MINES PARIS, PSL UNIVERSITY), FRANÇOIS GOULETTE (MINES PARIS, PSL UNIVERSITY), JEAN-EMMANUEL DESCHAUD (MINES PARIS, PSL UNIVERSITY), THIERRY LEJARS (ENS ULM, PSL UNIVERSITY), KATHERINE GRUEL (ENS ULM, PSL UNIVERSITY)
4. THE MANERBIO HOARD (LOMBARDIA, ITALIA) AND 3D DIGITIZATION: THE REDISCOVERY OF CISALPINE GAUL DRACHMS, ELODIE PARIS (ECOLE FRANÇAISE DE ROME), ERMANO ARSLAN (ACCADEMIA NAZIONALE DEI LINCEI), KATHERINE GRUEL (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE / ECOLE NORMALE), FRANCESCA MORANDINI (FONDAZIONE BRESCIA MUSEI), SERENA SOLANO (SOPRINTENDENZA ARCHEOLOGIA BELLE ARTI E PAESAGGIO PER LE PROVINCE DI BERGAMO E BRESCIA)
5. HOW TO TRANSFORM A PRIVATE MONETARY DATABASE INTO A COLLABORATIVE TOOL ON THE INTERNET?, ENEKO HIRIART (CNRS\_ UNIVERSITÉ BORDEAUX MONTAIGNE), KATHERINE GRUEL (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE / ECOLE NORMALE), GUILLAUME REICH (BIBRACTE), AGNÈS TRICOCHÉ (ECOLE NORMALE SUPÉRIEURE), YADH YEBNI (INDEPENDENT RESEARCHER)
6. ONLINE CELTIC COINAGE: A VIRTUAL UNION CATALOGUE FOR THE COINAGE OF PRE-ROMAN IRON AGE EUROPE, DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION)
7. IRON AGE COINS IN BRITAIN AND THE CELTIC COIN INDEX DIGITAL, COURTNEY NIMURA (UNIVERSITY OF OXFORD), ETHAN GRUBER (AMERICAN NUMISMATIC



SOCIETY), CHRIS HOWGEGO (UNIVERSITY OF OXFORD), CHRIS GOSDEN (UNIVERSITY OF OXFORD)

8. AEMA (ARCHÉOMÉTRIE ET MONNAIES ANTIQUES): A DATABASE OF METAL ANALYSES FOR ANCIENT COINS, SYLVIA NIETO-PELLETIER (IRAMAT, CNRS-UNIV. ORLÉANS), MARYSE BLET-LEMARQUAND (IRAMAT, CNRS-UNIV. ORLÉANS), MURIELLE TROUBADY (IRAMAT, CNRS-UNIV. ORLÉANS), LAURENCE RAGEOT (MSH VAL DE LOIRE), HENRIQUE DA MOTA (IRAMAT, CNRS-UNIV. ORLÉANS)

**MONDAY, SEPTEMBER 12, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**35. ROME 1. REPUBLIC AND EARLY EMPIRE, CHAIRED BY LIV MARIAH YARROW (BROOKLYN COLLEGE, CUNY)**

1. ΘSHIPS ON REPUBLICAN DENARII FROM THE LATE 2ND CENTURY BC. FAMILY HISTORY AND CURRENT EVENTS, WILHELM HOLLSTEIN (MÜNZKABINETT, STAATLICHE KUNSTSAMMLUNGEN DRESDEN)
2. FROM THE COIN UP: ROMAN IMPERIALISM AND THE NUMISMATIC EVIDENCE, MARSHA MCCOY (SOUTHERN METHODIST UNIVERSITY, DALLAS, TX)
3. THE REPRESENTATION OF SICILY ON ROMAN COINAGE FROM THE REPUBLIC TO AUGUSTUS, MANON LARUE (IRAMAT-CEB / UNIVERSITÉ D'ORLÉANS)
4. MINTING IN THE MIDDLE GROUND: COUNTERFEITED ROMAN COINS IN THE LEMANIC ARC (60-20 BCE), CHARLES PARISOT-SILLON (IRAMAT-CEB / CNRS & UNIVERSITY OF ORLEANS)

**MONDAY, SEPTEMBER 12, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**36. ROME 2. EARLY EMPIRE, CHAIRED BY BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)**

1. ΘBEDEUTUNG VON MÜNZEN IN DER ERFORSCHUNG DER EWIGKEITSIDEE DES RÖMISCHEN KAISERS, KATARZYNA BALBUZA (ADAM MICKIEWICZ UNIVERSITY)
2. ΘREMARKS ON THE ICONOGRAPHY OF THE AUGUSTAN ISSUES OF 19 BC, LENKA VACINOVÁ (NATIONAL MUSEUM, PRAGUE)
3. TAXONOMY OF BILINGUAL COINS FROM AUGUSTUS TO MID-THIRD CENTURY AD, BARTOSZ AWIANOWICZ (NICOLAUS COPERNICUS UNIVERSITY)



**MONDAY, SEPTEMBER 12, 2022, 14.00-15.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**37. ROME 3. DATA-DRIVEN APPROACHES TO ROMAN COINAGE: METROLOGY, METALLURGY AND MODELLING, ORG. AND CHAIRED BY GEORGE GREEN (ASHMOLEAN MUSEUM OF ART AND ARCHAEOLOGY)**

1. THE AUREUS AS A HIGH VELOCITY GOLD COIN – AN ANALYSIS OF METROLOGICAL DATA FROM SECOND-CENTURY-AD GOLD HOARDS, GEORGE A. GREEN (ASHMOLEAN MUSEUM OF ART AND ARCHAEOLOGY)
2. NEW ANALYSES OF ROMAN REPUBLICAN SILVER COINS, KEVIN BUTCHER (UNIVERSITY OF WARWICK), MATTHEW PONTING (UNIVERSITY OF LIVERPOOL)
3. PROBING BENEATH THE SURFACE WITHOUT A SCRATCH: NON-DESTRUCTIVE COMPOSITIONAL ANALYSIS USING NEGATIVE MUONS, ADRIAN HILLIER (ISIS NEUTRON AND MUON SOURCE, UKRI/STFC RUTHERFORD APPLETON LABORATORY, UK), GEORGE GREEN (ASHMOLEAN MUSEUM, UNIVERSITY OF OXFORD), THOMAS ELLIOT (UNIVERSITY OF LIVERPOOL), MATTHEW PONTING (UNIVERSITY OF LIVERPOOL), KEVIN BUTCHER (UNIVERSITY OF WARWICK)
4. COMPUTATIONAL APPROACHES TO COIN CIRCULATION DURING THE THIRD AND FOURTH CENTURIES AD, ALEXANDER CHIU SMIT (UNIVERSITY OF OXFORD)

**MONDAY, SEPTEMBER 12, 2022, 16.00-17.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**38. ROME 4. ROMAN IMPERIAL COINAGE 1, CHAIRED BY LIESBETH CLAES (LEIDEN UNIVERSITY)**

1. THE CAREER OF CORNUTUS TERTULLUS AND THE SIGNIFICANCE OF DIANA/ARTEMIS ON NERVA'S COINAGE, NATHAN ELKINS (AMERICAN NUMISMATIC SOCIETY)
2. PORTRAITS OF TRAJANIC WOMEN ON ROMAN PROVINCIAL COINS, FAE AMIRO (UNIVERSITY OF TORONTO MISSISSAUGA)
3. A RECONSIDERATION OF AN AUREUS IN THE NAME OF PLOTINA AUG DIVI FROM CAMPANA'S COLLECTION, MARIA CRISTINA MOLINARI (MUSEI CAPITOLINI/MEDAGLIERE)
4. DIVUS TRAIANUS AUGUSTUS PARTHICUS PATER, BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)

**WEDNESDAY, SEPTEMBER 14, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**39. ROME 5. ROMAN IMPERIAL COINAGE 2, CHAIRED BY KYRYLO MYZGIN (UNIVERSITY OF WARSAW)**

1. GEOGRAPHICAL TARGETING IN ROMAN MONETARY PROPAGANDA – A CRITICAL REVIEW, KAMIL KOPIJ (ISTITUTE OF ARCHAEOLOGY, JAGIELLONIAN UNIVERSITY), GRZEGORZ SOCHACKI (ISTITUTE OF ARCHAEOLOGY, JAGIELLONIAN UNIVERSITY)



2. QUITE THE FATHER?! RESEMBLANCES OF EMPEROR PORTRAITS AFTER THE INAUGURATION OF A NEW ROMAN EMPEROR, SIMONE KILLEN (KOMMISSION FÜR ALTE GESCHICHTE UND EPIGRAPHIK)
3. SURVEY OF DAMAGED AUREI WHICH HAVE SUBSEQUENTLY BEEN "REPAIRED": IS THIS A PERVASIVE PROBLEM?, RONALD BUDE (UNIVERSITY OF MICHIGAN)

**WEDNESDAY, SEPTEMBER 14, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**40. ROME 6. ROMAN IMPERIAL COINAGE 3, CHAIRED BY BARTOSZ AWIANOWICZ (NICOLAUS COPERNICUS UNIVERSITY, TORUŃ)**

1. THE GOLD COINAGE OF HADRIAN 117-128 CE, MARTIN BECKMANN (MCMASTER UNIVERSITY)
2. VOTA COINS ON THE OCCASION OF IMPERIAL ANNIVERSARIES FROM ANTONINUS PIUS TO DIOCLETIANUS (138-294 A.D.), JULIA SOPHIA HANELT (JOHANNES GUTENBERG-UNIVERSITÄT MAINZ)
3. INITIATORS, STATUS, DEGREE OF TOLERANCE OF AUTHORITIES AND OTHER KEY FEATURES OF IRREGULAR RADIATES: UPDATED OVERVIEW, FABIEN PILON (UMR 7041 / ARSCAN / ASSOCIATION LA RIOBÉ)
4. NATUS VINCERE: THE IMAGE OF EMPEROR GALLIENUS (253-268) THROUGH THE ROME'S MINT COINAGE, DAVID SERRANO ORDOZGOITI (UNIVERSIDAD COMPLUTENSE DE MADRID)

**THURSDAY, SEPTEMBER 15, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**41. ROME 7. ROMAN IMPERIAL COINAGE 4, CHAIRED BY KYRYLO MYZGIN (UNIVERSITY OF WARSAW)**

1. FACING PORTRAITS OF THE EMPEROR IN THE 260S AD, MICHELE LANGE (SFB 1391 / UNIVERSITÄT TÜBINGEN)
2. THE STRIKING OR AUREI AT EASTERN MINTS DURING THE TETRARCHY (293-313/314), JAY DHARMADHIKARI (SOCIÉTÉ FRANÇAISE DE NUMISMATIQUE)
3. A NEW CAST CONTORNIATE FROM ROME, CLAUDIA FERRO (SOVRINTENDENZA CAPITOLINA AI BENI CULTURALI)

**THURSDAY, SEPTEMBER 15, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**42. ROME 8. GOLD IN THE ROMAN EMPIRE, CHAIRED BY GEORGE A. GREEN (ASHMOLEAN MUSEUM, UNIVERSITY OF OXFORD)**

1. TRACING ROMAN GOLD STOCKS WITH LA-ICP-MS ANALYSIS OF COINS FROM THE SECOND PUNIC WAR TO THE END OF THE FIRST CENTURY CE, ARNAUD SUSPÈNE



(UNIVERSITÉ D'ORLÉANS / CNRS IRAMAT-CEB), MARYSE BLET-LEMARQUAND (CNRS / UNIVERSITÉ D'ORLÉANS IRAMAT-CEB)

2. THE ROMAN COINAGE UNDER THE ANTONINES: AN ECONOMY OF SILVER, NOT GOLD, GILLES BRANSBOURG (AMERICAN NUMISMATIC SOCIETY)
3. THE CIRCULATION OF ROMAN GOLD AUREI IN THE 3RD CENTURY AD, ROGER BLAND (ROYAL NUMISMATIC SOCIETY)
4. ROMAN GOLD COINS FROM BARBARICUM, KYRYLO MYZGIN (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)

**THURSDAY, SEPTEMBER 15, 2022, 14.00-15.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**43. ROME 9. ROMAN IMPERIAL AND PROVINCIAL COINAGE, CHAIRED BY MARIUSZ MIELCZAREK (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY, POLISH ACADEMY OF SCIENCES)**

1. INTERFERENCE IN ANCIENT NUMISMATICS IN THE OSSOLINEUM IN WROCLAW AND THE NATIONAL MUSEUM IN WARSAW, ANNA ANZORGE-POTRZEBOWSKA (UNIVERSITY OF SILESIA IN KATOWICE)
2. WHAT IS A TYPE? AN EMIC PERSPECTIVE FROM THE ANCIENT WORLD, GEORGE WATSON (SWANSEA UNIVERSITY)
3. THE MYTHICAL PAST OF THRACE AND ITS REFLECTION IN THE SELECTED MONETARY ISSUES OF HADRIANOPOLIS, MAREK JURKOWSKI (UNIVERSITY OF SILESIA)
4. EARLY IMPERIAL COINS AS EVIDENCE OF THE PRESENCE OF THE LEGIO VIII AUGUSTA AT NOVAE (BULGARIA), RENATA CIOŁEK (UNIVERSITY OF WARSAW)

**THURSDAY, SEPTEMBER 15, 2022, 16.00-17.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**44. ROME 10. ROMAN PROVINCIAL COINAGE 1, CHAIRED BY ANDREW BURNETT (BRITISH MUSEUM)**

1. THE DRACHMS OF DYRRHACHIUM AND APOLLONIA: WITNESS TO THE RISE AND FALL OF THE POWER OF THE DACIANS, SILVIU PURECE (LUCIAN BLAGA UNIVERSITY OF SIBIU)
2. DRACHMAE FROM LYCIA, AMISUS AND CAESAREA MINTS IN SERBIAN AND EUROPEAN COIN HOARDS (AN UPDATE), MIRJANA VOJVODA (INSTITUTE OF ARCHAEOLOGY), SAŠA REDŽIĆ (INSTITUTE OF ARCHAEOLOGY)
3. COUNTERMARKS ON THE COINS OF BITHYNIA AND PONTUS IN THE ROMAN PERIOD, BARBARA ZAJĄC (INDEPENDENT RESEARCHER)
4. ΘNICAEA VS. NICOMEDIA – NEW NUMISMATIC INSIGHTS INTO A CIVIC RIVALRY, SASKIA KERSCHBAUM (GOETHE UNIVERSITY FRANKFURT)





**FRIDAY, SEPTEMBER 16, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**45. ROME 11. ROMAN PROVINCIAL COINAGE 2, CHAIRED BY JEROME MAIRAT (UNIVERSITY OF OXFORD)**

1.  $\Theta$ PANORAMA NUMISMATIQUE : HÉROS FONDATEURS MYTHIQUES AU IIIE SIÈCLE, AGATA KLUCZEK (UNIVERSITY OF SILESIA IN KATOWICE)
2. THE SULCUS PRIMIGENIUS ON CIVIC COINS IN THE ROMAN PROVINCES, ROBYN LE BLANC (THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO)
3. CIVIC COINS REFLECTING COLONIAL TRANSFORMATION, SZYMON JELLONEK (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)
4. DISSEMINATING IMPERIAL AUTHORITY: NUMISMATIC RELATIONS BETWEEN CENTER AND PERIPHERY DURING THE REIGN OF MARCUS AURELIUS, ELISABETH GÜNTHER (INSTITUTE FOR DIGITAL HUMANITIES / GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN), SVEN GÜNTHER (INSTITUTE FOR THE HISTORY OF ANCIENT CIVILIZATIONS / NORTHEAST NORMAL UNIVERSITY)

**FRIDAY, SEPTEMBER 16, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**46. ROME 12. ROMAN PROVINCIAL COINAGE 3, CHAIRED BY MARGUERITE SPOERRI BUTCHER (HEBERDEN COIN ROOM, OXFORD / ASHMOLEAN MUSEUM)**

1. THE RELATIONSHIP BETWEEN APOLLO DIDYMEUS AND THE ROMAN EMPEROR AS REPRESENTED IN THE MILESIAN COINAGE, JULIUS ROCH (COIN CABINET BERLIN)
2.  $\Theta$ REMARKS ON THE IDENTITY OF THE WARRIOR GOD ON ARIASSOS COINS, ESRA TÛTÛNCÛ (SULEYMAN DEMIREL UNIVERSITY GRADUATE SCHOOL OF SOCIAL SCIENCES)
3. A NEW YEAR, AN OLD ERA, AND THE SAME DATE? DATING IN EARLY ROMAN CILICIA, CHRISTIAN SCHINZEL (MÛNZKABINETT WINTERTHUR)
4. VALUE MARKS OR SEMESTERS AT POMPEIOPOLIS?, ANDREW BURNETT (BRITISH MUSEUM)

**FRIDAY, SEPTEMBER 16, 2022, 14.00-15.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**47. ROME 13. ROMAN & BYZANTINE EGYPT, CHAIRED BY CHRIS HOWGEGO (UNIVERSITY OF OXFORD)**

1. NUMI PLUMBEI ANTINOËNSI (LEAD TESSERAЕ OF ANTINOOPOLIS), GIOVANNI MARIA STAFFIERI (CIRCOLO NUMISMATICO TICINESE)
2. THE ALEXANDRIAN COINAGE OF COMMODUS. A DIE STUDY, MONA ASHOUR (FACULTY OF ARTS, ALEXANDRIA UNIVERSITY-EGYPT)



3. THE COIN CIRCULATION IN MAREA, A BYZANTINE CITY ON THE PILGRIMAGE ROUTE TO ABU MENA, PIOTR JAWORSKI (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)
4. TWO HOARDS OF LATE ROMAN GOLD COINS IN THE EGYPTIAN MUSEUM OF CAIRO, FATMA MOHAMED (THE EGYPTIAN MUSEUM)

**FRIDAY, SEPTEMBER 16, 2022, 16.00-14.30**

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**48. ROME 14. FINDS AND CIRCULATION 1, CHAIRED BY CHARLES PARISOT-SILLON (IRAMAT-CEB / CNRS & UNIVERSITY OF ORLEANS)**

1. TRESORS MONETAIRES DES III<sup>E</sup> ET II<sup>E</sup> SIECLES AVANT J.-C. CONTENANT DES DENIERS DANS LES BALKANS ET EN GRECE, ELENI G. PAPAETHYMIU (WARWICK UNIVERSITY, RESEARCH FELLOW, RACOM PROJECT)
2. ⊖THE CIRCULATION OF ROMAN REPUBLICAN COINAGE IN THE IMPERIAL PERIOD – PATTERNS AND DEVIATIONS, KATHARINA HUBER (AUSTRIAN ACADEMY OF SCIENCES / UNIVERSITY OF VIENNA)
3. FIRST INSIGHTS OF MONETARY CIRCULATION INTO ANCIENT ARMENIA, ANAHIDE KEFELIAN (OXFORD UNIVERSITY, ASHMOLEAN MUSEUM)
4. SINGLE FINDS AND A HOARD FROM A RURAL SETTLEMENT IN THE CIVITAS CANANEFATIUM (THE NETHERLANDS), PAUL BELIËN (NATIONAL NUMISMATIC COLLECTION, DE NEDERLANDSCHE BANK)

**MONDAY, SEPTEMBER 12, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL C – ROME**

**49. ROME 15. FINDS AND CIRCULATION 2, CHAIRED BY MARKUS PETER (AUGUSTA RAURICA / UNIVERSITÄT BERN / SWISS INVENTORY OF COIN FINDS)**

1. THE ANTONINE DENARII FROM MESOPOTAMIA, EDWARD DANDROW (UNIVERSITY OF CENTRAL FLORIDA)
2. COINS FINDS FROM THE INSULAE 3, 13 AND 15 IN AVENTICUM/AVENCHES (SWITZERLAND), ISABELLA LIGGI ASPERONI (SITE ET MUSÉE ROMAINS AVENCHES)
3. FOUNDATION DEPOSITS IN NORTHERN AND EASTERN GAUL: WHAT POSSIBLE CONTEXTS?, LUDOVIC TROMMENSCHLAGER (DÉPARTEMENT MONNAIES, MÉDAILLES ET ANTIQUES BNF)
4. THE MONETIZATION OF THE RURAL COUNTRYSIDE IN THE GERMAN RHINELAND, RAHEL OTTE (GOETHE-UNIVERSITÄT FRANKFURT A. M.)

**MONDAY, SEPTEMBER 12, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL C – ROME**

**50. ROME 16. FINDS AND CIRCULATION 3, CHAIRED BY VINCENT DROST (ECOLE NATIONALE SUPERIEURE DES SCIENCES DE L'INFORMATION ET DES BIBLIOTHEQUES)**

1. MULTIPLE DE 2 SOLIDI DE CONSTANTIN IER DE L'ATELIER DE TREVES TROUVE EN FORET DE COMPIEGNE (OISE), LAURENT SCHMITT (SFN, SENA), MARIE-LAURE LE BRAZIDEC (UMR 5140 ASM, MONTPELLIER / 5608 TRACES, TOULOUSE),
2. LATE ROMAN COIN HOARDS FROM ARCHAEOLOGICAL EXCAVATIONS IN LAMEGO'S CASTLE (PORTUGAL), ALICE BAETA (FLUP)
3. THE CLAUSTRA ALPIUM IULIARUM: A FRONTIER FOR MONETARY CIRCULATION IN THE LATE ROMAN PERIOD, ANDREA STELLA (UNIVERSITY OF PADUA)
4.  $\Theta$ COINS FROM THE EXCAVATIONS AT DIBSI FARAJ, NORTHERN SYRIA (1971-1974), MASSIMILIANO MUNZI (SOVRINTENDENZA CAPITOLINA AI BENI CULTURALI)

**MONDAY, SEPTEMBER 12, 2022, 14.00-15.30**

**AUDYTORIUM MAXIMUM, HALL C – ROME**

**51. ROME 17. FINDS AND CIRCULATION 4, CHAIRED BY FERNANDO LÓPEZ-SÁNCHEZ (COMPLUTENSE UNIVERSITY OF MADRID)**

1. THE REGINA TURDULORUM HOARD (CASAS DE REINA, BADAJOZ) AND THE DIVO CLAUDIO ISSUES, DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)
2. THE ROMAN HOARD OF TOMARES: A COIN FIND "TOO BIG TO STUDY" - PRELIMINARY RESULTS, RUTH PLIEGO (UNIVERSITY OF SEVILLE), ENRIQUE GARCÍA VARGAS (UNIVERSITY OF SEVILLE)
3. ANCIENT COIN FINDS IN ARCHAEOLOGICAL CONTEXTS OF ALGECIRAS BAY (CADIZ, SPAIN), ALICIA ARÉVALO-GONZÁLEZ (UNIVERSIDAD DE CÁDIZ), ELENA MORENO-PULIDO (UNIVERSIDAD DE CÁDIZ)
4. A COIN GROUP FROM THE LATRINE OF THE ROMAN VILLA OF VILAUBA (CATALUÑA, ESPAÑA), MARC BOUZAS (UNIVERSITAT DE GIRONA), PERE CASTANYER (GRUP DE RECERCA ARQUEOLÒGICA DEL PLA DE L'ESTANY), JOAN FRIGOLA (UNIVERSITAT DE GIRONA), JOAQUIM TREMOLEDA (GRUP DE RECERCA ARQUEOLÒGICA DEL PLA DE L'ESTANY)

**MONDAY, SEPTEMBER 12, 2022, 16.00-17.30**

**AUDYTORIUM MAXIMUM, HALL C – ROME**

**52. ROME 18. FINDS AND CIRCULATION 5, CHAIRED BY LUDOVIC TROMMENSCHLAGER (DÉPARTEMENT MONNAIES, MÉDAILLES ET ANTIQUES BNF)**

1. THE BEURAINS (ARRAS) HOARD: 100 YEARS LATER, VINCENT DROST (ECOLE NATIONALE SUPERIEURE DES SCIENCES DE L'INFORMATION ET DES BIBLIOTHÈQUES)



2. USES AND USERS OF GOLD COINS IN CIVITAS AEDUORUM DURING THE ROMAN EMPIRE, KÉVIN CHARRIER (ÉCOLE PRATIQUE DES HAUTES ÉTUDES / UMR 8210 ANHIMA)
3. TWO SILVER INGOTS FROM THE MID-4TH CENTURY, ALENKA MIŠKEC (NATIONAL MUSEUM OF SLOVENIA)
4. THE UNDERWATER COIN DEPOSIT OF GRAN CARRO, IN LAKE BOLSENA, BARBARA BARBARO, (SOPRINTENDENZA ARCHEOLOGIA, BELLE ARTI E PAESAGGIO PER LA PROVINCIA DI VITERBO E PER L'ETRURIA MERIDIONALE), SAMUELE RANUCCI (SEGRETARIATO REGIONALE DEL MINISTERO DELLA CULTURA PER L'UMBRIA)

**TUESDAY, SEPTEMBER 13, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL C – ROME & EARLY MIDDLE AGES**

**53. ROME 19. FINDS AND USE – BARBARICUM 1, CHAIRED BY ARKADIUSZ DYMOWSKI (INDEPENDENT RESEARCHER)**

1. KALKRIESE AND ROMAN ARMY PAY, MAX RESCH (DEPARTMENT FOR NUMISMATICS AND MONETARY HISTORY, UNIVERSITY OF VIENNA)
2. FROM THE SESTERTII TO THE SOLIDI, THE COINAGE OF HADRIAN'S WALL AND BRITANNIA'S NORTHERN FRONTIER, DOUGLAS CARR (NEWCASTLE UNIVERSITY)
3. ANCIENT COINS EAST OF THE DANUBE, LAJOS JUHÁSZ (EÖTVÖS LORÁND UNIVERSITY)
4. LATE ROMAN GOLD COINAGE (275-498 AD) FROM THE BARBARICUM, NICOLETA DEMIAN (THE NATIONAL MUSEUM OF BANAT)

**TUESDAY, SEPTEMBER 13, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL C – ROME & EARLY MIDDLE AGES**

**54. ROME 20. COIN FINDS AND USE – BARBARICUM 2, CHAIRED BY ALEKSANDER BURSCHE (UNIVERSITY OF WARSAW)**

1. ROMAN DENARIUS HOARDS IN DENMARK, A METHODOLOGICAL UPDATE, RASMUS HOLST NIELSEN (ROYAL COLL. OF COINS AND MEDALS, NATIONAL MUSEUM OF DENMARK)
2. ROMAN IMPERIAL GOLD MEDALLIONS, THE NEW FINDS FROM VINDELEV, DENMARK, HELLE W. HORSNÆS (NATIONALMUSEET, THE ROYAL COLL. OF COINS AND MEDALS)
3. NORTH SEA GOLD ECONOMY IN THE AGE OF "GIFT EXCHANGE", C.450–C.760, KEVIN HOFFMAN (YALE UNIVERSITY)
4. FROM LOCAL FINDS TO GLOBAL PICTURE – THE MIGRATION PERIOD GOLD HOARDS IN THE WESTERN POMERANIA, ANNA ZAPOLSKA (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)



**TUESDAY, SEPTEMBER 13, 2022, 15.00-16.30**

**AUDYTORIUM MAXIMUM, HALL C – ROME & EARLY MIDDLE AGES**

**55. ROME 21. MANUFACTURE AND USE OF COUNTERFEIT ROMAN IMPERIAL DENARII IN BARBARICUM, ORG.: ARKADIUSZ DYMOWSKI (UNIVERSITY OF WARSAW) AND KYRYLO MYZGIN (UNIVERSITY OF WARSAW), CHAIRED BY JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)**

1. DENARII FLATI, KYRYLO MYZGIN (UNIVERSITY OF WARSAW)
2. COUNTERFEIT ROMAN IMPERIAL DENARII DISCOVERED IN WESTERN MOLDAVIA (ROMANIA), LUCIAN MUNTEANU (ROMANIAN ACADEMY, INSTITUTE OF ARCHAEOLOGY FROM IAȘI), GABRIEL-MIRCEA TALMAȚCHI (THE NATIONAL HISTORY AND ARCHAEOLOGY MUSEUM OF CONSTANȚA)
3. IRREGULAR ROMAN COINS FROM ROMAN AND MIGRATION PERIOD SETTLEMENTS IN WESTERN LESSER POLAND, JAN BULAS (ARCH FOUNDATION), JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY), BARBARA ZAJĄC (INDEPENDENT RESEARCHER), SZYMON JELLONEK (UNIVERSITY OF WARSAW)
4. MANUFACTURE AND USE OF ROMAN IMPERIAL DENARII SUBAERATI IN BARBARICUM, ARKADIUSZ DYMOWSKI (UNIVERSITY OF WARSAW)

**TUESDAY, SEPTEMBER 13, 2022, 17.00-18.30**

**AUDYTORIUM MAXIMUM, HALL C – ROME & EARLY MIDDLE AGES**

**56. LATE ANTIQUITY AND EARLY MIDDLE AGES 1. ITALY, CHAIRED BY ANDREA SACCOCCI (UNIVERSITÀ DEGLI STUDI DI UDINE)**

1. COIN CIRCULATION IN LATE ROMAN VELIA (CAMPANIA-ITALY): PRELIMINARY DATA, FLAVIA MARANI (UNIVERSITÀ DEGLI STUDI DI SALERNO)
2. LATE ANTIQUE COIN CIRCULATION IN ROMAGNA: THE EVIDENCE FROM AD NOVAS (CESENATICO, ITALY), ELENA BALDI (WASHINGTON UNIVERSITY), DENIS SAMI (OXFORD ARCHAEOLOGY EAST)
3. THE USE OF COINS IN TOMBS IN VENETO DURING LATE ANTIQUITY AND THE MIDDLE AGES, NOÉ CONEJO (UNIVERSITÀ DEGLI STUDI DI PADOVA)
4. THE SM MARK ON BRONZE ISSUES OF THE PERIOD OF HONORIUS, STEFANO BRUNI (INDEPENDENT RESEARCHER)

**THURSDAY, SEPTEMBER 15, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL C – LATE ANTIQUITY & EARLY MIDDLE AGES**

**57. LATE ANTIQUITY AND EARLY MIDDLE AGES 2. SPAIN, CHAIRED BY DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)**

1. LATE ROMAN CLIPPED AND TRIMMED NUMMI IN VIGUERA (NORTHERN SPAIN), JOSÉ MARÍA TEJADO SEBASTIÁN (UNIV. OF LA RIOJA, SPAIN), FERNANDO LÓPEZ-SÁNCHEZ (COMPLUTENSE UNIVERSITY OF MADRID)



2. LATE ANTIQUE CURRENCY IN EASTERN IBERIAN PENINSULA: THE CASE OF VALÈNCIA LA VELLA, ÒSCAR CALDÉS (INSTITUT CATALÀ D'ARQUEOLOGIA CLÀSSICA, TARRAGONA, SPAIN)
3. LATE ROMAN AND LATE ANTIQUE COINS FROM THE EXCAVATIONS AT TORTOSA'S CATHEDRAL SQUARE, XAVIER SICART CHAVARRIA (GRUP DE RECERCA SEMINARI DE PROTOHISTÒRIA I ARQUEOLOGIA DE LA UNIVERSITAT ROVIRA I VIRGILI (GRESEPIA), TARRAGONA, SPAIN), ÒSCAR CALDÉS (INSTITUT CATALÀ D'ARQUEOLOGIA CLÀSSICA, TARRAGONA, SPAIN), RAMON FERRÉ ANGUIX (GRUP DE RECERCA SEMINARI DE PROTOHISTÒRIA I ARQUEOLOGIA DE LA UNIVERSITAT ROVIRA I VIRGILI (GRESEPIA) / INSTITUT CATALÀ D'ARQUEOLOGIA CLÀSSICA (ICAC), TARRAGONA, SPAIN)
4. NUMISMATIC ARCHAEOLOGICAL CONTEXTUALISATION IN THE CENTRE OF THE PENINSULA DURING THE EARLY MEDIEVAL PERIOD (5TH-10TH CENTURIES AD): RECCOPOLIS, TOLEDO AND GUADALAJARA, MANUEL CASTRO PRIEGO (ALCALÁ UNIVERSITY)

**THURSDAY, SEPTEMBER 15, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL C – LATE ANTIQUITY & EARLY MIDDLE AGES**

**58. LATE ANTIQUITY AND EARLY MIDDLE AGES 3. FLAME, DIGITAL NUMISMATICS, AND THE LATE ANTIQUE-MEDIEVAL TRANSITION, ORGANIZED AND CHAIRED BY MARK PYZYK (PRINCETON UNIVERSITY)**

1. VISIGOTHIC MONETARY CIRCULATION: HOW MANY COINS ARE WE TALKING ABOUT?, RUTH PLIEGO (UNIVERSITY OF SEVILLE)
2. DISTRIBUTION OF COINS IN LATE ANTIQUITY AND EARLY MIDDLE AGES IN SOUTHERN ITALY (325-725 AD): A COMPARISON BETWEEN BORDER AND INLAND AREAS, DOMENICO LUCIANO MORETTI (STUDIORUM UNIVERSITÀ DI BOLOGNA), GIUSEPPE SARCELLI (UNIVERSITÀ DEL SALENTO)
3. LOCAL ECONOMIES AT THE END OF THE LATE ANTIQUITY. A CASE STUDY, AIKATERINA PEPPA (PARIS 1 PANTHÉON -SORBONNE)
4. CHANGES IN COIN CIRCULATION IN THE NORTHERN BALKANS (6TH-8TH C.): INTERSECTIONS OF ECONOMIC AND SCIENTIFIC EVIDENCE FOR THE "BARBARIAN INVASIONS", ILIA CURTO-PELLE (PRINCETON UNIVERSITY)

**THURSDAY, SEPTEMBER 15, 2022, 14.00-15.30**

**AUDYTORIUM MAXIMUM, HALL C – LATE ANTIQUITY & EARLY MIDDLE AGES**

**59. LATE ANTIQUITY AND EARLY MIDDLE AGES 4. ROME & BARBARIAN KINGDOMS, CHAIRED BY RUTH PLIEGO (UNIVERSITY OF SEVILLE)**

1. THE ASSERTION OF POWER ON THE COINS OF GUNTHAMUND (484-496) AND THRASAMUND (496-523), AURÉLIEN ROS (EPHE)



2. CURRENCY USES AND CIRCULATION IN SOUTHERN GAUL IN THE 5TH AND 6TH CENTURIES: THE CASE OF BRONZE COINS, MARIE-LAURE LE BRAZIDEC (UMR 5608 – TRACES, TOULOUSE)
3. MODELING THE LIFETIME IN CIRCULATION OF VISIGOTHIC GOLD COINS, DAVID YOON (AMERICAN NUMISMATIC SOCIETY)

**THURSDAY, SEPTEMBER 15, 2022, 16.00-17.30**

**AUDYTORIUM MAXIMUM, HALL C – LATE ANTIQUITY & EARLY MIDDLE AGES**

**60. EARLY BYZANTINE, CHAIRED BY MARCIN WOŁOSZYN (LEIBNIZ INSTITUTE FOR THE HISTORY AND CULTURE OF EASTERN EUROPE (GWZO), LEIPZIG // INSTITUTE OF ARCHAEOLOGY, UNIVERSITY OF RZESZÓW)**

1. THE MINT PROVENANCE OF MIB 229 DECANUMMIA OF JUSTINIAN IN THE LIGHT OF ARCHAEOLOGICAL FINDS AND XRF ANALYSES, EMIL MALEWICZ (IAIE PAN)
2. NEW EVIDENCE AND NEW IDEAS: THE SILVER COINAGE OF CONSTANS II. REVISITED, NIKOLAUS AUE (UNIVERSITY OF VIENNA)
3. A SMALL BYZANTINE HOARD FROM THE DESERT OF ASWAN, ELENA BALDI (WASHINGTON UNIVERSITY), ANTONIO CURCI (UNIVERSITA' DI BOLOGNA), MARIA CARMELA GATTO (POLISH ACADEMY OF SCIENCES)

**FRIDAY, SEPTEMBER 16, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL C – MIDDLE AGES**

**61. EARLY MIDDLE AGES 1. MEROVINGIANS & CAROLINGIANS, CHAIRED BY ARENT POL (UNIVERSITEIT LEIDEN)**

1. MEROVINGIAN UNIFACE OBOLS, PHILIPPE SCHIESSER (SENA)
2. FRANKISH IMAGE POLITICS ON COINS AND SEALS IN CULTURAL COMPARISON, DANIEL SEELBACH (GOETHE-UNIVERSITÄT FRANKFURT)
3. BISKUPIEC – THE FIRST HOARD OF CAROLINGIAN COINS FROM POLAND, MATEUSZ BOGUCKI (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY, POLISH ACADEMY OF SCIENCES / COMMISSION OF NUMISMATIC STUDIES POLISH ACADEMY OF SCIENCES)
4. THE COINAGE OF THE KINGDOM OF ITALY FROM LOUIS II TO BERENGAR II (855–961): A REAPPRAISAL, LUCA GIANAZZA (INDEPENDENT RESEARCHER)

**FRIDAY, SEPTEMBER 16, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL C – MIDDLE AGES**

**62. EARLY MIDDLE AGES 2. EAST-CENTRAL EUROPE, CHAIRED BY MATEUSZ BOGUCKI (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY, POLISH ACADEMY OF SCIENCES / COMMISSION OF NUMISMATIC STUDIES POLISH ACADEMY OF SCIENCES)**

1. THE INFLOW OF ISLAMIC COINS ON THE LESSER POLAND TERRITORIES IN THE EARLY MIDDLE AGES, DOROTA MALARCZYK (THE NATIONAL MUSEUM IN KRAKOW)



2. PATHS AND DIVERSIONS: EXAMINING ECONOMIC NETWORKS OUTSIDE OF KYIVAN REACH IN THE TENTH CENTURY, STEPAN STEPANENKO (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE UMR 8167)
3. THE EARLIEST RUSSIAN COINAGE? TWO GROUPS OF IMITATIVE DIRHAMS FROM THE LATE NINTH TO THE MID-TENTH CENTURY, VIACHESLAV KULESHOV (STOCKHOLM NUMISMATIC INSTITUTE)
4. TOWARDS A CATALOGUE OF EARLY MEDIEVAL DIRHAM IMITATIONS, MAREK JANKOWIAK (UNIVERSITY OF OXFORD)

**FRIDAY, SEPTEMBER 16, 2022, 14.00-15.30; 16.00-17.30**

**AUDYTORIUM MAXIMUM, HALL C – MIDDLE AGES**

**63. MIDDLE AGES 1. VIKING AGE AND MEDIEVAL MONETISATION – SCANDINAVIAN AND THEORETICAL PERSPECTIVES, ORG.: SVEIN GULLBEKK (MUSEUM OF CULTURAL HISTORY / UNIVERSITY OF OSLO) AND JON ANDERS RISVAAG (NTNU UNIVERSITY MUSEUM), CHAIRED BY SVEIN GULLBEKK**

1. MONEY AND MONETIZATION FROM AN URBAN AND MERCHANT PERSPECTIVE, CHRISTOPH KILGER (DEPARTMENT OF ARCHAEOLOGY AND ANCIENT HISTORY, UPPSALA)
2. Imitating Monetisation: Coins and Monetary Practice in Evolving Weight Economies, NANOUSCHKA MYRBERG BURSTRÖM (STOCKHOLM UNIVERSITY)
3. Rural Monetisation in Medieval Denmark in the Light of Detector Finds, JENS CH. MOESGAARD (STOCKHOLM NUMISMATIC INSTITUTE, STOCKHOLM UNIVERSITY)
4. MONETARISATION WITHOUT COINS – VIKING ECONOMIES IN THE BALTIC SEA REGION, GITTE INGVARSDON (HISTORICAL MUSEUM AT LUND UNIVERSITY)
5. MONETISATION AS A PROCESS: DENMARK DURING THE PERIOD 1074-1241, THOMAS POULSEN (MUSEUM ØSTJYLLAND)
6. SMALL ANONYMOUS BRacteates: Monetisation in the Dynamic 12th Century?, LINN EIKJE RAMBERG (MUSEUM OF ARCHAEOLOGY, UNIVERSITY OF STAVANGER)
7. COINS AND THE COLONISATION OF THE EASTERN LANDS: MONETISATION ON THE PERIPHERY OF EUROPE, FRIDA EHRNSTEN (NATIONAL MUSEUM OF FINLAND)
8. WHEN WAS MONETISATION ACHIEVED? NORWEGIAN PERSPECTIVES, JON ANDERS RISVAAG (NTNU UNIVERSITY MUSEUM)





**MONDAY, SEPTEMBER 12, 2022, 9.00-10.30; 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**64. MIDDLE AGES 2. MONETISATION IN MEDIEVAL EUROPE. FORMS, PROCESSES AND TENDENCIES FROM THE 8TH TO THE 13TH CENTURY, ORG.: JOHANNES HARTNER (COIN COLLECTION, MUSEUM OF FINE ARTS, VIENNA) AND RORY NAISMITH (UNIVERSITY OF CAMBRIDGE), CHAIRED BY SVEIN GULBEKK (MUSEUM OF CULTURAL HISTORY, UNIVERSITY OF OSLO) AND RORY NAISMITH**

1. WHO USED SILVER MONEY IN WHICH MARKETS? SOME REFLECTIONS ON HYBRID ECONOMIC FORMS IN 12TH- AND EARLY 13TH-CENTURY PIAST POLAND, DARIUSZ ADAMCZYK (GERMAN HISTORICAL INSTITUTE IN WARSAW)
2. TWO STAGES OF MONETIZATION IN 13TH-CENTURY BOHEMIA: COIN RENEWAL AND DEBASEMENT, ROMAN ZAORAL (CHARLES UNIVERSITY, FACULTY OF HUMANITIES)
3. MONETISATION OF MEDIEVAL EUROPE IN RESEARCH HISTORY, MIKA BOROS (UNIVERSITY OF OSLO)
4. COIN JEWELLERY IN TIMES OF MONETISATION: SCANDINAVIA C. 1000–1300, FLORENT AUDY (NATIONAL HISTORICAL MUSEUMS)
5. THE BEGINNING OF COINAGE IN 12TH CENTURY AUSTRIA. MONETISATION AS AN ESSENTIAL FACTOR IN THE EXPANSION OF THE COUNTRY, JOHANNES HARTNER (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN, VIENNA)
6. MONETISATION PROCESSES IN MEDIEVAL VISUAL MEDIA, ALEXANDRA HYLLA (SALZBURG MUSEUM)
7. THE BUYIDS AND THE CESSATION OF THE INFLUX OF ISLAMIC DIRHAMS INTO 10TH CENTURY EASTERN EUROPE, MICHAŁ MALICZOWSKI (UNIVERSITÄT WIEN)
8. RETHINKING MONETISATION IN EARLY MEDIEVAL ENGLAND, RORY NAISMITH (UNIVERSITY OF CAMBRIDGE)

**MONDAY, SEPTEMBER 12, 2022, 14.00-15.30**

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**65. MIDDLE AGES 3. NEW PERSPECTIVES ON MEDIEVAL COINAGES: COIN FINDS, CIRCULATION AND RECENT RESEARCH, ORG.: MARTIN ALLEN (FITZWILLIAM MUSEUM, CAMBRIDGE), MARCUS PHILLIPS (INDEPENDENT RESEARCHER), JULIAN BAKER (ASHMOLEAN MUSEUM, OXFORD), RICHARD KELLEHER (FITZWILLIAM MUSEUM, CAMBRIDGE), CHAIRED BY RORY NAISMITH (UNIVERSITY OF CAMBRIDGE)**

1. NEW DISCOVERIES IN THE ANGLO-NORMAN COINAGE OF 1066-1158, MARTIN ALLEN (FITZWILLIAM MUSEUM, UNIVERSITY OF CAMBRIDGE)
2. AREAS OF CIRCULATION OF MEDIEVAL GREEK DENIERS TOURNOIS IN THE LIGHT OF RECENT FINDS, JULIAN BAKER (ASHMOLEAN MUSEUM, OXFORD)
3. NEW THOUGHTS ON THE COINAGE OF CRUSADER EDESSA AND ANTIOCH, RICHARD KELLEHER (FITZWILLIAM MUSEUM, UNIVERSITY OF CAMBRIDGE)

4. HOW TO CATALOGUE THE GROS AU LIS: FLANDERS OR FRANCE?, MARCUS PHILLIPS (INDEPENDENT RESEARCHER)

**MONDAY, SEPTEMBER 12, 2022, 16.00-17.30**

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**66. MIDDLE AGES 4. MEDIEVAL ISLAMIC COINAGE, CHAIRED BY DOROTA MALARCZYK (THE NATIONAL MUSEUM IN KRAKOW)**

1. AUTHORITIES ON THE ISLAMIC COINAGE OF THE EASTERN IRANIAN TERRITORIES (8TH-11TH CENTURIES), ARTURO ANNUCCI (UNIVERSITÀ DI NAPOLI L'ORIENTALE)
2. MINE, RESIDENCE, OR HOME – THE MEANING OF "MA'DIN AMÎR AL-MU'MINÎN" ON Umayyad COINS, LUTZ ILISCH (EX FORSCHUNGSSTELLE FÜR ISLAMISCHE NUMISMATIK, TÜBINGEN)
3. SICILY AND AL-ANDALUS: TRADE RELATIONSHIPS AND MONETARY CIRCULATION IN THE XITH CENTURY, CAROLINA DOMÉNECH-BELDA (UNIVERSITY OF ALICANTE)
4. ONCE MORE INTO THE BROACH: THE MAMLUK COINS FROM CODRINGTON, JRASBB, 1881-82, WARREN SCHULTZ (DEPAUL UNIVERSITY)

**TUESDAY, SEPTEMBER 13, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**67. MIDDLE AGES 5. 12<sup>TH</sup>-13<sup>TH</sup> CENTURIES, THE MEDITERRANEAN, CHAIRED BY LUCA GIANAZZA (INDEPENDENT RESEARCHER)**

1. "LATIN" IMITATIONS OF HYPERPYRA OF JOHN III VATATZÈS—A COINAGE OF GEOFFREY II OF VILLEHARDOUIN?, ROBERT LEONARD (AMERICAN NUMISMATIC SOCIETY)
2. THE 'BAYINDIR/1988' HOARD OF BYZANTINE THIRTEENTH-CENTURY BILLON TRACHEA, CEREN ÜNAL (CELAL BAYAR UNIVERSITY), ELENI LIANTA (INDEPENDENT RESEARCHER)
3. THE CIRCULATION OF THE COINAGE OF LUCCA IN EMILIA-ROMAGNA IN THE 11TH-12TH CENTURIES, MATTIA FRANCESCO ANTONIO CANTATORE (UNIVERSITÀ DI VERONA), DOMENICO LUCIANO MORETTI (ALMA MATER STUDIORUM-UNIVERSITÀ DI BOLOGNA)

**TUESDAY, SEPTEMBER 13, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**68. MIDDLE AGES 6. 10<sup>TH</sup> – 12<sup>TH</sup> CENTURIES, CENTRAL AND NORTH EUROPE, CHAIRED BY JENS CH. MOESGAARD (STOCKHOLM UNIVERSITY)**

1. MLADÁ BOLES LAV-PODLÁZKY 2011. A UNIQUE BOHEMIAN FIND OF DENARII, WEIGHTS AND JEWELRY BEFORE 999, LUBOŠ POLANSKÝ (NATIONAL MUSEUM)



2. VIKING-AGE GERMAN COINS STRUCK ON SQUARE FLANS – PURELY A NORDIC IMITATION PHENOMENON?, EEVA JONSSON (UNIVERSITY OF TURKU)
3. POURQUOI BOLESŁAS LE VAILLANT SUR SES DENIERS SE NOMMA-T-IL DVX INCLITVS?, STANISŁAW SUCHODOLSKI (INSTITUT OF ARCHAEOLOGY AND ETHNOLOGY OF POLISH ACADEMY OF SCIENCES)
4. ARCHAEOLOGICAL STUDY IN THE PLACES OF HOARDS FINDS IN BELARUS, LUDA TOLKACHEVA (NATIONAL HISTORICAL MUSEUM OF THE REPUBLIC OF BELARUS), ROMAN KRYTSUK (INDEPENDENT RESEARCHER)

**TUESDAY, SEPTEMBER 13, 2022, 15.00-16.30**

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**69. MIDDLE AGES 7. 12<sup>TH</sup>-13<sup>TH</sup> CENTURIES, POLAND, CHAIRED BY BORYS PASZKIEWICZ (UNIVERSITY OF WROCLAW) / MAREK JANKOWIAK (UNIVERSITY OF OXFORD)**

1. THE DISCOVERY OF THE SECOND MEDIEVAL HOARD FROM SŁUSZKÓW, MICHAŁ ZAWADZKI (THE ROYAL CASTLE IN WARSAW – MUSEUM), ADAM KĘDZIERSKI (THE INSTITUTE OF ARCHEOLOGY AND ETHNOLOGY PAN)
2. MEDIEVAL HOARD OF GŁOGÓW — UNSOLVED MYSTERY OF POLISH COINAGE FROM THE END OF 12TH C., KRYSZTOF KSIĄŻEK (MUZEUM ARCHEOLOGICZNO-HISTORYCZNE W GŁOGOWIE)
3. ORIGINS OF THE RECOINAGE IN POLAND IN THE LIGHT OF NEW RESEARCH, GRZEGORZ ŚNIEŻKO (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY OF POLISH ACADEMY OF SCIENCES)

**TUESDAY, SEPTEMBER 13, 2022, 17.00-18.30**

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**70. MIDDLE AGES 8. 12<sup>TH</sup>-13<sup>TH</sup> CENTURIES, EASTERN EUROPE, CHAIRED BY GRZEGORZ ŚNIEŻKO (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY OF POLISH ACADEMY OF SCIENCES)**

1. A HOARD OF TWELFTH CENTURY ITALIAN DENARI FROM THE AREA OF TERNOPIL', UKRAINE, BORYS PASZKIEWICZ (UNIVERSITY OF WROCLAW)
2. FUR MONEY OF ANCIENT RUS'?, DZMITRY HULETSKI (EUROPEAN HUMANITIES UNIVERSITY)
3. SILVER PAYMENT INGOTS IN EASTERN EUROPE. GENESIS AND DATING, ILYA SHTALENKOV (BELARUSIAN NUMISMATIC SOCIETY)
4. SILVER INGOT FROM CHEŁM (13TH CENTURY). PRELIMINARY REPORT, MARCIN WOŁOSZYN (LEIBNIZ INSTITUTE FOR THE HISTORY AND CULTURE OF EASTERN EUROPE (GWZO), LEIPZIG, GERMANY // INSTITUTE OF ARCHAEOLOGY, UNIVERSITY OF RZESZÓW, POLAND), TOMASZ DZIENKOWSKI (INSTITUTE OF ARCHAEOLOGY, MARIA CURIE SKŁODOWSKA UNIVERSITY, LUBLIN, POLAND), STEPHEN WILLIAM MERKEL (DEUTSCHES BERGBAU-MUSEUM BOCHUM)



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**THURSDAY, SEPTEMBER 15, 2022, 9.00-10.30**  
**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**71. MIDDLE AGES 9. MONETARY SYSTEMS IN TRANSITION IN MEDIEVAL CENTRAL ITALY, ORG.: WILLIAM DAY (MEDIÉVAL EUROPEAN COINAGE PROJECT, FITZWILLIAM MUSEUM), CHAIRED BY ELINA SCREEN (FITZWILLIAM MUSEUM)**

1. FROM LOCAL AUTHORITY TO PAPAL AUTHORITY: CENTRAL ITALIAN MINTS DURING THE EXPANSION OF THE PAPAL STATES, 14TH-15TH CENTURIES, WILLIAM DAY (FITZWILLIAM MUSEUM)
2. NEW RESEARCH ON THE GOLD FLORIN OF FLORENCE AND ITS IMITATIONS (1252-1351): THE CASE OF THE ZALEWO AND ŚRODA ŚLĄSKA HOARDS (POLAND), MASSIMO DE BENETTI (PROGETTO COLLEZIONE DI VITTORIO EMANUELE III, MEDAGLIERE DEL MUSEO NAZIONALE ROMANO, ROMA)
3. THE COINS OF THE ESTE DOMINIONS AND THEIR ROLE IN FACILITATING EXCHANGE THROUGHOUT THE ITALIAN KINGDOM (12TH -15TH CENT.), ANDREA SACCOCCI (UNIVERSITÀ DEGLI STUDI DI UDINE)
4. ROME AND COINAGE IN THE TENTH CENTURY: POSSIBLE REASONS FOR THE CLOSURE OF THE MINT, MARIELE VALCI (ISTITUTO ITALIANO PER GLI STUDI STORICI, NAPLES)

**THURSDAY, SEPTEMBER 15, 2022, 11.00-12.30**  
**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**72. MIDDLE AGES 10. 13<sup>TH</sup>-14<sup>TH</sup> CENTURIES, CENTRAL AND NORTHERN EUROPE, CHAIRED BY ROMAN ZAORAL (CHARLES UNIVERSITY, FACULTY OF HUMANITIES, PRAGUE)**

1. ONCE AGAIN ON EARLY MINTING IN RIGA, LIVONIA, IVAR LEIMUS (ESTONIAN HISTORY MUSEUM)
2. MINTING UNDER THE BOHEMIAN KING OTAKAR II IN AUSTRIAN LANDS IN THE SECOND HALF OF THE 13TH CENTURY, DAGMAR GROSSMANNOVÁ (MORAVIAN MUSEUM), TOMÁŠ KREJČÍK (MASARYK UNIVERSITY)
3. DIE ENTWICKLUNG DER STERLINGNACHAHMUNGEN IN WESTFALEN IM 13. UND 14. JAHRHUNDERT), LARS BLUMBERG (DEPARTMENT OF NUMISMATICS AND MONETARY HISTORY AT THE UNIVERSITY OF VIENNA)
4. INFLUENCE OF THE STERLING ZONE ON SILESIAN COINAGE IN THE KWARTNIK PERIOD, DAWID MACIEJCZUK (UNIVERSITY OF WROCŁAW)



**THURSDAY, SEPTEMBER 15, 2022, 14.00-15.30**

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**73. MIDDLE AGES 11. MEDIEVAL MONETARY ECONOMY, CHAIRED BY PETR VOREL (UNIVERSITY OF PARDUBICE)**

1. THE SECRETS OF EMERGENCY DEBASEMENTS, ROGER SVENSSON (IFN)
2. TYPOLOGICAL AND METALLURGICAL ANALYSIS OF BOHEMIAN AND POLISH COINS FROM THE DĘBRZNIK HOARD, PAWEŁ MILEJSKI (OSSOLIŃSKI NATIONAL INSTITUTE), LUKÁŠ KUČERA (DEPARTMENT OF ANALYTICAL CHEMISTRY, FACULTY OF SCIENCE, PALACKY UNIVERSITY)
3. WHEN SMALL CHANGE WAS NOT A BIG PROBLEM, ANDREAS WESTERMARK (SVERIGES RIKSBANK), ROGER SVENSSON (IFN)

**THURSDAY, SEPTEMBER 15, 2022, 16.00-17.30**

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**74. MIDDLE AGES 12. ASIA, CHAIRED BY HELEN WANG (BRITISH MUSEUM)**

1. ⊖CHINESE SILVER INGOTS FOUND IN 10TH CENTURY SHIPWRECK, LYCE JANKOWSKI (MUSÉE ROYAL DE MARIEMONT)
2. ⊖TURKISH SULTANS OF BENGAL AND SELJUK SULTANS OF RUM: MOVEMENT OF MOTIFS, LEGEND, CALLIGRAPHY ON COINS, SUTAPA SINHA (UNIVERSITY OF CALCUTTA, INDIA)
3. NUMISMATIC EVIDENCE FOR A BRIEF RESTORATION OF ROYAL POWER IN ARMENIA IN THE 15TH CENTURY: A PRELIMINARY NOTE, ARAM VARDANYAN (NATIONAL ACADEMY OF SCIENCES)

**FRIDAY, SEPTEMBER 16, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL D – MEDIEVAL & MODERN**

**75. LATE MIDDLE AGES. EUROPE, CHAIRED BY MARCUS PHILLIPS (INDEPENDENT RESEARCHER)**

1. ⊖TRANSYLVANIA, A FORTRESS OF JOHN HUNYADI'S COINAGE AND MONETARY POLICIES IN THE MID-15TH CENTURY, PAUL GABRIEL DUMITRACHE (HERITAGE AND COMMUNITY DEVELOPMENT ASSOCIATION)
2. TRADE ROADS IN THE LIGHT OF THE MOLDOVAN MONETARY FINDS, LILIA DERGACIOVA (LIBRARY OF THE ROMANIAN ACADEMY, NUMISMATIC DEPARTMENT)
3. THE EARLY COINAGE OF MIRCEA THE ELDER, CRISTIANA TĂTARU (NATIONAL HISTORY MUSEUM OF ROMANIA)
4. DEAD MAN'S CHEST – PURSE OF MEDIEVAL SILVER COINS FROM ROYAL DANISH SHIPWRECK REVEALED BY X-RAY  $\mu$ CT SCANNING, GITTE INGVARSDON (HISTORICAL MUSEUM AT LUND UNIVERSITY)



**FRIDAY, SEPTEMBER 16, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL D – MEDIEVAL & MODERN**

**76. MEDIEVAL AND MODERN TIMES 1. THE COINAGE AND PAPER CURRENCY OF MEDIEVAL AND EARLY-MODERN JAPAN, ORG. AND CHAIRED BY HISASHI TAKAGI (OSAKA UNIVERSITY OF ECONOMICS)**

1. THE COINAGE AND PAPER CURRENCY OF MEDIEVAL AND EARLY-MODERN JAPAN, HISASHI TAKAGI (OSAKA UNIVERSITY OF ECONOMICS), SHIN'ICHI SAKURAKI (ASAHI UNIVERSITY), YASUSHI KOGA (KYUSHU SANGYO UNIVERSITY), DAISHI CHIEDA (DOHO UNIVERSITY)
2. JAPANESE COINS IN THE NATIONAL MUSEUM OF DENMARK, SHIN'ICHI SAKURAKI (ASAHI UNIVERSITY)
3. RETHINKING THE DEFINITION OF BITA, A SUBCATEGORY OF BRONZE COINAGE IN 16TH-CENTURY JAPAN, HISASHI TAKAGI (OSAKA UNIVERSITY OF ECONOMICS)
4. YAMADA HAGAKI (山田羽書: AN INVESTIGATION OF JAPAN'S OLDEST PRIVATE PAPER CURRENCY, DAISHI CHIEDA (DOHO UNIVERSITY)
5. COMPETITION BETWEEN PAPER MONEYS: A CASE OF JAPANESE EARLY MODERN LOCAL ECONOMY, YASUSHI KOGA (KYUSHU SANGYO UNIVERSITY)

**FRIDAY, SEPTEMBER 16, 2022, 14.00-15.30**

**AUDYTORIUM MAXIMUM, HALL D – MEDIEVAL & MODERN**

**77. MEDIEVAL AND MODERN TIMES 2. MONETA SACRA, CHAIRED BY CECILIA VON HEIJNE (NATIONAL HISTORICAL MUSEUMS SWEDEN)**

1. ⊖MONETARY DEPOSITS IN GRAVES (VAUD, SWITZERLAND): BELIEFS AND FUNERARY PRACTICES IN THE MIDDLE AGES, CARINE RAEMY TOURNELLE (MUSÉE CANTONAL D'ARCHÉOLOGIE ET D'HISTOIRE)
2. THE COINS OF THE CLUNY HOARD (FRANCE, 12TH CENTURY), VINCENT BORREL (CNRS), MARC BOMPAIRE (EPHE/CNRS--CENTRE ERNEST BABELON), ARIANNA D'OTTONE RAMBACH (ISTITUTO ITALIANO DI STUDI ORIENTALI), MARC PARVÉRIE (EDUCATION NATIONALE), GUILLAUME SARAH (CNRS-CENTRE ERNEST BABELON)
3. COIN FINDS IN CHURCHES: THE CASE OF HEITENRIED/ST. MICHAEL (FRIBOURG, SWITZERLAND), ANNE-FRANCINE AUBERSON (SWISS INVENTORY OF COIN FINDS)
4. ⊖WHY WERE COINS PLACED ON BELLS?, STEFANO LOCATELLI (THE ITALIAN ACADEMY FOR ADVANCED STUDIES IN AMERICA / COLUMBIA UNIVERSITY)



**FRIDAY, SEPTEMBER 16, 2022, 16.00-17.30**

**AUDYTORIUM MAXIMUM, HALL D – MEDIEVAL & MODERN**

**78. MODERN TIMES 1. CENTRAL EUROPE, CHAIRED BY FRANK BERGER (HISTORISCHES MUSEUM FRANKFURT)**

1. THE GOLDEN AGE OF POLISH COINS IN HUNGARY DURING THE OTTOMAN ERA, ZSOLT DEZSŐ NAGY (DAMJANICH JÁNOS MUSEUM)
2. SWISS COINS IN CIRCULATION AT THE IMPERIAL COURT IN PRAGUE IN THE EARLY 17TH CENTURY, PETR VOREL (UNIVERSITY OF PARDUBICE)
3. MONETARY CIRCULATION IN SILESIA BETWEEN THE STATE BANKRUPTCY AND THE REFORM OF LEOPOLD I: THE EVIDENCE OF THE GŁOGÓW HOARD, MARZENA GROCHOWSKA-JASNOS (MUZEUM ARCHEOLOGICZNO-HISTORYCZNE W GŁOGOWIE)
4. COPPER AS A MINTING METAL IN THE EARLY MODERN PERIOD: THE SPECIAL IMPACT OF WESTPHALIA, STEFAN KÖTZ (COIN CABINET OF THE LWL MUSEUM OF ART AND CULTURE / WESTPHALIAN STATE MUSEUM, MÜNSTER, GERMANY)

**MONDAY, SEPTEMBER 12, 2022, 9.00-10.30**

**OLD LIBRARY, HALL 115-116 – MODERN TIMES**

**79. MODERN TIMES 2. WESTERN EUROPE, CHAIRED BY MARTIN ALLEN (FITZWILLIAM MUSEUM, UNIVERSITY OF CAMBRIDGE)**

1. THE ENGRAVERS OF JAMES VI'S 9TH SCOTTISH COINAGE (1605-9), CAMERON MACLEAN (THE UNIVERSITY OF GLASGOW)
2. FOR 'CHANGE AND CHARITIE' OR POWER AND PROFIT? AN OVERVIEW OF BRITISH 17TH-CENTURY TRADE TOKENS, LAURA BURNETT (UNIVERSITY OF EXETER)
3. LES OUTILS MONÉTAIRES D'AUGUSTIN DUPRÉ POUR LE FRANC, LAURENT SCHMITT (SFN, SENA, CEN, ANS, BNS, SNRB, ÖNG, SHN, ADE, ADF), XAVIER BOURBON (SFN, SENA, ADF), PHILIPPE THÉRET (SFN, SENA, ADF)
4. REAL FAKE. RESEARCH ON EMERGENCY COINAGE IN THE NETHERLANDS, JAN PELSDONK (TEYLERS MUSEUM)

**MONDAY, SEPTEMBER 12, 2022, 11.00-12.30**

**OLD LIBRARY, HALL 115-116 – MODERN TIMES**

**80. MODERN TIMES 3. EUROPE AND COLONIES, CHAIRED BY JÉRÔME JAMBU (UNIVERSITÉ DE LILLE / CNRS)**

1. MODERN COINS UNDER THREAT: AN ITALIAN PRISONER PROSECUTED BY THE ALLIED GOVERNMENT IN SICILY (1943), ANTONINO CRISÀ (GHENT UNIVERSITY, DEPARTMENT OF ARCHAEOLOGY)
2. THE OTTOMAN CAMPAIGN OF 1595 IN WALLACHIA – NUMISMATIC EVIDENCE, MARIUS BLASKÓ (INSTITUTUL DE ARHEOLOGIE "VASILE PÂRVAN"), EUGEN NICOLAE (INSTITUTUL DE ARHEOLOGIE "VASILE PÂRVAN")





3. MONEY PLURALITY IN THE EARLY MODERN COLONIAL CONTEXT: THE MASCARENE ISLANDS' CASE, JULIETTE FRANCOISE (UNIVERSITY OF GENEVA / UNIVERSITY PARIS 1 PANTHÉON-SORBONNE)

**MONDAY, SEPTEMBER 12, 2022, 14.00-15.30**

**OLD LIBRARY, HALL 115-116 – MODERN TIMES**

**81. MODERN TIMES 4. MONETARY SOVEREIGNTY IN THE UNITED STATES: 18TH AND 19TH CENTURIES, ORG. AND CHAIRED BY JESSE KRAFT (AMERICAN NUMISMATIC SOCIETY)**

1. A DESIRE FOR MONETARY SOVEREIGNTY: THE CIRCULATION OF FOREIGN COINAGE IN THE UNITED STATES IN THE 18TH AND 19TH CENTURIES, JESSE KRAFT (AMERICAN NUMISMATIC SOCIETY)
2. IMAGE AND REPUBLICAN SOVEREIGNTY: NEGOTIATING THE NUMISMATIC ICONOGRAPHY OF THE EARLY AMERICAN REPUBLIC, DOUGLAS MUDD (AMERICAN NUMISMATIC SOCIETY)
3. LADY LIBERTY AS A SYMBOL OF UNITED STATES SOVEREIGNTY, MARY N. LANNIN (AMERICAN NUMISMATIC SOCIETY)
4. TRADING DOLLARS: INTERNATIONAL MONETARY CONFERENCES AND AMERICAN MONETARY POLITICS, 1867-1896, JONAH ESTESS (AMERICAN UNIVERSITY)

**MONDAY, SEPTEMBER 12, 2022, 16.00-17.30**

**OLD LIBRARY, HALL 115-116 – MODERN TIMES**

**82. MODERN TIMES 5. CONTEMPORARY COINS & NOTES (19<sup>TH</sup>-21<sup>ST</sup> CENTURIES), CHAIRED BY JESSE KRAFT (AMERICAN NUMISMATIC SOCIETY)**

1. MAKING SMALL CHANGE WITHOUT A MINT: THE CUT COINS OF THE FRENCH WEST INDIES (LATE 18TH C.-EARLY 19TH C.), JÉRÔME JAMBU (UNIVERSITÉ DE LILLE)
2. INFRINGING HOLLAND GOLD DUCATS IN THE RUSSIAN EMPIRE, IVAN SINTCHOUK (INDEPENDENT RESEARCHER)
3. CUBAN COMPLEMENTARY NOTES, TOM HOCKENHULL (BRITISH MUSEUM), ZOREIDI SOLORZANO ARIAS (NUMISMATIC MUSEUM)

**TUESDAY, SEPTEMBER 13, 2022, 9.00-10.30**

**OLD LIBRARY, HALL 115-116 – MEDALS**

**83. MEDALS 1. FEMALE RULERSHIP & ROYAL REPRESENTATION ON MEDALS FROM 17TH TO 18TH CENTURY, ORG.: YLVA HAIDENTHALLER (LUND UNIVERSITY) AND ANNA LÖRNITZO (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN), CHAIRED BY YLVA HAIDENTHALLER**

1. THE NORDIC MINERVA AND HER MEDALS: QUEEN CHRISTINA'S ICONOGRAPHIC STRATEGIES DURING HER REIGN IN SWEDEN, YLVA HAIDENTHALLER (LUND UNIVERSITY)



2. LES MEDAILLES DE LA REINE ANNE, 1702-1714, THOMAS COCANO (SAPRAT, EPHE – PSL)
3. KING AND MOTHER. POLITICS AND GENDER ASPECTS ON MEDALS OF EMPRESS MARIA THERESA (R. 1740-1780), ANNA LÖRNITZO (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN)

**TUESDAY, SEPTEMBER 13, 2022, 11.00-12.30**

**OLD LIBRARY, HALL 115-116 – MEDALS**

**84. MEDALS 2. POLAND, CHAIRED BY TOM HOCKENHULL (BRITISH MUSEUM)**

1. HOLDING, HANDLING, FLIPPING: REMARKS ON THE PERCEPTION OF MEDALS (15TH TO 17TH CENTURIES), AGNIESZKA SMOŁUCHA-SŁADKOWSKA (NATIONAL MUSEUM IN KRAKÓW)
2. THE LIFE OF MARIA KLEMENTYNA SOBIESKA-STUART (1702-1735) WRITTEN IN MEDALS AND THEIR SYMBOLIC MEANINGS, FRANCESCA CECI (MUSEI CAPITOLINI), JAROSLAW PIETRZAK (UNIWERSYTET PEDAGOGICZNY KRACOWIE)
3. THE PRIZE MEDALS OF THE STANISLAUS II AUGUSTUS REIGN, JULIUSZ ZACHER (THE ROYAL CASTLE IN WARSAW – MUSEUM)
4. POLISH EMIGRATION MEDALS BETWEEN THE NOVEMBER UPRISING AND THE JANUARY UPRISING (1831-1862), WITOLD GARBACZEWSKI (THE NATIONAL MUSEUM IN POZNAŃ)

**TUESDAY, SEPTEMBER 13, 2022, 15.00-16.30**

**OLD LIBRARY, HALL 115-116 – MEDALS**

**85. MEDALS 3. EUROPE, CHAIRED BY AGNIESZKA SMOŁUCHA-SŁADKOWSKA (NATIONAL MUSEUM IN KRAKÓW)**

1. PLAGUES, EPIDEMIC DISEASES AND NATURAL DISASTERS THROUGH PAPAL MEDALS, ELEONORA GIAMPICCOLO (VATICAN APOSTOLIC LIBRARY)
2. CURRENT RESEARCH ON MEDALLIC ART IN GERMANY, JOHANNES EBERHARDT (MÜNZKABINETT DER STAATLICHEN MUSEEN ZU BERLIN)
3. THE LLOYD'S MEDAL FOR SAVING LIFE AT SEA, TOM HOCKENHULL (BRITISH MUSEUM)

**WEDNESDAY, SEPTEMBER 14, 2022, 9.00-10.30; 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL C – DIE STUDIES**

**86. DIE STUDIES 1. 21ST CENTURY APPROACHES TO DIE STUDIES, ORG.: LUCIA CARBONE (AMERICAN NUMISMATIC SOCIETY), LIV M. YARROW (CUNY, GRADUATE CENTER), CAROLINE CARRIER (ENS-LYON); CHAIRED BY LUCIA CARBONE**

1. DEVELOPMENTS IN THE COMPUTER-AIDED DIE STUDY (CADS), ZACHARY TAYLOR (AMERICAN NUMISMATIC SOCIETY)



2. THE ROMAN REPUBLICAN DIE PROJECT (RRDP): HISTORY AND METHODOLOGY, LUCIA FRANCESCA CARBONE (AMERICAN NUMISMATIC SOCIETY), LIV MARIAH YARROW (BROOKLYN COLLEGE, CUNY), ALICE SHERPLESS (AMERICAN NUMISMATIC SOCIETY)
3. INTEGRATING DIE STUDIES INTO THE ROMAN REPUBLICAN KNOWLEDGE GRAPH, ETHAN GRUBER (AMERICAN NUMISMATIC SOCIETY)
4. THE ONLINE DIE STUDY DATABASE OF THE ERC « SILVER », CAROLINE CARRIER (ÉCOLE NORMALE SUPÉRIEURE DE LYON)
5. 21ST CENTURY APPROACHES TO DIE STUDIES: WHAT ROLE CAN AN INSTITUTION LIKE THE BNF PLAY?, JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE)
6. THE ROMAN REPUBLICAN DIE PROJECT (RRDP): PRELIMINARY FINDINGS, LUCIA FRANCESCA CARBONE (AMERICAN NUMISMATIC SOCIETY), LIV MARIAH YARROW (BROOKLYN COLLEGE, CUNY), ALICE SHARPLESS (AMERICAN NUMISMATIC SOCIETY)
7. BRONZE COINS BETWEEN MAGNESIA AND MACEDON: A NEW DIE STUDY OF THE COINAGES OF EASTERN MOUNT OSSA (THESSALY, GREECE), ANNA MAGDALENA BLOMLEY (UNIVERSITY OF OXFORD)
8. WILLIAM TAYLOR AND THE FIRST COINAGE OF THE REPUBLIC OF LIBERIA, BILL DALZELL (CNG, LLC)

**WEDNESDAY, SEPTEMBER 14, 2022, 9.00-10.30**

**AUDYTORIUM MAXIMUM, HALL D – EXONUMIA**

**87. EXONUMIA 1. ANCIENT AND BYZANTINE WEIGHTS: FROM DATABASES TO HISTORICAL ANTHROPOLOGY, ORG.: CHARLES DOYEN (UCLouvain / FNRS) AND PIERRE CHARREY (UCLouvain / FNRS), CHAIRED BY CHARLES DOYEN**

1. NEW TRENDS IN THE HISTORY OF WEIGHTS AND MEASURES: THE LEGACY OF WITOLD KULA'S HISTORICAL METROLOGY, GRÉGORY CHAMBON (EHESS)
2. FOR GOOD MEASURE: THE CONTROL OF MEASURING INSTRUMENTS IN THE ANCIENT GREEK MARKET, LOUISE WILLOCX (UCLouvain)
3. ON THE SCALE OF THE EMPIRE: WEIGHTS DESIGN AND LATE ROMAN IDEOLOGY (4TH-8TH C.), PIERRE CHARREY (UCLouvain / FNRS)
4. ⊖WEIGHING AFTER DEATH: EARLY MEDIEVAL SCALES AND WEIGHTS IN A FUNERARY CONTEXT, BENDEGUZ TOBIAS (AUSTRIAN ACADEMY OF SCIENCES)



**WEDNESDAY, SEPTEMBER 14, 2022, 11.00-12.30**

**AUDYTORIUM MAXIMUM, HALL D – EXONUMIA**

**88. EXONUMIA 2. COIN WEIGHTS & TOKENS, CHAIRED BY CHARLES DOYEN (UCLouvain / FNRS)**

1. THE REUSE OF ROMAN COINS IN THE ISLAMIC WORLD, FEDERICA GIGANTE (UNIVERSITY OF OXFORD), JEROME MAIRAT (UNIVERSITY OF OXFORD)
2. FINDING THE 'MISSING PIECES': LATE MEDIEVAL AND RENAISSANCE COIN WEIGHTS FROM ENGLAND AND WALES, MURRAY ANDREWS (KULTURHISTORISK MUSEUM / UNIVERSITY OF OSLO)
3. BARCELONA, CENTER OF PRODUCTION OF MONETARY SCALES (18TH-19TH CENTURIES), ALBERT ESTRADA-RIUS (GABINET NUMISMÀTIC DE CATALUNYA / MUSEU NACIONAL D'ART DE CATALUNYA)
4. THE MAJORCAN CHURCH LEAD TOKENS: A NUMISMATIC SYSTEM TO CONTROL PRIEST PRESENCE DURING MASS, JAUME BOADA-SALOM (SOCIETAT CATALANA D'ESTUDIS NUMISMÀTICS)

**WEDNESDAY, SEPTEMBER 14, 2022, 9.00-10.30**

**OLD LIBRARY, HALL 115-116 – MODERN TECHNOLOGIES & DATA BASES**

**89. MODERN TECHNOLOGIES IN NUMISMATICS, CHAIRED BY KEVIN BUTCHER (UNIVERSITY OF WARWICK)**

1. ADHERING TO A WEIGHT STANDARD IN ANCIENT COINAGE BASED ON THE EXAMPLE OF CISTOPHORI, WOLFGANG BRETZ (RUHR UNIVERSITY BOCHUM INSTITUTE OF ARCHAEOLOGICAL STUDIES), BAERBEL MORSTADT (RUHR UNIVERSITY BOCHUM INSTITUTE OF ARCHAEOLOGICAL STUDIES)
2. COMPARATIVE METAL ANALYSES OF ORIGINAL AND COUNTERFEIT ANCIENT COINS – SOME EXAMPLES FROM BULGARIA, MARINA DOYCHINOVA (REGIONAL HISTORY MUSEUM OF SOFIA)
3. USING MODERN TECHNOLOGIES FOR THE 3D VIZUALIZATION OF THE ROMAN IMPERIAL COINS, KLARA BURIANOVA (DEPARTMENT OF AUXILIARY SCIENCES OF HISTORY AND ARCHIVAL STUDIES, PHILOSOPHICAL FACULTY, UNIVERSITY OF HRADEC KRALOVE)
4. RE-IMAGINING THROUGH RE-IMAGING: RTI HELPING US SEE MUSEUM COLLECTIONS IN A NEW LIGHT, ELIZABETH BENGE (THE ART INSTITUTE OF CHICAGO)

**WEDNESDAY, SEPTEMBER 14, 2022, 11.00-12.30**

**OLD LIBRARY, HALL 115-116 – MODERN TECHNOLOGIES & DATA BASES**

**90. NUMISMATIC DATABASES, CHAIRED BY ETHAN GRUBER (AMERICAN NUMISMATIC SOCIETY)**

1. NUMISTA: BUILDING A COLLABORATIVE UNIVERSAL NUMISMATIC DATABASE, XAVIER ROGÉ (NUMISTA), ANDREI JIPA (ETH ZÜRICH)



2. FROM CLOSED CATALOGUES INTO LINKED OPEN NUMISMATIC DATA IN FINLAND, ELJAS OKSANEN (UNIVERSITY OF HELSINKI), FRIDA EHRNSTEN (NATIONAL MUSEUM OF FINLAND), HEIKKI RANTALA (AALTO UNIVERSITY)
3. THE COIN HOARDS OF THE ROMAN REPUBLIC ONLINE DATABASE: REFLECTIONS AND DEVELOPMENT AFTER NINE YEARS, KRIS LOCKYEAR (INSTITUTE OF ARCHAEOLOGY, UCL)

**THURSDAY, SEPTEMBER 15, 2022, 9.00-10.30**

**OLD LIBRARY, HALL 115-116 – COLLECTIONS**

**91. COLLECTIONS 1, CHAIRED BY ADAM DEGLER (OSSOLIŃSKI NATIONAL INSTITUTE)**

1. THE NUMISMATIC COLLECTION OF FRANCESCO CAPRANESI: THE COINS OF THE ALLIES DURING THE SOCIAL WAR, SIMONE CAPPELLACCI
2. THE COLLECTION OF SILVER ORIENTAL COINS STORED IN THE ODESSA ARCHAEOLOGICAL MUSEUM, DMYTRO YANOV (ODESSA ARCHAEOLOGICAL MUSEUM OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE)
3. CHARLES PHILIPPE DE BOSSET'S COIN COLLECTION IN THE BRITISH MUSEUM, AMELIA DOWLER (BRITISH MUSEUM)
4. DIES AND PUNCHES FROM THE ROYAL MINT - A NEW COLLECTION AT KBR (ROYAL LIBRARY OF BELGIUM), FRAN STROOBANTS (ROYAL LIBRARY OF BELGIUM)

**THURSDAY, SEPTEMBER 15, 2022, 11.00-12.30**

**OLD LIBRARY, HALL 115-116 – COLLECTIONS**

**92. COLLECTIONS 2, CHAIRED BY PAWEŁ GOŁYŹNIAK (JAGIELLONIAN UNIVERSITY)**

1. POLISH COINS AND MEDALS AT THE AMERICAN NUMISMATIC SOCIETY, DAVID HILL (AMERICAN NUMISMATIC SOCIETY)
2. HISTORY OF COLLECTING: PARALLEL LIVES OF SAMUEL-JEAN POZZI AND FENERLY BEY, MARY LANNIN (AMERICAN NUMISMATIC SOCIETY)
3. POSSIBILITIES AND LIMITS OF PROVENANCE RESEARCH IN NUMISMATICS, CHRISTIAN STOESS (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT)

**THURSDAY, SEPTEMBER 15, 2022, 14.00-15.30**

**OLD LIBRARY, HALL 115-116 – COLLECTIONS**

**93. HISTORY OF COLLECTING, CHAIRED BY DANIELA WILLIAMS (AUSTRIAN ACADEMY OF SCIENCES)**

1. CENTURIES OF COIN-COLLECTING IN LOWER AUSTRIA. A) THE CANONRY KLOSTERNEUBURG 1700-1970, EDITH SPECHT (CHORHERRENSTIFT KLOSTERNEUBURG)



2. CENTURIES OF COIN-COLLECTING IN LOWER-AUSTRIA. B) THE CANONRY OF KLOSTERNEUBURG 1970-2010, WOLFGANG SZAIVERT (DEPARTMENT OF NUMISMATICS AND MONETARY HISTORY)
3. CENTURIES OF COIN COLLECTING IN LOWER AUSTRIA. C) FUTURE AVAILABILITY OF DATA MATERIAL, MARTIN BAER (THE STATE COLLECTIONS OF LOWER AUSTRIA)
4. A DATABASE OF COIN COLLECTORS: THE PROJECT NUMISMATES, THOMAS FAUCHER (CENTRE D'ÉTUDES ALEXANDRINES, CNRS)

**THURSDAY, SEPTEMBER 15, 2022, 16.00-17.30**

**OLD LIBRARY, HALL 115-116 – COLLECTIONS**

**94. COLLECTIONS, GALLERIES, EXHIBITIONS, CHAIRED BY MICHAEL ALRAM (AUSTRIAN ACADEMY OF SCIENCES)**

1. CURATING YALE'S NEW GALLERY OF NUMISMATICS, BENJAMIN HELLINGS (YALE UNIVERSITY ART GALLERY)
2. INFLATION – A GERMAN TRAUMA? A MUSEUM EXHIBITION ON THE OCCASION OF THE HYPERINFLATION OF 1923, FRANK BERGER (HISTORISCHES MUSEUM FRANKFURT)
3. REALLY BIG MONEY: THE DEVELOPMENT OF THE SMITHSONIAN'S NEW MONEY GALLERY FOR CHILDREN, ELLEN FEINGOLD (SMITHSONIAN INSTITUTION)

**FRIDAY, SEPTEMBER 16, 2022, 9.00-10.30**

**OLD LIBRARY, HALL 115-116 – MISCELLANEA**

**95. COLLECTING, ROBBING AND FAKING, CHAIRED BY CLIVE STANNARD (UNIVERSITY OF WARWICK)**

1. THE 1831 THEFT AT THE BIBLIOTHEQUE ROYALE, PAUL FROMENT (BIBLIOTHEQUE NATIONALE DE FRANCE)
2. YAKI-NAOSHI (焼き直し): HOW A 19TH CENTURY CRAZE FOR EAST ASIAN ARTS PROPELLED IMITATION TOKUGAWA COINAGE INTO NUMISMATIC COLLECTIONS WORLDWIDE, EMILY PEARCE SEIGERMAN (YALE UNIVERSITY ART GALLERY)
3. FRANCESCO GNECCHI AND THE "IMPRONTE EX VATICANE", DANIELA WILLIAMS (AUSTRIAN ACADEMY OF SCIENCES)

**FRIDAY, SEPTEMBER 16, 2022, 11.00-12.30**

**OLD LIBRARY, HALL 115-116 – MISCELLANEA**

**96. GRAFFITI ON MONEY: CULTURAL PRACTICES FROM ANCIENT TO MODERN TIMES, ORG.: ELISABETH GÜNTHER (UNIVERSITÄT TRIER) AND SUSANNE BÖRNER (UNIVERSITÄT HEIDELBERG), CHAIRED BY ELISABETH GÜNTHER**

1. GRAFFITI ON MONEY – THEORETICAL CONSIDERATIONS, ELISABETH GÜNTHER (UNIVERSITÄT TRIER)



2. MORE THAN JUST A SCRATCH. ON THE SIGNIFICANCE OF GRAFFITI ON ROMAN GOLD COINS, FRIEDERIKE STAHLKE (HEIDELBERG UNIVERSITY)
3. NOT ONLY POSTUMUS. ROMAN AND BYZANTINE GOLD COINS WITH GRAFFITI IN THE COLLECTION OF THE OSSOLINEUM, ADAM DEGLER (OSSOLIŃSKI NATIONAL INSTITUTE)
4. GRAFFITI ON CHINESE CURRENCY. IMAGES - TEXTS - CONTEXTS, DUODUO ZHANG (IHAC)

**FRIDAY, SEPTEMBER 16, 2022, 14.00-15.30**

**OLD LIBRARY, HALL 115-116 – MISCELLANEA**

**97. COINING TECHNIQUES, CHAIRED BY THOMAS FAUCHER (CENTRE D'ÉTUDES ALEXANDRINES, CNRS)**

1. FROM COPPER TO COINS: THE TECHNOLOGICAL SKILLS OF AN ANCIENT MANUFACTURING PROCESS, ALEXANDRE BODET (INSTITUT DE RECHERCHE EN ARCHEOMATÉRIAUX-CENTRE DE RECHERCHE EN PHYSIQUE APPLIQUÉE À L'ARCHÉOLOGIE / UNIVERSITÉ BORDEAUX MONTAIGNE)
2. FLAN FABRICATION AND MINTING PREPARATION FOR COPPER ALLOY COINS IN ANTIQUITY, JEAN HOURMOUZADIS (MÜNZKABINETT BERLIN), NIKOLAI ILIEFF (MÜNZKABINETT BERLIN)
3. THE SLOW BUT STEADY DIFFUSION OF MINTING PRESSES IN THE 16TH CENTURY, JOS BENDERS (NTNU & KU LEUVEN)

**MONDAY, SEPTEMBER 12, 2022, 9.00-10.30; 11.00-12.30**

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

1. RT NUMISMATICS IN A DIGITAL WORLD, ORG. AND MODERATOR: ANDREW MEADOWS (ASHMOLEAN MUSEUM, OXFORD)

**LIST OF PANELISTS:**

1. ETHAN GRUBER
2. KARSTEN TOLLE, DAVID WIGG WOLF
3. ULRIKE PETER
4. FRÉDÉRIQUE DUYPAT, JULIEN OLIVIER
5. BERNHARD WEISSER
6. PERE PAU RIPOLLÈS
7. JEROME MAIRAT
8. CLARE ROWAN
9. CHARLES DOYEN
10. ANDREW MEADOWS



**MONDAY, SEPTEMBER 12, 2022, 14.00-15.30**  
**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

- 2. THE COIN HOARDS OF THE ROMAN EMPIRE PROJECT - 10 YEARS ON! UNUM FIAT EX PLURIBUS, ORG.: CRISTIAN GAZDAC (ASHMOLEAN MUSEUM OXFORD), CHRISTOPHER HOWGEGO (ASHMOLEAN MUSEUM OXFORD), MARGUERITE SPOERRI-BUTCHER (ASHMOLEAN MUSEUM OXFORD), MODERATOR: CRISTIAN GAZDAC**

**LIST OF PANELISTS:**

1. CRISTIAN GAZDAC
2. CHRISTOPHER HOWGEGO
3. MARGUERITE SPOERRI-BUTSCHER
4. ARKADIUSZ DYMOWSKI
5. MARIANGELA PUGLISI
6. RAHEL ACKERMAN
7. VARBYN VARBANOV
8. ISTVAN VIDA

**MONDAY, SEPTEMBER 12, 2022, 16.00-17.30**  
**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

- 3. PUBLISHING CATALOGUES IN MEDIEVAL NUMISMATICS: BEST PRACTICE IN THE INTERNET AGE, ORG. AND MODERATOR: ELINA SCREEN (FITZWILLIAM MUSEUM, UNIVERSITY OF CAMBRIDGE)**

**LIST OF PANELISTS:**

1. RORY NAISMITH
2. ELINA SCREEN
3. MATEUSZ BOGUCKI
4. ADRIAN POPESCU

**TUESDAY, SEPTEMBER 13, 2022, 9.00-10.30; 11.00-12.30**  
**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

- 4. TOWARDS A NEW PARADIGM FOR COIN CIRCULATION WITHIN THE ROMAN EMPIRE, ORG. AND MODERATOR: LIESBETH CLAES (LEIDEN UNIVERSITY)**

**LIST OF PANELISTS:**

1. LIESBETH CLAES
2. ANDREW BROWN
3. ALESSANDRO BONA
4. ANDREA CASOLI
5. JOHAN VAN HEESCH
6. SUZANNE FREY-KUPPER
7. MARKUS PETER





**TUESDAY, SEPTEMBER 13, 2022, 15.00-16.30; 17.00-18.30**

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**5. ENTANGLED EXCHANGES: MONEY, COINAGE AND COLONIAL PROJECTS, ORG. AND MODERATOR: FLEUR KEMMERS (GOETHE UNIVERSITY FRANKFURT AM MAIN), NANOUSCHKA MYRBERG BURSTRÖM (STOCKHOLM UNIVERSITY)**

**LIST OF PANELISTS:**

1. FEUR KEMMERS
2. JOHN CREIGHTON
3. GEORGIA GALANI
4. RORY NAISMITH
5. FLORENT AUDY
6. NANOUSCHKA MYRBERG BURSTRÖM
7. KARIN PALLAVER
8. MARÍA GABRIELA HUIDOBRO

**WEDNESDAY, SEPTEMBER 14, 2022, 9.00-10.30; 11.00-12.30**

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**6. POMPEII, MINTURNAE, MASSALIA, HISPANIA: NUMISMATIC EVIDENCE FOR WESTERN MEDITERRANEAN TRADE, 200-50 BC, ORG.: CLIVE STANNARD (UNIVERSITY OF WARWICK) AND ALEJANDRO G. SINNER (UNIVERSITY OF VICTORIA, CANADA), MODERATOR: CLIVE STANNARD**

**LIST OF PANELISTS:**

1. ALEJANDRO G. SINNER
2. KOENRAAD VERBOVEN
3. CLIVE STANNARD
4. MARTA BARBATO
5. ALBERT RIBERA I LACOMBA
6. SUZANNE FREY-KUPPER
7. JEAN-ALBERT CHEVILLON
8. GIROLAMO FERDINANDO DE SIMONE
9. MICHELE STEFANILE
10. BARTOLOMÉ MORA SERRANO
11. ALFRED HIRT

**THURSDAY, SEPTEMBER 15, 2022, 9.00-10.30**

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**7. SAMARIAN COINS IN LIGHT OF EARLY INDIGENOUS LEVANTINE COINAGES, ORG. AND MODERATOR: HAIM GITLER (ISRAEL MUSEUM) AND OREN TAL (TEL AVIV UNIVERSITY)**

**LIST OF PANELISTS:**

1. FRANÇOIS DE CALLATAY
2. WOLFGANG FISCHER-BOSSERT
3. DONALD ARIEL
4. KORAY KONUK
5. FRÉDÉRIQUE DUYPAT
6. PETER VAN ALFEN
7. MATI JOHANANOFF

8. NOVELLA VISMARA, ITALY
9. GIL DAVIS
10. JOSETTE ELAYI
11. FRANCIS ALBAREDE
12. PATRICK WYSSMANN
13. MAAYAN COHEN
14. JAROSŁAW BODZEK
15. YOAV FARHI
16. HAIM GITLER
17. OREN TAL

**THURSDAY, SEPTEMBER 15, 2022, 11.00-12.30**  
**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**8. ANCIENT COINS COUNTERFEITS, ORG.: DILYANA BOTEVA-BOYANOVA (SOFIA UNIVERSITY “ST. KLIMENT OHRIDSKI”) AND ILYA PROKOPOV (SOFIA UNIVERSITY “ST. KLIMENT OHRIDSKI”),  
MODERATOR: VALENTINA GRIGOROVA-GENCHEVA (FIRST INVESTMENT BANK / UNIVERSITY OF SOFIA “ST. KLIMENT OHRIDSKI”).**

**LIST OF PANELISTS:**

1. ILYA PROKOPOV
2. DILYANA BOTEVA-BOYANOVA (
3. ARNE KIRSCH
4. JAN KÖSTER

**THURSDAY, SEPTEMBER 15, 2022, 14.00-15.30**  
**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**9. MINIMI, RECICLAJE Y CIRCULACIÓN MONETARIA ENTRE LOS SIGLOS IV-IX D.C., ORG. AND  
MODERATOR: DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)**

**LIST OF PANELISTS:**

1. DAVID MARTÍNEZ CHICO
2. FERNANDO LÓPEZ SÁNCHEZ
3. ÒSCAR CALDÉS AQUILUÉ
4. ALBERTO MARTÍN ESQUIVEL
5. MANUEL CASTRO PRIEGO
6. CAROLINA DOMÉNECH BELDA

**THURSDAY, SEPTEMBER 15, 2022, 16.00-17.30**  
**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**10. LA NUMISMATIQUE ANTIQUE ET MÉDIÉVALE DU MAGHREB – ÉTAT DES LIEUX, ENJEUX ACTUELS,  
ORG. AND MODERATOR: ANTONY HOSTEIN (ECOLE PRATIQUE DES HAUTES ETUDES-PSL, PARIS)**

**LIST OF PANELISTS:**

1. LAURENT CALLEGARIN
2. JÉRÉMY ARTRU
3. ABDELHAMID FENINA
4. VIVIEN PRIGENT
5. RUTH PLIEGO
6. SUZANNE FREY-KUPPER



7. ANTONY HOSTEIN
8. AURÉLIEN ROS, (EPHE)
9. ARNAUD SUSPÈNE (UNIVERSITÉ D'ORLÉANS / CNRS IRAMAT-CEB)
10. ELENA MORENO PULIDO (UNIVERSIDAD DE CÁDIZ)

**FRIDAY, SEPTEMBER 16, 2022, 9.00-10.30**  
**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

- 11. DIGITAL NUMISMATICS AND MUSEUMS: MOVING INTO THE MEDIEVAL AND MODERN PERIODS, ORG.: RAHEL C. ACKERMANN (SWISS INVENTORY OF COIN FINDS), CHRISTIAN WEISS (SWISS NATIONAL MUSEUM), KARSTEN DAHMEN (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT), BENEDIKT ZÄCH (MÜNZKABINETT UND ANTIKENSAMMLUNG DER STADT WINTERTHUR), MODERATOR: BENEDIKT ZÄCH**

**LIST OF PANELISTS:**

1. KARSTEN DAHMEN
2. FRANK VON HAGEL
3. CHRISTIAN WEISS
4. RAHEL C. ACKERMANN

**FRIDAY, SEPTEMBER 16, 2022, 11.00-12.30**  
**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

- 12. PROMOTING NUMISMATICS IN A GLOBALIZED AND DIGITIZED WORLD, ORG.: STEFAN KRMNICEK (UNIVERSITÄT TÜBINGEN) AND SVEN GÜNTHER (NORTHEAST NORMAL UNIVERSITY), MODERATOR: STEFAN KRMNICEK**

**LIST OF PANELISTS:**

1. MARCUS CYRON
2. URSULA KAMPMANN
3. ROBERTA L. STEWART
4. SVEN GÜNTHER

**FRIDAY, SEPTEMBER 16, 2022, 14.00-15.30**  
**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

- 13. FINDING COMMON GROUND IN THE CULTURAL PROPERTY DEBATE, ORG. AND MODERATOR: NATHAN ELKINS (AMERICAN NUMISMATIC SOCIETY) AND UTE WARTENBERG (AMERICAN NUMISMATIC SOCIETY)**

**LIST OF PANELISTS:**

1. NATHAN T. ELKINS
2. UTE WARTENBERG
3. DAVID WIGG-WOLF
4. EVANGELINE MARKOU
5. ANTHONY WISNIEWSKI



**TUESDAY, SEPTEMBER 13, 2022, 14.00-15.00**  
**POSTER SESSION**

### **GREEK WORLD**

1. THE (WINGED) HORSE AS A MOTIF ON COINS FROM CORINTH AND MARONEIA, OLIWIA ULLRICH (UNIVERSITY OF TÜBINGEN)
2. NOTES ON THE COIN EPIGRAPHY OF MAGNA GRAECIA AND SICILY, SARA QUARTARONE (UNIVERSITÀ DEGLI STUDI DI MESSINA)
3. THE COINAGE OF ERYTHRAI AND HISTORIA NUMORUM ONLINE, ERSIN BAKIŞ (ISTANBUL UNIVERSITY)
4. DIACHRONIC AND DIATOPIC ANALYSIS OF A LIN LEMMA: HERMES WITH PETASOS, IVAN CAPARELLI, BENEDETTO CARROCCIO (UNIVERSITÀ DELLA CALABRIA)
5. HELLENISTIC WEIGHTS AND MEASURES IN WESTERN ASIA MINOR (PROPONTIS, TROAS AND AEOLIS), THOMAS LEBLANC (UC LOUVAIN)
6. THE THREE-QUARTER FACING HEADS IN HELLENISTIC CARIAN COINAGE: A SIGN OF SUBMISSION?, MATEUS DA SILVA (UNIVERSIDADE FEDERAL FLUMINENSE)
7. A NEW MEMBER OF THE ANCIENT FALSIFIERS. SILVER COINAGE OF KING BALLAEUS, RENATA CIOŁEK (UNIVERSITY OF WARSAW)
8. NAVAL IMAGERY ON SELEUCID BRONZE COINAGE: THE CURIOUS CASE OF THE CITY OF ANTIOCH, PIM MÖHRING (NATIONAL NUMISMATIC COLLECTION, DE NEDERLANDSCHE BANK)

### **ROMAN AND CELTIC NUMISMATICS**

1. NUMISMATIC DATA ON THE STATUS OF ARTAXATA DURING THE REIGN OF THE ARTAXIAD DYNASTY OF ARMENIA, SERHII LYTOVCHENKO (V. N. KARAZIN KHARKIV NATIONAL UNIVERSITY)
2. SHIPWRECK HOARDS: A GEOGRAPHICAL ASSESSMENT OF COIN ASSEMBLAGES OCCURRING ON SHIPWRECK SITES WITHIN THE MEDITERRANEAN, JOSHUA SMITH (INDEPENDENT RESEARCHER)
3. THE COINS OF NICOPOLIS AD ISTRUM IN THE MEDAGLIERE OF THE VENERANDA BIBLIOTECA AMBROSIANA, GIANCARLO ALTERI (VENERANDA BIBLIOTECA AMBROSIANA), ELEONORA GIAMPICCOLO (VATICAN APOSTOLIC LIBRARY)
4. COINS AND CONQUEST; COIN HOARDING IN BRITAIN 200 BC – AD 96, ANNI BYARD (UNIVERSITY OF LEICESTER / ASHMOLEAN MUSEUM, OXFORD)

5. OBJECTS ASSOCIATED WITH WEIGHING FROM THE ROMAN REPUBLICAN CAMP 'CÁCERES EL VIEJO' (EXTREMADURA, SPAIN), DIEGO BARRIOS RODRÍGUEZ (UNIVERSITY OF SALAMANCA), CRUCES BLÁZQUEZ CERRATO (UNIVERSITY OF SALAMANCA)
6. MONETARY CIRCULATION IN THE MINING AREA TERRITORIA METALLORUM – CASE STUDY OF THE TIMACUM MINUS SITE, MARIJA JOVIĆ (INSTITUTE OF ARCHAEOLOGY IN BELGRADE)
7. HOARD OF ROMAN COINS FROM LUBAWKA IN THE KRUCZE MOUNTAINS. PRELIMINARY ARCHAEOLOGICAL AND NUMISMATIC INTERPRETATION, MATEUSZ MATULA (UNIVERSITY OF WROCŁAW), DAWID MACIEJCZUK (UNIVERSITY OF WROCŁAW), MARCIN BOHR (UNIVERSITY OF WROCŁAW)
8. THE ROMAN HOARD FOUND IN UEKEN IN 2015 (CANTON OF AARGAU, SWITZERLAND), FANNY PUTHOD (SWISS INVENTORY OF COIN FINDS), MARKUS PETER (AUGUSTA RAURICA/UNIVERSITÄT BERN), PIERRE ZANCHI (SWISS INVENTORY OF COIN FINDS)
9. RARE COIN TYPES OF PAUTALIA AND SERDICA, NIKOLAY DIMITROV (SOFIA UNIVERSITY "ST. KLIMENT OHRIDSKI")
10. PRELIMINARY REPORT ON THE VARZI HOARD (PAVIA, NORTHERN ITALY), ALESSANDRO BONA (CATHOLIC UNIVERSITY OF THE SACRED HEART), FLORENCE JEANNE MARIE CAILLAUD (UNIVERSITY OF BOLOGNA), ALESSANDRO CAVAGNA (STATE UNIVERSITY OF MILAN), CECILIA NORFINI (UNIVERSITY OF BOLOGNA), CLAUDIA PERASSI (CATHOLIC UNIVERSITY OF THE SACRED HEART)
11. MANAGING THE TOMARES HOARD WITH NUMISDATA/DÉDALO, ALEJANDRO GARCÍA LIDÓN (UNIVERSITY OF SEVILLA)
12. NOLI, OBSEURO, ISTUM DISTURBARE! LATE ROMAN COIN FORGERIES DISTURBING SCIENTIFIC RESEARCH, LARS RAMSKOLD (INDEPENDENT RESEARCHER)
13. THE ROMAN COIN DIE OF BASILIA / BASEL (CH), MYRIAM CAMENZIND (UNIVERSITY OF BERN), MARKUS PETER (SWISS INVENTORY OF COIN FINDS)
14. MULTIDISCIPLINARY STUDIES OF COUNTERFEIT ROMAN IMPERIAL DENARII FROM BELARUS, VITAL SIDAROVICH (UNIVERSITY OF WARSAW)
15. DISTRIBUTION OF CASTING COPIES OF ROMAN DENOMINATIONS IN THE BARBARICUM TERRITORIES OF SOUTHEAST EUROPE. SOME ASPECTS, OLEH POHORILETS (THE STATE HISTORICAL AND CULTURE RESERVE "MEZHYBIZH"), ALEKSANDR NADVIRNYAK (THE STATE HISTORICAL AND CULTURE RESERVE "MEZHYBIZH")

16. PIXE AND XRF ANALYSIS OF PRODUCTS AND RESIDUES OF PRODUCTION OF CAST COPIES OF ROMAN DENARII IN THE CHERNYAKHIV CULTURE, OLEKSANDR BUHAY (INSTITUTE OF APPLIED PHYSICS, NATIONAL ACADEMY OF SCIENCES OF UKAINE)
17. A HOARD OF SESTERTII AND CHAMPLEVÉ ENAMEL ORNAMENTS FROM THE MYRHOROD (UKRAINE), DMYTRO FILATOV (V.N. KARAZIN KHARKIV NATIONAL UNIVERSITY), KYRYLO MYZGIN (UNIVERSITY OF WARSAW), MARYNA FILATOVA (V.N. KARAZIN KHARKIV NATIONAL UNIVERSITY)
18. A HOARD OF LATE ROMAN BRONZE COINS FROM MOSHNY (CENTRAL UKRAINE) AND ROMAN-BARBARIAN RELATIONS IN THE 4TH CENTURY, MAKSYM LEVADA (INDEPENDENT RESEARCHER)
19. COLLECTIVE COIN HOARDS FROM THE 4TH CENTURY FROM THE TERRITORY OF AVGUSTA TRAIANA/BEROE, MARIANA MINKOVA (REGIONAL MUSEUM OF HISTORY, STARA ZAGORA)

### ORIENTAL NUMISMATICS

1. ⊖THE COINAGE IN KHUZISTAN, ALEXANDER THE GREAT TO THE LAST SASANIANS, MICHAEL STAL (UNIVERSITY OF VIENNA)
2. READING MINTS, YEARS AND NAMES ON EARLY ARAB-SASANIAN SILVER COINS, YNGVE KARLSSON (GOTHENBURG NUMISMATIC SOCIETY)
3. A CLASSICAL REVIVAL IN UPPER MESOPOTAMIA? SOME REMARKS ABOUT SOME ZANGID AND ARTUQID COINAGE, NICOLAS CONSIGLIO (MUSÉE D'ART ET D'HISTOIRE DE NEUCHÂTEL)
4. MONGOL-CAUCASIAN NUMISMATIC HISTORY: NEW DATA ON THE "QARABĀGH" MINT IN THE 1230S AND 1240S, IRAKLI PAGHAVA (G. TSERETELI INSTITUTE OF ORIENTAL STUDIES)

### MEDIEVAL AND MODERN NUMISMATICS

1. 6TH-10TH CENTURY COINS IN THE COLLECTION OF THE GABINET NUMISMÀTIC DE CATALUÑA, MARIA CLUA MERCADAL (GABINET NUMISMÀTIC DE CATALUÑA, MUSEU NACIONAL D'ART DE CATALUNYA)
2. COINAGE IN NINTH-CENTURY NORTHUMBRIA: KINGS & VIKINGS, LUCY MOORE (UNIVERSITY OF YORK)
3. AN UNPROVENANCED EARLY MEDIEVAL HOARD IN THE COLLECTION OF THE OSSOLINEUM, BARBARA BUTENT-STEFANIAK (OSSOLIŃSKI NATIONAL INSTITUTE)



4. THE FIRST 100 YEARS OF THE GOLD FLORIN OF FLORENCE (1252-1351): ANALYSIS AND NEW RESEARCH PERSPECTIVES, MASSIMO DE BENETTI (INDEPENDENT RESEARCHER)
5. PRELIMINARY RESULTS ON EPIGRAPHY, DIES AND VARIETIES OF THE GROS TOURNOIS OF ASTI (PIEDMONT, ITALY), LUCA ODDONE (SOCIO DELLA SOCIETÀ NUMISMATICA ITALIANA / PERITO NUMISMATICO CCIAA ASTI-ALESSANDRIA), ANGELO AGOSTINO (UNIVERSITÀ DEGLI STUDI DI TORINO), MARIA LABATE (UNIVERSITÀ DEGLI STUDI DI TORINO), TIZIANA CASERTA (MUSEO CIVICO D'ARTE ANTICA, PALAZZO MADAMA)
6. COINS OF THE PRINCIPALITY OF KYIV ISSUED BY GRAND PRINCE VLADIMIR OLGERDOVICH, OLGA VENGER (K. D. USHYNSKY SOUTH UKRAINIAN NATIONAL PEDAGOGICAL UNIVERSITY).
7. FOR CITY AND CHURCH; SMALL CHANGE IN LATE MEDIEVAL GELRE, JOS BENDERS (NTNU / KU LEUVEN)
8. TERLINE AND A GOLD DOUBLE DUCAT OF GUGLIELMO IX PALEOLOGO (1512-1513) FOR ASTI MINT (PIEDMONT, ITALY), LUCA ODDONE (SOCIO DELLA SOCIETÀ NUMISMATICA ITALIANA / PERITO NUMISMATICO CCIAA ASTI-ALESSANDRIA)
9. THE COAT OF ARMS OF VOLHYNIA ON COINS OF SIGISMUNDUS II AUGUSTUS, KING OF POLAND, ANDRII VENGER (K. D. USHYNSKY SOUTH UKRAINIAN NATIONAL PEDAGOGICAL UNIVERSITY)
10. ZEICHEN DER FALSCHEN GULDEN – PRINTS FROM THE LATE 15TH CENTURY REPORT ON COUNTERFEIT COINS, AGNES ASPETSBERGER (KUNSTHISTORISCHES MUSEUM WIEN)
11. FROM FLANDERS TO MILAN. A HOARD OF GOLD AND SILVER COINS FROM A 16TH CENTURY MASS GRAVE, ALESSANDRO BONA (CATHOLIC UNIVERSITY OF THE SACRED HEART)
12. MONEY OF THE POOR: NON-STATE COINAGES AND THE CASE OF MID-SEVENTEENTH CENTURY BRITISH TRADE TOKENS, LAURA BURNETT (UNIVERSITY OF EXETER)
13. LANDESMUSEUM HANNOVER - THE RISE OF THE WELF DYNASTY AND ITS REFLECTION IN MEDALS, HÜLYA VIDIN (GOETHE UNIVERSITY FRANKFURT/LANDESMUSEUM HANNOVER)
14. PICTURING EMPEROR FERDINAND I ON MEDALS IN THE FIRST HALF OF THE 19TH CENTURY, ANDREA MAYR (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN, VIENNA)

15. COUNTERFEITER MOLDS FOR CASTING POLISH COINS (1923-1924) FROM LVIV AND ITS REGION, ANDRII BOIKO-HAHARIN (THE NATIONAL BANK OF UKRAINE)

#### GENERAL NUMISMATICS (COLLECTIONS, DIGITAL ETC)

1. COIN HOARDS IN THE VATICAN MEDAGLIERE: AN ATTEMPT AT RECONSTRUCTION, ELEONORA GIAMPICCOLO (VATICAN APOSTOLIC LIBRARY)
2. RISE FROM SLUMBER! THE GOTHA FROM THE FORGOTTEN BAROQUE TO THE DIGITAL COIN CABINET, MARJANKO PILEKIC (MÜNZKABINETT, STIFTUNG SCHLOSS FRIEDENSTEIN GOTHA).
3. THE RECONSTRUCTION OF A LOST PRINCELY COLLECTION AND EARLY DEALINGS IN COINS, SIMONE VOGT (MUSEUM AUGUST KESTNER)
4. BYZANTINE COINS IN THE JOHN MAX WULFING COLLECTION IN ST. LOUIS, ELENA BALDI (WASHINGTON UNIVERSITY)
5. ARCHIVES AND COLLECTIONS OF THE ARCHAEOLOGIST AND NUMISMATIST ADRIEN BLANCHET: A VALORIZATION PROJECT, MARIE-LAURE LE BRAZIDEC (UMR 5608 – TRACES, TOULOUSE)
6. ANCIENT GOLD COINS FROM MARIA AND DR. GEORGE SEVEREANU COLLECTION, DAN PÎRVULESCU (BUCHAREST MUNICIPALITY MUSEUM), AUREL VÎLCU (VASILE PÂRVAN INSTITUTE OF ARCHAEOLOGY / ROMANIAN ACADEMY)
7. AN INNOVATIVE APPROACH TO DISPLAYING A ROMAN COIN HOARD, JENNIFER GLOEDE (NATIONAL MUSEUM OF AMERICAN HISTORY, SMITHSONIAN INSTITUTION)
8. RARE CASH - DIGITIZATION AND PROVISION OF CENTRAL GERMAN COINS FINDS, ANIKA TAUSCHENSKY (STATE OFFICE FOR MONUMENT PRESERVATION AND ARCHAEOLOGY IN SAXONY-ANHALT), VEIT DRESELY (STATE OFFICE FOR MONUMENT PRESERVATION AND ARCHAEOLOGY IN SAXONY-ANHALT), ERIK TROSTMANN (FRAUNHOFER INSTITUTE FOR FACTORY OPERATION AND AUTOMATION)
9. DIGINUMA: DIGITAL SOLUTIONS FOR EUROPEAN NUMISMATIC HERITAGE, ELJAS OKSANEN (UNIVERSITY OF HELSINKI), HEIKKI RANTALA (AALTO UNIVERSITY), EERO HYVÖNEN (AALTO UNIVERSITY)
10. CORPUS NUMMORUM – A DIGITAL RESEARCH INFRASTRUCTURE FOR ANCIENT COINS, ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES), JAN KÖSTER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES), BERNHARD WEISSER (MÜNZKABINETT BERLIN), KARSTEN TOLLE (MÜNZKABINETT BERLIN), CLAUS FRANK (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES)





11. IKMK.NET, KARSTEN DAHMEN (MÜNZKABINETT BERLIN), BERNHARD WEISSER (MÜNZKABINETT BERLIN)
12. MEBIC MILAN COIN CABINET WEBSITE: NUMISMATIC COLLECTION LAGIOIA, GIULIA VALLI (GABINETTO NUMISMATICO E MEDAGLIERE), RODOLFO MARTINI (GABINETTO NUMISMATICO E MEDAGLIERE)
13. NUMISMATIC VISUAL ART PROJECT, OLIVIA DENK (UNIVERSITY OF BASEL)
14. LINKED OPEN DATA AND THE TRANSFORMATION OF COINAGE WEIGHT, JONAS VON FELTEN (SWISS INVENTORY OF COIN FINDS), MYRIAM CAMENZIND (UNIVERSITY OF BERN)
15. ISLAMIC COIN STUDIES USING REFLECTANCE TRANSFORMATION IMAGING AS A NON-DESTRUCTIVE TECHNICAL EXAMINATION OF NUMISMATIC DATA DOCUMENTATION, ALMOATZBELLAH ELSHAHAWI (MINISTRY OF TOURISM AND ANTIQUITIES), ISLAM SHAHEEN (EGYPTIAN MUSEUM, CAIRO), HAMDY ABDULMONEM (THE MUSEUM OF ISLAMIC ART, CAIRO)
16. MODERN COUNTERFEITS OF COMMUNAL PERIOD COINS FROM ASTI MINT (PIEDMONT, ITALY), LUCA ODDONE (SOCIO DELLA SOCIETÀ NUMISMATICA ITALIANA / PERITONUMISMATICO)
17. DEVELOPING A SYSTEMATIC APPROACH FOR THE DETECTION OF ANCIENT COIN COUNTERFEITING, MOHAMMAD RABABAH (TECHNISCHE UNIVERSITÄT BERLIN)





**MONDAY, SEPTEMBER 12, 2022, 9.00-10.30**

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**10. RT NUMISMATICS IN A DIGITAL WORLD, ORG. AND MODERATOR: ANDREW MEADOWS (ASHMOLEAN MUSEUM, OXFORD)**

**LIST OF PANELISTS:**

1. ETHAN GRUBER
2. KARSTEN TOLLE, DAVID WIGG WOLF
3. ULRIKE PETER
4. FRÉDÉRIQUE DUYPAT, JULIEN OLIVIER
5. BERNHARD WEISSER
6. PERE PAU RIPOLLÈS
7. JEROME MAIRAT
8. CLARE ROWAN
9. CHARLES DOYEN
10. ANDREW MEADOWS

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**1. GREECE 1. GENERAL, CHAIRED BY WOLFGANG FISCHER-BOSSERT (AUSTRIAN ACADEMY OF SCIENCES)**

1. COINAGE AND CONSTRUCTION, JOHN MOORING (NATIONAL RESEARCH SCHOOL IN CLASSICAL STUDIES, AMSTERDAM)
2. THE SEARCH FOR ANCIENT SILVER MINES, FRANCIS ALBARÈDE (ENS LYON), JEAN MILOT (ENS LYON), MARKOS VAXEVANOPOULOS (ENS LYON), KATRIN WESTNER (ENS LYON), JANNE BLICHERT-TOFT (ENS LYON)
3. ANCIENT GREEK COIN HOARDS (550-350 BC). DELVING INTO THE ACQUISITIONS OF THE NUMISMATIC MUSEUM, GREECE, GEORGE KAKAVAS (NUMISMATIC MUSEUM, HELLENIC MINISTRY OF CULTURE AND SPORTS), CHARIKLEIA PAPAGEORGIADOU (RESEARCH DIRECTOR, INSTITUTE OF HISTORICAL RESEARCH, NATIONAL HELLENIC RESEARCH FOUNDATION), PANAGIOTIS TSELEKAS (ARISTOTLE UNIVERSITY OF THESSALONIKI, SCHOOL OF HISTORY AND ARCHAEOLOGY)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**21. ANTIQUITY 1. SYRIA & ASIA, CHAIRED BY KLAUS VONDROVEC (KUNSTHISTORISCHES MUSEUM)**

1. PARTHIAN OCCUPATION IN SYRIA: NUMISMATIC EVIDENCE FROM ANTIOCH AND APAMEA, RAZIEH TAASOB (CHARLES UNIVERSITY)
2. THE COINAGE OF THE KINGS ATTAMBELOS IV AND V OF CHARACENE (A.D. 54/5 – 73/4), PATRICK PASMANS (ROYAL NUMISMATIC SOCIETY OF BELGIUM)
3. GRAECO-BACTRIAN GOLD: METAL ANALYSIS OF THE COINS OF THE BIBLIOTHÈQUE NATIONALE DE FRANCE USING LA-ICP-MS, SIMON GLENN (ASHMOLEAN MUSEUM),



JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE), MARYSE BLET-LEMARQUAND (CNRS, IRAMAT-CEB)

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**35. ROME 1. REPUBLIC AND EARLY EMPIRE, CHAIRED BY LIV MARIAH YARROW (BROOKLYN COLLEGE, CUNY)**

1. ΘSHIPS ON REPUBLICAN DENARII FROM THE LATE 2ND CENTURY BC. FAMILY HISTORY AND CURRENT EVENTS, WILHELM HOLLSTEIN (MÜNZKABINETT, STAATLICHE KUNSTSAMMLUNGEN DRESDEN)
2. FROM THE COIN UP: ROMAN IMPERIALISM AND THE NUMISMATIC EVIDENCE, MARSHA MCCOY (SOUTHERN METHODIST UNIVERSITY, DALLAS, TX)
3. THE REPRESENTATION OF SICILY ON ROMAN COINAGE FROM THE REPUBLIC TO AUGUSTUS, MANON LARUE (IRAMAT-CEB / UNIVERSITÉ D'ORLÉANS)
4. MINTING IN THE MIDDLE GROUND: COUNTERFEITED ROMAN COINS IN THE LEMANIC ARC (60-20 BCE), CHARLES PARISOT-SILLON (IRAMAT-CEB / CNRS & UNIVERSITY OF ORLEANS)

**AUDYTORIUM MAXIMUM, HALL C – ROME**

**49. ROME 15. FINDS AND CIRCULATION 2, CHAIRED BY MARKUS PETER (AUGUSTA RAURICA / UNIVERSITÄT BERN / SWISS INVENTORY OF COIN FINDS)**

1. THE ANTONINE DENARII FROM MESOPOTAMIA, EDWARD DANDROW (UNIVERSITY OF CENTRAL FLORIDA)
2. COINS FINDS FROM THE INSULAE 3, 13 AND 15 IN AVENTICUM/AVENCHES (SWITZERLAND), ISABELLA LIGGI ASPERONI (SITE ET MUSÉE ROMAINS AVENCHES)
3. FOUNDATION DEPOSITS IN NORTHERN AND EASTERN GAUL: WHAT POSSIBLE CONTEXTS?, LUDOVIC TROMMENSCHLAGER (DÉPARTEMENT MONNAIES, MÉDAILLES ET ANTIQUES BNF)
4. THE MONETIZATION OF THE RURAL COUNTRYSIDE IN THE GERMAN RHINELAND, RAHEL OTTE (GOETHE-UNIVERSITÄT FRANKFURT A. M.)

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**64. MIDDLE AGES 2. MONETISATION IN MEDIEVAL EUROPE. FORMS, PROCESSES AND TENDENCIES FROM THE 8TH TO THE 13TH CENTURY, ORG.: JOHANNES HARTNER (COIN COLLECTION, MUSEUM OF FINE ARTS, VIENNA) AND RORY NAISMITH (UNIVERSITY OF CAMBRIDGE), CHAIRED BY SVEIN GULBEKK (MUSEUM OF CULTURAL HISTORY, UNIVERSITY OF OSLO) AND RORY NAISMITH**

1. WHO USED SILVER MONEY IN WHICH MARKETS? SOME REFLECTIONS ON HYBRID ECONOMIC FORMS IN 12TH- AND EARLY 13TH-CENTURY PIAST POLAND, DARIUSZ ADAMCZYK (GERMAN HISTORICAL INSTITUTE IN WARSAW)



2. TWO STAGES OF MONETIZATION IN 13TH-CENTURY BOHEMIA: COIN RENEWAL AND DEBASEMENT, ROMAN ZAORAL (CHARLES UNIVERSITY, FACULTY OF HUMANITIES)
3. MONETISATION OF MEDIEVAL EUROPE IN RESEARCH HISTORY, MIKA BOROS (UNIVERSITY OF OSLO)
4. COIN JEWELLERY IN TIMES OF MONETISATION: SCANDINAVIA C. 1000–1300, FLORENT AUDY (NATIONAL HISTORICAL MUSEUMS)

**OLD LIBRARY, HALL 115-116 – MODERN TIMES**

**79. MODERN TIMES 2. WESTERN EUROPE, CHAIRED BY CECILIA VON HEIJNE (NATIONAL HISTORICAL MUSEUMS SWEDEN)**

1. THE ENGRAVERS OF JAMES VI'S 9TH SCOTTISH COINAGE (1605-9), CAMERON MACLEAN (THE UNIVERSITY OF GLASGOW)
2. FOR 'CHANGE AND CHARITIE' OR POWER AND PROFIT? AN OVERVIEW OF BRITISH 17TH-CENTURY TRADE TOKENS, LAURA BURNETT (UNIVERSITY OF EXETER)
3. LES OUTILS MONÉTAIRES D'AUGUSTIN DUPRÉ POUR LE FRANC, LAURENT SCHMITT (SFN, SENA, CEN, ANS, BNS, SNRB, ÖNG, SHN, ADE, ADF), XAVIER BOURBON (SFN, SENA, ADF), PHILIPPE THÉRET (SFN, SENA, ADF)
4. REAL FAKE. RESEARCH ON EMERGENCY COINAGE IN THE NETHERLANDS, JAN PELSDONK (TEYLLERS MUSEUM)

**MONDAY, SEPTEMBER 12, 2022, 11.00-12.30**

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**1. RT NUMISMATICS IN A DIGITAL WORLD, ORG. AND MODERATOR: ANDREW MEADOWS (ASHMOLEAN MUSEUM, OXFORD)**

**LIST OF PANELISTS:**

1. ETHAN GRUBER
2. KARSTEN TOLLE, DAVID WIGG WOLF
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4. FRÉDÉRIQUE DUYPAT, JULIEN OLIVIER
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9. CHARLES DOYEN
10. ANDREW MEADOWS

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**2. GREECE 2. SOUTHERN ITALY, CHAIRED BY FEDERICO CARBONE (UNIVERSITY OF SALERNO)**

1. ⊖THE COINS OF LARINUM AND THE FRENTANI. REVIEWING THE EVIDENCE, VALENTINO PIVA ('SAPIENZA' UNIVERSITY OF ROME)

2. COINS AND COLONIAE: COSA COINAGE AS MECHANISMS OF SOCIO-ECONOMIC INTERACTIONS IN MIDDLE REPUBLICAN SOUTH ETRURIA, MELISSA LUDKE (FLORIDA STATE UNIVERSITY)
3. MEBIC – LAGIOIA COLLECTION: REMARKS ABOUT CIRCULATION OF BRONZE COINS BETWEEN APULIA AND WESTERN GREEK REGIONS, GIULIA VALLI (GABINETTO NUMISMATICO E MEDAGLIERE), NOVELLA VISMARA (UNIVERSITÀ DEGLI STUDI DI MILANO BICOCCA)
4. THE SAKKOS AS AN IDENTIFYING ELEMENT OF THE FEMALE STATUS: A CASE STUDY FROM LOCRI, MARIANNA SPINELLI (UNIVERSITY OF CALABRIA)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**22. ANTIQUITY 2. ANCIENT SOUTHERN ASIA MINOR IN ANTIQUITY: UNITY IN DIVERSITY?, ORG. AND CHAIRED BY WILHELM MÜSELER (INDEPENDENT RESEARCHER)**

1. LYCIAN HISTORY AND COINAGE AT THE TIME OF THE ACHAEMENIDS (WILHELM MÜSELER, INDEPENDENT RESEARCHER)
2. ANCIENT SOUTHERN ASIA MINOR IN ANTIQUITY: UNITY IN DIVERSITY? PAMPHYLIA, JOHANNES NOLLÉ (LUDWIG MAXIMILIANS-UNIVERSITÄT MÜNCHEN / AUKTIONSHAUS KÜNKER)
3. CARIA AND ITS COINAGE IN THE TIME OF THE ACHAEMENIDS, KORAY KONUK (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, INSTITUT AUSONIUS)
4. ARCHAIC AND CLASSICAL COINAGE OF CILICIA, JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**36. ROME 2. EARLY EMPIRE, CHAIRED BY BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)**

1. ⊖BEDEUTUNG VON MÜNZEN IN DER ERFORSCHUNG DER EWIGKEITSIDEE DES RÖMISCHEN KAISERS, KATARZYNA BALBUZA (ADAM MICKIEWICZ UNIVERSITY)
2. ⊖REMARKS ON THE ICONOGRAPHY OF THE AUGUSTAN ISSUES OF 19 BC, LENKA VACINOVÁ (NATIONAL MUSEUM, PRAGUE)
3. TAXONOMY OF BILINGUAL COINS FROM AUGUSTUS TO MID-THIRD CENTURY AD, BARTOSZ AWIANOWICZ (NICOLAUS COPERNICUS UNIVERSITY)

#### AUDYTORIUM MAXIMUM, HALL C – ROME

##### 50. ROME 16. FINDS AND CIRCULATION 3, CHAIRED BY VINCENT DROST (ECOLE NATIONALE SUPERIEURE DES SCIENCES DE L'INFORMATION ET DES BIBLIOTHEQUES)

1. MULTIPLE DE 2 SOLIDI DE CONSTANTIN IER DE L'ATELIER DE TREVES TROUVE EN FORET DE COMPIEGNE (OISE), LAURENT SCHMITT (SFN, SENA), MARIE-LAURE LE BRAZIDEC (UMR 5140 ASM, MONTPELLIER / 5608 TRACES, TOULOUSE),
2. LATE ROMAN COIN HOARDS FROM ARCHAEOLOGICAL EXCAVATIONS IN LAMEGO'S CASTLE (PORTUGAL), ALICE BAETA (FLUP)
3. THE CLAUSTRA ALPIUM IULIARUM: A FRONTIER FOR MONETARY CIRCULATION IN THE LATE ROMAN PERIOD, ANDREA STELLA (UNIVERSITY OF PADUA)
4.  $\Theta$ COINS FROM THE EXCAVATIONS AT DIBSI FARAJ, NORTHERN SYRIA (1971-1974), MASSIMILIANO MUNZI (SOVRINTENDENZA CAPITOLINA AI BENI CULTURALI)

#### AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES

##### 64. MIDDLE AGES 2. MONETISATION IN MEDIEVAL EUROPE. FORMS, PROCESSES AND TENDENCIES FROM THE 8TH TO THE 13TH CENTURY, ORG.: JOHANNES HARTNER (COIN COLLECTION, MUSEUM OF FINE ARTS, VIENNA) AND RORY NAISMITH (UNIVERSITY OF CAMBRIDGE), CHAIRED BY SVEIN GULBEKK (MUSEUM OF CULTURAL HISTORY, UNIVERSITY OF OSLO) AND RORY NAISMITH

1. THE BEGINNING OF COINAGE IN 12TH CENTURY AUSTRIA. MONETISATION AS AN ESSENTIAL FACTOR IN THE EXPANSION OF THE COUNTRY, JOHANNES HARTNER (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN, VIENNA)
2. MONETISATION PROCESSES IN MEDIEVAL VISUAL MEDIA, ALEXANDRA HYLLE (SALZBURG MUSEUM)
3. THE BUYIDS AND THE CESSATION OF THE INFLUX OF ISLAMIC DIRHAMS INTO 10TH CENTURY EASTERN EUROPE, MICHAŁ MALICZOWSKI (UNIVERSITÄT WIEN)
4. RETHINKING MONETISATION IN EARLY MEDIEVAL ENGLAND, RORY NAISMITH (UNIVERSITY OF CAMBRIDGE)

#### OLD LIBRARY, HALL 115-116 – MODERN TIMES

##### 80. MODERN TIMES 3. EUROPE AND COLONIES, CHAIRED BY JÉRÔME JAMBU (UNIVERSITÉ DE LILLE / CNRS)

1. MODERN COINS UNDER THREAT: AN ITALIAN PRISONER PROSECUTED BY THE ALLIED GOVERNMENT IN SICILY (1943), ANTONINO CRISÀ (GHENT UNIVERSITY, DEPARTMENT OF ARCHAEOLOGY)
2. THE OTTOMAN CAMPAIGN OF 1595 IN WALLACHIA – NUMISMATIC EVIDENCE, MARIUS BLASKÓ (INSTITUTUL DE ARHEOLOGIE "VASILE PÂRVAN"), EUGEN NICOLAE (INSTITUTUL DE ARHEOLOGIE "VASILE PÂRVAN")



3. MONEY PLURALITY IN THE EARLY MODERN COLONIAL CONTEXT: THE MASCARENE ISLANDS' CASE, JULIETTE FRANCOISE (UNIVERSITY OF GENEVA / UNIVERSITY PARIS 1 PANTHÉON-SORBONNE)

MONDAY, SEPTEMBER 12, 2022, 14.00-15.30

OLD LIBRARY, AUDYTORIUM – ROUND TABLES

2. RT THE COIN HOARDS OF THE ROMAN EMPIRE PROJECT – 10 YEARS ON! UNUM FIAT EX PLURIBUS, ORG.: CRISTIAN GAZDAC (ASHMOLEAN MUSEUM OXFORD), CHRISTOPHER HOWGEGO (ASHMOLEAN MUSEUM OXFORD), MARGUERITE SPOERRI-BUTCHER (ASHMOLEAN MUSEUM OXFORD), MODERATOR: CRISTIAN GAZDAC

LIST OF PANELISTS:

1. CRISTIAN GAZDAC
2. CHRISTOPHER HOWGEGO
3. MARGUERITE SPOERRI-BUTSCHER
4. ARKADIUSZ DYMOWSKI
5. MARIANGELA PUGLISI
6. RAHEL ACKERMAN
7. VARBYN VARBANOV
8. ISTVAN VIDA

AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD

3. GRECE 3. GREEK COIN ICONOGRAPHY IN THE DIGITAL ERA, ORG.: ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES) AND FRÉDÉRIQUE DUYPAT (BIBLIOTHÈQUE NATIONALE DE FRANCE); CHAIRED BY VLADIMIR STOLBA (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT / BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES)

1. ICONOGRAPHIC AMBIGUITIES IN GREEK COINAGE: THE CORPUS NUMMORUM AND THE SO-CALLED TORCHES OF BYZANTION, ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES), VLADMIMIR STOLBA (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT / BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES)
2. ARCH – AN ONLINE PROJECT OVERARCHING THE COINAGE OF THE GREEK WORLD, FRÉDÉRIQUE DUYPAT (BIBLIOTHÈQUE NATIONALE DE FRANCE), JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE)
3. CHALLENGES OF CREATING A TYPE CORPUS OF EARLY ELECTRUM COINAGE, UTE WARTENBERG (AMERICAN NUMISMATIC SOCIETY)
4. BETWEEN GREEK AND ROMAN ICONOGRAPHY: IMAGING THE EMPEROR ON CIVIC COINAGE IN THE ROMAN EAST, DARIO CALOMINO (UNIVERSITY OF VERONA)



**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**22. ANTIQUITY 2. ANCIENT SOUTHERN ASIA MINOR IN ANTIQUITY: UNITY IN DIVERSITY?, ORG. AND CHAIRED BY WILHELM MÜSELER (INDEPENDENT RESEARCHER)**

1. LYCIAN HISTORY AND COINAGE IN HELLENISTIC AND ROMAN TIMES, WILHELM MÜSELER (INDEPENDENT RESEARCHER)
2. PAMPHYLIA IN HELLENISTIC AND ROMAN TIMES, JOHANNES NOLLÉ (LUDWIG MAXIMILIANS-UNIVERSITÄT MÜNCHEN / AUKTIONSHAUS KÜNKER)
3. CARIA AND ITS COINAGE DURING THE HELLENISTIC AND ROMAN PERIODS, KORAY KONUK (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, INSTITUT AUSONIUS)
4. COINAGE OF CILICIA IN THE HELLENISTIC AND ROMAN PERIODS, JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**37. ROME 3. DATA-DRIVEN APPROACHES TO ROMAN COINAGE: METROLOGY, METALLURGY AND MODELLING, ORG. AND CHAIRED BY GEORGE GREEN (ASHMOLEAN MUSEUM OF ART AND ARCHAEOLOGY)**

1. THE AUREUS AS A HIGH VELOCITY GOLD COIN – AN ANALYSIS OF METROLOGICAL DATA FROM SECOND-CENTURY-AD GOLD HOARDS, GEORGE A. GREEN (ASHMOLEAN MUSEUM OF ART AND ARCHAEOLOGY)
2. NEW ANALYSES OF ROMAN REPUBLICAN SILVER COINS, KEVIN BUTCHER (UNIVERSITY OF WARWICK), MATTHEW PONTING (UNIVERSITY OF LIVERPOOL)
3. PROBING BENEATH THE SURFACE WITHOUT A SCRATCH: NON-DESTRUCTIVE COMPOSITIONAL ANALYSIS USING NEGATIVE MUONS, ADRIAN HILLIER (ISIS NEUTRON AND MUON SOURCE, UKRI/STFC RUTHERFORD APPLETON LABORATORY, UK), GEORGE GREEN (ASHMOLEAN MUSEUM, UNIVERSITY OF OXFORD), THOMAS ELLIOT (UNIVERSITY OF LIVERPOOL), MATTHEW PONTING (UNIVERSITY OF LIVERPOOL), KEVIN BUTCHER (UNIVERSITY OF WARWICK)
4. COMPUTATIONAL APPROACHES TO COIN CIRCULATION DURING THE THIRD AND FOURTH CENTURIES AD, ALEXANDER CHIU SMIT (UNIVERSITY OF OXFORD)

**AUDYTORIUM MAXIMUM, HALL C – ROME**

**51. ROME 17. FINDS AND CIRCULATION 4, CHAIRED BY FERNANDO LÓPEZ-SÁNCHEZ (COMPLUTENSE UNIVERSITY OF MADRID)**

1. THE REGINA TURDULORUM HOARD (CASAS DE REINA, BADAJOZ) AND THE DIVO CLAUDIO ISSUES, DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)
2. THE ROMAN HOARD OF TOMARES: A COIN FIND “TOO BIG TO STUDY” - PRELIMINARY RESULTS, RUTH PLIEGO (UNIVERSITY OF SEVILLE), ENRIQUE GARCÍA VARGAS (UNIVERSITY OF SEVILLE)

3. ANCIENT COIN FINDS IN ARCHAEOLOGICAL CONTEXTS OF ALGECIRAS BAY (CADIZ, SPAIN), ALICIA ARÉVALO-GONZÁLEZ (UNIVERSIDAD DE CÁDIZ), ELENA MORENO-PULIDO (UNIVERSIDAD DE CÁDIZ)
4. A COIN GROUP FROM THE LATRINE OF THE ROMAN VILLA OF VILAUÇA (CATALUÑA, ESPAÑA), MARC BOUZAS (UNIVERSITAT DE GIRONA), PERE CASTANYER (GRUP DE RECERCA ARQUEOLÒGICA DEL PLA DE L'ESTANY), JOAN FRIGOLA (UNIVERSITAT DE GIRONA), JOAQUIM TREMOLEDA (GRUP DE RECERCA ARQUEOLÒGICA DEL PLA DE L'ESTANY)

#### AUDITORIUM MAXIMUM, HALL D – MIDDLE AGES

#### 65. MIDDLE AGES 3. NEW PERSPECTIVES ON MEDIEVAL COINAGES: COIN FINDS, CIRCULATION AND RECENT RESEARCH, ORG.: MARTIN ALLEN (FITZWILLIAM MUSEUM, CAMBRIDGE), MARCUS PHILLIPS (INDEPENDENT RESEARCHER), JULIAN BAKER (ASHMOLEAN MUSEUM, OXFORD), RICHARD KELLEHER (FITZWILLIAM MUSEUM, CAMBRIDGE), CHAIRED BY RORY NAISMITH (UNIVERSITY OF CAMBRIDGE)

1. NEW DISCOVERIES IN THE ANGLO-NORMAN COINAGE OF 1066-1158, MARTIN ALLEN (FITZWILLIAM MUSEUM, UNIVERSITY OF CAMBRIDGE)
2. AREAS OF CIRCULATION OF MEDIEVAL GREEK DENIERS TOURNOIS IN THE LIGHT OF RECENT FINDS, JULIAN BAKER (ASHMOLEAN MUSEUM, OXFORD)
3. NEW THOUGHTS ON THE COINAGE OF CRUSADER EDESSA AND ANTIOCH, RICHARD KELLEHER (FITZWILLIAM MUSEUM, UNIVERSITY OF CAMBRIDGE)
4. HOW TO CATALOGUE THE GROS AU LIS: FLANDERS OR FRANCE?, MARCUS PHILLIPS (INDEPENDENT RESEARCHER)

#### OLD LIBRARY, HALL 115-116 – MODERN TIMES

#### 81. MODERN TIMES 4. MONETARY SOVEREIGNTY IN THE UNITED STATES: 18TH AND 19TH CENTURIES, ORG. AND CHAIRED BY JESSE KRAFT (AMERICAN NUMISMATIC SOCIETY)

1. A DESIRE FOR MONETARY SOVEREIGNTY: THE CIRCULATION OF FOREIGN COINAGE IN THE UNITED STATES IN THE 18TH AND 19TH CENTURIES, JESSE KRAFT (AMERICAN NUMISMATIC SOCIETY)
2. IMAGE AND REPUBLICAN SOVEREIGNTY: NEGOTIATING THE NUMISMATIC ICONOGRAPHY OF THE EARLY AMERICAN REPUBLIC, DOUGLAS MUDD (AMERICAN NUMISMATIC SOCIETY)
3. LADY LIBERTY AS A SYMBOL OF UNITED STATES SOVEREIGNTY, MARY N. LANNIN (AMERICAN NUMISMATIC SOCIETY)
4. TRADING DOLLARS: INTERNATIONAL MONETARY CONFERENCES AND AMERICAN MONETARY POLITICS, 1867-1896, JONAH ESTESS (AMERICAN UNIVERSITY)



MONDAY, SEPTEMBER 12, 2022, 16.00-17.30

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**3. RT PUBLISHING CATALOGUES IN MEDIEVAL NUMISMATICS: BEST PRACTICE IN THE INTERNET AGE, ORG. AND MODERATOR: ELINA SCREEN (FITZWILLIAM MUSEUM, UNIVERSITY OF CAMBRIDGE)**

**LIST OF PANELISTS:**

1. RORY NAISMITH
2. ELINA SCREEN
3. MATEUSZ BOGUCKI
4. ADRIAN POPESCU

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**4. GREECE 4. IBERIAN PENINSULA AND GALIA, CHAIRED BY ELENA MORENO PULIDO (UNIVERSIDAD DE CÁDIZ)**

1. A NEW CATALOGUE FOR THE ANCIENT IBERIAN COINAGES: MONEDAIBERICA.ORG, PERE PAU RIPOLLÈS (UNIVERSITAT DE VALÈNCIA), MANUEL GOZALBEZ (MUSEU DE PREHISTÒRIA DE VALÈNCIA), ALEJANDRO PEÑA (RENDER S.L.), FRANCISCO ONIELFA (RENDER S.L.)
2. AN EXAMPLE OF MONETISATION OF SW HISPANIA DURING THE REPUBLICAN PERIOD: MESAS DO CASTELINHO (PORTUGAL), BARTOLOMÉ MORA (UNIVERSITY OF MÁLAGA), CARLOS FABIÃO (UNIVERSIDADE DE LISBOA), AMILCAR GUERRA (UNIVERSIDADE DE LISBOA), SUSANA ESTRELA (UNIVERSIDADE DE LISBOA)
3. THE NEW BAETICAN LEAD TOKENS OF EUCLERATUS, DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)
4. THE FIRST CHALKOS OF GREEK MARSEILLE, JEAN-ALBERT CHEVILLON (GROUPE NUMISMATIQUE DU COMTAT ET DE PROVENCE)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**23. ANTIQUITY 3. THE ISSUE OF AUTHORITY ON TOKENS OF THE ANCIENT MEDITERRANEAN, ORG. AND CHAIRED BY CLARE ROWAN (UNIVERSITY OF WARWICK)**

1. TOKENS IN THE ATHENIAN AGORA: NEGOTIATING AUTHORITY IN THE HELLENISTIC SOCIETY, MAIRI GKIKAKI (UNIVERSITY OF WARWICK)
2. ΘΑ GROUP OF LEAD TOKENS WITH NUMERICAL SIGNS FROM THE LATE HELLENISTIC ATHENS: FUNCTIONS AND AUTHORITY, IRINI KARRA (ACROPOLIS MUSEUM)
3. CRYPTIC, VISUAL AND LETTERED COMMUNICATIONS OF AUTHORITY ON ROMAN LEAD TOKENS, CLARE ROWAN (UNIVERSITY OF WARWICK)
4. ΘΙ TOKENS ‘VOTA PVBLICA’ DELLA ROMA TARDOANTICA: AUTORITÀ, PRODUZIONE E CIRCOLAZIONE, CRISTIAN MONDELLO (UNIVERSITY OF WARWICK)

#### AUDYTORIUM MAXIMUM, HALL B – ROME

##### 38. ROME 4. ROMAN IMPERIAL COINAGE 1, CHAIRED BY LIESBETH CLAES (LEIDEN UNIVERSITY)

1. ⊖ THE CAREER OF CORNUTUS TERTULLUS AND THE SIGNIFICANCE OF DIANA/ARTEMIS ON NERVA'S COINAGE, NATHAN ELKINS (AMERICAN NUMISMATIC SOCIETY)
2. PORTRAITS OF TRAJANIC WOMEN ON ROMAN PROVINCIAL COINS, FAE AMIRO (UNIVERSITY OF TORONTO MISSISSAUGA)
3. A RECONSIDERATION OF AN AUREUS IN THE NAME OF PLOTINA AUG DIVI FROM CAMPANA'S COLLECTION, MARIA CRISTINA MOLINARI (MUSEI CAPITOLINI/MEDAGLIERE)
4. ⊖ DIVUS TRAIANUS AUGUSTUS PARTHICUS PATER, BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)

#### AUDYTORIUM MAXIMUM, HALL C – ROME

##### 52. ROME 18. FINDS AND CIRCULATION 5, CHAIRED BY LUDOVIC TROMMENSCHLAGER (DÉPARTEMENT MONNAIES, MÉDAILLES ET ANTIQUES BNF)

1. THE BEAURAINS (ARRAS) HOARD: 100 YEARS LATER, VINCENT DROST (ÉCOLE NATIONALE SUPÉRIEURE DES SCIENCES DE L'INFORMATION ET DES BIBLIOTHÈQUES)
2. USES AND USERS OF GOLD COINS IN CIVITAS AEDUORUM DURING THE ROMAN EMPIRE, KÉVIN CHARRIER (ÉCOLE PRATIQUE DES HAUTES ÉTUDES / UMR 8210 ANHIMA)
3. ⊖ TWO SILVER INGOTS FROM THE MID-4TH CENTURY, ALENKA MIŠKEC (NATIONAL MUSEUM OF SLOVENIA)
4. THE UNDERWATER COIN DEPOSIT OF GRAN CARRO, IN LAKE BOLSENA, BARBARA BARBARO (SOPRINTENDENZA ARCHEOLOGIA, BELLE ARTI E PAESAGGIO PER LA PROVINCIA DI VITERBO E PER L'ETRURIA MERIDIONALE), SAMUELE RANUCCI (SEGRETARIATO REGIONALE DEL MINISTERO DELLA CULTURA PER L'UMBRIA)

#### AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES

##### 66. MIDDLE AGES 4. MEDIEVAL ISLAMIC COINAGE, CHAIRED BY DOROTA MALARCZYK (THE NATIONAL MUSEUM IN KRAKOW)

1. AUTHORITIES ON THE ISLAMIC COINAGE OF THE EASTERN IRANIAN TERRITORIES (8TH-11TH CENTURIES), ARTURO ANNUCCI (UNIVERSITÀ DI NAPOLI L'ORIENTALE)
2. MINE, RESIDENCE, OR HOME – THE MEANING OF "MA'DIN AMÎR AL-MU'MINÎN" ON Umayyad COINS, LUTZ ILISCH (EX FORSCHUNGSSTELLE FÜR ISLAMISCHE NUMISMATIK, TÜBINGEN)



3. SICILY AND AL-ANDALUS: TRADE RELATIONSHIPS AND MONETARY CIRCULATION IN THE XITH CENTURY, CAROLINA DOMÉNECH-BELDA (UNIVERSITY OF ALICANTE)
4. ONCE MORE INTO THE BROACH: THE MAMLUK COINS FROM CODRINGTON, JRASBB, 1881-82, WARREN SCHULTZ (DEPAUL UNIVERSITY)

**OLD LIBRARY, HALL 115-116 – MODERN TIMES**

**82. MODERN TIMES 5. CONTEMPORARY COINS & NOTES (19<sup>TH</sup>-21<sup>ST</sup> CENTURIES), CHAIRED BY JESSE KRAFT (AMERICAN NUMISMATIC SOCIETY)**

1. MAKING SMALL CHANGE WITHOUT A MINT: THE CUT COINS OF THE FRENCH WEST INDIES (LATE 18TH C.-EARLY 19TH C.), JÉRÔME JAMBU (UNIVERSITÉ DE LILLE)
2. INFRINGING HOLLAND GOLD DUCATS IN THE RUSSIAN EMPIRE, IVAN SINTCHOUK (INDEPENDENT RESEARCHER)
3. CUBAN COMPLEMENTARY NOTES, TOM HOCKENHULL (BRITISH MUSEUM), ZOREIDI SOLORZANO ARIAS (NUMISMATIC MUSEUM)



TUESDAY, SEPTEMBER 13, 2022, 9.00-10.30

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**4. RT TOWARDS A NEW PARADIGM FOR COIN CIRCULATION WITHIN THE ROMAN EMPIRE, ORG. AND MODERATOR: LIESBETH CLAES (LEIDEN UNIVERSITY)**

**LIST OF PANELISTS:**

1. LIESBETH CLAES
2. ANDREW BROWN
3. ALESSANDRO BONA
4. ANDREA CASOLI
5. JOHAN VAN HEESCH
6. SUZANNE FREY-KUPPER
7. MARKUS PETER

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**5. GREECE 5. ITALY – SICILY 1, CHAIRED BY MARIANGELA PUGLISI (UNIVERSITÀ DI MESSINA)**

1. THE EARLY INCUSE COINAGE OF CROTON, STEFANIE BAARS (MÜNZKABINETT, STAATLICHE MUSEEN ZU BERLIN – STIFTUNG PREUßISCHER KULTURBESITZ)
2. THE COINAGE OF THURIUM AND ITS CONTEXTS – A DIE STUDY, MARC PHILIPP WAHL (VIENNA UNIVERSITY, DEPARTMENT OF NUMISMATICS AND MONETARY HISTORY)
3. COIN FINDS FROM ANCIENT MEDMA, TODAY ROSARNO (RC, ITALY), GIORGIA GARGANO (SOPRINTENDENZA ARCHEOLOGIA, BELLE ARTI E PAESAGGIO PER LA CITTÀ METROPOLITANA DI REGGIO CALABRIA E LA PROVINCIA DI VIBO VALENTIA)
4. COIN CIRCULATION IN LIPARI (SICILY) FROM THE GREEK TO THE ROMAN TIMES, LUDOVICA DI MASI (UNIVERSITY OF MESSINA)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**19. GREECE 19. PTOLEMAIC COINAGE, CHAIRED BY JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE)**

1. THE MONETARY SYSTEM OF CLEOPATRA VII ON THE LIGHT OF HELLENISTIC AND ROMAN TRADITIONS, ÉPHÉLINE BERNAER-BABIN (UNIVERSITÉ DE MONTRÉAL)
2. A METROLOGICAL SURVEY OF PTOLEMAIC BRONZE COINS, DANIEL WOLF (INDEPENDENT RESEARCHER)
3. "PUT MONEY IN THY PURSE": THE CIRCULATION OF THE PTOLEMAIC BRONZE COINS IN THE PELOPONNESE, ALESSANDRO CAVAGNA (STATE UNIVERSITY OF MILAN)
4. PTOLEMAIC COINS IN SOUTHWESTERN ASIA MINOR: NEW ATTRIBUTIONS AND SUGGESTIONS, ÖMER TATAR (AKDENIZ UNIVERSITY, DEPARTMENT OF HISTORY)

**AUDYTORIUM MAXIMUM, HALL B – CELTS**

**32. CELTIC COINS 1. CELTIC COINS IN CENTRAL EUROPE, CHAIRED BY DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION)**

1. THE STORY OF THE ATHENA ALKIDEMOS COIN TYPE. GREEK GODDESS ON THE ROAD TO BOHEMIA, TOMÁŠ SMĚLÝ (ABALON S.R.O)
2. CELTIC COINS FROM THE CENTRAL SETTLEMENT OF HASELBACH (PB KORNEUBURG, NÖ), JIŘÍ MILITKÝ (NATIONAL MUSEUM, PRAGUE)
3. CELTIC GOLD IN BRANDENBURG – AN UNEXPECTED FIND OF 41 RAINBOW CUPS, MARJANKO PILEKIC (MÜNZKABINETT, STIFTUNG SCHLOSS FRIEDENSTEIN GOTHA)
4. THE CELTIC SMALL SILVER COINAGE OF THE UPPER DANUBE. A CASE OF EARLY MONETIZATION?, MARKUS MÖLLER (RÖMISCH-GERMANISCHE-KOMMISSION)

**AUDYTORIUM MAXIMUM, HALL C – ROME & EARLY MIDDLE AGES**

**53. ROME 19. FINDS AND USE – BARBARICUM 1, CHAIRED BY ARKADIUSZ DYMOWSKI (INDEPENDENT RESEARCHER)**

1. KALKRIESE AND ROMAN ARMY PAY, MAX RESCH (DEPARTMENT FOR NUMISMATICS AND MONETARY HISTORY, UNIVERSITY OF VIENNA)
2. FROM THE SESTERTII TO THE SOLIDI, THE COINAGE OF HADRIAN'S WALL AND BRITANNIA'S NORTHERN FRONTIER, DOUGLAS CARR (NEWCASTLE UNIVERSITY)
3. ANCIENT COINS EAST OF THE DANUBE, LAJOS JUHÁSZ (EÖTVÖS LORÁND UNIVERSITY)
4. LATE ROMAN GOLD COINAGE (275-498 AD) FROM THE BARBARICUM, NICOLETA DEMIAN (THE NATIONAL MUSEUM OF BANAT)

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**67. MIDDLE AGES 5. 12<sup>TH</sup>-13<sup>TH</sup> CENTURIES, THE MEDITERRANEAN, CHAIRED BY LUCA GIANAZZA (INDEPENDENT RESEARCHER)**

1. "LATIN" IMITATIONS OF HYPERPYRA OF JOHN III VATATZÈS—A COINAGE OF GEOFFREY II OF VILLEHARDOUIN?, ROBERT LEONARD (AMERICAN NUMISMATIC SOCIETY)
2. THE 'BAYINDIR/1988' HOARD OF BYZANTINE THIRTEENTH-CENTURY BILLON TRACHEA, CEREN ÜNAL (CELAL BAYAR UNIVERSITY), ELENİ LIANTA (INDEPENDENT RESEARCHER)
3. THE CIRCULATION OF THE COINAGE OF LUCCA IN EMILIA-ROMAGNA IN THE 11TH-12TH CENTURIES, MATTIA FRANCESCO ANTONIO CANTATORE (UNIVERSITÀ DI VERONA), DOMENICO LUCIANO MORETTI (ALMA MATER STUDIORUM-UNIVERSITÀ DI BOLOGNA)

**OLD LIBRARY, HALL 115-116 – MEDALS**

**83. MEDALS 1. FEMALE RULERSHIP & ROYAL REPRESENTATION ON MEDALS FROM 17TH TO 18TH CENTURY, ORG.: YLVA HAIDENTHALLER (LUND UNIVERSITY) AND ANNA LÖRNITZO (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN), CHAIRED BY YLVA HAIDENTHALLER**

1. THE NORDIC MINERVA AND HER MEDALS: QUEEN CHRISTINA'S ICONOGRAPHIC STRATEGIES DURING HER REIGN IN SWEDEN, YLVA HAIDENTHALLER (LUND UNIVERSITY)
2. LES MEDAILLES DE LA REINE ANNE, 1702-1714, THOMAS COCANO (SAPRAT, EPHE – PSL)
3. KING AND MOTHER. POLITICS AND GENDER ASPECTS ON MEDALS OF EMPRESS MARIA THERESA (R. 1740-1780), ANNA LÖRNITZO (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN)

**TUESDAY, SEPTEMBER 13, 2022, 11.00-12.30**

**OLD LIBRARY, AUDITORIUM – ROUND TABLES**

**4. RT TOWARDS A NEW PARADIGM FOR COIN CIRCULATION WITHIN THE ROMAN EMPIRE, ORG. AND MODERATOR: LIESBETH CLAES (LEIDEN UNIVERSITY)**

**LIST OF PANELISTS:**

1. LIESBETH CLAES
2. ANDREW BROWN
3. ALESSANDRO BONA
4. ANDREA CASOLI
5. JOHAN VAN HEESCH
6. SUZANNE FREY-KUPPER
7. MARKUS PETER

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**6. GREECE 6. ITALY – SICILY 2, CHAIRED BY BENEDETTO CARROCCIO (UNIVERSITÀ DELLA CALABRIA - DIPARTIMENTO DI STUDI UMANISTICI)**

1. PYRRHUS' THREAD: A NIKE AND HER TROPHY, CARLO LUALDI (UNIVERSITY OF WARWICK)
2. ALAISA/HALAESA (SICILY): THE ANCIENT SITE AND ITS MONETARY PROFILE, MARIANGELA PUGLISI (UNIVERSITÀ DI MESSINA)
3. THE HISTORICAL FIGHT OF ATHENIAN "OWL" AND SICILIAN "LIZARD" ON KAMARINA'S BRONZE COINS, MARIA CALTABIANO-CACCAMO (UNIVERSITÀ DEGLI STUDI DI MESSINA)
4. KEY-BEARER FEMALE FIGURE ON THE COINAGE OF ENTELLA (440-430 BC): ANALYSIS AND MEANING, JOSÉ MIGUEL PUEBLA MORÓN (INDEPENDENT RESEARCHER)



**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**20. GREECE 20. DIGITAL DEVELOPMENTS IN HELLENISTIC ROYAL COINAGES, ORG. AND CHAIRED BY PETER VAN ALFEN (AMERICAN NUMISMATIC SOCIETY)**

1. HELLENISTIC ROYAL COINAGES. AN OVERVIEW, PETER VAN ALFEN (AMERICAN NUMISMATIC SOCIETY)
2. NETWORK ANALYSIS APPLIED TO HELLENISTIC MONOGRAMS, ETHAN GRUBER (AMERICAN NUMISMATIC SOCIETY)
3. OXUS-INDUS: A NEW TYPOLOGY FOR GRAECO-BACTRIAN AND INDO-GREEK COINS, SIMON GLENN (ASHMOLEAN MUSEUM / UNIVERSITY OF OXFORD), GUNNAR DUMKE (MARTIN LUTHER UNIVERSITY HALLE-WITTENBERG)
4. HELLENISTIC COINAGES – PLUGGING THE GAPS, ANDREW MEADOWS (NEW COLLEGE, OXFORD)

**AUDYTORIUM MAXIMUM, HALL B – CELTS**

**33. CELTIC 2. CELTIC & REPUBLICAN COINS, CHAIRED BY SYLVIA NIETO-PELLETIER (IRAMAT, CNRS-UNIV. ORLÉANS)**

1. TWO RECENT IRON AGE COIN HOARDS FROM BRITAIN, ELEANOR GHEY (THE BRITISH MUSEUM)
2. CELTIC COINS AND EVENT HISTORY – A STORMY RELATIONSHIP. THE CASE OF THE CIMBRI MIGRATIONS, JULIA GENECHESI (MUSÉE CANTONAL D'ARCHÉOLOGIE ET D'HISTOIRE, LAUSANNE / DIRECTRICE ADJOINTE), ENEKO HIRIART (CHERCHEUR CNRS IRAMAT-CRP2A, UMR 5060 UNIVERSITÉ BORDEAUX MONTAIGNE)
3. IL TESORO MONETALE DAL CARDO IV DI ERCOLANO NEL MEDAGLIERE DEL MUSEO ARCHEOLOGICO NAZIONALE DI NAPOLI (562 AR), EMANUELA SPAGNOLI (UNIVERSITÀ DEGLI STUDI DI NAPOLI "FEDERICO II")

**AUDYTORIUM MAXIMUM, HALL C – ROME & EARLY MIDDLE AGES**

**54. ROME 20. COIN FINDS AND USE – BARBARICUM 2, CHAIRED BY ALEKSANDER BURSCHE (UNIVERSITY OF WARSAW)**

1. ROMAN DENARIUS HOARDS IN DENMARK, A METHODOLOGICAL UPDATE, RASMUS HOLST NIELSEN (ROYAL COLL. OF COINS AND MEDALS, NATIONAL MUSEUM OF DENMARK)
2. ROMAN IMPERIAL GOLD MEDALLIONS, THE NEW FINDS FROM VINDELEV, DENMARK, HELLE W. HORSNÆS (NATIONALMUSEET, THE ROYAL COLL. OF COINS AND MEDALS)
3. NORTH SEA GOLD ECONOMY IN THE AGE OF "GIFT EXCHANGE", C.450–C.760, KEVIN HOFFMAN (YALE UNIVERSITY)

4. FROM LOCAL FINDS TO GLOBAL PICTURE – THE MIGRATION PERIOD GOLD HOARDS IN THE WESTERN POMERANIA, ANNA ZAPOLSKA (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)

#### AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES

#### 68. MIDDLE AGES 6. 10<sup>TH</sup> – 12<sup>TH</sup> CENTURIES, CENTRAL AND NORTH EUROPE, CHAIRED BY JENS CH. MOESGAARD (STOCKHOLM UNIVERSITY)

1. MLADÁ BOLESLAV-PODLÁZKY 2011. A UNIQUE BOHEMIAN FIND OF DENARII, WEIGHTS AND JEWELRY BEFORE 999, LUBOŠ POLANSKÝ (NATIONAL MUSEUM)
2. VIKING-AGE GERMAN COINS STRUCK ON SQUARE FLANS – PURELY A NORDIC IMITATION PHENOMENON?, EEVA JONSSON (UNIVERSITY OF TURKU)
3. POURQUOI BOESLAS LE VAILLANT SUR SES DENIERS SE NOMMA-T-IL DVX INCLITVS?, STANISŁAW SUCHODOLSKI (INSTITUT OF ARCHAEOLOGY AND ETHNOLOGY OF POLISH ACADEMY OF SCIENCES)
4. ARCHAEOLOGICAL STUDY IN THE PLACES OF HOARDS FINDS IN BELARUS, LUDA TOLKACHEVA (NATIONAL HISTORICAL MUSEUM OF THE REPUBLIC OF BELARUS), ROMAN KRYTSUK (INDEPENDENT RESEARCHER)

#### OLD LIBRARY, HALL 115-116 – MEDALS

#### 84. MEDALS 2. POLAND, CHAIRED BY TOM HOCKENHULL (BRITISH MUSEUM)

1. HOLDING, HANDLING, FLIPPING: REMARKS ON THE PERCEPTION OF MEDALS (15TH TO 17TH CENTURIES), AGNIESZKA SMOŁUCHA-SŁADKOWSKA (NATIONAL MUSEUM IN KRAKÓW)
2. THE LIFE OF MARIA KLEMENTYNA SOBIESKA-STUART (1702-1735) WRITTEN IN MEDALS AND THEIR SYMBOLIC MEANINGS, FRANCESCA CECI (MUSEI CAPITOLINI), JAROSŁAW PIETRZAK (UNIwersytet Pedagogiczny Kracowie)
3. THE PRIZE MEDALS OF THE STANISLAUS II AUGUSTUS REIGN, JULIUSZ ZACHER (THE ROYAL CASTLE IN WARSAW – MUSEUM)
4. POLISH EMIGRATION MEDALS BETWEEN THE NOVEMBER UPRISING AND THE JANUARY UPRISING (1831-1862), WITOLD GARBACZEWSKI (THE NATIONAL MUSEUM IN POZNAŃ)

TUESDAY, SEPTEMBER 13, 2022, 14.00-15.00

#### POSTER SESSION

#### GREEK WORLD

1. THE (WINGED) HORSE AS A MOTIF ON COINS FROM CORINTH AND MARONEIA, OLIWIA ULLRICH (UNIVERSITY OF TÜBINGEN)

2. NOTES ON THE COIN EPIGRAPHY OF MAGNA GRAECIA AND SICILY, SARA QUARTARONE (UNIVERSITÀ DEGLI STUDI DI MESSINA)
3. THE COINAGE OF ERYTHRAI AND HISTORIA NUMORUM ONLINE, ERSIN BAKIŞ (ISTANBUL UNIVERSITY)
4. DIACHRONIC AND DIATOPIC ANALYSIS OF A LIN LEMMA: HERMES WITH PETASOS, IVAN CAPARELLI, BENEDETTO CARROCCIO (UNIVERSITÀ DELLA CALABRIA)
5. HELLENISTIC WEIGHTS AND MEASURES IN WESTERN ASIA MINOR (PROPONTIS, TROAS AND AEOLIS), THOMAS LEBLANC (UC LOUVAIN)
6. THE THREE-QUARTER FACING HEADS IN HELLENISTIC CARIAN COINAGE: A SIGN OF SUBMISSION?, MATEUS DA SILVA (UNIVERSIDADE FEDERAL FLUMINENSE)
7. A NEW MEMBER OF THE ANCIENT FALSIFIERS. SILVER COINAGE OF KING BALLAEUS, RENATA CIOŁEK (UNIVERSITY OF WARSAW)
8. NAVAL IMAGERY ON SELEUCID BRONZE COINAGE: THE CURIOUS CASE OF THE CITY OF ANTIOCH, PIM MÖHRING (NATIONAL NUMISMATIC COLLECTION, DE NEDERLANDSCHE BANK)

#### ROMAN AND CELTIC NUMISMATICS

1. NUMISMATIC DATA ON THE STATUS OF ARTAXATA DURING THE REIGN OF THE ARTAXIAD DYNASTY OF ARMENIA, SERHII LYTOVCHENKO (V. N. KARAZIN KHARKIV NATIONAL UNIVERSITY)
2. SHIPWRECK HOARDS: A GEOGRAPHICAL ASSESSMENT OF COIN ASSEMBLAGES OCCURRING ON SHIPWRECK SITES WITHIN THE MEDITERRANEAN, JOSHUA SMITH (INDEPENDENT RESEARCHER)
3. THE COINS OF NICOPOLIS AD ISTRUM IN THE MEDAGLIERE OF THE VENERANDA BIBLIOTECA AMBROSIANA, GIANCARLO ALTERI (VENERANDA BIBLIOTECA AMBROSIANA), ELEONORA GIAMPICCOLO (VATICAN APOSTOLIC LIBRARY)
4. COINS AND CONQUEST; COIN HOARDING IN BRITAIN 200 BC – AD 96, ANNI BYARD (UNIVERSITY OF LEICESTER / ASHMOLEAN MUSEUM, OXFORD)
5. OBJECTS ASSOCIATED WITH WEIGHING FROM THE ROMAN REPUBLICAN CAMP 'CÁCERES EL VIEJO' (EXTREMADURA, SPAIN), DIEGO BARRIOS RODRÍGUEZ (UNIVERSITY OF SALAMANCA), CRUCES BLÁZQUEZ CERRATO (UNIVERSITY OF SALAMANCA)
6. MONETARY CIRCULATION IN THE MINING AREA TERRITORIA METALLORUM – CASE STUDY OF THE TIMACUM MINUS SITE, MARIJA JOVIĆ (INSTITUTE OF ARCHAEOLOGY IN BELGRADE)

7. HOARD OF ROMAN COINS FROM LUBAWKA IN THE KRUCZE MOUNTAINS. PRELIMINARY ARCHAEOLOGICAL AND NUMISMATIC INTERPRETATION, MATEUSZ MATULA (UNIVERSITY OF WROCŁAW), DAWID MACIEJCZUK (UNIVERSITY OF WROCŁAW), MARCIN BOHR (UNIVERSITY OF WROCŁAW)
8. THE ROMAN HOARD FOUND IN UEKEN IN 2015 (CANTON OF AARGAU, SWITZERLAND), FANNY PUTHOD (SWISS INVENTORY OF COIN FINDS), MARKUS PETER (AUGUSTA RAURICA/UNIVERSITÄT BERN), PIERRE ZANCHI (SWISS INVENTORY OF COIN FINDS) => III W.
9. RARE COIN TYPES OF PAUTALIA AND SERDICA, NIKOLAY DIMITROV (SOFIA UNIVERSITY "ST. KLIMENT OHRIDSKI")
10. PRELIMINARY REPORT ON THE VARZI HOARD (PAVIA, NORTHERN ITALY), ALESSANDRO BONA (CATHOLIC UNIVERSITY OF THE SACRED HEART), FLORENCE JEANNE MARIE CAILLAUD (UNIVERSITY OF BOLOGNA), ALESSANDRO CAVAGNA (STATE UNIVERSITY OF MILAN), CECILIA NORFINI (UNIVERSITY OF BOLOGNA), CLAUDIA PERASSI (CATHOLIC UNIVERSITY OF THE SACRED HEART)
11. MANAGING THE TOMARES HOARD WITH NUMISDATA/DÉDALO, ALEJANDRO GARCÍA LIDÓN (UNIVERSITY OF SEVILLA)
12. NOLI, OBSECO, ISTUM DISTURBARE! LATE ROMAN COIN FORGERIES DISTURBING SCIENTIFIC RESEARCH, LARS RAMSKOLD (INDEPENDENT RESEARCHER)
13. THE ROMAN COIN DIE OF BASILIA / BASEL (CH), MYRIAM CAMENZIND (UNIVERSITY OF BERN), MARKUS PETER (SWISS INVENTORY OF COIN FINDS)
14. MULTIDISCIPLINARY STUDIES OF COUNTERFEIT ROMAN IMPERIAL DENARII FROM BELARUS, VITAL SIDAROVICH (UNIVERSITY OF WARSAW)
15. DISTRIBUTION OF CASTING COPIES OF ROMAN DENOMINATIONS IN THE BARBARICUM TERRITORIES OF SOUTHEAST EUROPE. SOME ASPECTS, OLEH POHORILETS (THE STATE HISTORICAL AND CULTURE RESERVE "MEZHYBIZH"), ALEKSANDR NADVIRNYAK (THE STATE HISTORICAL AND CULTURE RESERVE "MEZHYBIZH")
16. PIXE AND XRF ANALYSIS OF PRODUCTS AND RESIDUES OF PRODUCTION OF CAST COPIES OF ROMAN DENARII IN THE CHERNYAKHIV CULTURE, OLEKSANDR BUHAY (INSTITUTE OF APPLIED PHYSICS, NATIONAL ACADEMY OF SCIENCES OF UKRAINE)
17. A HOARD OF SESTERTII AND CHAMPLEVÉ ENAMEL ORNAMENTS FROM THE MYRHOROD (UKRAINE), DMYTRO FILATOV (V.N. KARAZIN KHARKIV NATIONAL UNIVERSITY), KYRYLO MYZGIN (UNIVERSITY OF WARSAW), MARYNA FILATOVA (V.N. KARAZIN KHARKIV NATIONAL UNIVERSITY)

18. A HOARD OF LATE ROMAN BRONZE COINS FROM MOSHNY (CENTRAL UKRAINE) AND ROMAN-BARBARIAN RELATIONS IN THE 4TH CENTURY, MAKSYM LEVADA (INDEPENDENT RESEARCHER)
19. COLLECTIVE COIN HOARDS FROM THE 4TH CENTURY FROM THE TERRITORY OF AVGUSTA TRAIANA/BEROE, MARIANA MINKOVA (REGIONAL MUSEUM OF HISTORY, STARA ZAGORA)

#### ORIENTAL NUMISMATICS

1. ⊖ THE COINAGE IN KHUZISTAN, ALEXANDER THE GREAT TO THE LAST SASANIANS, MICHAEL STAL (UNIVERSITY OF VIENNA)
2. READING MINTS, YEARS AND NAMES ON EARLY ARAB-SASANIAN SILVER COINS, YNGVE KARLSSON (GOTHENBURG NUMISMATIC SOCIETY)
3. A CLASSICAL REVIVAL IN UPPER MESOPOTAMIA? SOME REMARKS ABOUT SOME ZANGID AND ARTUQID COINAGE, NICOLAS CONSIGLIO (MUSÉE D'ART ET D'HISTOIRE DE NEUCHÂTEL)
4. MONGOL-CAUCASIAN NUMISMATIC HISTORY: NEW DATA ON THE "QARABĀGH" MINT IN THE 1230S AND 1240S, IRAKLI PAGHAVA (G. TSERETELI INSTITUTE OF ORIENTAL STUDIES)

#### MEDIEVAL AND MODERN NUMISMATICS

1. 6TH-10TH CENTURY COINS IN THE COLLECTION OF THE GABINET NUMISMÀTIC DE CATALUÑA, MARIA CLUA MERCADAL (GABINET NUMISMÀTIC DE CATALUÑA, MUSEU NACIONAL D'ART DE CATALUNYA)
2. COINAGE IN NINTH-CENTURY NORTHUMBRIA: KINGS & VIKINGS, LUCY MOORE (UNIVERSITY OF YORK)
3. AN UNPROVENANCED EARLY MEDIEVAL HOARD IN THE COLLECTION OF THE OSSOLINEUM, BARBARA BUTENT-STEFANIAK (OSSOLIŃSKI NATIONAL INSTITUTE)
4. THE FIRST 100 YEARS OF THE GOLD FLORIN OF FLORENCE (1252-1351): ANALYSIS AND NEW RESEARCH PERSPECTIVES, MASSIMO DE BENETTI (INDEPENDENT RESEARCHER)
5. PRELIMINARY RESULTS ON EPIGRAPHY, DIES AND VARIETIES OF THE GROS TOURNOIS OF ASTI (PIEDMONT, ITALY), LUCA ODDONE (SOCIO DELLA SOCIETÀ NUMISMATICA ITALIANA / PERITO NUMISMATICO CCIAA ASTI-ALESSANDRIA), ANGELO AGOSTINO (UNIVERSITÀ DEGLI STUDI DI TORINO), MARIA LABATE (UNIVERSITÀ DEGLI STUDI DI TORINO), TIZIANA CASERTA (MUSEO CIVICO D'ARTE ANTICA, PALAZZO MADAMA)

6. COINS OF THE PRINCIPALITY OF KYIV ISSUED BY GRAND PRINCE VLADIMIR OLGERDOVICH, OLGA VENGER (K. D. USHYNSKY SOUTH UKRAINIAN NATIONAL PEDAGOGICAL UNIVERSITY).
7. FOR CITY AND CHURCH; SMALL CHANGE IN LATE MEDIEVAL GELRE, JOS BENDERS (NTNU / KU LEUVEN)
8. TERLINE AND A GOLD DOUBLE DUCAT OF GUGLIELMO IX PALEOLOGO (1512-1513) FOR ASTI MINT (PIEDMONT, ITALY), LUCA ODDONE (SOCIO DELLA SOCIETÀ NUMISMATICA ITALIANA / PERITO NUMISMATICO CCIAA ASTI-ALESSANDRIA)
9. THE COAT OF ARMS OF VOLHYNIA ON COINS OF SIGISMUNDUS II AUGUSTUS, KING OF POLAND, ANDRII VENGER (K. D. USHYNSKY SOUTH UKRAINIAN NATIONAL PEDAGOGICAL UNIVERSITY)
10. ZEICHEN DER FALSCHEN GULDEN – PRINTS FROM THE LATE 15TH CENTURY REPORT ON COUNTERFEIT COINS, AGNES ASPETSBERGER (KUNSTHISTORISCHES MUSEUM WIEN)
11. FROM FLANDERS TO MILAN. A HOARD OF GOLD AND SILVER COINS FROM A 16TH CENTURY MASS GRAVE, ALESSANDRO BONA (CATHOLIC UNIVERSITY OF THE SACRED HEART)
12. MONEY OF THE POOR: NON-STATE COINAGES AND THE CASE OF MID-SEVENTEENTH CENTURY BRITISH TRADE TOKENS, LAURA BURNETT (UNIVERSITY OF EXETER)
13. LANDESMUSEUM HANNOVER - THE RISE OF THE WELF DYNASTY AND ITS REFLECTION IN MEDALS, HÜLYA VIDIN (GOETHE UNIVERSITY FRANKFURT/LANDESMUSEUM HANNOVER)
14. PICTURING EMPEROR FERDINAND I ON MEDALS IN THE FIRST HALF OF THE 19TH CENTURY, ANDREA MAYR (COIN COLLECTION, KUNSTHISTORISCHES MUSEUM WIEN, VIENNA)
15. COUNTERFEITER MOLDS FOR CASTING POLISH COINS (1923-1924) FROM LVIV AND ITS REGION, ANDRII BOIKO-HAHARIN (THE NATIONAL BANK OF UKRAINE)

#### GENERAL NUMISMATICS (COLLECTIONS, DIGITAL ETC)

16. COIN HOARDS IN THE VATICAN MEDAGLIERE: AN ATTEMPT AT RECONSTRUCTION, ELEONORA GIAMPICCOLO (VATICAN APOSTOLIC LIBRARY)
17. RISE FROM SLUMBER! THE GOTHA FROM THE FORGOTTEN BAROQUE TO THE DIGITAL COIN CABINET, MARJANKO PILEKIC (MÜNZKABINETT, STIFTUNG SCHLOSS FRIEDENSTEIN GOTHA).

18. THE RECONSTRUCTION OF A LOST PRINCELY COLLECTION AND EARLY DEALINGS IN COINS, SIMONE VOGT (MUSEUM AUGUST KESTNER)
19. BYZANTINE COINS IN THE JOHN MAX WULFING COLLECTION IN ST. LOUIS, ELENA BALDI (WASHINGTON UNIVERSITY)
20. ARCHIVES AND COLLECTIONS OF THE ARCHAEOLOGIST AND NUMISMATIST ADRIEN BLANCHET: A VALORIZATION PROJECT, MARIE-LAURE LE BRAZIDEC (UMR 5608 – TRACES, TOULOUSE)
21. ANCIENT GOLD COINS FROM MARIA AND DR. GEORGE SEVEREANU COLLECTION, DAN PÎRVULESCU (BUCHAREST MUNICIPALITY MUSEUM), AUREL VÎLCU (VASILE PÂRVAN INSTITUTE OF ARCHAEOLOGY / ROMANIAN ACADEMY)
22. AN INNOVATIVE APPROACH TO DISPLAYING A ROMAN COIN HOARD, JENNIFER GLOEDE (NATIONAL MUSEUM OF AMERICAN HISTORY, SMITHSONIAN INSTITUTION)
23. RARE CASH - DIGITIZATION AND PROVISION OF CENTRAL GERMAN COINS FINDS, ANIKA TAUSCHENSKY (STATE OFFICE FOR MONUMENT PRESERVATION AND ARCHAEOLOGY IN SAXONY-ANHALT), VEIT DRESELY (STATE OFFICE FOR MONUMENT PRESERVATION AND ARCHAEOLOGY IN SAXONY-ANHALT), ERIK TROSTMANN (FRAUNHOFER INSTITUTE FOR FACTORY OPERATION AND AUTOMATION)
24. DIGINUMA: DIGITAL SOLUTIONS FOR EUROPEAN NUMISMATIC HERITAGE, ELIAS OKSANEN (UNIVERSITY OF HELSINKI), HEIKKI RANTALA (AALTO UNIVERSITY), EERO HYVÖNEN (AALTO UNIVERSITY)
25. CORPUS NUMMORUM – A DIGITAL RESEARCH INFRASTRUCTURE FOR ANCIENT COINS, ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES), JAN KÖSTER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES), BERNHARD WEISSER (MÜNZKABINETT BERLIN), KARSTEN TOLLE (MÜNZKABINETT BERLIN), CLAUS FRANK (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES)
26. IKMK.NET, KARSTEN DAHMEN (MÜNZKABINETT BERLIN), BERNHARD WEISSER (MÜNZKABINETT BERLIN)
27. MEBIC MILAN COIN CABINET WEBSITE: NUMISMATIC COLLECTION LAGIOIA, GIULIA VALLI (GABINETTO NUMISMATICO E MEDAGLIERE), RODOLFO MARTINI (GABINETTO NUMISMATICO E MEDAGLIERE)
28. NUMISMATIC VISUAL ART PROJECT, OLIVIA DENK (UNIVERSITY OF BASEL)
29. LINKED OPEN DATA AND THE TRANSFORMATION OF COINAGE WEIGHT, JONAS VON FELTEN (SWISS INVENTORY OF COIN FINDS), MYRIAM CAMENZIND (UNIVERSITY OF BERN)

30. ISLAMIC COIN STUDIES USING REFLECTANCE TRANSFORMATION IMAGING AS A NON-DESTRUCTIVE TECHNICAL EXAMINATION OF NUMISMATIC DATA DOCUMENTATION, ALMOATZBELLAH ELSHAHAWI (MINISTRY OF TOURISM AND ANTIQUITIES), ISLAM SHAHEEN (EGYPTIAN MUSEUM, CAIRO), HAMDY ABDULMONEM (THE MUSEUM OF ISLAMIC ART, CAIRO)
31. MODERN COUNTERFEITS OF COMMUNAL PERIOD COINS FROM ASTI MINT (PIEDMONT, ITALY), LUCA ODDONE (SOCIO DELLA SOCIETÀ NUMISMATICA ITALIANA / PERITONUMISMATICO)
32. DEVELOPING A SYSTEMATIC APPROACH FOR THE DETECTION OF ANCIENT COIN COUNTERFEITING, MOHAMMAD RABABAH (TECHNISCHE UNIVERSITÄT BERLIN)

**TUESDAY, SEPTEMBER 13, 2022, 15.00-16.30**

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

- 5. RT ENTANGLED EXCHANGES: MONEY, COINAGE AND COLONIAL PROJECTS, ORG. AND MODERATOR: FLEUR KEMMERS (GOETHE UNIVERSITY FRANKFURT AM MAIN), NANOUSCHKA MYRBERG BURSTRÖM (STOCKHOLM UNIVERSITY)**

**LIST OF PANELISTS:**

1. FEUR KEMMERS
2. JOHN CREIGHTON
3. GEORGIA GALANI
4. RORY NAISMITH
5. FLORENT AUDY
6. NANOUSCHKA MYRBERG BURSTRÖM
7. KARIN PALLAVER
8. MARÍA GABRIELA HUIDOBRO

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

- 7. GREECE 7. SICILY AND BEYOND, CHAIRED BY SUZANNE FREY-KUPPER (UNIVERSITY OF WARWICK)**

1. THE BRONZE COINAGE OF HIERONIMUS OF SYRACUSE BETWEEN POSTHUMOUS SERIES, PARALLEL STRIKINGS AND ORGANIZATIONAL CHANGES, BENEDETTO CARROCCIO (UNIVERSITÀ DELLA CALABRIA – DIPARTIMENTO DI STUDI UMANISTICI)
2. THE HOARD OF CALA TRAMONTANA IN PANTELLERIA (TRAPANI-SICILY): PRELIMINARY OBSERVATIONS, LAVINIA SOLE (UNIVERSITÀ DEGLI STUDI DI PALERMO)
3. THE COINAGE OF COSSYRA (MODERN PANTELLERIA), MARTIN ZIEGERT (FRITZ RUDOLF KÜNKER GMBH)
4. A SMALL PERSONAL TOUCH: GRAFFITI ON CARTHAGINIAN GOLD COINS, JÉRÉMY ARTRU (UNIVERSITÉ D'ORLÉANS / IRAMAT-CEB)



#### AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY

#### 24. ANTIQUITY 4. ANCIENT THRACE – A REGION OF COINAGE DIVERSITY, ORG.: LILY GROZDANOVA (SU “ST. KLIMENT OHRIDSKI”), CHAIRED BY ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES) AND SELENE PSOMA (NATIONAL AND CAPODISTRIAN UNIVERSITY OF ATHENS)

1. MONEY AND THE ODRYSIAN RULERS: PAYING THE PATRIOS PHOROS, SELENE PSOMA (NATIONAL AND CAPODISTRIAN UNIVERSITY OF ATHENS)
2. THE HEMIDRACHMS OF THE THRACIAN CHERSONESE AND THEIR POLITICAL ENVIRONMENT, JULIA TZVETKOVA (SOFIA UNIVERSITY)
3. PRE-ROMAN BRONZE COINAGE OF SETTLEMENTS ON THE THRACIAN CHERSONESE, ANGELA BERTHOLD (MÜNZKABINETT BERLIN)

#### AUDYTORIUM MAXIMUM, HALL B – CELTS

#### 34. CELTIC COINS 3. CELTIC NUMISMATICS IN THE DIGITAL AGE, ORG.: DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION) AND SYLVIA NIETO-PELLETIER (IRAMAT, CNRS-UNIVERSITÉ D'ORLÉANS), CHAIRED BY DAVID WIGG-WOLF AND KATHERINE GRUEL (AOROC\_CNRS- ENS-PSL)

1. IMAGE RECOGNITION APPLIED TO THE HOARD OF LE CÂTILLON II, CHRISOWALANDIS DELIGIO (GOETHE UNIVERSITÄT FRANKFURT AM MAIN), KARSTEN TOLLE (GOETHE UNIVERSITÄT FRANKFURT AM MAIN), PHILIP DE JERSEY (CULTURE AND HERITAGE, STATES OF GUERNSEY)
2. THE CONTRIBUTION OF 3D DIGITALISATION TO THE STUDY OF CELTIC COINS OF THE RIEDONES (FR, 35), KATHERINE GRUEL (AOROC\_CNRS- ENS-PSL), CAROLINE PLUMEL (AOROC\_CNRS-ENS-PSL), BENJAMIN HOUAL (ATELIER D'ARCHEOLOGIE 3D GRENOBLE), OLIVIER MASSON (AOROC), THIERRY LEJARS (AOROC\_CNRS - ENS- PSL)
3. 3D SCANNING OF CELTIC COINS AND DEEP LEARNING TO IDENTIFY MONETARY DIES, SOFIANE HORACHE (MINES PARIS, PSL UNIVERSITY), FRANÇOIS GOULETTE (MINES PARIS, PSL UNIVERSITY), JEAN-EMMANUEL DESCHAUD (MINES PARIS, PSL UNIVERSITY), THIERRY LEJARS (ENS ULM, PSL UNIVERSITY), KATHERINE GRUEL (ENS ULM, PSL UNIVERSITY)
4. THE MANERBIO HOARD (LOMBARDIA, ITALIA) AND 3D DIGITIZATION: THE REDISCOVERY OF CISALPINE GAUL DRACHMS, ELODIE PARIS (ECOLE FRANÇAISE DE ROME), ERMANO ARSLAN (ACCADEMIA NAZIONALE DEI LINCEI), KATHERINE GRUEL (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE / ECOLE NORMALE), FRANCESCA MORANDINI (FONDAZIONE BRESCIA MUSEI), SERENA SOLANO (SOPRINTENDENZA ARCHEOLOGIA BELLE ARTI E PAESAGGIO PER LE PROVINCE DI BERGAMO E BRESCIA)

**AUDYTORIUM MAXIMUM, HALL C – ROME & EARLY MIDDLE AGES**

**55. ROME 21. MANUFACTURE AND USE OF COUNTERFEIT ROMAN IMPERIAL DENARII IN BARBARICUM, ORG.: ARKADIUSZ DYMOWSKI (UNIVERSITY OF WARSAW) AND KYRYLO MYZGIN (UNIVERSITY OF WARSAW), CHAIRED BY JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)**

1. DENARII FLATI, KYRYLO MYZGIN (UNIVERSITY OF WARSAW)
2. COUNTERFEIT ROMAN IMPERIAL DENARII DISCOVERED IN WESTERN MOLDAVIA (ROMANIA), LUCIAN MUNTEANU (ROMANIAN ACADEMY, INSTITUTE OF ARCHAEOLOGY FROM IAȘI), GABRIEL-MIRCEA TALMAȚCHI (THE NATIONAL HISTORY AND ARCHAEOLOGY MUSEUM OF CONSTANȚA)
3. IRREGULAR ROMAN COINS FROM ROMAN AND MIGRATION PERIOD SETTLEMENTS IN WESTERN LESSER POLAND, JAN BULAS (ARCH FOUNDATION), JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY), BARBARA ZAJĄC (INDEPENDENT RESEARCHER), SZYMON JELLONEK (UNIVERSITY OF WARSAW)
4. MANUFACTURE AND USE OF ROMAN IMPERIAL DENARII SUBAERATI IN BARBARICUM, ARKADIUSZ DYMOWSKI (UNIVERSITY OF WARSAW)

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**69. MIDDLE AGES 7. 12<sup>TH</sup>-13<sup>TH</sup> CENTURIES, POLAND, CHAIRED BY BORYS PASZKIEWICZ (UNIVERSITY OF WROCLAW) / MAREK JANKOWIAK (UNIVERSITY OF OXFORD)**

1. THE DISCOVERY OF THE SECOND MEDIEVAL HOARD FROM SŁUSZKÓW, MICHAŁ ZAWADZKI (THE ROYAL CASTLE IN WARSAW – MUSEUM), ADAM KĘDZIERSKI (THE INSTITUTE OF ARCHEOLOGY AND ETHNOLOGY PAN)
2. MEDIEVAL HOARD OF GŁOGÓW – UNSOLVED MYSTERY OF POLISH COINAGE FROM THE END OF 12TH C., KRYSZTOF KSIĄŻEK (MUZEUM ARCHEOLOGICZNO-HISTORYCZNE W GŁOGOWIE)
3. ORIGINS OF THE RECOINAGE IN POLAND IN THE LIGHT OF NEW RESEARCH, GRZEGORZ ŚNIEŻKO (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY OF POLISH ACADEMY OF SCIENCES)

**OLD LIBRARY, HALL 115-116 – MEDALS**

**85. MEDALS 3. EUROPE, CHAIRED BY AGNIESZKA SMOŁUCHA-SŁADKOWSKA (NATIONAL MUSEUM IN KRAKÓW)**

1. PLAGUES, EPIDEMIC DISEASES AND NATURAL DISASTERS THROUGH PAPAL MEDALS, ELEONORA GIAMPICCOLO (VATICAN APOSTOLIC LIBRARY)
2. CURRENT RESEARCH ON MEDALLIC ART IN GERMANY, JOHANNES EBERHARDT (MÜNZKABINETT DER STAATLICHEN MUSEEN ZU BERLIN)
3. THE LLOYD'S MEDAL FOR SAVING LIFE AT SEA, TOM HOCKENHULL (BRITISH MUSEUM)

TUESDAY, SEPTEMBER 13, 2022, 17.00-18.30

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**5. RT ENTANGLED EXCHANGES: MONEY, COINAGE AND COLONIAL PROJECTS, ORG. AND MODERATOR: FLEUR KEMMERS (GOETHE UNIVERSITY FRANKFURT AM MAIN), NANOUSCHKA MYRBERG BURSTRÖM (STOCKHOLM UNIVERSITY)**

**LIST OF PANELISTS:**

1. FEUR KEMMERS
2. JOHN CREIGHTON
3. GEORGIA GALANI
4. RORY NAISMITH
5. FLORENT AUDY
6. NANOUSCHKA MYRBERG BURSTRÖM
7. KARIN PALLAVER
8. MARÍA GABRIELA HUIDOBRO

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**8. GREECE 8. NORTH-WESTERN GREECE AND MACEDONIA, CHAIRED BY JAROSŁAW BODZEK (JAGIELLONIAN UNIVERSITY)**

1. THE COIN HOARDS FROM CAREVI KULI, STRUMICA (NORTH MACEDONIA), SANJA BITRAK (ARCHAEOLOGICAL MUSEUM OF NORTH MACEDONIA)
2. AUTONOMOUS AND EQUAL: THE KHAONES OF EPEIROS AND THE EPEIROTE KOINON IN 234/3 BC, WILLIAM BUBELIS (WASHINGTON UNIVERSITY IN ST. LOUIS, JOHN MAX WULFING COLLECTION OF ANCIENT COINS AND RELATED OBJECTS)
3. ⊖THE PALAIOPOLIS HOARD AND CIRCULATION OF DRACHMAS IN LATE HELLENISTIC CORCYRA, GEORGIA TSOVALA (ILLINOIS STATE UNIVERSITY), GOULIELMA-KYRIAKI AVGERINOY (EPHORIA ARCHAIOETON KERKYRAS), LEE BRICE (WESTERN ILLINOIS UNIVERSITY)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**24. ANTIQUITY 4. ANCIENT THRACE – A REGION OF COINAGE DIVERSITY, ORG.: LILY GROZDANOVA (SU “ST. KLIMENT OHRIDSKI”), CHAIRED BY ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES) AND SELENE PSOMA (NATIONAL AND CAPODISTRIAN UNIVERSITY OF ATHENS)**

1. THE EMERGENCY COINAGE OF CHARIDEMOS IN THE TROAD, DINÇER SAVAŞ LENGER (AKDENİZ UNIVERSITY – ANTALYA)
2. ADAIOS AND HIS COINAGE REVISITED, ULRIKE PETER (BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES), VLADIMIR STOLBA (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT)
3. ICONOGRAPHIC INTERACTIONS BETWEEN THE ROMAN PROVINCES OF THRACE, PONTUS BITHYNIA AND ASIA MINOR, MARINA TASAĞLAKI (EPHORATE OF ANTIQUITIES OF RHODOPE, HELLENIC MINISTRY OF CULTURE AND SPORTS)

4. DIGITAL NUMISMATICS FROM THE USER PERSPECTIVE, LILY GROZDANOVA (SOFIA UNIVERSITY "ST. KLIMENT OHRIDSKI"), HRISTINA IVANOVA-ANAPLIOTI (UNIVERSITY OF ZURICH)

**AUDYTORIUM MAXIMUM, HALL B – CELTS**

**34. CELTIC COINS 3. CELTIC NUMISMATICS IN THE DIGITAL AGE, ORG.: DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION) AND SYLVIA NIETO-PELLETIER (IRAMAT, CNRS-UNIVERSITÉ D'ORLÉANS), CHAIRED BY DAVID WIGG-WOLF AND KATHERINE GRUEL (AOROC\_CNRS-ENS-PSL)**

1. HOW TO TRANSFORM A PRIVATE MONETARY DATABASE INTO A COLLABORATIVE TOOL ON THE INTERNET?, ENKO HIRIART (CNRS\_ UNIVERSITÉ BORDEAUX MONTAIGNE), KATHERINE GRUEL (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE / ECOLE NORMALE), GUILLAUME REICH (BIBRACTE), AGNÈS TRICOCHÉ (ECOLE NORMALE SUPÉRIEURE), YADH YEBNI (INDEPENDENT RESEARCHER)
2. ONLINE CELTIC COINAGE: A VIRTUAL UNION CATALOGUE FOR THE COINAGE OF PRE-ROMAN IRON AGE EUROPE, DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION)
3. IRON AGE COINS IN BRITAIN AND THE CELTIC COIN INDEX DIGITAL, COURTNEY NIMURA (UNIVERSITY OF OXFORD), ETHAN GRUBER (AMERICAN NUMISMATIC SOCIETY), CHRIS HOWGEGO (UNIVERSITY OF OXFORD), CHRIS GOSDEN (UNIVERSITY OF OXFORD)
4. AEMA (ARCHÉOMÉTRIE ET MONNAIES ANTIQUES): A DATABASE OF METAL ANALYSES FOR ANCIENT COINS, SYLVIA NIETO-PELLETIER (IRAMAT, CNRS-UNIV. ORLÉANS), MARYSE BLET-LEMARQUAND (IRAMAT, CNRS-UNIV. ORLÉANS), MURIELLE TROUBADY (IRAMAT, CNRS-UNIV. ORLÉANS), LAURENCE RAGEOT (MSH VAL DE LOIRE), HENRIQUE DA MOTA (IRAMAT, CNRS-UNIV. ORLÉANS)

**AUDYTORIUM MAXIMUM, HALL C – ROME & EARLY MIDDLE AGES**

**56. LATE ANTIQUITY AND EARLY MIDDLE AGES 1. ITALY, CHAIRED BY ANDREA SACCOCCI (UNIVERSITÀ DEGLI STUDI DI UDINE)**

1. COIN CIRCULATION IN LATE ROMAN VELIA (CAMPANIA-ITALY): PRELIMINARY DATA, FLAVIA MARANI (UNIVERSITÀ DEGLI STUDI DI SALERNO)
2. LATE ANTIQUE COIN CIRCULATION IN ROMAGNA: THE EVIDENCE FROM AD NOVAS (CESENATICO, ITALY), ELENA BALDI (WASHINGTON UNIVERSITY), DENIS SAMI (OXFORD ARCHAEOLOGY EAST)
3. THE USE OF COINS IN TOMBS IN VENETO DURING LATE ANTIQUITY AND THE MIDDLE AGES, NOÉ CONEJO (UNIVERSITÀ DEGLI STUDI DI PADOVA)
4. THE SM MARK ON BRONZE ISSUES OF THE PERIOD OF HONORIUS, STEFANO BRUNI (INDEPENDENT RESEARCHER)

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**70. MIDDLE AGES 8. 12<sup>TH</sup>-13<sup>TH</sup> CENTURIES, EASTERN EUROPE, CHAIRED BY GRZEGORZ ŚNIEŻKO  
(INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY OF POLISH ACADEMY OF SCIENCES)**

1. A HOARD OF TWELFTH CENTURY ITALIAN DENARI FROM THE AREA OF TERNOPIŁ', UKRAINE, BORYS PASZKIEWICZ (UNIVERSITY OF WROCŁAW)
2. FUR MONEY OF ANCIENT RUS'?, DZMITRY HULETSKI (EUROPEAN HUMANITIES UNIVERSITY)
3. SILVER PAYMENT INGOTS IN EASTERN EUROPE. GENESIS AND DATING, ILYA SHTALENKOV (BELARUSIAN NUMISMATIC SOCIETY)
4. SILVER INGOT FROM CHEŁM (13TH CENTURY). PRELIMINARY REPORT, MARCIN WOŁOSZYN (LEIBNIZ INSTITUTE FOR THE HISTORY AND CULTURE OF EASTERN EUROPE (GWZO), LEIPZIG, GERMANY // INSTITUTE OF ARCHAEOLOGY, UNIVERSITY OF RZESZÓW, POLAND), TOMASZ DZIENKOWSKI (INSTITUTE OF ARCHAEOLOGY, MARIA CURIE SKŁODOWSKA UNIVERSITY, LUBLIN, POLAND), STEPHEN WILLIAM MERKEL (DEUTSCHES BERGBAU-MUSEUM BOCHUM)



WEDNESDAY, SEPTEMBER 14, 2022, 9.00-10.30

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**6. RT POMPEII, MINTURNAE, MASSALIA, HISPANIA: NUMISMATIC EVIDENCE FOR WESTERN MEDITERRANEAN TRADE, 200-50 BC, ORG.: CLIVE STANNARD (UNIVERSITY OF WARWICK) AND ALEJANDRO G. SINNER (UNIVERSITY OF VICTORIA, CANADA), MODERATOR: CLIVE STANNARD**

**LIST OF PANELISTS:**

1. ALEJANDRO G. SINNER
2. KOENRAAD VERBOVEN
3. CLIVE STANNARD
4. MARTA BARBATO
5. ALBERT RIBERA I LACOMBA
6. SUZANNE FREY-KUPPER
7. JEAN-ALBERT CHEVILLON
8. GIROLAMO FERDINANDO DE SIMONE
9. MICHELE STEFANILE
10. BARTOLOMÉ MORA SERRANO
11. ALFRED HIRT

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**9. GREECE 9. THRACE, CHAIRED BY ULRIKE PETER (BERLIN-BRANDENBURGISCHE AKADEMIE DER WISSENSCHAFTEN)**

1. THE DEMETER COINAGES OF BYZANTIUM AND CHALCEDON, CONSTANTIN MARINESCU (INDEPENDENT RESEARCHER)
2. ⊖THE CAST COINS OF ISTROS – A REASSESSMENT OF METROLOGY, ADRIAN POPESCU (FITZWILLIAM MUSEUM)
3. MONETARY CIRCULATION IN ISTROS DURING THE FIRST HALF OF THE 3RD CENTURY BC, STELUȚA MARIN (THE BUCHAREST MUNICIPALITY MUSEUM)
4. ARCHAEOLOGICAL, HISTORICAL, AND TECHNOLOGICAL (XRF ANALYSES AND GIS) ASPECTS OF EARLY SILVER COINS AND COIN HOARDS FROM SOUTHWESTERN THRACE, NINA HADZHIEVA (REGIONAL HISTORY MUSEUM AT BLAGOEVGRAD)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**25. ANTIQUITY 5. THE SYLLOGE NUMMORUM PARTHICORUM PROJECT (SNP), ORG. AND CHAIRED BY FABRIZIO SINISI (AUSTRIAN ACADEMY OF SCIENCES)**

1. THE SYLLOGE NUMMORUM PARTHICORUM PROJECT (SNP), MICHAEL ALRAM (AUSTRIAN ACADEMY OF SCIENCES), VESTA S. CURTIS (BRITISH MUSEUM)
2. DATABASE CHALLENGES FOR SNP VOLUMES 2 & 4, CHRIS HOPKINS (INDEPENDENT RESEARCHER)

3. FROM SNP 2 TO SNP 4: CHALLENGES ENCOUNTERED AND OUTCOMES GATHERED, ALEXANDRA MAGUB (BRITISH MUSEUM)
4. THE DRACHMS OF PHRAATES IV, ORGANIZATION AND PATTERNS OF PRODUCTION, FABRIZIO SINISI (AUSTRIAN ACADEMY OF SCIENCES)

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**39. ROME 5. ROMAN IMPERIAL COINAGE 2, CHAIRED BY KYRYLO MYZGIN (UNIVERSITY OF WARSAW)**

1. GEOGRAPHICAL TARGETING IN ROMAN MONETARY PROPAGANDA – A CRITICAL REVIEW, KAMIL KOPIJ (ISTITUTE OF ARCHAEOLOGY, JAGIELLONIAN UNIVERSITY), GRZEGORZ SOCHACKI (ISTITUTE OF ARCHAEOLOGY, JAGIELLONIAN UNIVERSITY)
2. QUITE THE FATHER?! RESEMBLANCES OF EMPEROR PORTRAITS AFTER THE INAUGURATION OF A NEW ROMAN EMPEROR, SIMONE KILLEN (KOMMISSION FÜR ALTE GESCHICHTE UND EPIGRAPHIK)
3. SURVEY OF DAMAGED AUREI WHICH HAVE SUBSEQUENTLY BEEN "REPAIRED": IS THIS A PERVASIVE PROBLEM?, RONALD BUDE (UNIVERSITY OF MICHIGAN)

**AUDYTORIUM MAXIMUM, HALL C – DIE STUDIES**

**86. DIE STUDIES 1. 21ST CENTURY APPROACHES TO DIE STUDIES, ORG.: LUCIA CARBONE (AMERICAN NUMISMATIC SOCIETY), LIV M. YARROW (CUNY, GRADUATE CENTER), CAROLINE CARRIER (ENS-LYON); CHAIRED BY LUCIA CARBONE**

1. DEVELOPMENTS IN THE COMPUTER-AIDED DIE STUDY (CADS), ZACHARY TAYLOR (AMERICAN NUMISMATIC SOCIETY)
2. THE ROMAN REPUBLICAN DIE PROJECT (RRDP): HISTORY AND METHODOLOGY, LUCIA FRANCESCA CARBONE (AMERICAN NUMISMATIC SOCIETY), LIV MARIAH YARROW (BROOKLYN COLLEGE, CUNY), ALICE SHERPLESS (AMERICAN NUMISMATIC SOCIETY)
3. INTEGRATING DIE STUDIES INTO THE ROMAN REPUBLICAN KNOWLEDGE GRAPH, ETHAN GRUBER (AMERICAN NUMISMATIC SOCIETY)
4. THE ONLINE DIE STUDY DATABASE OF THE ERC « SILVER », CAROLINE CARRIER (ÉCOLE NORMALE SUPÉRIEURE DE LYON)

**AUDYTORIUM MAXIMUM, HALL D – EXONUMIA**

**87. EXONUMIA 1. ANCIENT AND BYZANTINE WEIGHTS: FROM DATABASES TO HISTORICAL ANTHROPOLOGY, ORG.: CHARLES DOYEN (UCLouvain / FNRS) AND PIERRE CHARREY (UCLouvain / FNRS), CHAIRED BY CHARLES DOYEN**

1. NEW TRENDS IN THE HISTORY OF WEIGHTS AND MEASURES: THE LEGACY OF WITOLD KULA'S HISTORICAL METROLOGY, GRÉGORY CHAMBON (EHESS)



2. FOR GOOD MEASURE: THE CONTROL OF MEASURING INSTRUMENTS IN THE ANCIENT GREEK MARKET, LOUISE WILLOCX (UCLouvain)
3. ON THE SCALE OF THE EMPIRE: WEIGHTS DESIGN AND LATE ROMAN IDEOLOGY (4TH-8TH C.), PIERRE CHARREY (UCLouvain / FNRS)
4. ⓪WEIGHING AFTER DEATH: EARLY MEDIEVAL SCALES AND WEIGHTS IN A FUNERARY CONTEXT, BENDEGUZ TOBIAS (Austrian Academy of Sciences)

**OLD LIBRARY, HALL 115-116 – MODERN TECHNOLOGIES & DATA BASES**

**89. MODERN TECHNOLOGIES IN NUMISMATICS, CHAIRED BY KEVIN BUTCHER (UNIVERSITY OF WARWICK)**

1. ADHERING TO A WEIGHT STANDARD IN ANCIENT COINAGE BASED ON THE EXAMPLE OF CISTOPHORI, WOLFGANG BRETZ (Ruhr University Bochum Institute of Archaeological Studies), BAERBEL MORSTADT (Ruhr University Bochum Institute of Archaeological Studies)
2. COMPARATIVE METAL ANALYSES OF ORIGINAL AND COUNTERFEIT ANCIENT COINS – SOME EXAMPLES FROM BULGARIA, MARINA DOYCHINOVA (Regional History Museum of Sofia)
3. USING MODERN TECHNOLOGIES FOR THE 3D VIZUALIZATION OF THE ROMAN IMPERIAL COINS, KLARA BURIANOVA (Department of Auxiliary Sciences of History and Archival Studies, Philosophical Faculty, University of Hradec Kralove)
4. RE-IMAGINING THROUGH RE-IMAGING: RTI HELPING US SEE MUSEUM COLLECTIONS IN A NEW LIGHT, ELIZABETH BENGE (The Art Institute of Chicago)

**WEDNESDAY, SEPTEMBER 14, 2022, 11.00-12.30**

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

6. RT POMPEII, MINTURNAE, MASSALIA, HISPANIA: NUMISMATIC EVIDENCE FOR WESTERN MEDITERRANEAN TRADE, 200-50 BC, ORG.: CLIVE STANNARD (UNIVERSITY OF WARWICK) AND ALEJANDRO G. SINNER (UNIVERSITY OF VICTORIA, CANADA), MODERATOR: CLIVE STANNARD

**LIST OF PANELISTS:**

1. ALEJANDRO G. SINNER
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6. SUZANNE FREY-KUPPER
7. JEAN-ALBERT CHEVILLON
8. GIROLAMO FERDINANDO DE SIMONE
9. MICHELE STEFANILE



10. BARTOLOMÉ MORA SERRANO

11. ALFRED HIRT

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**10. GREECE 10. ADVANCES IN ARCHAIC ATHENIAN COINAGE: MORE ON MINES, METALS AND MONEY, ORG. AND CHAIRED BY KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY)**

1. A NEW CORPUS AND DIE STUDY OF ATHENIAN WAPPENMÜNZEN, KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY), GIL DAVIS (ACANS, MACQUARIE UNIVERSITY)
2. SILVER MINING IN ARCHAIC LAURION, SOPHIA NOMICOS (WESTFÄLISCHE WILHELMS-UNIVERSITÄT MÜNSTER)
3. A PLATED ATHENIAN WAPPENMÜNZEN GORGONEION TETRADRACHM AT ACANS, KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY), FILOMENA SALVEMINI (ACANS AND ANSTO), VLADIMIR LUZIN (ACANS AND ANSTO), SCOTT OLSEN (ACANS AND ANSTO)
4. NEW TECHNIQUES AND ANALYSIS OF ARCHAIC ATHENIAN COINS, GIL DAVIS (AUSTRALIAN CATHOLIC UNIVERSITY), LIESEL GENTELLI (ECOLE NORMALE SUPÉRIEURE DE LYON), JANNE Blichert-Toft (CNRS), KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY), MARKOS VAXEVANOPOULOS (ECOLE NORMALE SUPÉRIEURE DE LYON), FRANCIS ALBARÈDE (ECOLE NORMALE SUPÉRIEURE DE LYON)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY**

**26. ANTIQUITY 6. GEORGIAN NUMISMATICS, ORG. AND CHAIRED BY TEDO DUNDUA (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)**

1. COIN ISSUES IN GEORGIA. GENERAL SURVEY - PRESENTATION OF THE ONLINE ENGLISH-GEORGIAN CATALOGUE OF GEORGIAN NUMISMATICS, TEDO DUNDUA (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)
2. COIN TYPES IN THE GEORGIA AND GRAECO-ROMAN WORLD, NATIA PHIPHIA (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)
3. COIN TYPES IN GEORGIA AND THE BYZANTINE WORLD, LERI TAVADZE (IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY)
4. BEYOND THE CATALOGUE OF GEORGIAN NUMISMATICS – NEW COIN FINDS FROM GEORGIA, EVGENI TCHANISHVILI (TBILISI STATE UNIVERSITY)

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**40. ROME 6. ROMAN IMPERIAL COINAGE 3, CHAIRED BY BARTOSZ AWIANOWICZ (NICOLAUS COPERNICUS UNIVERSITY, TORUŃ)**

1. THE GOLD COINAGE OF HADRIAN 117-128 CE, MARTIN BECKMANN (MCMASTER UNIVERSITY)

2. VOTA COINS ON THE OCCASION OF IMPERIAL ANNIVERSARIES FROM ANTONINUS PIUS TO DIOCLETIANUS (138-294 A.D.), JULIA SOPHIA HANELT (JOHANNES GUTENBERG-UNIVERSITÄT MAINZ)
3. INITIATORS, STATUS, DEGREE OF TOLERANCE OF AUTHORITIES AND OTHER KEY FEATURES OF IRREGULAR RADIATES: UPDATED OVERVIEW, FABIEN PILON (UMR 7041 / ARSCAN / ASSOCIATION LA RIOBÉ)
4. NATUS VINCERE: THE IMAGE OF EMPEROR GALLIENUS (253-268) THROUGH THE ROME'S MINT COINAGE, DAVID SERRANO ORDOZGOITI (UNIVERSIDAD COMPLUTENSE DE MADRID)

#### **AUDYTORIUM MAXIMUM, HALL C – DIE STUDIES**

#### **86. DIE STUDIES 1. 21ST CENTURY APPROACHES TO DIE STUDIES, ORG.: LUCIA CARBONE (AMERICAN NUMISMATIC SOCIETY), LIV M. YARROW (CUNY, GRADUATE CENTER), CAROLINE CARRIER (ENS-LYON); CHAIRED BY LUCIA CARBONE**

1. 21ST CENTURY APPROACHES TO DIE STUDIES: WHAT ROLE CAN AN INSTITUTION LIKE THE BNF PLAY?, JULIEN OLIVIER (BIBLIOTHÈQUE NATIONALE DE FRANCE)
2. THE ROMAN REPUBLICAN DIE PROJECT (RRDP): PRELIMINARY FINDINGS, LUCIA FRANCESCA CARBONE (AMERICAN NUMISMATIC SOCIETY), LIV MARIAH YARROW (BROOKLYN COLLEGE, CUNY), ALICE SHARPLESS (AMERICAN NUMISMATIC SOCIETY)
3. BRONZE COINS BETWEEN MAGNESIA AND MACEDON: A NEW DIE STUDY OF THE COINAGES OF EASTERN MOUNT OSSA (THESSALY, GREECE), ANNA MAGDALENA BLOMLEY (UNIVERSITY OF OXFORD)
4. WILLIAM TAYLOR AND THE FIRST COINAGE OF THE REPUBLIC OF LIBERIA, BILL DALZELL (CNG, LLC)

#### **AUDYTORIUM MAXIMUM, HALL D – EXONUMIA**

#### **88. EXONUMIA 2. COIN WEIGHTS & TOKENS, CHAIRED BY CHARLES DOYEN (UCLouvain / FNRS)**

1. THE REUSE OF ROMAN COINS IN THE ISLAMIC WORLD, FEDERICA GIGANTE (UNIVERSITY OF OXFORD), JEROME MAIRAT (UNIVERSITY OF OXFORD)
2. FINDING THE 'MISSING PIECES': LATE MEDIEVAL AND RENAISSANCE COIN WEIGHTS FROM ENGLAND AND WALES, MURRAY ANDREWS (KULTURHISTORISK MUSEUM / UNIVERSITY OF OSLO)
3. BARCELONA, CENTER OF PRODUCTION OF MONETARY SCALES (18TH-19TH CENTURIES), ALBERT ESTRADA-RIUS (GABINET NUMISMÀTIC DE CATALUNYA / MUSEU NACIONAL D'ART DE CATALUNYA)



4. THE MAJORCAN CHURCH LEAD TOKENS: A NUMISMATIC SYSTEM TO CONTROL PRIEST PRESENCE DURING MASS, JAUME BOADA-SALOM (SOCIETAT CATALANA D'ESTUDIS NUMISMÀTICS)

**OLD LIBRARY, HALL 115-116 – MODERN TECHNOLOGIES & DATA BASES**

**90. NUMISMATIC DATABASES, CHAIRED BY ETHAN GRUBER (AMERICAN NUMISMATIC SOCIETY)**

1. NUMISTA: BUILDING A COLLABORATIVE UNIVERSAL NUMISMATIC DATABASE, XAVIER ROGÉ (NUMISTA), ANDREI JIPA (ETH ZÜRICH)
2. FROM CLOSED CATALOGUES INTO LINKED OPEN NUMISMATIC DATA IN FINLAND, ELIAS OKSANEN (UNIVERSITY OF HELSINKI), FRIDA EHRNSTEN (NATIONAL MUSEUM OF FINLAND), HEIKKI RANTALA (AALTO UNIVERSITY)
3. THE COIN HOARDS OF THE ROMAN REPUBLIC ONLINE DATABASE: REFLECTIONS AND DEVELOPMENT AFTER NINE YEARS, KRIS LOCKYEAR (INSTITUTE OF ARCHAEOLOGY, UCL)



THURSDAY, SEPTEMBER 15, 2022, 9.00-10.30

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**7. RT SAMARIAN COINS IN LIGHT OF EARLY INDIGENOUS LEVANTINE COINAGES, ORG. AND MODERATOR: HAIM GITLER (ISRAEL MUSEUM) AND OREN TAL (TEL AVIV UNIVERSITY)**

**LIST OF PANELISTS:**

1. FRANÇOIS DE CALLATAY
2. WOLFGANG FISCHER-BOSSERT
3. DONALD ARIEL
4. KORAY KONUK
5. FRÉDÉRIQUE DUYPAT
6. PETER VAN ALFEN
7. MATI JOHANANOFF
8. NOVELLA VISMARA, ITALY
9. GIL DAVIS
10. JOSETTE ELAYI
11. FRANCIS ALBAREDE
12. PATRICK WYSSMANN
13. MAAYAN COHEN
14. JAROSŁAW BODZEK
15. YOAV FARHI
16. HAIM GITLER
17. OREN TAL

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**11. GREECE 11. CENTRAL GREECE – PELOPONNESE, CHAIRED BY CATHERINE GRANDJEAN (UNIVERSITY OF TOURS)**

1. RELATIVE AND ABSOLUTE CHRONOLOGIES FOR 4TH-2ND CENTURY BCE CORINTHIAN COINAGE, LEE BRICE (WESTERN ILLINOIS UNIVERSITY)
2. ATHENA AND THE BELLEROPHON MYTH ON COINS FROM CORINTH AND BEYOND, ANGELA ZISKOWSKI (COE COLLEGE), LEE BRICE (WESTERN ILLINOIS UNIVERSITY)
3. THE (WINGED) HORSE AS MOTIF ON COINS FROM CORINTH AND MARONEIA, OLIWIA ULLRICH (WWU MÜNSTER)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**27. ANTIQUITY AND MIDDLE AGES 1. DIGITAL APPROACHES TO COIN FINDS, ORG. AND CHAIRED BY MARGUERITE SPOERRI BUTCHER (HEBERDEN COIN ROOM, OXFORD / ASHMOLEAN MUSEUM) AND DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION, FRANKFURT A. M.)**

1. THE COIN HOARDS OF THE ROMAN EMPIRE PROJECT, MARGUERITE SPOERRI BUTCHER (HEBERDEN COIN ROOM, OXFORD / ASHMOLEAN MUSEUM)
2. THE COIN FINDS HUB - ITALY PROJECT: MANAGEMENT AND USE OF NUMISMATIC DATA FROM ARCHAEOLOGICAL CONTEXTS, FEDERICO CARBONE (UNIVERSITY OF

SALERNO), RENATA CANTILENA (UNIVERSITY OF SALERNO), GIACOMO PARDINI (UNIVERSITY OF SALERNO)

3. ANTIKE FUNDMÜNZEN IN EUROPA, DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION), KARSTEN TOLLE (GOETHE UNIVERSITY FRANKFURT)
4. PUBLIC FINDS RECORDING PROJECTS, ANDREW BROWN (BRITISH MUSEUM)

#### **AUDYTORIUM MAXIMUM, HALL B – ROME**

##### **41. ROME 7. ROMAN IMPERIAL COINAGE 4, CHAIRED BY KYRYLO MYZGIN (UNIVERSITY OF WARSAW)**

1. FACING PORTRAITS OF THE EMPEROR IN THE 260S AD, MICHELE LANGE (SFB 1391 / UNIVERSITÄT TÜBINGEN)
2. THE STRIKING OR AUREI AT EASTERN MINTS DURING THE TETRARCHY (293-313/314), JAY DHARMADHIKARI (SOCIÉTÉ FRANÇAISE DE NUMISMATIQUE)
3. A NEW CAST CONTORNIATE FROM ROME, CLAUDIA FERRO (SOVRINTENDENZA CAPITOLINA AI BENI CULTURALI)

#### **AUDYTORIUM MAXIMUM, HALL C – LATE ANTIQUITY & EARLY MIDDLE AGES**

##### **57. LATE ANTIQUITY AND EARLY MIDDLE AGES 2. SPAIN, CHAIRED BY DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)**

1. LATE ROMAN CLIPPED AND TRIMMED NUMMI IN VIGUERA (NORTHERN SPAIN), JOSÉ MARÍA TEJADO SEBASTIÁN (UNIV. OF LA RIOJA, SPAIN), FERNANDO LÓPEZ-SÁNCHEZ (COMPLUTENSE UNIVERSITY OF MADRID)
2. LATE ANTIQUE CURRENCY IN EASTERN IBERIAN PENINSULA: THE CASE OF VALÈNCIA LA VELLA, ÒSCAR CALDÉS (INSTITUT CATALÀ D'ARQUEOLOGIA CLÀSSICA, TARRAGONA, SPAIN)
3. LATE ROMAN AND LATE ANTIQUE COINS FROM THE EXCAVATIONS AT TORTOSA'S CATHEDRAL SQUARE, XAVIER SICART CHAVARRIA (GRUP DE RECERCA SEMINARI DE PROTOHISTÒRIA I ARQUEOLOGIA DE LA UNIVERSITAT ROVIRA I VIRGILI (GRESEPIA), TARRAGONA, SPAIN), ÒSCAR CALDÉS (INSTITUT CATALÀ D'ARQUEOLOGIA CLÀSSICA, TARRAGONA, SPAIN), RAMON FERRÉ ANGUIX (GRUP DE RECERCA SEMINARI DE PROTOHISTÒRIA I ARQUEOLOGIA DE LA UNIVERSITAT ROVIRA I VIRGILI (GRESEPIA) / INSTITUT CATALÀ D'ARQUEOLOGIA CLÀSSICA (ICAC), TARRAGONA, SPAIN)
4. NUMISMATIC ARCHAEOLOGICAL CONTEXTUALISATION IN THE CENTRE OF THE PENINSULA DURING THE EARLY MEDIEVAL PERIOD (5TH-10TH CENTURIES AD): RECCOPOLIS, TOLEDO AND GUADALAJARA, MANUEL CASTRO PRIEGO (ALCALÁ UNIVERSITY)

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**71. MIDDLE AGES 9. MONETARY SYSTEMS IN TRANSITION IN MEDIEVAL CENTRAL ITALY, ORG.: WILLIAM DAY (MEDIEVAL EUROPEAN COINAGE PROJECT, FITZWILLIAM MUSEUM), CHAIRED BY ELINA SCREEN (FITZWILLIAM MUSEUM)**

1. FROM LOCAL AUTHORITY TO PAPAL AUTHORITY: CENTRAL ITALIAN MINTS DURING THE EXPANSION OF THE PAPAL STATES, 14TH-15TH CENTURIES, WILLIAM DAY (FITZWILLIAM MUSEUM)
2. NEW RESEARCH ON THE GOLD FLORIN OF FLORENCE AND ITS IMITATIONS (1252-1351): THE CASE OF THE ZALEWO AND ŚRODA ŚLĄSKA HOARDS (POLAND), MASSIMO DE BENETTI (PROGETTO COLLEZIONE DI VITTORIO EMANUELE III, MEDAGLIERE DEL MUSEO NAZIONALE ROMANO, ROMA)
3. THE COINS OF THE ESTE DOMINIONS AND THEIR ROLE IN FACILITATING EXCHANGE THROUGHOUT THE ITALIAN KINGDOM (12TH -15TH CENT.), ANDREA SACCOCCI (UNIVERSITÀ DEGLI STUDI DI UDINE)
4. ROME AND COINAGE IN THE TENTH CENTURY: POSSIBLE REASONS FOR THE CLOSURE OF THE MINT, MARIELE VALCI (ISTITUTO ITALIANO PER GLI STUDI STORICI, NAPLES)

**OLD LIBRARY, HALL 115-116 – COLLECTIONS**

**91. COLLECTIONS 1, CHAIRED BY ADAM DEGLER (OSSOLIŃSKI NATIONAL INSTITUTE)**

1. THE NUMISMATIC COLLECTION OF FRANCESCO CAPRANESI: THE COINS OF THE ALLIES DURING THE SOCIAL WAR, SIMONE CAPPELLACCI
2. THE COLLECTION OF SILVER ORIENTAL COINS STORED IN THE ODESSA ARCHAEOLOGICAL MUSEUM, DMYTRO YANOV (ODESSA ARCHAEOLOGICAL MUSEUM OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE)
3. CHARLES PHILIPPE DE BOSSET'S COIN COLLECTION IN THE BRITISH MUSEUM, AMELIA DOWLER (BRITISH MUSEUM)
4. DIES AND PUNCHES FROM THE ROYAL MINT - A NEW COLLECTION AT KBR (ROYAL LIBRARY OF BELGIUM), FRAN STROOBANTS (ROYAL LIBRARY OF BELGIUM)



THURSDAY, SEPTEMBER 15, 2022, 11.00-12.30

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**8. RT ANCIENT COINS COUNTERFEITS, ORG.: DILYANA BOTEVA-BOYANOVA (SOFIA UNIVERSITY “ST. KLIMENT OHRIDSKI”) AND ILYA PROKOPOV (SOFIA UNIVERSITY “ST. KLIMENT OHRIDSKI”), MODERATOR: VALENTINA GRIGOROVA-GENCHEVA (FIRST INVESTMENT BANK / UNIVERSITY OF SOFIA “ST. KLIMENT OHRIDSKI”).**

**LIST OF PANELISTS:**

1. ILYA PROKOPOV
2. DILYANA BOTEVA-BOYANOVA
3. ARNE KIRSCH
4. JAN KÖSTER

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**12. GREECE 12. NORTHERN & CENTRAL GREECE, CHAIRED BY VASSILIKI STEFANAKI (NUMISMATIC MUSEUM, ATHENS)**

1. NEW THOUGHTS ON THE CHALCIDIAN COIN ICONOGRAPHY, OLIVIA DENK (UNIVERSITY OF BASEL)
2. NUMISMATIC EVIDENCE FROM ANCIENT CASSANDREIA AT CHALCIDIKE, NORTHERN GREECE, ELENI KLINAKI (EPHORATE OF ANTIQUITIES OF PIERIA / HELLENIC MINISTRY OF CULTURE), ANTONIA NIKOLAKOPOULOU (NUMISMATIC MUSEUM /HELLENIC MINISTRY OF CULTURE)
3. THE COINAGE OF HIPPIAS OF ATHENS IN THE LIGHT OF A NEW SPECIMEN, KORAY KONUK (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, INSTITUT AUSONIUS)
4. A HOARD OF ATHENIAN COINS IN THE EGYPTIAN MUSEUM OF ANTIQUITIES IN CAIRO, SAMAH GOHAR (THE EGYPTIAN MUSEUM)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**27. ANTIQUITY AND MIDDLE AGES 1. DIGITAL APPROACHES TO COIN FINDS, ORG. AND CHAIRED BY MARGUERITE SPOERRI BUTCHER (HEBERDEN COIN ROOM, OXFORD / ASHMOLEAN MUSEUM) AND DAVID WIGG-WOLF (RÖMISCH-GERMANISCHE KOMMISSION, FRANKFURT A. M.)**

1.  $\Theta$ COIN FINDS FROM CARTHAGE, IVÁN FUMADÓ ORTEGA (UNIVERSITY OF VALENCIA)
2. DIGITALIZING ANCIENT COIN FINDS FROM SOUTH HISPANIA WITH DEDALO, ELENA MORENO PULIDO (UNIVERSIDAD DE CÁDIZ)
3. THE INVENTORY OF COIN FINDS FROM SWITZERLAND, RAHEL ACKERMANN (SWISS INVENTORY OF COIN FINDS), JONAS VON FELTEN (SWISS INVENTORY OF COIN FINDS)
4.  $\Theta$ COIN FIND CATALOGUE OF THE NUMISMATIC COMMISSION OF GERMANY – NEW PORTAL AND ITS INTEGRATION IN THE NUMISMATIC ONLINE WORLD, MARIO



SCHLAPKE (THÜRINGISCHES LANDESAMT FÜR DENKMALPFLEGE UND ARCHÄOLOGIE)

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**42. ROME 8. GOLD IN THE ROMAN EMPIRE, CHAIRED BY GEORGE A. GREEN (ASHMOLEAN MUSEUM, UNIVERSITY OF OXFORD)**

1. TRACING ROMAN GOLD STOCKS WITH LA-ICP-MS ANALYSIS OF COINS FROM THE SECOND PUNIC WAR TO THE END OF THE FIRST CENTURY CE, ARNAUD SUSPÈNE (UNIVERSITÉ D'ORLÉANS / CNRS IRAMAT-CEB), MARYSE BLET-LEMARQUAND (CNRS / UNIVERSITÉ D'ORLÉANS IRAMAT-CEB)
2. THE ROMAN COINAGE UNDER THE ANTONINES: AN ECONOMY OF SILVER, NOT GOLD, GILLES BRANSBOURG (AMERICAN NUMISMATIC SOCIETY)
3. THE CIRCULATION OF ROMAN GOLD AUREI IN THE 3RD CENTURY AD, ROGER BLAND (ROYAL NUMISMATIC SOCIETY)
4. ROMAN GOLD COINS FROM BARBARICUM, KYRYŁO MYZGIN (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)

**AUDYTORIUM MAXIMUM, HALL C – LATE ANTIQUITY & EARLY MIDDLE AGES**

**58. LATE ANTIQUITY AND EARLY MIDDLE AGES 3. FLAME, DIGITAL NUMISMATICS, AND THE LATE ANTIQUE-MEDIEVAL TRANSITION, ORANIZED AND CHAIRED BY MARK PYZYK (PRINCETON UNIVERSITY)**

1. VISIGOTHIC MONETARY CIRCULATION: HOW MANY COINS ARE WE TALKING ABOUT?, RUTH PLIEGO (UNIVERSITY OF SEVILLE)
2. DISTRIBUTION OF COINS IN LATE ANTIQUITY AND EARLY MIDDLE AGES IN SOUTHERN ITALY (325-725 AD): A COMPARISON BETWEEN BORDER AND INLAND AREAS, DOMENICO LUCIANO MORETTI (STUDIORUM UNIVERSITÀ DI BOLOGNA), GIUSEPPE SARCINELLI (UNIVERSITÀ DEL SALENTO)
3. LOCAL ECONOMIES AT THE END OF THE LATE ANTIQUITY. A CASE STUDY, AIKATERINA PEPPA (PARIS 1 PANTHÉON -SORBONNE)
4. CHANGES IN COIN CIRCULATION IN THE NORTHERN BALKANS (6TH-8TH C.): INTERSECTIONS OF ECONOMIC AND SCIENTIFIC EVIDENCE FOR THE "BARBARIAN INVASIONS", ILIA CURTO-PELLE (PRINCETON UNIVERSITY)

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**72. MIDDLE AGES 10. 13<sup>TH</sup>-14<sup>TH</sup> CENTURIES, CENTRAL AND NORTHERN EUROPE, CHAIRED BY ROMAN ZAORAL (CHARLES UNIVERSITY, FACULTY OF HUMANITIES, PRAGUE)**

1. ONCE AGAIN ON EARLY MINTING IN RIGA, LIVONIA, IVAR LEIMUS (ESTONIAN HISTORY MUSEUM)





2. ΘMINTING UNDER THE BOHEMIAN KING OTAKAR II IN AUSTRIAN LANDS IN THE SECOND HALF OF THE 13TH CENTURY, DAGMAR GROSSMANOVÁ (MORAVIAN MUSEUM), TOMÁŠ KREJČÍK (MASARYK UNIVERSITY)
3. DIE ENTWICKLUNG DER STERLINGNACHAHMUNGEN IN WESTFALEN IM 13. UND 14. JAHRHUNDERT), LARS BLUMBERG (DEPARTMENT OF NUMISMATICS AND MONETARY HISTORY AT THE UNIVERSITY OF VIENNA)
4. INFLUENCE OF THE STERLING ZONE ON SILESIAN COINAGE IN THE KWARTNIK PERIOD, DAWID MACIEJCZUK (UNIVERSITY OF WROCŁAW)

**OLD LIBRARY, HALL 115-116 – COLLECTIONS**

**92. COLLECTIONS 2, CHAIRED BY PAWEŁ GOŁYŹNIAK (JAGIELLONIAN UNIVERSITY)**

1. POLISH COINS AND MEDALS AT THE AMERICAN NUMISMATIC SOCIETY, DAVID HILL (AMERICAN NUMISMATIC SOCIETY)
2. HISTORY OF COLLECTING: PARALLEL LIVES OF SAMUEL-JEAN POZZI AND FENERLY BEY, MARY LANNIN (AMERICAN NUMISMATIC SOCIETY)
3. POSSIBILITIES AND LIMITS OF PROVENANCE RESEARCH IN NUMISMATICS, CHRISTIAN STOESS (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT)

**THURSDAY, SEPTEMBER 15, 2022, 14.00-15.30**

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**93. RT LA NUMISMATIQUE ANTIQUE ET MÉDIÉVALE DU MAGHREB – ÉTAT DES LIEUX, ENJEUX ACTUELS, ORG. AND MODERATOR: ANTONY HOSTEIN (ECOLE PRATIQUE DES HAUTES ETUDES-PSL, PARIS)**

**LIST OF PANELISTS:**

1. LAURENT CALLEGARIN
2. JÉRÉMY ARTRU
3. ABDELHAMID FENINA
4. VIVIEN PRIGENT
5. RUTH PLIEGO
6. SUZANNE FREY-KUPPER
7. ANTONY HOSTEIN
8. AURÉLIEN ROS, (EPHE)
9. ARNAUD SUSPÈNE (UNIVERSITÉ D'ORLÉANS / CNRS IRAMAT-CEB)
10. ELENA MORENO PULIDO (UNIVERSIDAD DE CÁDIZ)

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**13. GREECE 13. PELOPONNESE, CHAIRED BY KENNETH SHEEDY (ACANS, MACQUARIE UNIVERSITY)**

1.  $\Theta$ COMMON CURRENCIES? THE COINAGES ATTRIBUTED TO THE ARKADIAN KOINON, DAVID WEIDGENANT (UNIVERSITY OF VIENNA/INSTITUTE FOR NUMISMATICS AND MONETARY HISTORY)
2. THE SILVER COINAGES OF ACHAIAN AND AETOLIAN FEDERAL STATES: NEW NUMISMATIC AND HISTORICAL DATA, CATHERINE GRANDJEAN (UNIVERSITY OF TOURS), MARYSE BLET-LEMARQUAND (CEB-IRAMAT, CNRS & UNIVERSITY OF ORLÉANS), ELENI PAPAETHYMIU (UNIVERSITY OF WARWICK)
3. THE CORINTHIAN MINT OF DEMETRIOS POLIORKETES, MICHAEL IERARDI (BRIDGEWATER STATE UNIVERSITY)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**28. ANTIQUITY AND MIDDLE AGES 2. COINAGE OF AND IN ANTIOCH ON THE ORONTES, ORG. AND CHAIRED BY ALAN STAHL (PRINCETON UNIVERSITY)**

1. THE LOCAL COINAGE OF SHORT-LIVED EMPERORS: ANTIOCHENE TETRADRACHMS IN THE THIRD CENTURY CRISIS, JANE SANCINITO (UNIVERSITY OF MASSACHUSETTS-LOWELL)
2. DIGITAL NUMISMATICS AND DATA VISUALIZATION FOR ANCIENT ANTIOCH, KRISTINA NEUMANN (UNIVERSITY OF HOUSTON), PEGGY LINDNER (UNIVERSITY OF HOUSTON)
3. COINS OF ANTIOCH AND THE TRANSITION FROM LATE ANTIQUITY TO EARLY BYZANTIUM (324-610 AD), PAVLA GKANTZIOS DRÁPLEOVÁ (INSTITUTE OF SLAVONIC STUDIES/CZECH ACADEMY OF SCIENCES)
4. DOROTHY WAAGÉ, SAVIOR OF THE NUMISMATIC RECORD OF THE ANTIOCH EXPEDITION, KIRSTIN OHRT (PRINCETON UNIVERSITY)

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**43. ROME 9. ROMAN IMPERIAL AND PROVINCIAL COINAGE, CHAIRED BY MARIUSZ MIELCZAREK (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY, POLISH ACADEMY OF SCIENCES)**

1. INTERFERENCE IN ANCIENT NUMISMATICS IN THE OSSOLINEUM IN WROCLAW AND THE NATIONAL MUSEUM IN WARSAW, ANNA ANZORGE-POTRZEBOWSKA (UNIVERSITY OF SILESIA IN KATOWICE)
2. WHAT IS A TYPE? AN EMIC PERSPECTIVE FROM THE ANCIENT WORLD, GEORGE WATSON (SWANSEA UNIVERSITY)
3. THE MYTHICAL PAST OF THRACE AND ITS REFLECTION IN THE SELECTED MONETARY ISSUES OF HADRIANOPOLIS, MAREK JURKOWSKI (UNIVERSITY OF SILESIA)



4. EARLY IMPERIAL COINS AS EVIDENCE OF THE PRESENCE OF THE LEGIO VIII AUGUSTA AT NOVAE (BULGARIA), RENATA CIOŁEK (UNIVERSITY OF WARSAW)

**AUDYTORIUM MAXIMUM, HALL C – LATE ANTIQUITY & EARLY MIDDLE AGES**

**59. LATE ANTIQUITY AND EARLY MIDDLE AGES 4. ROME & BARBARIAN KINGDOMS, CHAIRED BY RUTH PLIEGO (UNIVERSITY OF SEVILLE)**

1. THE ASSERTION OF POWER ON THE COINS OF GUNTHAMUND (484-496) AND THRASAMUND (496-523), AURÉLIEN ROS (EPHE)
2. CURRENCY USES AND CIRCULATION IN SOUTHERN GAUL IN THE 5TH AND 6TH CENTURIES: THE CASE OF BRONZE COINS, MARIE-LAURE LE BRAZIDEC (UMR 5608 – TRACES, TOULOUSE)
3. MODELING THE LIFETIME IN CIRCULATION OF VISIGOTHIC GOLD COINS, DAVID YOON (AMERICAN NUMISMATIC SOCIETY)

**AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES**

**73. MIDDLE AGES 11. MEDIEVAL MONETARY ECONOMY, CHAIRED BY PETR VOREL (UNIVERSITY OF PARDUBICE)**

1. THE SECRETS OF EMERGENCY DEBASEMENTS, ROGER SVENSSON (IFN)
2. TYPOLOGICAL AND METALLURGICAL ANALYSIS OF BOHEMIAN AND POLISH COINS FROM THE DĘBRZNIK HOARD, PAWEŁ MILEJSKI (OSSOLIŃSKI NATIONAL INSTITUTE), LUKÁŠ KUČERA (DEPARTMENT OF ANALYTICAL CHEMISTRY, FACULTY OF SCIENCE, PALACKY UNIVERSITY)
3. WHEN SMALL CHANGE WAS NOT A BIG PROBLEM, ANDREAS WESTERMARK (SVERIGES RIKSBANK), ROGER SVENSSON (IFN)

**OLD LIBRARY, HALL 115-116 – COLLECTIONS**

**93. HISTORY OF COLLECTING, CHAIRED BY DANIELA WILLIAMS (AUSTRIAN ACADEMY OF SCIENCES)**

1. CENTURIES OF COIN-COLLECTING IN LOWER AUSTRIA. A) THE CANONRY KLOSTERNEUBURG 1700-1970, EDITH SPECHT (CHORHERRENSTIFT KLOSTERNEUBURG)
2. CENTURIES OF COIN-COLLECTING IN LOWER-AUSTRIA. B) THE CANONRY OF KLOSTERNEUBURG 1970-2010, WOLFGANG SZAIVERT (DEPARTMENT OF NUMISMATICS AND MONETARY HISTORY)
3. CENTURIES OF COIN COLLECTING IN LOWER AUSTRIA. C) FUTURE AVAILABILITY OF DATA MATERIAL, MARTIN BAER (THE STATE COLLECTIONS OF LOWER AUSTRIA)
4. A DATABASE OF COIN COLLECTORS: THE PROJECT NUMISMATES, THOMAS FAUCHER (CENTRE D'ÉTUDES ALEXANDRINES, CNRS)



THURSDAY, SEPTEMBER 15, 2022, 16.00-17.30

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**9. RT MINIMI, RECICLAJE Y CIRCULACIÓN MONETARIA ENTRE LOS SIGLOS IV-IX D.C., ORG. AND MODERATOR: DAVID MARTÍNEZ CHICO (UNIVERSITAT DE VALÈNCIA)**

**LIST OF PANELISTS:**

1. DAVID MARTÍNEZ CHICO
2. FERNANDO LÓPEZ SÁNCHEZ
3. ÒSCAR CALDÉS AQUILUÉ
4. ALBERTO MARTÍN ESQUIVEL
5. MANUEL CASTRO PRIEGO
6. CAROLINA DOMÉNECH BELDA

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**14. GREECE 14. CRETE, CHAIRED BY ANDREW MEADOWS (NEW COLLEGE, OXFORD)**

1. CRETAN COINAGE: INSULARITY AND CONNECTIVITY, GIORGIA CAPRA (UNIVERSITY OF OXFORD)
2. THE COINAGE OF LYTTOS / CRETE: ICONOGRAPHY & DISTRIBUTION PATTERNS, KATERINA PANAGOPOULOU (UNIVERSITY OF CRETE / GREECE)
3. POLITICS AND WAR ON CRETAN GOLD COINAGE (4TH – 3RD C. BC), FEDERICO CARBONE (UNIVERSITY OF SALERNO), VASSILIKI E. STEFANAKI (NUMISMATIC MUSEUM)
4. THE COINAGE OF ANCIENT APTERA, EMMANOUIL MARINAKIS (UNIVERSITY OF CRETE / GREECE)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**29. ANTIQUITY AND MIDDLE AGES 3. ASIA, CHAIRED BY GUNNAR DUMKE (MARTIN LUTHER UNIVERSITY HALLE-WITTENBERG)**

1. MONETARY CIRCULATION IN THE INDO-IRANIAN BORDERLANDS: COIN FINDS FROM ARCHAEOLOGICAL EXCAVATIONS AT BARIKOT, EHSAN SHAVAREBI (KUNSTHISTORISCHES MUSEUM WIEN, MÜNZKABINETT)
2. THE COINAGE OF PRATISHTHANA, A CITY STATE IN ANCIENT PUNJAB, KARAN SINGH (ORIENTAL NUMISMATIC SOCIETY)
3. METAL ANALYSIS OF GUPTA GOLD COINS, PANKAJ TANDON (BOSTON UNIVERSITY)
4. SILK ROAD IMITATIONS OF BYZANTINE AND SASANIAN COINS: EVIDENCE FROM SHORON BUMBAGAR IN MONGOLIA, ANRAN MAO (UNIVERSITY OF PARIS-SACLAY), CHI XU (RENMIN UNIVERSITY OF CHINA)

#### AUDYTORIUM MAXIMUM, HALL B – ROME

##### 44. ROME 10. ROMAN PROVINCIAL COINAGE 1, CHAIRED BY ANDREW BURNETT (BRITISH MUSEUM)

1. THE DRACHMS OF DYRRHACHIUM AND APOLLONIA: WITNESS TO THE RISE AND FALL OF THE POWER OF THE DACIANS, SILVIU PURECE (LUCIAN BLAGA UNIVERSITY OF SIBIU)
2. DRACHMAE FROM LYCIA, AMISUS AND CAESAREA MINTS IN SERBIAN AND EUROPEAN COIN HOARDS (AN UPDATE), MIRJANA VOJVODA (INSTITUTE OF ARCHAEOLOGY), SAŠA REDŽIĆ (INSTITUTE OF ARCHAEOLOGY)
3. COUNTERMARKS ON THE COINS OF BITHYNIA AND PONTUS IN THE ROMAN PERIOD, BARBARA ZAJĄC (INDEPENDENT RESEARCHER)
4. ΘNICAEA VS. NICOMEDIA – NEW NUMISMATIC INSIGHTS INTO A CIVIC RIVALRY, SASKIA KERSCHBAUM (GOETHE UNIVERSITY FRANKFURT)

#### AUDYTORIUM MAXIMUM, HALL C – LATE ANTIQUITY & EARLY MIDDLE AGES

##### 60. EARLY BYZANTINE, CHAIRED BY MARCIN WOŁOSZYN (LEIBNIZ INSTITUTE FOR THE HISTORY AND CULTURE OF EASTERN EUROPE (GWZO), LEIPZIG // INSTITUTE OF ARCHAEOLOGY, UNIVERSITY OF RZESZÓW)

1. THE MINT PROVENANCE OF MIB 229 DECANUMMIA OF JUSTINIAN IN THE LIGHT OF ARCHAEOLOGICAL FINDS AND XRF ANALYSES, EMIL MALEWICZ (IAIE PAN)
2. NEW EVIDENCE AND NEW IDEAS: THE SILVER COINAGE OF CONSTANS II. REVISITED, NIKOLAUS AUE (UNIVERSITY OF VIENNA)
3. A SMALL BYZANTINE HOARD FROM THE DESERT OF ASWAN, ELENA BALDI (WASHINGTON UNIVERSITY), ANTONIO CURCI (UNIVERSITA' DI BOLOGNA), MARIA CARMELA GATTO (POLISH ACADEMY OF SCIENCES)

#### AUDYTORIUM MAXIMUM, HALL D – MIDDLE AGES

##### 74. MIDDLE AGES 12. ASIA, CHAIRED BY HELEN WANG (BRITISH MUSEUM)

1. ΘCHINESE SILVER INGOTS FOUND IN 10TH CENTURY SHIPWRECK, LYCE JANKOWSKI (MUSÉE ROYAL DE MARIEMONT)
2. ΘTURKISH SULTANS OF BENGAL AND SELJUK SULTANS OF RUM: MOVEMENT OF MOTIFS, LEGEND, CALLIGRAPHY ON COINS, SUTAPA SINHA (UNIVERSITY OF CALCUTTA, INDIA)
3. NUMISMATIC EVIDENCE FOR A BRIEF RESTORATION OF ROYAL POWER IN ARMENIA IN THE 15TH CENTURY: A PRELIMINARY NOTE, ARAM VARDANYAN (NATIONAL ACADEMY OF SCIENCES)



**OLD LIBRARY, HALL 115-116 – COLLECTIONS**

**94. COLLECTIONS, GALLERIES, EXHIBITIONS, CHAIRED BY MICHAEL ALRAM (AUSTRIAN ACADEMY OF SCIENCES)**

1. CURATING YALE'S NEW GALLERY OF NUMISMATICS, BENJAMIN HELLINGS (YALE UNIVERSITY ART GALLERY)
2. INFLATION – A GERMAN TRAUMA? A MUSEUM EXHIBITION ON THE OCCASION OF THE HYPERINFLATION OF 1923, FRANK BERGER (HISTORISCHES MUSEUM FRANKFURT)
3. REALLY BIG MONEY: THE DEVELOPMENT OF THE SMITHSONIAN'S NEW MONEY GALLERY FOR CHILDREN, ELLEN FEINGOLD (SMITHSONIAN INSTITUTION)



FRIDAY, SEPTEMBER 16, 2022, 9.00-10.30

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**11. RT DIGITAL NUMISMATICS AND MUSEUMS: MOVING INTO THE MEDIEVAL AND MODERN PERIODS, ORG.: RAHEL C. ACKERMANN (SWISS INVENTORY OF COIN FINDS), CHRISTIAN WEISS (SWISS NATIONAL MUSEUM), KARSTEN DAHMEN (STAATLICHE MUSEEN ZU BERLIN, MÜNZKABINETT), BENEDIKT ZÄCH (MÜNZKABINETT UND ANTIKENSAMMLUNG DER STADT WINTERTHUR), MODERATOR: BENEDIKT ZÄCH**

**LIST OF PANELISTS:**

1. KARSTEN DAHMEN
2. FRANK VON HAGEL
3. CHRISTIAN WEISS
4. RAHEL C. ACKERMANN

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**15. GREECE 15. DECODING THE MESSAGE: REVIEWING PROPAGANDA, COMMUNICATION AND LOCAL IDENTITIES ON THE COINAGES OF CLASSICAL AND HELLENISTIC CRETE, ORG. AND CHAIRED BY MANOLIS STEFANAKIS (UNIVERSITY OF THE AEGEAN)**

1. PROPAGANDA AND COMMUNICATION ON ANCIENT GREEK COINS: SETTING THE PRINCIPLES, NIKOLAOS PETROPOULOS (UNIVERSITY OF AEGEAN)
2. PROPAGANDA, COMMUNICATION AND ETHNICITY ON THE COINAGES OF CLASSICAL AND HELLENISTIC CRETE, FEDERICO CARBONE (UNIVERSITY OF SALERNO)
3. ⊖PROPAGANDA, COMMUNICATION AND RELIGION ON THE COINAGES OF CLASSICAL AND HELLENISTIC CRETE, MANOLIS I. STEFANAKIS (UNIVERSITY OF AEGEAN)
4. ECONOMIC CONTROL AS A FORM OF PROPAGANDA AMONG CRETAN MINTS, VASSILIKI STEFANAKI (NUMISMATIC MUSEUM ATHENS)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**30. ANTIQUITY AND MIDDLE AGES 4. MOVEMENT OF COINS IN ASIA – ARCHAEOLOGY NUMISMATICS AND NETWORKS – SILK ROAD, ORG. AND CHAIRED BY JOE CRIBB (HEBEI NORMAL UNIVERSITY/ORIENTAL NUMISMATIC SOCIETY) & EMILIA SMAGUR (POLISH CENTRE OF THE MEDITERRANEAN ARCHAEOLOGY, WARSAW UNIVERSITY)**

1. KUSHAN COINS IN XINJIANG PROVINCE, CHINA, JOE CRIBB (HEBEI NORMAL UNIVERSTIY)
2. ⊖CHINESE COINS IN EASTERN CENTRAL ASIA - FROM THE HAN TO THE TANG DYNASTIES, HELEN WANG (BRITISH MUSEUM)
3. ANCIENT COIN PROFILE OF DHARMARAJIKA, TAXILA (PAKISTAN), GUL RAHIM KHAN (UNIVERSITY OF PESHAWAR)

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**45. ROME 11. ROMAN PROVINCIAL COINAGE 2, CHAIRED BY JEROME MAIRAT (UNIVERSITY OF OXFORD)**

1.  $\Theta$ PANORAMA NUMISMATIQUE: HÉROS FONDATEURS MYTHIQUES AU IIIIE SIÈCLE, AGATA KLUCZEK (UNIVERSITY OF SILESIA IN KATOWICE)
2. THE SULCUS PRIMIGENIUS ON CIVIC COINS IN THE ROMAN PROVINCES, ROBYN LE BLANC (THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO)
3. CIVIC COINS REFLECTING COLONIAL TRANSFORMATION, SZYMON JELLONEK (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)
4. DISSEMINATING IMPERIAL AUTHORITY: NUMISMATIC RELATIONS BETWEEN CENTER AND PERIPHERY DURING THE REIGN OF MARCUS AURELIUS, ELISABETH GÜNTHER (INSTITUTE FOR DIGITAL HUMANITIES / GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN), SVEN GÜNTHER (INSTITUTE FOR THE HISTORY OF ANCIENT CIVILIZATIONS / NORTHEAST NORMAL UNIVERSITY)

**AUDYTORIUM MAXIMUM, HALL C – MIDDLE AGES**

**61. EARLY MIDDLE AGES 1. MEROVINGIANS & CAROLINGIANS, CHAIRED BY ARENT POL (UNIVERSITEIT LEIDEN)**

1. MEROVINGIAN UNIFACE OBOLS, PHILIPPE SCHIESSER (SENA)
2. FRANKISH IMAGE POLITICS ON COINS AND SEALS IN CULTURAL COMPARISON, DANIEL SEELBACH (GOETHE-UNIVERSITÄT FRANKFURT)
3. BISKUPIEC – THE FIRST HOARD OF CAROLINGIAN COINS FROM POLAND, MATEUSZ BOGUCKI (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY, POLISH ACADEMY OF SCIENCES / COMMISSION OF NUMISMATIC STUDIES POLISH ACADEMY OF SCIENCES)
4. THE COINAGE OF THE KINGDOM OF ITALY FROM LOUIS II TO BERENGAR II (855–961): A REAPPRAISAL, LUCA GIANAZZA (INDEPENDENT RESEARCHER)

**AUDYTORIUM MAXIMUM, HALL D – MEDIEVAL & MODERN**

**75. LATE MIDDLE AGES. EUROPE, CHAIRED BY MARCUS PHILLIPS (INDEPENDENT RESEARCHER)**

1.  $\Theta$ TRANSYLVANIA, A FORTRESS OF JOHN HUNYADI'S COINAGE AND MONETARY POLICIES IN THE MID-15TH CENTURY, PAUL GABRIEL DUMITRACHE (HERITAGE AND COMMUNITY DEVELOPMENT ASSOCIATION)
2. TRADE ROADS IN THE LIGHT OF THE MOLDOVAN MONETARY FINDS, LILIA DERGACIOVA (LIBRARY OF THE ROMANIAN ACADEMY, NUMISMATIC DEPARTMENT)
3. THE EARLY COINAGE OF MIRCEA THE ELDER, CRISTIANA TĂTARU (NATIONAL HISTORY MUSEUM OF ROMANIA)





4. DEAD MAN'S CHEST – PURSE OF MEDIEVAL SILVER COINS FROM ROYAL DANISH SHIPWRECK REVEALED BY X-RAY  $\mu$ CT SCANNING, GITTE INGVARSDON (HISTORICAL MUSEUM AT LUND UNIVERSITY)

**OLD LIBRARY, HALL 115-116 – MISCELLANEA**

**95. COLLECTING, ROBBING AND FAKING, CHAIRED BY CLIVE STANNARD (UNIVERSITY OF WARWICK)**

1. THE 1831 THEFT AT THE BIBLIOTHEQUE ROYALE, PAUL FROMENT (BIBLIOTHEQUE NATIONALE DE FRANCE)
2. YAKI-NAOSHI (焼き直し): HOW A 19TH CENTURY CRAZE FOR EAST ASIAN ARTS PROPELLED IMITATION TOKUGAWA COINAGE INTO NUMISMATIC COLLECTIONS WORLDWIDE, EMILY PEARCE SEIGERMAN (YALE UNIVERSITY ART GALLERY)
3. FRANCESCO GNECCHI AND THE "IMPRONTE EX VATICANE", DANIELA WILLIAMS (AUSTRIAN ACADEMY OF SCIENCES)

**FRIDAY, SEPTEMBER 16, 2022, 11.00-12.30**

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**12. RT PROMOTING NUMISMATICS IN A GLOBALIZED AND DIGITIZED WORLD, ORG.: STEFAN KRMNICEK (UNIVERSITÄT TÜBINGEN) AND SVEN GÜNTHER (NORTHEAST NORMAL UNIVERSITY),  
MODERATOR: STEFAN KRMNICEK**

**LIST OF PANELISTS:**

1. MARCUS CYRON
2. URSULA KAMPMANN
3. ROBERTA L. STEWART
4. SVEN GÜNTHER

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**16. GREECE 16. ASIA MINOR 1, CHAIRED BY ANEURIN ELLIS-EVANS (UNIVERSITY OF OXFORD)**

1. SOME REMARKS ON EARLY ELECTRUM COINAGE FROM ASIA MINOR, WOLFGANG FISCHER-BOSSERT (AUSTRIAN ACADEMY OF SCIENCES)
2. HOARDS IN ANCIENT ANATOLIA: A STATISTICAL OVERVIEW, LEAH LAZAR (UNIVERSITY OF OXFORD)
3. MYSIAN MINTS, BERNHARD WEISSER (MÜNZKABINETT, STAATLICHE MUSEEN ZU BERLIN), ANDREA GORYS (BERLIN-BRANDENBURGISCHE AKADEMIE DER WISSENSCHAFTEN)
4. PRODUCTION CHARACTERISTICS OF ARCHAIC DRACHMS DEPICTING THE GORGONEION AND PROBLEMS WITH THEIR ATTRIBUTION TO PARION, ED SNIBLE (BRONX COIN CLUB)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**30. ANTIQUITY AND MIDDLE AGES 4. MOVEMENT OF COINS IN ASIA – ARCHAEOLOGY NUMISMATICS AND NETWORKS – SILK ROAD, ORG. AND CHAIRED BY JOE CRIBB (HEBEI NORMAL UNIVERSITY/ORIENTAL NUMISMATIC SOCIETY) & EMILIA SMAGUR (POLISH CENTRE OF THE MEDITERRANEAN ARCHAEOLOGY, WARSAW UNIVERSITY)**

1. THE CIRCULATION OF COINS IN THE NORTH KONKAN COAST: SOPARA CASE STUDY, EMILIA SMAGUR (POLISH CENTRE OF THE MEDITERRANEAN ARCHAEOLOGY, WARSAW UNIVERSITY), ANDRZEJ ROMANOWSKI (DEPARTMENT OF COINS AND MEDALS, NATIONAL MUSEUM IN WARSAW)
2. NETWORKS AND EXCHANGE: MONEY MOVEMENTS ACROSS THE INDIAN OCEAN, SHAILENDRA BHANDARE (ASHMOLEAN MUSEUM)
3. ROMAN COINS FROM INDIA: REVIEW OF THE EVIDENCE SINCE 1989, PAULA TURNER (INDEPENDENT RESEARCHER)
4. THE MOVEMENT OF ROMAN COINS INTO SOUTHEAST ASIA - WHAT DOES IT MEAN?, BRIGITTE BORELL (UNIVERSITY OF HEIDELBERG)

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**46. ROME 12. ROMAN PROVINCIAL COINAGE 3, CHAIRED BY MARGUERITE SPOERRI BUTCHER (HEBERDEN COIN ROOM, OXFORD / ASHMOLEAN MUSEUM)**

1. THE RELATIONSHIP BETWEEN APOLLO DIDYMEUS AND THE ROMAN EMPEROR AS REPRESENTED IN THE MILESIAIN COINAGE, JULIUS ROCH (COIN CABINET BERLIN)
2. REMARKS ON THE IDENTITY OF THE WARRIOR GOD ON ARIASSOS COINS, ESRA TÛTÛNCÛ (SULEYMAN DEMIREL UNIVERSITY GRADUATE SCHOOL OF SOCIAL SCIENCES)
3. A NEW YEAR, AN OLD ERA, AND THE SAME DATE? DATING IN EARLY ROMAN CILICIA, CHRISTIAN SCHINZEL (MÛNZKABINETT WINTERTHUR)
4. VALUE MARKS OR SEMESTERS AT POMPEIOPOLIS?, ANDREW BURNETT (BRITISH MUSEUM)

**AUDYTORIUM MAXIMUM, HALL C – MIDDLE AGES**

**62. EARLY MIDDLE AGES 2. EAST-CENTRAL EUROPE, CHAIRED BY MATEUSZ BOGUCKI (INSTITUTE OF ARCHAEOLOGY AND ETHNOLOGY, POLISH ACADEMY OF SCIENCES / COMMISSION OF NUMISMATIC STUDIES POLISH ACADEMY OF SCIENCES)**

1. THE INFLOW OF ISLAMIC COINS ON THE LESSER POLAND TERRITORIES IN THE EARLY MIDDLE AGES, DOROTA MALARCZYK (THE NATIONAL MUSEUM IN KRAKOW)
2. PATHS AND DIVERSIONS: EXAMINING ECONOMIC NETWORKS OUTSIDE OF KYIVAN REACH IN THE TENTH CENTURY, STEPAN STEPANENKO (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE UMR 8167)

3. THE EARLIEST RUSSIAN COINAGE? TWO GROUPS OF IMITATIVE DIRHAMS FROM THE LATE NINTH TO THE MID-TENTH CENTURY, VIACHESLAV KULESHOV (STOCKHOLM NUMISMATIC INSTITUTE)
4. TOWARDS A CATALOGUE OF EARLY MEDIEVAL DIRHAM IMITATIONS, MAREK JANKOWIAK (UNIVERSITY OF OXFORD)

**AUDYTORIUM MAXIMUM, HALL D – MEDIEVAL & MODERN**

**76. MEDIEVAL AND MODERN TIMES 1. THE COINAGE AND PAPER CURRENCY OF MEDIEVAL AND EARLY-MODERN JAPAN, ORG. AND CHAIRED BY HISASHI TAKAGI (OSAKA UNIVERSITY OF ECONOMICS)**

1. THE COINAGE AND PAPER CURRENCY OF MEDIEVAL AND EARLY-MODERN JAPAN, HISASHI TAKAGI (OSAKA UNIVERSITY OF ECONOMICS), SHIN'ICHI SAKURAKI (ASAHI UNIVERSITY), YASUSHI KOGA (KYUSHU SANGYO UNIVERSITY), DAISHI CHIEDA (DOHO UNIVERSITY)
2. JAPANESE COINS IN THE NATIONAL MUSEUM OF DENMARK, SHIN'ICHI SAKURAKI (ASAHI UNIVERSITY)
3. RETHINKING THE DEFINITION OF BITA, A SUBCATEGORY OF BRONZE COINAGE IN 16TH-CENTURY JAPAN, HISASHI TAKAGI (OSAKA UNIVERSITY OF ECONOMICS)
4. YAMADA HAGAKI (山田羽書: AN INVESTIGATION OF JAPAN'S OLDEST PRIVATE PAPER CURRENCY, DAISHI CHIEDA (DOHO UNIVERSITY)
5. COMPETITION BETWEEN PAPER MONEYS: A CASE OF JAPANESE EARLY MODERN LOCAL ECONOMY, YASUSHI KOGA (KYUSHU SANGYO UNIVERSITY)

**OLD LIBRARY, HALL 115-116 – MISCELLANEA**

**96. GRAFFITI ON MONEY: CULTURAL PRACTICES FROM ANCIENT TO MODERN TIMES, ORG.: ELISABETH GÜNTHER (UNIVERSITÄT TRIER) AND SUSANNE BÖRNER (UNIVERSITÄT HEIDELBERG), CHAIRED BY ELISABETH GÜNTHER**

1. GRAFFITI ON MONEY – THEORETICAL CONSIDERATIONS, ELISABETH GÜNTHER (UNIVERSITÄT TRIER)
2. MORE THAN JUST A SCRATCH. ON THE SIGNIFICANCE OF GRAFFITI ON ROMAN GOLD COINS, FRIEDERIKE STAHLKE (HEIDELBERG UNIVERSITY)
3. NOT ONLY POSTUMUS. ROMAN AND BYZANTINE GOLD COINS WITH GRAFFITI IN THE COLLECTION OF THE OSSOLINEUM, ADAM DEGLER (OSSOLIŃSKI NATIONAL INSTITUTE)
4. GRAFFITI ON CHINESE CURRENCY. IMAGES - TEXTS - CONTEXTS, DUODUO ZHANG (IHAC)



FRIDAY, SEPTEMBER 16, 2022, 14.00-15.30

**OLD LIBRARY, AUDYTORIUM – ROUND TABLES**

**13. ΘRT FINDING COMMON GROUND IN THE CULTURAL PROPERTY DEBATE, ORG. AND MODERATOR: NATHAN ELKINS (AMERICAN NUMISMATIC SOCIETY) AND UTE WARTENBERG (AMERICAN NUMISMATIC SOCIETY)**

**LIST OF PANELISTS:**

1. NATHAN T. ELKINS
2. UTE WARTENBERG
3. DAVID WIGG-WOLF
4. EVANGELINE MARKOU
5. ANTHONY WISNIEWSKI

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**17. GREECE 17. ASIA MINOR 2, CHAIRED BY BERNHARD WEISSER (MÜNZKABINETT BERLIN)**

1. ΘHELLENISTIC BRONZE COINS IN PHRYGIA: THE CASE OF ACMONEA, BARBARA HILTMANN (MUSEUM OF ARCHAEOLOGY AND HISTORY, LAUSANNE – SWITZERLAND)
2. TISNA IN AEOLIS AND ITS COINAGE, DINÇER SAVAS LENER (AKDENIZ UNIVERSITY, DEPARTMENT OF HISTORY)
3. ΘPOTNIA THERON ON EARLY CAUNIAN COINS (CARIA) – IDENTIFYING COIN IMAGE AND QUESTIONING CRETAN ORIGIN, HÜLYA VIDIN (GOETHE UNIVERSITY FRANKFURT / LANDESMUSEUM HANNOVER)
4. PAYING WITH THE WOLF. SMALL CHANGE FROM LYCAONIAN LARANDA, KATHARINA MARTIN (WESTFÄLISCHE WILHELMS-UNIVERSITÄT)

**AUDYTORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**31. ANTIQUITY & MIDDLE AGES 5. FONTES INEDITI NUMISMATICAE ANTIQUAE (FINA) – ORG. AND CHAIRED BY BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)**

1. FONTES INEDITI NUMISMATICAE ANTIQUAE: REVIEW (2016-2021) AND PREVIEW, BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)
2. JACOPO STRADAS MAGNUM AC NOVUM OPUS: A COIN CORPUS OF THE 16TH CENTURY AND ITS DOCUMENTATION IN THE DATABANKS OF THE CENSUS AND TRANSLATIO NUMMORUM, VOLKER HEENES (FORSCHUNGSZENTRUM GOTHA DER UNIVERSITÄT ERFURT)
3. THE PASSIGNANO COIN COLLECTION AND ITS FATE, ANDREW BURNETT (BRITISH MUSEUM)

4. THE (EXTRA)ORDINARY CASE OF THE ZANE COLLECTION IN SEVENTEENTH- AND EIGHTEENTH-CENTURY VENICE, MICHELE ASOLATI (UNIVERSITÀ DEGLI STUDI DI PADOVA)

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**47. ROME 13. ROMAN & BYZANTINE EGYPT, CHAIRED BY CHRIS HOWGEGO (UNIVERSITY OF OXFORD)**

1. NUMI PLUMBEI ANTINOËNSI (LEAD TESSERAE OF ANTINOOPOLIS), GIOVANNI MARIA STAFFIERI (CIRCOLO NUMISMATICO TICINESE)
2. THE ALEXANDRIAN COINAGE OF COMMODUS. A DIE STUDY, MONA ASHOUR (FACULTY OF ARTS, ALEXANDRIA UNIVERSITY-EGYPT)
3. THE COIN CIRCULATION IN MAREA, A BYZANTINE CITY ON THE PILGRIMAGE ROUTE TO ABU MENA, PIOTR JAWORSKI (FACULTY OF ARCHAEOLOGY, UNIVERSITY OF WARSAW)
4. TWO HOARDS OF LATE ROMAN GOLD COINS IN THE EGYPTIAN MUSEUM OF CAIRO, FATMA MOHAMED (THE EGYPTIAN MUSEUM)

**AUDYTORIUM MAXIMUM, HALL C – MIDDLE AGES**

**63. MIDDLE AGES 1. VIKING AGE AND MEDIEVAL MONETISATION – SCANDINAVIAN AND THEORETICAL PERSPECTIVES, ORG.: SVEIN GULLBEKK (MUSEUM OF CULTURAL HISTORY / UNIVERSITY OF OSLO) AND JON ANDERS RISVAAG (NTNU UNIVERSITY MUSEUM), CHAIRED BY SVEIN GULLBEKK**

1. MONEY AND MONETIZATION FROM AN URBAN AND MERCHANT PERSPECTIVE, CHRISTOPH KILGER (DEPARTMENT OF ARCHAEOLOGY AND ANCIENT HISTORY, UPPSALA)
2. Imitating Monetisation: Coins and Monetary Practice in Evolving Weight Economies, NANOUSCHKA MYRBERG BURSTRÖM (STOCKHOLM UNIVERSITY)
3. Rural Monetisation in Medieval Denmark in the Light of Detector Finds, JENS CH. MOESGAARD (STOCKHOLM NUMISMATIC INSTITUTE, STOCKHOLM UNIVERSITY)
4. MONETARISATION WITHOUT COINS – VIKING ECONOMIES IN THE BALTIC SEA REGION, GITTE INGVARSDON (HISTORICAL MUSEUM AT LUND UNIVERSITY)

**AUDYTORIUM MAXIMUM, HALL D – MEDIEVAL & MODERN**

**77. MEDIEVAL AND MODERN TIMES 2. MONETA SACRA, CHAIRED BY CECILIA VON HEIJNE (NATIONAL HISTORICAL MUSEUMS SWEDEN)**

1. Monetary Deposits in Graves (Vaud, Switzerland): Beliefs and Funerary Practices in the Middle Ages, CARINE RAEMY TOURNELLE (MUSÉE CANTONAL D'ARCHÉOLOGIE ET D'HISTOIRE)



2. THE COINS OF THE CLUNY HOARD (FRANCE, 12TH CENTURY), VINCENT BORREL (CNRS), MARC BOMPAIRE (EPHE/CNRS--CENTRE ERNEST BABELON), ARIANNA D'OTTONE RAMBACH (ISTITUTO ITALIANO DI STUDI ORIENTALI), MARC PARVÉRIE (EDUCATION NATIONALE), GUILLAUME SARAH (CNRS-CENTRE ERNEST BABELON)
3. COIN FINDS IN CHURCHES: THE CASE OF HEITENRIED/ST. MICHAEL (FRIBOURG, SWITZERLAND), ANNE-FRANCINE AUBERSON (SWISS INVENTORY OF COIN FINDS)
4. ⊖ WHY WERE COINS PLACED ON BELLS?, STEFANO LOCATELLI (THE ITALIAN ACADEMY FOR ADVANCED STUDIES IN AMERICA / COLUMBIA UNIVERSITY)

**OLD LIBRARY, HALL 115-116 – MISCELLANEA**

**97. COINING TECHNIQUES, CHAIRED BY THOMAS FAUCHER (CENTRE D'ÉTUDES ALEXANDRINES, CNRS)**

1. FROM COPPER TO COINS: THE TECHNOLOGICAL SKILLS OF AN ANCIENT MANUFACTURING PROCESS, ALEXANDRE BODET (INSTITUT DE RECHERCHE EN ARCHEOMATÉRIAUX-CENTRE DE RECHERCHE EN PHYSIQUE APPLIQUÉE À L'ARCHÉOLOGIE / UNIVERSITÉ BORDEAUX MONTAIGNE)
2. FLAN FABRICATION AND MINTING PREPARATION FOR COPPER ALLOY COINS IN ANTIQUITY, JEAN HOURMOUZADIS (MÜNZKABINETT BERLIN), NIKOLAI ILIEFF (MÜNZKABINETT BERLIN)
3. THE SLOW BUT STEADY DIFFUSION OF MINTING PRESSES IN THE 16TH CENTURY, JOS BENDERS (NTNU & KU LEUVEN)

**FRIDAY, SEPTEMBER 16, 2022, 16.00-17.30**

**AUDITORIUM MAXIMUM, ADAM MICKIEWICZ HALL – THE GREEK WORLD**

**18. GREECE 18. LEVANT AND PTOLEMAIC COINAGE, CHAIRED BY FRÉDÉRIQUE DUYPAT (BIBLIOTHÈQUE NATIONALE DE FRANCE)**

1. REFINING THE DATES OF JEWISH COINS USING ARCHAEOLOGICAL PROVENANCE: THE CASE OF ALEXANDER JANNAEUS, DONALD T. ARIEL (ISRAEL ANTIQUITIES AUTHORITY)
2. ANCIENT PTOLEMAIC BRONZE COINS IN THE J. PAUL GETTY MUSEUM: HISTORY AND PRESERVATION METHODS, ALMOATZBELLAH ELSHAHAWI (J. PAUL GETTY MUSEUM)
3. THE BEGINNING OF THE PTOLEMAIC GOLD COINAGE, AUGUSTIN ROCHE – LÉVÊQUE (ARCHÉOSCIENCES BORDEAUX)

**AUDITORIUM MAXIMUM, HALL A – ANTIQUITY & MIDDLE AGES**

**31. ANTIQUITY & MIDDLE AGES 5. FONTES INEDITI NUMISMATICAE ANTIQUAE (FINA) – ORG. AND CHAIRED BY BERNHARD WOYTEK (AUSTRIAN ACADEMY OF SCIENCES)**

1. THE NUMISMATIC ACTIVITY OF APOSTOLO ZENO: THE ANALYSIS OF THE MANUSCRIPTS, ROBERTO TOMASSONI (INDEPENDENT RESEARCHER)

2. APOSTOLO ZENO'S LEGACY. THE ZENO COLLECTION IN ST. FLORIAN MONASTERY IN THE 18TH CENTURY, BASED ON THE CORRESPONDENCE BETWEEN JOSEPH KHELL AND GEORG PFISTERER, PATRICK FISKA (AUSTRIAN ACADEMY OF SCIENCES)
3. PHILIPP VON STOSCH (1691-1757) – HIS RESEARCH AND DOCUMENTARY STRATEGIES TOWARDS ENGRAVED GEMS AND COINS, PAWEŁ GOŁYŹNIAK (JAGIELLONIAN UNIVERSITY), HADRIEN RAMBACH (LILLE UNIVERSITY/UNIVERSITY OF TÜBINGEN), ULF HANSSON (SWEDISH INSTITUTE FOR CLASSICAL STUDIES IN ROME)
4. JAN CHRZCICIEL ALBERTRANDI (1737-1808) CORRESPONDENT OF JOSEPH ECKHEL, DANIELA WILLIAMS (AUSTRIAN ACADEMY OF SCIENCES)

**AUDYTORIUM MAXIMUM, HALL B – ROME**

**48. ROME 14. FINDS AND CIRCULATION 1, CHAIRED BY CHARLES PARISOT-SILLON (IRAMAT-CEB / CNRS & UNIVERSITY OF ORLEANS)**

1. TRESORS MONETAIRES DES IIIE ET IIE SIECLES AVANT J.-C. CONTENANT DES DENIERS DANS LES BALKANS ET EN GRECE, ELENI G. PAPAETHYMIU (WARWICK UNIVERSITY, RESEARCH FELLOW, RACOM PROJECT)
2. ⊕THE CIRCULATION OF ROMAN REPUBLICAN COINAGE IN THE IMPERIAL PERIOD – PATTERNS AND DEVIATIONS, KATHARINA HUBER (AUSTRIAN ACADEMY OF SCIENCES / UNIVERSITY OF VIENNA)
3. FIRST INSIGHTS OF MONETARY CIRCULATION INTO ANCIENT ARMENIA, ANAHIDE KEFELIAN (OXFORD UNIVERSITY, ASHMOLEAN MUSEUM)
4. SINGLE FINDS AND A HOARD FROM A RURAL SETTLEMENT IN THE CIVITAS CANANEFATIUM (THE NETHERLANDS), PAUL BELIËN (NATIONAL NUMISMATIC COLLECTION, DE NEDERLANDSCHE BANK)

**AUDYTORIUM MAXIMUM, HALL C – MIDDLE AGES**

**63. MIDDLE AGES 1. VIKING AGE AND MEDIEVAL MONETISATION – SCANDINAVIAN AND THEORETICAL PERSPECTIVES, ORG.: SVEIN GULLBEKK (MUSEUM OF CULTURAL HISTORY / UNIVERSITY OF OSLO) AND JON ANDERS RISVAAG (NTNU UNIVERSITY MUSEUM), CHAIRED BY SVEIN GULLBEKK**

1. MONETISATION AS A PROCESS: DENMARK DURING THE PERIOD 1074-1241, THOMAS POULSEN (MUSEUM ØSTJYLLAND)
2. SMALL ANONYMOUS BRacteates: MONETISATION IN THE DYNAMIC 12TH CENTURY?, LINN EIKJE RAMBERG (MUSEUM OF ARCHAEOLOGY, UNIVERSITY OF STAVANGER)
3. COINS AND THE COLONISATION OF THE EASTERN LANDS: MONETISATION ON THE PERIPHERY OF EUROPE, FRIDA EHRNSTEN (NATIONAL MUSEUM OF FINLAND)

4. WHEN WAS MONETISATION ACHIEVED? NORWEGIAN PERSPECTIVES, JON ANDERS RISVAAG (NTNU UNIVERSITY MUSEUM)

**AUDYTORIUM MAXIMUM, HALL D – MEDIEVAL & MODERN**

**78. MODERN TIMES 1. CENTRAL EUROPE, CHAIRED BY FRANK BERGER (HISTORISCHES MUSEUM FRANKFURT)**

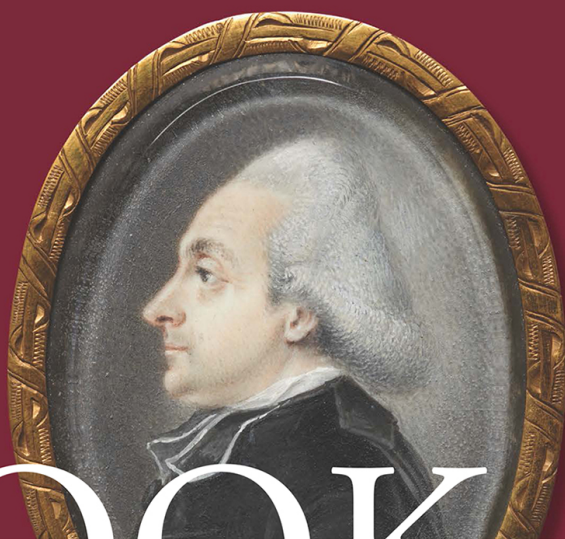
1. THE GOLDEN AGE OF POLISH COINS IN HUNGARY DURING THE OTTOMAN ERA, ZSOLT DEZSŐ NAGY (DAMJANICH JÁNOS MUSEUM)
2. SWISS COINS IN CIRCULATION AT THE IMPERIAL COURT IN PRAGUE IN THE EARLY 17TH CENTURY, PETR VOREL (UNIVERSITY OF PARDUBICE)
3. MONETARY CIRCULATION IN SILESIA BETWEEN THE STATE BANKRUPTCY AND THE REFORM OF LEOPOLD I: THE EVIDENCE OF THE GŁOGÓW HOARD, MARZENA GROCHOWSKA-JASNOS (MUZEUM ARCHEOLOGICZNO-HISTORYCZNE W GŁOGOWIE)
4. COPPER AS A MINTING METAL IN THE EARLY MODERN PERIOD: THE SPECIAL IMPACT OF WESTPHALIA, STEFAN KÖTZ (COIN CABINET OF THE LWL MUSEUM OF ART AND CULTURE / WESTPHALIAN STATE MUSEUM, MÜNSTER, GERMANY)



BERNHARD WOYTEK – DANIELA WILLIAMS (EDS.)

# ARS CRITICA NUMARIA

JOSEPH ECKHEL (1737–1798) AND THE  
TRANSFORMATION OF ANCIENT NUMISMATICS



# BOOK

## PRESENTATION

15 September 2022 | Thu 5:30 p.m.

XVI International Numismatic Congress

University of Warsaw | Old Library, Auditorium



Austrian  
Archaeological  
Institute

**FINA**   
fontes inediti  
numismaticae  
antiquae



## INDEX OF AUTHORS, CO-AUTHORS, SESSIONS / ROUND TABLES ORGANISERS, CHAIRPERSONS AND MODERATORS

Abdul-Monem Hamdy (The Museum of Islamic Art, Cairo)	Poster Session
Ackermann Rahel C. (Swiss Inventory of Coin Finds)	S27, RT11
Adamczyk Dariusz (German Historical Institute in Warsaw)	S64
Agostino Angelo (Università degli Studi di Torino)	Poster Session
Albarède Francis (Ecole Normale Supérieure de Lyon)	S01, S10, RT07,
Van Alfen Peter (American Numismatic Society)	S20, S84, RT07
Allen Martin (Fitzwilliam Museum, University of Cambridge)	S65, S79
Alram Michael (Austrian Academy of Sciences)	S25, S94
Alteri Giancarlo (Veneranda Biblioteca Ambrosiana)	Poster Session
Amiro Fae (University of Toronto Mississauga)	S38
Anders Jon Risvaag (NTNU University Museum)	S63
Andrews Murray (Kulturhistorisk Museum, University of Oslo)	S88
Annucci Arturo (Università di Napoli L'Orientale)	S65
Anzorge-Potrzebowska Anna (University of Silesia in Katowice)	S43
Arévalo-González Alicia (Universidad de Cádiz)	S51
Ariel Donald T. (Israel Antiquities Authority)	S18, RT07
Arslan Ermano (Accademia Nazionale dei Lincei)	S34
Artru Jérémy (Université d'Orléans / IRAMAT-CEB)	S07, RT10
Ashour Mona (Faculty of Arts, Alexandria University-Egypt)	S47
Asolati Michele (Università degli Studi di Padova)	S31
Aspetsberger Agnes (Kunsthistorisches Museum Wien)	Poster Session
Auberson Anne-Francine (Swiss Inventory of Coin Finds)	S77
Audy Florent (National Historical Museums, Stockholm)	S64, RT05
Aue Nikolaus (University of Vienna)	S60
Avgerinou Goulielma-Kyriaki	S08
Awianowicz Bartosz (Nicolaus Copernicus University)	S36, S40
Baars Stefanie (Münzkabinett, Staatliche Museen zu Berlin)	S05
Baer Martin (The State Collections of Lower Austria)	S93
Baeta Alice (FLUP)	S50
Baker Julian (Ashmolean Museum, Oxford)	S65
Bakiş Ersin (Istanbul University)	Poster Session
Balbuza Katarzyna (Adam Mickiewicz University, Poznań)	S36
Baldi Elena (Washington University)	S56, S60, Poster Session
Barbaro Barbara (Soprintendenza Archeologia, Belle Arti e Paesaggio per la Provincia di Viterbo e per l'Etruria meridionale)	S52
Barbato Marta (Ministero delle Cultura, Italy, Direzione generale Archeologia, belle arti e paesaggio, Funzionario archaeologico)	RT06
Barrios Diego Rodríguez (University of Salamanca)	Poster Session
Beckmann Martin (McMaster University)	S40
Beliën Paul (National Numismatic Collection, De Nederlandsche Bank)	S48
Benders Jos (NTNU & KU Leuven)	S97, Poster Session
De Benetti Massimo (Progetto Collezione di Vittorio Emanuele III, Medagliere del Museo Nazionale Romano, Roma)	S71, Poster Session
Benge Elizabeth (The Art Institute of Chicago)	S89



Berger Frank (Historisches Museum Frankfurt)	S78, S94
Bernaer-Babin Éphéline (Université de Montréal)	S19
Berthold Angela (Münzkabinett Berlin)	S24
Bhandare Shailendra (Ashmolean Museum)	S30
Bitrak Sanja (Archaeological Museum of North Macedonia)	S08
Le Blanc Robyn (The University of North Carolina at Greensboro)	S45
Bland Roger (Royal Numismatic Society)	S42
Blaskó Marius (Institutul de Arheologie Vasile Pârvan)	S80
Blázquez Cruces Cerrato (University of Salamanca)	RT09, Poster Session
Blet-Lemarquand Maryse (IRAMAT, CNRS-univ. Orléans)	S13, S21, S34, S42
Blichert-Toft Janne (CNRS)	S01, S10
Blumberg Lars (Department of Numismatics and Monetary History, University of Vienna)	S72
Boada-Salom Jaume (Societat Catalana d'Estudis Numismàtics)	S88
Bodet Alexandre (Institut de Recherche en ArcheoMATERIAUX-Centre de Recherche en Physique Appliquée à l'Archéologie; Université Bordeaux Montaigne)	S97
Bodzek Jarosław (Jagiellonian University)	S08, S22, S55, RT07
Bogucki Mateusz (Institute of Archaeology and Ethnology PAN, Commission of Numismatic Studies Polish Academy of Sciences)	S61, S62
Bohr Marcin (University of Wrocław)	Poster Session
Boiko-Haharin Andrii (The National Bank of Ukraine)	Poster Session
Bompaire Marc (EPHE/CNRS--Centre Ernest Babelon)	S77
Bona Alessandro (Catholic University of the Sacred Heart)	RT04, Poster Session
Borell Brigitte (University of Heidelberg)	S30
Börner Susanne (Universität Heidelberg)	S96
Boros Mika (University of Oslo)	S64
Borrel Vincent (CNRS)	S77
Boteva-Boyanova Dilyana (Sofia University "St. Kliment Ohridski")	RT08
Bourbon Xavier (SFN, SENA, ADF)	S79
Bouzas Marc (Universitat de Girona)	S51
Bransbourg Gilles (American Numismatic Society)	S42
Le Brazidec Marie-Laure (UMR 5608 - TRACES (Toulouse))	S50, S59, Poster Session
Bretz Wolfgang (Ruhr University Bochum Institute of Archaeological Studies)	S89
Brice Lee (Western Illinois University)	S08, S11
Brown Andrew (British Museum / Portable Antiquities Scheme)	S27, RT04
Bruni Stefano (Independent Researcher)	S56
Bubelis William (Washington University in St. Louis, John Max Wulff Collection of Ancient Coins and Related Objects)	S08
Bude Ronald (University of Michigan)	S39
Buhay Oleksandr (Institute of Applied Physics, National Academy of Sciences of Ukraine)	Poster Session
Bulas Jan (Arch Foundation)	S55
Burianova Klara (Department of Auxiliary Sciences of History and Archival Studies, Philosophical Faculty, University of Hradec Kralove)	S89
Burnett Laura (University of Exeter)	S79, Poster Session
Bursche Aleksander (University of Warsaw)	S54



Butcher Kevin (University of Warwick)	S37, S89
Butent-Stefaniak Barbara (Zakład Narodowy im. Ossolińskich)	S91, S96
Byard Anni (University of Leicester / Ashmolean Museum, Oxford)	Poster Session
Caldés Òscar (Institut Català d'Arqueologia Clàssica, Tarragona)	S57, RT09
De Callataÿ Francois (Royal Library of Belgium (KBR))	RT07
Callegarin Laurent (Université de Pau)	RT10
Calomino Dario (University of Verona)	S03
Caltabiano Maria Caccamo (Università degli Studi di Messina)	S06
Camenzind Myriam (University of Bern)	Poster Session
Cantatore Mattia Antonio Francesco (Università di Verona)	S67
Cantilena Renata (University of Salerno)	S27
Caparelli Ivan (Università della Calabria; Corso di laurea magistrale in Archeologia)	Poster Session
Cappellacci Simone (Independent Researcher)	S91
Capra Giorgia (University of Oxford)	S14
Carbone Federico (University of Salerno)	S02, S14, S15
Carbone Lucia (American Numismatic Society)	S86
Carr Douglas (Newcastle University)	S53
Carrier Caroline (École normale supérieure de Lyon)	S86
Carroccio Benedetto (Università della Calabria Dipartimento di Studi Umanistici)	S06, S07, Poster Session
Caserta Tiziana (Museo Civico d'Arte Antica, Palazzo Madama)	Poster Session
Casoli Andrea (Coin Cabinet Historische Museum Basel)	RT04
Castanyer Pere (Grup de Recerca Arqueològica del Pla de l'Estany)	S51
Castro Manuel Priego (Alcalá University)	S57, RT09
Cavagna Alessandro (State University of Milan)	S19, Poster Session
Ceci Francesca (Musei Capitolini)	S84
Chambon Grégory (EHESS)	S87
Charrey Pierre (UCLouvain / FNRS)	S87
Charrier Kévin (École Pratique des Hautes Études / UMR 8210 ANHIMA)	S52
Chevillon Jean-Albert (Groupe Numismatique Du Comtat Et de Provence)	S04, RT06
Chieda Daishi (Doho University)	S76
Chiu Smit Alexander (University of Oxford)	S37
Chryssanthaki-nagle Katerina (University Paris Nanterre)	S24
Ciołek Renata (University of Warsaw)	S43, Poster Session
Claes Liesbeth (Leiden University)	S38, RT04
Clua Maria Mercadal (Gabinet Numismàtic de Catalunya, Museu Nacional d'Art de Catalunya)	Poster Session
Cocano Thomas (Saprat, EPHE – PSL)	S83
Cohen Maayan (Tel Aviv University)	RT07
Conejo Noé (Università degli Studi di Padova)	S56
Consiglio Nicolas (Musée d'art et d'histoire de Neuchâtel)	Poster Session
Creighton John (University of Reading, UK)	RT05
Cribb Joe (Hebei Normal University)	S30
Crisà Antonino (Ghent University, Department of Archaeology)	S80
Cruci Antonio (Università di Bologna)	S60



Curtis Vesta (British Museum)	S25
Curto-Pelle Ilia (Princeton University)	S58
Cyron Marcus (Wikipedia)	RT12
D'Ottone Arianna Rambach (Istituto Italiano di Studi Orientali)	S77
Dahmen Karsten (Münzkabinett Berlin)	RT11, Poster Session
Dalzell Bill (CNG, LLC)	S86
Dandrow Edward (University of Central Florida)	S49
Davis Gil (ACANS, Macquarie University)	S10, RT07
Day William (Fitzwilliam Museum)	S71
Degler Adam (Ossoliński National Institute)	S91, S96
Deligio Chrisowalandis (Goethe Universität Frankfurt am Main)	S34
Demian Nicoleta (The National Museum of Banat)	S53
Denk Olivia (University of Basel)	S12, Poster Session
Dergaciova Lilia (Universität Wien, Institut für Numismatik und Geldgeschichte)	S75
Deschaud Jean-Emmanuel (Mines Paris, PSL University)	S34
Dezső Zsolt Nagy (Damjanich János Museum)	S78
Dharmadhikari Jay (Société française de numismatique)	S30
Dimitrov Nikolay (University of Sofia St. Kliment Ohridski)	Poster Session
Doménech-Belda Carolina (University of Alicante)	S66, RT09
Dowler Amelia (The British Museum)	S91
Doychinova Marina (Regional History Museum of Sofia)	S89
Doyen Charles (UCLouvain / FNRS)	S87, S88, RT01
Drápleová Gkantziou Pavla (Institute of Slavonic Studies/ Czech Academy of Sciences)	S28
Dresely Veit (State Office for Monument Preservation and Archaeology in Saxony-Anhalt)	Poster Session
Drost Vincent (Ecole nationale supérieure des sciences de l'information et des bibliothèques)	S50, S52
Dumitrache Paul Gabriel (Heritage and Community Development Association)	S75
Dumke Gunnar (Martin Luther University Halle-Wittenberg)	S20, S29
Dundua Tedo (Ivane Javakishvili Tbilisi State University)	S26
Duyrat Frédérique (Bibliothèque Nationale de France)	S03, S18, RT01, RT07
Dymowski Arkadiusz (University of Warsaw)	S53, S55, RT02
Dzieńkowski Tomasz (Institute of Archaeology, Maria Curie Skłodowska University)	S70
Eberhardt Johannes (Münzkabinett der Staatlichen Museen zu Berlin)	S85
Ehrnsten Frida (National Museum of Finland)	S63, S90
Elkins Nathan (American Numismatic Society)	S38, RT13
Elliot Thomas (University of Liverpool)	S37
Ellis-Evans Aneurin (University of Oxford)	S16
Elshahawi Almoatzbella (J. Paul Getty Museum)	S18, Poster Session
Esquivel Alberto Martín (Universidad de Salamanca)	RT09
Estess Jonah (American University)	S81
Estrada-Rius Albert (Gabinet Numismàtic de Catalunya / Museu Nacional d'Art de Catalunya)	S88
Estrela Susana (Universidade de Lisboa)	S04



Fabião Carlos (Universidade de Lisboa)	S04
Faucher Thomas (Centre d'études alexandrines, CNRS)	S93, S97
Feingold Ellen (Smithsonian Institution)	S94
Von Felten Jonas (Swiss Inventory of Coin Finds)	S27, Poster Session
Fenina Abdelhamid (Université de Tunis)	RT10
Ferré Ramon Anguix (Grup de Recerca Seminari de Protohistòria i Arqueologia de la Universitat Rovira i Virgili (GRESEPIA), Institut Català d'Arqueologia Clàssica)	S57
Ferro Claudia (Sovrintendenza Capitolina ai Beni Culturali)	S41
Filatov Dmytro (V.N. Karazin Kharkiv National University)	Poster Session
Filatova Maryna (V.N. Karazin Kharkiv National University)	Poster Session
Fischer-Bossert Wolfgang (Austrian Academy of Sciences)	S01, S16, RT07
Fiska Patrick (Austrian Academy of Sciences)	S31
Flueck Emmanuel Jonas (SNG)	RT08
Francoise Juliette (University of Geneva; University Paris 1 Panthéon-Sorbonne)	S80
Franke Claus (Berlin-Brandenburg Academy of Sciences and Humanities)	Poster Session
Frey-Kupper Suzanne (University of Warwick)	S07, RT04, RT06, RT10
Frigola Joan (Universitat de Girona)	S51
Froment Paul (Bibliothèque nationale de France)	S95
Fumadó Iván Ortega (University of Valencia)	S27
Gabriela María Huidoboro (Universidad Andrés Bello, Chile)	RT05
Galani Georgia (Stockholm University, Sweden)	RT05
Garbaczewski Witold (The National Museum in Poznań)	S84
García Lidón Alejandro (University of Sevilla)	Poster Session
García Vargas Enrique (University of Seville)	S51
Gargano Giorgia (Soprintendenza Archeologia, Belle Arti e Paesaggio per la città metropolitana di Reggio Calabria e la provincia di Vibo Valentia)	S05
Gatlin A.J. (Coin Archives, LLC)	RT12
Gatto Maria Carmela (Polish Academy of Science)	S60
Gazdac Cristian (Ashmolean Museum / University of Oxford)	RT02
Genechesi Julia (Musée cantonal d'archéologie et d'histoire, Lausanne / Directrice adjointe)	S33
Gentelli Liesel (Ecole Normale Supérieure de Lyon)	S10
Ghey Eleanor (The British Museum)	S33
Giampiccolo Eleonora (Vatican Apostolic Library)	S85, Poster Session
Gianazza Luca (Independent Researcher)	S61, S67
Gigante Federica (University of Oxford)	S88
Gitler Haim (Israel Museum)	RT07
Gkikaki Mairi (University of Warwick)	S23
Glenn Simon (Ashmolean Museum / University of Oxford)	S20, S21
Gloede Jennifer (National Museum of American History, Smithsonian Institution)	Poster Session
Gohar Samah (Center of Documentation of Egyptian Antiquities)	S12
Gofyźniak Paweł (Jagiellonian University)	S31, S92
Gorys Andrea (Berlin-Brandenburgische Akademie der Wissenschaften)	S16



Gosden Chris (University of Oxford)	S34
Goulette François (Mines Paris, PSL University)	S34
Gozalbez Manuel (Museu de Prehistòria de València)	S04
Grandjean Catherine (University of Tours)	S11, S13
Green George A. (Ashmolean Museum, University of Oxford)	S37, S42
Grigorova-Gencheva Valentina (Sofia University "St. Kliment Ohridski")	RT08
Grochowska-Jasnos Marzena (Muzeum Archeologiczno-Historyczne w Głogowie)	S78
Grossmannová Dagmar (Moravian Museum)	S72
Grozdanova Lily (Sofia University "St. Kliment Ohridski")	S24
Gruber Ethan (American Numismatic Society)	S20, S34, S90, RT01
Gruel Katherine (Aoroc_CNRS- ENS-PSL)	S34
Guerra Amilcar (Universidade de Lisboa)	S04
Gullbekk Svein (Museum of Cultural History / University of Oslo)	S63
Günther Elisabeth (Klassische Archäologie, Universität Trier)	S45, S96
Günther Sven (Institute for the History of Ancient Civilizations/ Northeast Normal University)	S45, RT12
Hadzhieva Nina (Regional History Museum at Blagoevgrad)	S09
Von Hagel Frank (Staatliche Museen zu Berlin, Institut für Museumsforschung, Berlin)	RT11
Haidenthaller Ylva (Lund University)	S83
Hansson Ulf (Swedish Institute for Classical Studies in Rome)	S31
Hanstein Sebastian (Danisch Numismatic Society)	RT12
Hartner Johannes (Coin Collection, Kunsthistorisches Museum Wien, Vienna)	S64
Heenes Volker (Forschungszentrum Gotha der Universität Erfurt)	S31
van Heesch Johan van (Royal Belgium Coin Cabinet)	RT04
von Heijne Cecilia (National Historical Museums Sweden)	S77
Hellings Benjamin (Yale University Art Gallery)	S94
Hill David (American Numismatic Society)	S92
Hillier Adrian (ISIS Neutron and Muon Source, UKRI/STFC Rutherford Appleton Laboratory)	S37
Hiltmann Barbara (Museum of Archaeology and History, Lausanne)	S17
Hiriart Eneko (CNRS IRAMAT-CRP2A, UMR 5060 Université Bordeaux Montaigne)	S33, S34
Hirt Alfred (University of Liverpool)	RT06
Hockenhull Tom (British Museum)	S82, S85
Hoffman Kevin (Yale University)	S54
Hollstein Wilhelm (Münzkabinett, Staatliche Kunstsammlungen Dresden)	S35
Holst Rasmus Nielsen (Royal Coll. of Coins and Medals, National Museum of Denmark)	S54
Hopkins Chris (Independent Researcher)	S25
Horache Sofiane (Mines Paris, PSL University)	S34
Horsnæs Helle W. (Nationalmuseet, The Royal Collection of Coins and Medals)	S54
Hostein Anthony (Ecole Pratique des Hautes Etudes – PSL)	RT10
Houal Benjamin (Atelier d'archéologie 3D Grenoble)	S34
Hourmouziadis Jean (Münzkabinett Berlin)	S97



Howgego Chris (University of Oxford)	S34, S47, RT02
Huber Katharina (Austrian Academy of Sciences / University of Vienna)	S48
Huletski Dzmityr (European Humanities University)	S70
Hylla Alexandra (Salzburg Museum)	S64
Hyvönen Eero (Aalto University)	Poster Session
Ierardi Michael (Bridgewater State University)	S13
Ilisch Lutz (Forschungsstelle für Islamische Numismatik, Tübingen)	S66
Ingvardson Gitte (Historical Museum at Lund University)	S63, S75
Ivanova-Anaplioti Hristina (University of Zurich)	S24
Jambu Jérôme (Université de Lille)	S80, S82
Jankowiak Marek (University of Oxford)	S62, S69
Jankowski Lyce (Musée royal de Mariemont)	S74
Jaworski Piotr (Faculty of Archaeology, University of Warsaw)	S47
Caillaud Florence Jeanne Marie (University of Bologna)	Poster Session
Jellonek Szymon (University of Warsaw)	S45, S55
Jersey Philip De (Culture and Heritage, States of Guernsey)	S34
Jipa Andrei (ETH Zürich)	S90
Jonsson Eeva (University of Turku)	S68
Jović Marija (Institute of Archaeology in Belgrade)	Poster Session
Juhász Lajos (Eötvös Loránd University)	S53
Jurkowski Marek (University of Silesia)	S43
Kakavas George (Numismatic Museum, Hellenic Ministry of Culture and Sports)	S01
Kampmann Ursula (Münzen Woche)	RT12
Karlsson Yngve (Gothenburg Numismatic Society)	Poster Session
Karra Irini (Acropolis Museum)	S23
Kefelian Anahide (Oxford University, Ashmolean Museum)	S48
Kelleher Richard (Fitzwilliam Museum, University of Cambridge)	S65
Kemmers Fleur (Goethe University)	RT05
Kerschbaum Saskia (Goethe University Frankfurt)	S44
Kędzierski Adam (The Institute of Archeology and Ethnology PAN)	S69
Kilger Christoph (Department of Archaeology and Ancient History, Uppsala)	S63
Killen Simone (Kommission für Alte Geschichte und Epigraphik, München)	S39
Kirsch Arne (SINCONA AG)	RT08
Klinaki Eleni (Ephorate of Antiquities of Pieria / Hellenic Ministry of Culture)	S12
Kluczek Agata (University of Silesia in Katowice)	S45
Koga Yasushi (Kyushu Sangyo University)	S76
Konuk Koray (Centre National de La Recherche Scientifique, Institut Ausonius)	S12, S22, RT07
Kopij Kamil (Istitute of Archaeology, Jagiellonian University)	S39
Körner Kevin (Universität Tübingen)	RT12
Köster Jan (Berlin-Brandenburg Academy of Sciences and Humanities)	RT08, Poster Session
Kötz Stefan (Coin Cabinet of the LWL Museum of Art and Culture / Westphalian State Museum, Münster)	S78
Kraft Jesse (American Numismatic Society)	S81, S82





Krejčík Tomáš (Masaryk University)	S72
Krmnicek Stefan (Universität Tübingen)	RT12
Krytsuk Roman (Independent Researcher)	S68
Książek Krystian (Muzeum Archeologiczno-Historyczne w Głogowie)	S69
Kučera Lukáš (Department of Analytical Chemistry, Faculty of Science, Palacky University)	S73
Kuleshov Viacheslav (Stockholm Numismatic Institute)	S62
Labate Maria (Università degli Studi di Torino)	Poster Session
Lange Michele (SFB 1391/Universität Tübingen)	S41
Lannin Mary N. (American Numismatic Society)	S81, S92
Larue Manon (IRAMAT-CEB / Université d'Orléans)	S35
Lazar Leah (University of Oxford)	S16
Leblanc Thomas (UCLouvain)	Poster Session
Leimus Ivar (Estonian History Museum)	S72
Lejars Thierry (ENS Ulm, PSL University)	S34
Leonard Robert (American Numismatic Society)	S67
Levada Maksym (Independent Researcher)	Poster Session
Lianta Eleni (Independent Researcher)	S67
Liggi Asperoni Isabella (Site et Musée romains Avenches)	S49
Lindner Peggy (University of Houston)	S28
Locatelli Stefano (The Italian Academy for Advanced Studies in America, Columbia University)	S77
Lockyear Kris (Institute of Archaeology, UCL)	S90
Lörnitzo Anna (Coin Collection, Kunsthistorisches Museum Wien)	S83
López-Sánchez Fernando (Complutense University of Madrid)	S51, S57, RT09
Lualdi Carlo (University of Warwick)	S06
Ludke Melissa (Florida State University)	S02
Luzin Vladimir (ACANS and ANSTO)	S10
Lytovchenko Serhii (V. N. Karazin Kharkiv National University)	Poster Session
Maciejczuk Dawid (University of Wrocław)	S72, Poster Session
Macleon Cameron (The University of Glasgow)	S79
Magdalena Anna Blomley (University of Oxford)	S86
Magub Alexandra (British Museum)	S25
Mairat Jerome (University of Oxford)	S45, S88, RT01
Malarczyk Dorota (The National Museum in Krakow)	S62, S66
Malewicz Emil (IAIE PAN)	S60
Maliczowski Michał (Universität Wien)	S64
Mao Anran (University of Paris-Saclay)	S29
Marani Flavia (Università degli Studi di Salerno)	S56
Marin Steluța (The Bucharest Municipality Museum)	S09
Marinakis Emmanouil (University of Crete)	S14
Marinescu Constantin (Independent Researcher)	S09
Markou Evangeline (National Hellenic Research Foundation)	RT13
Martin Katharina (Westfälische Wilhelms-Universität)	S17
Martínez David Chico (Universitat de València)	S04, S51, S57, RT09
Martini Rodolfo (Gabinetto Numismatico e Medagliere)	Poster Session
Di Masi Ludovica (University of Messina)	S05
Masson Olivier (AOROC)	S34



Matula Mateusz (Institute of Archaeology, University of Wrocław)	Poster Session
Mayr Andrea (Coin Collection, Kunsthistorisches Museum Vienna)	Poster Session
McCoy Marsha (Southern Methodist University, Dallas, TX)	S35
Meadows Andrew (New College, Oxford)	S14, S20, RT01
Mielczarek Mariusz (Institute of Archaeology and Ethnology, PAN)	S43
Milejski Paweł (Ossoliński National Institute)	S73
Militký Jiří (National Museum, Prague)	S32
Milot Jean (ENS Lyon)	S01
Minkova Mariana (Regional Museum of History, Stara Zagora)	Poster Session
Miškec Alenka (National museum of Slovenia)	S52
Moesgaard Jens Ch. (Stockholm Numismatic Institute, Stockholm University)	S63, S68
Mohamed Fatma (The Egyptian Museum)	S47
Möhring Pim (National Numismatic Collection, De Nederlandsche Bank)	Poster Session
Molinari Maria Cristina (Musei Capitolini/Medagliere)	S38
Möller Markus (Römisch-Germanische-Kommission)	S32
Mondello Cristian (University of Warwick)	S23
Moore Lucy (University of York)	Poster Session
Mooring John (National Research School in Classical Studies in the Netherlands)	S01
Mora Serrano Bartolomé (University of Málaga)	RT06, RT09
Morandini Francesca (Fondazione Brescia Musei)	S34
Moreno Pulido Elena (Universidad de Cádiz)	S04, S27, S51
Moretti Domenico Luciano (Studiorum Università di Bologna)	S58, S67
Morstadt Baerbel (Ruhr University Bochum Institute of Archaeological Studies)	S89
Da Mota Henrique (IRAMAT, CNRS-univ. Orléans)	S34
Mudd Douglas (American Numismatic Society)	S81
Munteanu Lucian (Romanian Academy, Institute of Archaeology from Iași)	S55
Munzi Massimiliano (Sovrintendenza Capitolina ai Beni Culturali)	S50
Müseler Wilhelm (Independent Researcher)	S22
Myrberg Nanouschka Burström (Stockholm University)	S63, RT05
Myzgin Kyrlo (Faculty of Archaeology, University of Warsaw)	S39, S41, S42, S55, Poster Session
Nadvirnyak Aleksandr (The State Historical and Culture Reserve "Mezhybizh")	Poster Session
Naismith Rory (University of Cambridge)	S64, S65, RT03, RT05
Neumann Kristina (University of Houston)	S28
Nicolae Eugen (Institutul de Arheologie Vasile Pârvan)	S80
Nieto-Pelletier Sylvia (IRAMAT, CNRS-univ. Orléans)	S33, S34
Nikolakopoulou Antonia (Numismatic Museum Athens)	S12
Nimura Courtney (University of Oxford)	S34
Nollé Johannes (Ludwig Maximilians-Universität München / Auktionshaus Künker)	S22
Nomicos Sophia (Westfälische Wilhelms-Universität Münster)	S10
Norfini Cecilia (University of Bologna)	Poster Session



Oddone Luca (Socio della Società Numismatica Italiana / Perito Numismatico Cciaa Asti-Alessandria)	Poster Session
Ohrt Kirstin (Princeton University)	S28
Oksanen Eljas (University of Helsinki)	S90, Poster Session
Olivier Julien (Bibliothèque nationale de France)	S03, S19, S21, S86, RT01
Olsen Scott (ACANS and ANSTO)	S10
Onielfa Francisco (Universitat de València)	S04
Otte Rahel (Goethe-Universität Frankfurt a. M)	S49
Paghava Irakli (G. Tsereteli Institute of Oriental Studies, Tbilisi)	Poster Session
Pallaver Karin (University of Bologna, Italy)	RT05
Panagopoulou Katerina (University of Crete)	S14
Papaefthymiou Eleni G. (Warwick University, RACOM project)	S13, S48
Papageorgiadou Charikleia (Institute of Historical Research, National Hellenic Research Foundation)	S01
Pardini Giacomo (University of Salerno)	S27
Paris Elodie (Ecole française de Rome)	S34
Parisot-Sillon Charles (IRAMAT-CEB (CNRS & University of Orleans)	S35, S48
Parvérie Marc (Education Nationale)	S77
Pasmans Patrick (Royal Numismatic Society of Belgium)	S21
Pasziewicz Borys (University of Wrocław)	S69, S70
Pearce Seigerman Emily (Yale University Art Gallery)	S95
Pelsdonk Jan (Teylers Museum)	S79
Peña Alejandro (Render SL)	S04
Peppa Aikaterina (Paris 1 Panthéon -Sorbonne)	S58
Perassi Claudia (Catholic University of of Sacred Heart, Milano)	Poster Session
Peter Markus (Augusta Raurica / Universität Bern / Swiss Inventory of Coin Finds)	S49, RT04, Poster Session
Peter Ulrike (Berlin-Brandenburgische Akademie Der Wissenschaften)	S03, S09, S24, RT01, Poster Session
Petropoulos Nikolaos (University of Aegean)	S15
Phillips Marcus (Independent Researcher)	S65, S75
Phiphia Natia (Ivane Javakishvili Tbilisi State University)	S26
Pietrzak Jarosław (Uniwersytet Pedagogiczny Kracowie)	S84
Pilekic Marjanko (Münzkabinett, Stiftung Schloss Friedenstein Gotha)	S32, Poster Session
Pilon Fabien (UMR 7041 ArScAn (équipe GAMA); association La Riobé)	S40
Pîrvulescu Dan (Bucharest Municipality Museum)	Poster Session
Piva Valentino ('Sapienza' University of Rome)	S02
Pliego Ruth (University of Seville)	S51, S58, S59, RT10
Plumel Caroline (AORoc_CNRS-ENS-PSL)	S34
Pohorilets Oleh (The State Historical and Culture Reserve Mezhybizh)	Poster Session
Pol Arent (Universiteit Leiden)	S61
Polanský Luboš (National Museum, Prague)	S68
Ponting Matthew (University of Liverpool)	S37
Popescu Adrian (Fitzwilliam Museum, Cambridge)	S09, RT03
Poulsen Thomas (Museum Østjylland)	S63
Prigent Vivien (Directeur de recherches au CNRS, Paris)	RT10
Prokopov Ilya (Sofia University "St. Kliment Ohridski")	RT08
Psoma Selene (National and Capodistrian University of Athens)	S24



Puebla Morón Miguel José (Independent Researcher)	S06
Puglisi Mariangela (Università di Messina)	S05, S06, RT02
Purece Silviu (Lucian Blaga University of Sibiu)	S44
Puthod Fanny (Swiss Inventory of Coin Finds)	Poster Session
Pyzyk Mark (Princeton University)	S58
Quartarone Sara (Università degli Studi di Messina)	Poster Session
Rababah Mohammad (Technische Universität Berlin)	Poster Session
Raemy Tournelle Carine (Musée cantonal d'archéologie et d'histoire, Lausanne)	S77
Rageot Laurence (MSH Val de Loire)	S34
Rahim Khan Gul (University of Peshawar)	S30
Rambach Hadrien (Lille University/University of Tübingen)	S31
Ramberg Linn Eikje (Museum of Archaeology, University of Stavanger)	S63
Ramskold Lars (Independent Researcher)	Poster Session
Rantala Heikki (Aalto University)	S90
Ranucci Samuele (Ministero della Cultura, Segretariato regionale per l'Umbria)	S52
Redžić Saša (Institute of Archaeology, Belgrade)	S44
Reich Guillaume (Bibracte)	S34
Resch Max (Department for Numismatics and Monetary History, University of Vienna)	S53
Ribera I Lacomba Albert (Institut Català d'Arqueologia Clàssica - ICAC)	RT06
Ripollès Pere Pau (Universitat de València)	S04, RT01
Roch Julius (Coin Cabinet Berlin)	S46
Roche Augustin - Lévêque (Archéosciences Bordeaux)	S18
Rogé Xavier (Numista)	S90
Romanowski Andrzej (Department of Coins and Medals, National Museum in Warsaw)	S30
Ros Aurélien (EPHE)	S59, RT10
Rowan Clare (University of Warwick)	S23, RT01
Saccocci Andrea (Università degli Studi di Udine)	S56, S71
Sakuraki Shin'ichi (Asahi University)	S76
Salvemini Filomena (ACANS and ANSTO)	S10
Sami Denis (Oxford Archaeology East)	S56
Sancinito Jane (University of Massachusetts-Lowell)	S28
Sarah Guillaume (CNRS-Centre Ernest Babelon)	S77
Sarcinelli Giuseppe (Università del Salento)	S58
Lenger Savas Dinçer (Akdeniz University, Department of History)	S17, S24, Poster Session
Schiesser Philippe (SENA)	S61
Schinzl Christian (Münzkabinett Winterthur)	S46
Schlapke Mario (Thüringisches Landesamt für Denkmalpflege und Archäologie)	S27
Schmitt Laurent (SFN, SENA, CEN, ANS, BNS, SNRB, ÖNG, SHN, ADE, ADF)	S50, S79,
Schultz Warren (DePaul University, Chicago)	S66
Screen Elina (Fitzwilliam Museum)	S71, RT03
Seelbach Daniel (Goethe-Universität Frankfurt)	S61
Serrano Ordozgoiti David (Universidad Complutense de Madrid)	S40
Shaheen Islam (Egyptian Museum, Cairo)	Poster Session



Sharpless Alice (American Numismatic Society)	S86
Shavarebi Ehsan (Kunsthistorisches Museum Wien, Münzkabinett)	S29
Sheedy Kenneth (ACANS, Macquarie University)	S10, S13
Shtalenkov Ilya (Belarusian Numismatic Society)	S70
Sicart Xavier Chavarria (Grup de Recerca Seminari de Protohistòria i Arqueologia de la Universitat Rovira i Virgili, Tarragona, Spain)	S57, RT09
Sidarovich Vital (Faculty of Archaeology, Warsaw University)	Poster Session
Da Silva Mateus (Universidade Federal Fluminense)	Poster Session
Singh Karan (Oriental Numismatic Society)	S29
Sinha Sutapa (University of Calcutta, India)	S74
Sinisi Fabrizio (Austrian Academy of Sciences)	S25
Sinner Alejandro G. (University of Victoria, Canada)	RT06
Sintchouk Ivan (Independent Researcher)	S82
Smagur Emilia (Polish Centre of the Mediterranean Archaeology, Warsaw University)	S30
Smělý Tomáš (ABALON s.r.o)	S32
Smith Joshua (Independent Researcher)	Poster Session
Smolucha-Sładowska Agnieszka (National Museum in Kraków)	S84, S85
Snible Ed (Bronx Coin Club)	S16
Sochacki Grzegorz (Istitute of Archaeology, Jagiellonian University)	S39
Solano Serena (Soprintendenza Archeologia Belle Arti e Paesaggio per le Province di Bergamo e Brescia)	S34
Sole Lavinia (Università degli Studi di Palermo)	S07
Solorzano Arias Zoreidi (Numismatic Museum, Havana)	S82
Sophia Julia Hanelt (Johannes Gutenberg-Universität Mainz)	S40
Spagnoli Emanuela (Università degli Studi di Napoli Federico II)	S33
Specht Edith (Chorherrenstift Klosterneuburg)	S93
Spinelli Marianna (University of Calabria)	S02
Spoerri Marguerite Butcher (Heberden Coin Room, Oxford / Ashmolean Museum)	S27, S46, RT02
Staffieri Giovanni Maria (Circolo Numismatico Ticinese)	S47
Stahl Alan (Princeton University)	S28, Opening Lecture
Stahlke Friederike (Heidelberg University)	S96
Stal Michael (University of Vienna / Department of History)	Poster Session
Stannard Clive (University of Warwick)	S95, RT06
Stefanaki Vassiliki (Numismatic Museum, Athens)	S12, S14, S15
Stefanakis Manolis I. (University of Aegean)	S15
Stefanile Michele (Scuola Superiore Meridionale)	RT06
Stella Andrea (University of Padua)	S50
Stepanenko Stepan (CNRS UMR 8167)	S62
Stewart Roberta L. (Dartmouth College)	RT12
Stoess Christian (Staatliche Museen zu Berlin, Münzkabinett)	S92
Stolba Vladimir (Staatliche Museen Zu Berlin, Münzkabinett / Berlin-Brandenburg Academy of Sciences And Humanities)	S03, S24
Stroobants Fran (KBR – Royal Library of Belgium)	S91
Suchodolski Stanisław (Institut of Archaeology and Ethnology of PAN)	S68
Suspène Arnaud (Université d'Orléans / CNRS IRAMAT-CEB)	S42
Svensson Roger (IFN, Stockholm)	S73



Szaivert Wolfgang (Department of Numismatics and Monetary History, Vienna)	S93
Śnieżko Grzegorz (Institute of Archaeology and Ethnology of PAN)	S69, S70
Taasob Razieh (Charles University)	S21
Takagi Hisashi (Osaka University of Economics)	S76
Tal Oren (Tel Aviv University)	RT07
Talmaṭchi Gabriel-mircea (The National History and Archaeology Museum of Constanța)	S55
Tandon Pankaj (Boston University)	S29
Tasaklaki Marina (Ephorate of Antiquities of Rhodope, Hellenic Ministry of Culture and Sports)	S24
Tatar Ömer (Akdeniz University, Department of History)	S19
Tătaru Cristiana (National History Museum of Romania)	S75
Tauschensky Anika (State Office for Monument Preservation and Archeology in Saxony-Anhalt, Germany)	Poster Session
Tavadze Leri (Ivane Javakishvili Tbilisi State University)	S26
Taylor Zachary (American Numismatic Society)	S86
Tchanishvili Evgeni (Tbilisi State University)	S26
Tejado Sebastián María José (Univ. of La Rioja)	S57, RT09
Théret Philippe (SFN, SENA, ADF)	S79
Tobias Bendeguz (Austrian Academy of Sciences)	S87
Tolkacheva Luda (National Historical Museum of the Republic of Belarus)	S68
Tolle Karsten (Goethe Universität Frankfurt/ Main)	S27, S34, RT01, Poster Session
Tomassoni Roberto (Independent Researcher)	S31
Tremoleda Joaquim (Grup de Recerca Arqueològica del Pla de l'Estany)	S51
Tricoche Agnès (Ecole normale Supérieure)	S34
Trommschlagher Ludovic (Département Monnaies, médailles et antiques Bnf)	S49, S52
Trostmann Erik (Fraunhofer Institute for Factory Operation and Automation)	Poster Session
Troubady Murielle (IRAMAT, CNRS-univ. Orléans)	S34
Tselekas Panagiotis (Aristotle University of Thessaloniki, School of History and Archaeology)	S01
Tsouvala Georgia (Illinois State University)	S08
Turner Paula (Independent Researcher)	S30
Tütüncü Esra (Suleyman Demirel University Graduate School Of Social Sciences)	S46
Tzvetkova Julia (Sofia University)	S24
Ullrich Oliwia (WWU Münster)	S11, Poster Session
Ünal Ceren (Celal Bayar University)	S67
Vacinová Lenka (National Museum, Prague)	S36
Valci Mariele (Istituto Italiano per gli Studi Storici, Naples)	S71
Valli Giulia (Gabinetto Numismatico E Medagliere, Milano)	S02, Poster Session
Varbanov Varbyn (Regional Museum of History - Russe, Bulgaria)	RT02
Vardanyan Aram (National Academy of Sciences, Yerevan)	S74
Vaxevanopoulos Markos (Ecole Normale Supérieure de Lyon)	S01



Venger Andrii (South Ukrainian National Pedagogical University named after K. D. Ushynsky)	Poster Session
Venger Olga (South Ukrainian National Pedagogical University named after K. D. Ushynsky)	Poster Session
Verboven Koenraad (University of Ghent)	RT06
Vida István (Hungarian National Museum)	RT02
Vidin Hülya (Goethe University Frankfurt/Landesmuseum Hannover)	S17, Poster Session
Vîlcu Aurel (Vasile Pârvan Institute of Archaeology, Romanian Academy)	Poster Session
Vismara Novella (Università degli Studi di Milano Bicocca)	S02, RT07
Vogt Simone (Museum August Kestner)	Poster Session
Vojvoda Mirjana (Institute of Archaeology, Belgrade)	S44
Vondrovec Klaus (Kunsthistorisches Museum)	S21
Vorel Petr (University of Pardubice)	S73
Wahl Marc Philipp (Vienna University, Department of Numismatics and Monetary History)	S05
Wang Helen (British Museum)	S30, S74
Wartenberg Ute (American Numismatic Society)	S03, RT13
Watson George (Swansea University)	S43
Weidgenannt David (University of Vienna, Institute for Numismatics and Monetary History)	S13
Weiss Christian (Swiss National Museum, Zürich)	RT11
Weisser Bernhard (Münzkabinett Berlin)	S16, S17, RT01, Poster Session
Westermark Andreas (Sveriges Riksbank)	S73
Westner Katrin (ENS Lyon)	S01
Wigg-Wolf David (Römisch-Germanische Kommission)	S27, S32, S34, RT01, RT13
William Stephen Merkel (Deutsches Bergbau-Museum Bochum)	S70
Williams Daniela (Austrian Academy of Sciences)	S31, S93, S95
Willox Louise (UCLouvain)	S87
Wisniewski Anthony (Cultural Property Advisory Committee, U.S. Department of State)	RT13
Wolf Daniel (Independent Researcher)	S19
Wołoszyn Marcin (Leibniz Institute for the History and Culture of Eastern Europe, Leipzig// Institute of Archaeology, University of Rzeszów, Poland)	S60, S70
Woytek Bernhard (Austrian Academy of Sciences)	S31
Wyssmann Patrick (Universität Bern)	RT07
Xu Chi (Renmin University of China)	S29
Yanov Dmytro (Odessa Archaeological Museum of the National Academy of Sciences of Ukraine)	S91
Yarrow Liv Mariah (Brooklyn College, CUNY)	S35, S86
Yebni Yadh	S34
Yoon David (American Numismatic Society)	S59
Zäch Benedikt (Münzkabinett und Antikensammlung der Stadt Winterthur)	RT11
Zacher Juliusz (The Royal Castle in Warsaw – Museum)	S84
Zajac Barbara (Independent Researcher)	S44, S55



Zanchi Pierre (Swiss Inventory of Coin Finds)	Poster Session
Zaoral Roman (Charles University, Faculty of Humanities)	S64, S72
Zapolska Anna (University of Warsaw)	S54
Zawadzki Michał (The Royal Castle in Warsaw – Museum)	S69
Zhang Duoduo (IHAC)	S96
Ziegert Martin (Fritz Rudolf Künker GmbH)	S07
Ziskowski Angela (Coe College)	S11