

## International workshop

### THE ORIGIN OF EARLY MIDDLE AGES GARNETS

Trade between the Indian subcontinent and Europe from the 5<sup>th</sup> to the 7<sup>th</sup> c. AD

June 22 - 23, 2017

Musée d'Archéologie Nationale, Château Place Charles de Gaulle, Saint Germain en Laye  
Centre de recherche et de restauration de musées de France C2RMF, Palais du Louvre, Paris

#### Objective

The workshop aims at presenting the results of research projects on the circulation of garnets, the emblematic gem of the cloisonné style which, in the 5<sup>th</sup> and 6<sup>th</sup> centuries, characterized almost all the Western world, from the Black sea to Anglo-Saxon territories and from Scandinavia to North Africa. A majority of these investigations has been carried out using the transnational access to the AGLAE accelerator of the C2RMF open for more than a decade to the scientists working in Heritage in Europe, following the 'Merovingian Garnet' programme initiated in 1999 on the collection of the MAN. These programmes focused on garnets mounted on famous archaeological museum collections from France (notably from the MAN and the Cabinet des Médailles of the Bibliothèque nationale de France) and elsewhere in Europe (Germany, Belgium, the Netherlands, Romania, United Kingdom, etc.) with often unreleased results.

#### Day 1 at the MAN in Saint-Germain-en-Laye

**Presentation of the results of the garnet analyses carried out in the framework of the European programs** Eu-ARTECH, CHARISMA and IPERION and other programs elsewhere in Europe (*International Framework / Weltweites Zellwerk*) or in the rest of the world. While garnet analyses has shown that a restricted number of sources, mainly from India and Ceylon (Sri Lanka), were used everywhere in Europe during the 5<sup>th</sup> and 6<sup>th</sup> centuries, those exploited later are of European origin, a fact indicating a major change in the Indo-European trade around 600.

The participants will be invited to the inauguration of the exhibition '*Austrasia, the forgotten Merovingian Realm*' in the evening.

#### Day 2 at the C2RMF in Paris

The **place of the garnet trade in the long-distance commerce between early Middle Ages India and Europe** will be discussed, in particular with historians and archaeologists of ancient India. The terrestrial and maritime routes will be considered (Silk Road, Berenike, etc.). The investigation of garnet raw and worked beads excavated from workshops in Mediterranean rim and from coastal *emporía* in India will be reported. Finally, the extension of the program to garnets from late Antiquity, notably present on necklaces, rings, intaglio, will allow establish the link with preceding periods. A round table discussion will be organized to provide a synthesis, draw perspectives, and plan the publication.

'In the first rank among these is carbunculus, so called from its resemblance to fire'  
*Pliny, Hist. Nat. XXXVII*

#### Context

The existence of a long-distance trade, mainly the sea route but also the silk road, between the Indian subcontinent and the Mediterranean world in the Greco-Roman period is well attested by both writings and archaeological evidences, more as concerns the latter in India than in the Western World. On the other hand, written sources that could confirm the persistence of this trade during the early Middle Ages are scarce, at least in the West, and except the *Christian Topography* by *Cosmas Indicopleustes* in the 6<sup>th</sup> c testifying that precious textiles, spices and gems were still reaching the West, whereas written Indian and Persian sources, and later Arab ones attest it better. However, apart from a few textile remains conserved in church's treasures or exceptionally recovered from excavations like those found in Merovingian graves of the Saint-Denis basilica near Paris, material evidences of this trade remain very rare.

This is no longer the case today, thanks to recent excavations in Western Europe and pioneering laboratory work. It is now possible to establish that at the beginning of the Merovingian period garnets from India and Ceylon were massively employed in the manufacture of cloisonné jewels, which testifying to survival, till the end of the 6<sup>th</sup> c, of continuous exchanges between the Indian subcontinent and the Mediterranean world.

#### Organising Institutions

Centre de Recherche et de restauration des Musée des France (I. Pallot-Frossard, director)  
Musée d'archéologie Nationale - Domaine national de Saint-Germain-en-Laye (H. Multon, director)

with the support of the Département des Affaires Européennes et Internationales (DAEI) from the Direction Générale des Patrimoines et du Département de la Recherche, de l'Enseignement Supérieur et de la Technologie (DREST).

#### Publication

The workshop proceedings will be published in a special volume after the workshop.

#### Communication

F. Durand and A Vervueren (MAN), M. Lionnet-de Loitiere, S. Lefevre and V. Fournier (C2RMF)

#### Registration

thomas.calligaro@culture.gouv.fr

#### Websites

c2rmf.fr  
musee-archeologienationale.fr



**Thursday June 22 2017**

auditorium - Musée d'Archéologie Nationale  
 Topic : Analysis of garnets from Early middle ages artefacts

- 8:30 **Participants welcome and registration**
- 9:20 **Welcome and opening address**  
*H. Multon* director of the Musée d'archéologie Nationale - Domaine national de Saint-Germain-en-Laye
- 9:40 *N. Adams* - The question of the origin of the garnets of the cloisonné style
- 10:00 *F. Farges* - Garnets: from Nature to Culture
- 10:20 *T. Calligaro* - Garnet characterisation using PIXE and XRF

**Coffee break**

- 11:00 *A. Gilg* - Raman, EMPA and LA-ICP-MS analysis of gem garnets and their inclusions with geological implications
- 11:20 *P. Périn* - The genesis of the garnet programme at the C2RMF (1999-2017)
- 11:40 *D. Quast and S. Greiff* - „Weltweites Zellwerk - International Framework“ - an interdisciplinary project on early medieval garnet jewellery
- 12:00 *B. Haas-Gebhard* - Characterisation of garnets and gold used in early medieval objects from Bavaria, Germany

**Lunch break**

- 14:00 *A.-M. Willemsen* - Characterization of garnets and glass inlays of Merovingian cemeteries of the Netherlands
- 14:20 *R. Marghitu and R. Bugoi* - Investigation of loose garnets from 5<sup>th</sup> c. treasures found in Romania: Pietroasa, Apahida and Cluj-Someşeni
- 14:40 *C. Higgitt* - The scientific and technical analysis of the Staffordshire Hoard, part 1 : the study of inlays and garnet provenance
- 15:00 *F. Mathis* - Usage and provenance of Merovingian garnets in Belgium
- 15:20 *I. Villela-Petit* - On-site analysis garnets from the Merovingian artefacts at the Cabinet des médailles - BNF : Childéric and Gourdon

**Coffee break****Friday June 23 2017**

Palissy auditorium - C2RMF  
 Topic : Trade between Indian and Western worlds in the Early middle ages

- 9:00 **Welcome address by**  
*I. Pallot-Frossard*, director of the C2RMF
- 9:20 *S. Suresh* - Roman Coins and Other Roman Imports to India: New Perspectives from Archaeology
- 9:50 *P. Rifa-El Nil* - Garnets in all states: insights on the late Roman workshops from the Diana, Alexandria, Egypt
- 10:20 *K. Schmetzer* - The garnet beads from Arikamedu, India, and their source

- 11:00 *O. Bopearachchi* - New insights on commercial exchanges between the Roman and Indian worlds : the discovery of a 2<sup>nd</sup> c. BC shipwreck in Godavaya, Sri Lanka

- 11:20 *J. Lankton* - Glass Routes of the Southern Seas
- 11:40 *H.-P. Francfort* - The caravans of the Silk Road: from China to the Mediterranean world

- 12:00 *J. Ljungkvist / J. Soulat* - A garnet workshop in Gamla Uppsala, Sweden

- 14:00 *C. Pacheco* - visit of the NEW AGLAE accelerator

- 14:40 *C. Pion* - Import of glass beads of the Indo-Pacific type in the West at the beginning of the Merovingian period

- 15:00 *P. Périn* - The question of exports of Indian and Sinhalese garnets in Europe in the 5<sup>th</sup> and 6<sup>th</sup> c. Some economic-political considerations

- 15:20 *A. Gilg* - Garnet sources and their evolution :what we know and what we don't know yet

**Thursday June 22 2017**

auditorium - Musée d'Archéologie Nationale  
 Topic : Analysis of garnets from Early middle ages artefacts

- 16:00 *I. Bardiès-Fronty* - Analysis of Merovingian artefact garnets at the Musée National du Moyen Age
- 16:20 *T. Calligaro* - Two examples of garnets set on cloisonné from Austrasia: graves of Pouan, Aube and Saint-Dizier, Haute-Marne
- 16:40 *C. Hedenstierna-Jonson and A. Hilgner* - Studies on Anglo-Saxon and Vendel-period garnet jewellery within the project "Weltweites Zellwerk"
- 17:00 *E. Horváth* - Provenance and use of garnets of early medieval fine metalwork from Hungary with special focus on Avar Period artefacts
- 17:20 *J. Jiřík* - Bohemia and Moravia in Late Antiquity, connection to long-distance trade and problem of emergence of the Czech garnets in archaeological finds

**Inauguration of the exhibition 'Austrasia, the forgotten Merovingian realm'****Speakers**

- ADAMS Debra Noel, Furuşyaya Art Foundation, London, United Kingdom  
 AIMONE Marco, Dumbarton Oaks Museum, USA  
 BARDIES-FRONTY Isabelle, Musée du National de Moyen Age - Cluny, Paris, France  
 BOPEARACHCHI Osmund-christie, École Normale Supérieure, Paris, France  
 BUGOI Roxana, Horia Hulubei National Institute, Bucarest, Romania  
 CALLIGARO Thomas, Centre de Recherche et de Restauration des musées de France, Paris, France  
 FARGES François, Musée National d'Histoire Naturelle, Paris, France  
 FRANCFORT Henri-Paul, Maison André Ginouvès UMR 7041 ArScan, Nanterre, France  
 GILG Albert H., Technische Universität München, Germany  
 GREIFF Suzanne, Römisch-Germanisches Zentralmuseum Mainz (RGZM), Mainz, Germany  
 HAAS-GEBHARD Brigitte, Archäologische Staatssammlung München, München, Germany  
 HIGGITT Catherine, National Gallery, London, United Kingdom  
 HILGNER Alexandra, Römisch-Germanisches Zentralmuseum Mainz (RGZM), Mainz, Germany  
 HORVÁTH Eszter, Eötvös Loránd University, Budapest, Hungary  
 JIŘÍK Jaroslav, Charles University, Prague, Czech Republic  
 LANKTON James, UCL Doha, Qatar  
 MARGHITU Rodica, National History Museum of Romania, Bucarest, Romania  
 MATHIS François, Direction de l'archéologie, service public de Wallonie, Belgium  
 PACHECO Claire, Centre de Recherche et de Restauration des Musées de France, Paris, France  
 PERIN Patrick, Centre de Recherche et de Restauration des Musées de France, Paris, France  
 PION Constantin, Royal Institute for Cultural Heritage, Brussels, Belgium  
 QUAST Dieter, Römisch-Germanisches Zentralmuseum Mainz (RGZM), Mainz, Germany  
 RIFA - ABOU EL NIL Patricia, CEALex, CNRS-USR 3134, Alexandria, Egypt  
 SETHURAMAN Suresh, University of Madras, Chennai, India  
 SCHMETZER Karl, Deutsche Patent- und Markenamt, Petershausen, Germany  
 SOULAT Jean, LANDARC, Fleurance, France  
 WILLEMSSEN Annemarieke, National Museum of Antiquities, Leiden, The Netherlands

**Friday June 23 2017**

Palissy auditorium - C2RMF  
 Topic : Trade between Indian and Western worlds in the Early middle ages

- 16:00 **Round-table discussion**  
**Synthesis**  
**Recommendations**  
**Perspectives**  
**Publication**
- 16:40 **General conclusion**

**I. Pallot-Frossard – closing address****Local committee**

- Thomas CALLIGARO and Patrick PERIN co-chairs (C2RMF)
- Catherine LOUBOUTIN, deputy director, in charge of scientific policy (MAN)