



**SUMMARY OF THE STUDY GROUP MEETINGS HELD AT THE 3RD GENERAL MEETING AT  
RETHYMNON, CRETE, ON DECEMBER 12 – 13, 2008**



**CLOTHING AND IDENTITIES  
NEW PERSPECTIVES ON TEXTILES IN THE ROMAN EMPIRE (DRESSID)**

**3<sup>RD</sup> GENERAL MEETING**

*Rethymnon  
11 – 13 December 2008*

**Organized by the Department of History and Archaeology, University of Crete**

Prof. Dr. Iris Tzachili ([tzachili@phl.uoc.gr](mailto:tzachili@phl.uoc.gr), office: +30 – 6974468919)

Dr. Eleni Zimi ([zimi@phl.uoc.gr](mailto:zimi@phl.uoc.gr), office: +30 – 2831077345)

Margarita Papadopoulou ([Margarita@phl.uoc.gr](mailto:Margarita@phl.uoc.gr))

**Location of the Conference**

Institute of Mediterranean Studies  
Melissinou & Nikiforou Foka 130  
Rethymno 74100, Crete, Greece  
Tel.: +30 – 28310 25146, -56627

***PROGRAM***

**Thursday, December 11, 2008**

Arrival at JO-AN Hotel.

20:30 Dinner at *Prima Plora* – informal meeting

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**Friday, December 12, 2008**

9:00 Welcome addresses by Iris Tzachili and Michael Tellenbach.

9:30 *Study Group 1, Elements of Dress:*

## DressID

Presentation of work in progress, results, and aims, by Annemarie Stauffer. Research reports on subprojects of study group members, presentations of Annemarie Stauffer, Isabella Benda-Weber, Astrid Böhme-Schönberger, Cäcilia Fluck, Annette P.g. Schieck.  
Discussion.

10:30 *Study Group 2, Materials and Techniques:*

Report on the study group status, the group activities, and the database on tools and materials by Iris Tzachili.

Lectures on research activities by Christophe Moulherat and Youli Spantidaki, report on the PhD-project of Margarita Papadopoulou, Karina Grömer and Maria Patera.

Discussion.

11:30 Coffee break

12:00 *Study Group 3, Quality:*

Report on the study group status and research activities by Annette P.g. Schieck.

Lecture by Sylvia Mitschke on the progress of her PhD-thesis, and report on the activities of Christophe Moulherat.

Discussion.

13:00 Lunch.

15:30 *Study Group 5, Exhibition:*

Report on the meetings of study group 5 at Mannheim and Hallstatt: Presentation of the brochure on exhibition preparations by Michael Tellenbach, Annette Schieck, Karina Grömer and Anton Kern.

Discussion on the exhibition draft.

Collection and discussion of the form sheet on exhibits.

Invitation to the next meeting of study group 5 at Mannheim.

Reports of the study groups on general content request sent out in advance.

Discussion.

16:30 Coffee break

17:00 *Study Group 4, Colour and Dating:*

Presentation of study group activities, report on sample analyses requests by DressID-participants, results of analyses, subprojects and communication practices within the project by Ina Vanden Berghe. Lecture on research activities given by Eleni Zimi.

Discussion.

19:00 End of the sessions.

20:30 Dinner

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## **Saturday, December 13, 2008**

9:00 *Study Group 6, Experimental Archaeology:*

Activity report by Eva Andersson.

Presentation of results, requests on reconstructions for the exhibition, personal communications.

Discussion.

10:00 *Study Group A, Self and Society:*

Initiation of Study Group A. Presentation of aims and methods of the group by the spokespersons

Maureen Carroll and Ursula Rothe, based on responses to the initial circular letter of the study group.

Registration of participants. Presentation of individual projects by study group members: Maureen Carroll, Ursula Rothe, John P. Wild.

Discussion.

11:00 Coffee break

11:30 *Study Group B, Rome and the Provinces:*

Initiation of Study Group B. Presentation of aims and methods of the group by the spokespersons Carmen Alfaro, based on responses to the initial circular letter of the study group. Registration of participants.  
Discussion.

12:30 Excursion to Armenoi and Lunch

15:30 *Study Group C, Gender and Age:*

Initiation of Study Group C. Discussion on aims and methods of the group conducted by the spokespersons Căcilia Fluck and Manel Garcia, based on responses to the initial circular letter of the study group. Presentation of individual research projects by Căcilia Fluck, Manel Garcia.  
Registration of participants.

16:30 *Study Group D, Dress and Religion:*

Initiation of Study Group D. Presentation of aims and methods of the group by the spokespersons Sabine Schrenk and Konrad Vössing, based on responses to the initial circular letter of the study group.  
Registration of participants.  
Presentation of individual projects by study group members; organization of the participants and study group meetings.  
Discussion.

16:30 *Study Group E, Production and Trade:*

Short presentation by Anne Marie Carstens on the general approaches and main issues to be investigated; invitation to the study group meeting appended to the 4<sup>th</sup> General Meeting at Hallstatt results; communication on the publication planned.  
Discussion.

17:30 Coffee break

18:00 Summary by John P. Wild.

Closing address by Iris Tzachili and Michael Tellenbach.

Invitation to the 4<sup>th</sup> General Meeting, June 2009, Hallstatt, Austria, by Anton Kern and Karina Grömer.

19:00 End of the meeting.

20:00 Dinner.



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**PARTICIPANTS:**

1. Iris Tzachili
2. Eleni Zimi
3. Margarita Papadopoulou
4. Pavlina Karanastassi
5. Maria Patera
6. Youlie Spantidaki
7. Michael Tellenbach
8. Annette Paetz gen. Schieck
9. Sylvia Mitschke
10. Astrid Böhme-Schönberger
11. Annemarie Stauffer
12. Sabine Schrenk

13. Cäcilia Fluck
14. Konrad Vössing
15. Ina Vanden Berghe
16. Iris van der Beeten
17. Carmen Alfaro
18. Manuel Albaladejo
19. Manel Garcia
20. Ursula Rothe
21. Maureen Carroll
22. John Peter Wild
23. Anne Marie Carstens
24. Eva Andersson
25. Anton Kern
26. Karina Grömer
27. Isabella Benda-Weber
28. Christof Moulherat
29. Rolf Haubrichs

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### **STUDY GROUP 1: ELEMENTS OF DRESS**

Spokespersons: Ulla Mannering & Annemarie Stauffer

Minutes by Annemarie Stauffer & Annette P.g. Schieck

Study group 1 actually consists of 12 members. Seven members have sent reports in advance. Five members gave presentations of their projects. Project descriptions are listed below.

The following discussion was focussed on the final thesaurus. Several participants pointed out that the thesaurus should not start from the Greek and Latin terms but English descriptive terms would give a larger range of possible elements of dress. However where possible the Greek and Latin words should be included as well as mentions in classical sources.

A Greek thesaurus has obviously been started by Prof. Karali in Athens. More information should be available in Hallstatt.

Annemarie Stauffer suggested that drawings of elements of dress should be an important part of the thesaurus. Drawings explain a lot by themselves and are more precise than words. Databases of this type are known among costume specialists and do exist for liturgical garments. The thesaurus will be published within the project; if as a printed or a digital version still needs to be decided upon.

Sabine Schrenk and Konrad Vössing announce that a thesaurus for late antique garments is has been established by a working group in Göttingen (Prof. Dr. A. Arbeiter). The results are digitally accessible as a CD-Rom, but not yet published.

Decorative elements: Cäcilia Fluck suggests using the term monochrome for decorative elements showing one colour, the term bi-chrome for decorative elements with additional flying shuttle or a second colour.

### **Presentations:**

**1) *Isabella Benda-Weber* – The costume tradition in the area of the Aegean and the Balkans: Greeks, Thracians and Anatolians from the Achaemenids to the Romans**

The later Roman provinces of Achaia, Asia, Lycia et Pamphylia, Thracia, Moesia and Dacia were inhabited by indigenous peoples with their own rich cultures reaching back to the Bronze Age. Very early they had lively trade relations to the Greeks and to the Scythians in the north. At the end of the 6<sup>th</sup> century BC the Great King Darius I. conquered these regions and made them part of the mightiest empire at this time. At the same time the Greek colonization along the shores of the eastern Mediterranean and the Black Sea was flourishing and so Greek culture spread to the last corners of antiquity.

The combination of these three elements, the own autochthonous traditions, the contact with Greek culture and the regulative administration of the Achaemenid empire was very stimulating for the long-established peoples and tribes to develop their own local cultures we call Graeco-Persian. Many of the local dynasties arose and developed a courtly culture with luxury from east and west. Thracians and Macedonians, Phrygians, Lydians, Carians and Lycians – they all had their own costumes with similarities and differences as the archaeological and literary sources tell us. Purple textiles with golden threads and applications from Lydia, Caria and Macedonia, colourful embroidered gowns from Phrygia and much more were estimated by Greeks and Persians as well; we have very seldom original finds of ancient textiles. The magnificent grave goods in Asia Minor and Thrace attest the fruitful cultural exchange of Greek and oriental elements. Even in Athens luxury goods and Persian clothes came into fashion. But during the century's different acculturation processes happened and finally Greek culture was adopted.

When Alexander the Great went to Asia he found a Hellenized koiné which was the basis for the following Hellenistic empires. The Romans overtook a homogeneous Greek-oriental culture which was the base for Roman luxury in the provinces and in Rome itself.

The north-Thracian Dacians were an exception because they were not Hellenized when Trajan conquered them. Therefore they could keep their own traditions and garments and were directly romanized when the province Dacia was established.

But many of the “barbarian” traditional costume elements survived in Roman art when they kept their connection with foreign goddesses or mythological figures. There was a awareness for their foreign origin until late antiquity although their original appearance had changed.

## **2) Annemarie Stauffer**

Work has been concentrated on the Palmyra project. Verucchio will be focussed on in the next half year.

### **a) Textiles and clothing in Palmyra**

May 2008: Visit Palmyra Collection Ny Carlsberg Glyptothek (Dr. Jan Stubbe Østergard). Planning of project: colour measurements on Palmyrene Sculpture.

August 08 (Bern): Work in the Palmyra Archives Berne. Bibliographical research concerning historical context and terminology. Preliminary work concerning elements of dress. Photo research in the Palmyra photo archives. Establishing a terminology concerning Graeco Roman and Parthian style dress.

Working on the terminology: elements of dress in Palmyra (see detailed report)

### **b) Palmyra: Elements of dress 1<sup>st</sup> to 3<sup>rd</sup> century**

Clothing and dress in Palmyra has been treated in various publications however no profound research has been published so far. At the beginning of the project important literature has been reviewed especially concerning changes of dress and chronological aspects e.g. changes from 1<sup>st</sup> to 3<sup>rd</sup> centuries (Seyrig, Colledge, Plough/Inholt, Schmidt-Colinet, Schmidt-Colinet/Stauffer).

Another basic aspect was the chronological frame of the research e.g. dating of Palmyrene sculpture and reliefs, a topic much discussed.

After this preliminary research elements of dress have been collected and listed. The list turned out to become very long. In many cases especially concerning local styles it is quite difficult to identify the garments as represented in Palmyrene art with the common terminology for Roman or Eastern style garments. Thus the work turned out to be much more difficult than it seemed at the beginning. A list has been worked out for men's dress in Palmyra (work is still in progress). Another will be focussed on women's dress.

Other aspects are decorations of garments e.g. the shapes of decoration. Beside the well known decorations such as clavi bands and stripes, eastern forms such as Gammadia or H-shaped forms, arrows etc. could be found.

A third aspect are additional decorations such as fringes, pearls etc. Some of these decorative elements and finishes obviously belong to certain dresses and certain styles of dress.

Considering the large amount of single garments the author decided to leave out all sorts of head dress. For women the head dresses had been studied profoundly latest by Cynthia Finlayson. For men basic research has been done before by Rolf Stucky.

Work will continue with a list of elements of dress for women in Palmyra and with a comparison of original fragments of garments with the sculptures and reliefs.

### **3) *Annette Paetz gen. Schieck* – Dress in Roman Syria - Iconographic analysis of depictions represented in Palmyrene Loculus-reliefs in the National Museum of Damascus**

The research interest focuses on the so called Loculus-reliefs found at Palmyra, Syria, hosted by the National Museum Damascus dating basically to the 2<sup>nd</sup> Century AD. The material basis is provided by a database that has been initiated and maintained within another EU-project carried out in 2003. The project concentrated on the Palmyra-collection of the museum. More than 100 objects have been categorised, described, photographed, and inserted into the database, 60 of them are grave-reliefs. These depictions will be analysed in terms of their elements of dress and jewellery: characteristic features will be determined; the items will be named and listed in correlation with antique written sources, wall-paintings at Dura Europos and mummy portraits from Egypt will be compared and related to the Palmyrene depictions, and all these accessible information will be included in the thesaurus to be established within the Study Group 1 of the DressID-project.

### **4) *Astrid Böhme* – a) Dress and jewellery in Palmyra, b) The Dress of an Ituraean woman**

### **5) *Cäcilia Fluck* – a) Children's dresses from Roman and Late Antique Egypt**

A database of almost complete children's garments from Roman and Late Antique Egypt including description, material and technical analyses, and bibliography has been developed and is in progress. Recording started with objects from the Katoen Natie Collection in Antwerp. Comparative material from other European collections is added subsequently (in particular of the Museum für Byzantinische Kunst in Berlin, the Museum für Angewandte Kunst in Vienna, the Louvre in Paris, the Musée d'art et d'histoire in Brussels and several British collections keeping textiles of the former Petrie-collection). First drawings of the catalogued objects were produced in order to create a poster demonstrating proportions of children's clothing (also with regard to exhibition).

All garments analysed until now are of the typical Roman tunic type, i. e. woven into shape, with straight sides as typical criteria. The basic weaves are made from either linen or wool. The neck-opening is always executed as horizontal slit. All are decorated with relatively small *clavi* running down from the shoulder to the garment's lower edge, and small sleeve-braids at approximately wrist-height. *Clavi* and braids are showing the same pattern. Some of the tunics are additionally decorated to both sides of the neck-slit.

Motifs are directly woven into the basic weave and carried out in tapestry, occasionally accompanied by flying shuttle (material: wool, little linen).

Most tunics are of an extra-ordinary quality. Even if coarse material is used they were fabricated with great care and affection for details. This indeed seems to reflect a respected social status of children in the society of Roman Egypt.

The next step will be to record children's garments discovered during excavations with special emphasis on recent finds from Antinoupolis, before getting deeper into the analyses of the decorations.

#### **b) Gender and sociological information on a garment's decoration**

In collaboration with study group 4 "Colours and dating" a homogenous group of 17 Roman-Egyptian tunics and dalmatics from various European collections with purple coloured plain, geometric, or interlace decoration has been assembled for 14C- and dye analyses. A dynamic excel-table including all relevant parameters and figures of each object has been developed as basic tool for further research and publication. The team of KIK-IRPA in Brussels provided the first results of radiocarbon-dating. Although the series of analyses is not finished yet, a 3<sup>rd</sup>/4<sup>th</sup> century date for garments with this special type of decoration seems most probable. This confirms the dates assumed by using conventional dating methods.

Recording of further adult's garments from Roman Egypt has been done only sporadically until now.

The next group of garments chosen for 14C-analyses will be linen hairnets in sprang technique which – according to the results achieved so far – seem to date to the Roman period.

#### **OTHER PROJECTS:**

##### ***Annette Paetz gen. Schieck* – Egyptian Funerary Paintings and the Depictions of Dress Elements**

Egyptian funerary practices of the 1<sup>st</sup> to the 3<sup>rd</sup> Centuries A.D. generated unique and genuine Egyptian types of paintings especially of portraits. While the preparation of the human body derives from pharaonic times, the way decoration of the humanoid package proves a perfect amalgam of Hellenistic and Roman influences, combined with highly individual facial features. The elements depicted, such as the jewellery and the details of dress, are realistic and can easily be compared with archaeologically preserved realia of the same period and of Roman origin. Thus these images will serve as the basis of investigation: Mummy portraits will be investigated in regard of the elements of dress presented in busts, painted shrouds, which depict the deceased in total, provide detailed information on the whole dress, all of its elements, and the draping of the textiles. Plaster masks, even though they are of a more standardised and simplified kind, will also be taken into account.

##### ***Tereza Štolcová (née Belanová)* – Dress-code of the dead in chieftain graves in Slovakia**

#### **Affiliation:**

Archaeological Institute of the Slovak Academy of Sciences  
Akademická 2  
SK-94921 Nitra  
tereza.stolcova@gmail.com

#### **DressID participation in the working groups:**

1. Elements of Dress
  5. Exhibition
- B. Rome, the Provinces and beyond border

**In cooperation with:**

Gabriele Zink  
Archäologisches Landesmuseum  
Stiftung Schleswig-Holsteinische Landesmuseen  
Schloß Gottorf  
DE-24837 Schleswig

The material analysed within the project comes from the chieftain grave in Poprad-Matejovce, northern Slovakia and is dated to the late 4th and early 5th century AD. During the archaeological works in 2006, an almost complete wooden double chamber grave with much organic material preserved in wet conditions was excavated (fig. 1). Selected finds of textiles and leather are of the main focus for the DressID project.

While the field conditions did not allow excavating the textile fragments in detail, about 20 blocks with fragile perishable material were taken out *in situ*. To prevent any decay and degradation processes, these blocks were kept frozen at -20°C in Schloss Gottorf, Schleswig. This year, at the beginning of the project, an extent of textiles, leather and bast products, was first estimated. Preliminary samples list for next year's fibre and dye analyses in KIK/IRPA, Royal Institute of Cultural Heritage, Materials & Techniques in Brussels was also prepared (fig. 2). At the beginning of the works in Schloss Gottorf, equipment, tools and work place for laboratory examination was set and a first find was chosen. Documentation from archaeological excavation for this find was prepared. The object R174 is a wooden plank (690x240x45 mm), which had possibly fallen from the roof or the western wall during the robbery, when the whole side of the inner chamber collapsed together with the roof. The plank was lying at the bottom in the same level with other finds like dislocated human bones, wooden remains of furniture, leather and textile fragments. When lifted from the floor, remaining textiles adhered on the bottom part. Below the plank, there was about 3-5 cm thick layer of clay, which bore more traces of textiles and some threads were coming out, too. The plank with remaining textiles was taken from the freezing room and set in the laboratory. For the graphical documentation and final processing in the GIS, the 5 cm grid was set over it (fig. 3). The object had to be kept in cool and moist conditions, so the wood does not break and it was constantly sprayed with 70% ethanol to prevent a mould growth. Textiles were cleaned with fine tools, among which a very fine air-brush with demineralised water turned out to be most helpful. Textiles are spread at the plank at different places, but they can not be identified easily. They are extremely degraded and brittle. At certain spots there is just a brown/blackish layer of soil which replaces the original textile. Textiles can be recognised through their structure (fig. 4), but they consist of no real threads, only of greyish-matter remains, with single fibres coming out of them (fig. 5). Twist direction is therefore hard to determine. So far there seem to be both S and Z twists and plying is yet unidentifiable. Textiles adhere straight on the plank, but sometimes they overlap each other. There are small folds visible, but still no starting borders or selvages. Finer and coarser types could be distinguished, but the textile structure can still not be identified. As for the raw material, the state of preservation of fibres does not allow determining it for sure. There occurs both wool and also non-specified plant material. However, the high degradation level of the textiles requires additional analysis using scanning electron microscopy. Apart from textile structures, threads and single fibres, small particles of gold have been found all over the plank. They are connected with blackish material, which could be highly decayed textile layer as well. Gold has been found in a similar context at the excavation, so these can be small remains of it. The work on this find is still going on. Samples for further confirmation will be also sent to Mannheim Based on the work of this first object a database was created for the registration of all finds, samples, drawings and photographs. This is to be developed and adjusted during further works with other *in situ* objects. Finally a manuscript on the first results has been prepared, entitled: "T. Štolcová – G. Zink – K. Pieta: Textiles from the chieftain grave in Poprad-Matejovce. Report on the first stage of laboratory examination."

**Lena Larsson Lovén – Dress-codes in Ancient Rome. Clothing in a socio-cultural context.**

The project will be based on visual evidence, and mainly sculpture, from the city of Rome and as it is still in an early stage. I remain in a phase of collecting evidence which will hopefully result in a useful

catalogue. My original idea was to focus on the period of ca 50 BC- 100 AD and it still is and to include in the study the clothing of civilians of different social and age groups; adult men and women, and children. Thus, my scope is neither ceremonial nor military dress but more the clothing of the everyday life of civilians as a means of expressing gender, status and identities.

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## **STUDY GROUP 2: MATERIAL AND TECHNIQUE**

Minutes by Iris Tzachili

Spokespersons: Iris Tzachili & Christophe Moulherat

The main area of interest of the group is to assess the technological level of the whole cycle of cloth-production. That means research about the types of looms used (vertical, warp-weighted, and horizontal) as well as their geographical and chronological distribution. We have advanced in 3 directions. The first is assessing the chronological span of the use of the vertical warp-weighted loom. We have been able to spot loom weights only up to the 1st century AD. The last – chronologically – discoid loom weights we have been able to spot were in Palatiano near Kilkis in Northern Greece.

The second direction is looking for evidence for the vertical two beam loom (mostly representations and textiles). The third possibility is the horizontal raised loom about which there is no clear evidence (tombstone from Veria).

This work is done by **Margarita Papadopoulou**, **Stella Spantidaki** and **Iris Tzachili**.

Textiles have been studied in Kerameikos and in the National Museum of Athens by **Giouli Spantidaki** and **Christophe Moulherat** with very important results. Their report was presented in the Third general meeting. Those textiles come from tombs and they throw light to technical as well as historical matters.

Regarding spinning the basic technology of thread making is remarkably the same as in the classical period. **Margarita Papadopoulou** presented her work on various gravestones with representations of spinning and weaving implements. What seems interesting here is that in Attica representations of spinning women follow iconographical tradition of the classical times.

**Maria Patera** (Phd, University of Paris) started to study Greek literary sources of the roman period as well as inscriptions. Maria Patera presented the first results about the vocabulary of the activities related to the cloth making process

**Karin Groemer** and Anton Kern have advanced their work about the technical aspects of the pre roman textiles from Hallstatt.

On the whole the research in the group has made progress in different fields. The weaknesses are mostly a slight fragmentary character of the research. I believe that this is due to the fact that the whole research (independently from DressID) is in the very beginning.

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## **STUDY GROUP 3: QUALITY**

Minutes by Annette Paetz gen. Schieck, Sylvia Mitschke, and Christophe Moulherat

Spokesperson: Annette Paetz gen. Schieck

### **1) Activity report by Annette Paetz gen. Schieck**

- Development of the form-sheet for sample-taking (14C, HPLC, fibre analysis) in cooperation with Sylvia Mitschke, Dr. Ina Vanden Berghe, Dr. Mark van Strydonck, Prof. Dr. Ernst Pernicka.
- Sample-management of historic textile fibres (Germany (Mainz, Köln), Poland, Austria)
- Several meetings with various animal breeders, zoos and wild parks in order to sample recent fibres.
- International exchange with people in charge of botanical gardens in order to collect plant fibres.
- Negotiations with archaeobotanic and archaeozoological University collections: University of Hohenheim, University of Cologne, University of Frankfurt a.M., University of Tübingen – Communication with Prof. Dr. Dr. Joris Peters, University of Munich, and Prof. Dr. Hans-Peter Uerpmann, University of Tübingen, on animal fibres.
- Request for exchange and samples in an international archaeobotany blog – result: communication with Dr. Mark Nesbitt, Royal Botanic Gardens Kew; Dr. Barbara Zach, Stuttgart; Prof. Dr. A. Neumann, University of Frankfurt; et al.
- 1. Internship: Systematic reading of Pliny's *Naturalis Historia* and Columella's *De Re Rustica* on textile and fibre mentioning – results have been listed.
- 2. Internship: Search for the publications of Hans-Jürgen Hundt on archaeologically preserved textiles – collection of his articles in order to compose an archive of his oeuvre, now stored at the REM.
- Exchange with Dr. Berit Hildebrandt, University of Hannover, on silk production – systematic collection and evaluation of ancient written sources by students of her seminar.

### **Research Project of Sylvia Mitschke and Annette P.g. Schieck:**

Trace of Roman textile standards and characteristics in regard of weaving technology, textile quality, material treatment, yarn production and fibre quality.

Expectation: Standardisation must be traceable in certain groups of society.

Therefore we have sent out a postal request to all archaeological Museums in Germany on behalf of Roman textile finds. The aim is to evaluate the status of the archaeological finds, to create awareness of textile remains, textile structures preserved in metal corrosion and textile structures imprinted in clay objects such as pottery and tiles, and to create a public notice of our project and the Mannheim team.

About 40 letters have been sent out – more than 21 museums have replied.



Postal Request to German Archaeological Museums *Keramikertag*, Heidelberg, 12-06-2008

Poster & Flyer at the *Deutscher*

**Résumé:** Archaeologists are not aware of textile remains, yet. – It takes a lot communication and permanent care to keep in touch with the curators in charge of the collections. The results are stunning, though, and the awareness is increasing. The best example would be the Römisch-Germanisches Museum at Cologne. A large number of textile finds from Cologne has been worked on and published by Lise Bender Jørgensen and by Mathilde Schleiermacher in the 1980ies. Since then textiles have not been of interest. Since Annette is keeping contact to the curator Mrs. Adam, more and more relevant finds appear and have been investigated by Sylvia and Annette in three campaigns already. In November Mrs. Adam has found even more objects, about ten this time, which will be investigated by Sylvia and Annette in January 2009. It is a Roman coin wrapped in textile and a bundle of real threads, found at battlefield of Varus, Kalkriese, 9 AD.

Still, they try to lend the objects in order to use employ the scanning electron microscope at Mannheim and other devices.

So far, Sylvia and Annette travelled to Cologne and Heidelberg in order to investigate textile remains. They have received several objects from Frankfurt, Kalkriese and Hallstatt. As soon as the analyses have been finished the owners receive a report in publishable quality. Publications of the Heidelberg objects, the Cologne snaffle and the Frankfurt scissors are in print already.

Investigated objects:

1. Textile remains on a coin of Traian, found near Heidelberg, Kurpfälzisches Museum, Heidelberg.
2. Textile remains on a coin of Hadrian, found near Heidelberg, Kurpfälzisches Museum, Heidelberg.
3. Textile remains on a coin of Antoninus Pius, found near Heidelberg, Kurpfälzisches Museum, Heidelberg.
4. Textile envelope of a knife, found near Heidelberg, Kurpfälzisches Museum, Heidelberg.
5. Plate, found near Heidelberg, Kurpfälzisches Museum, Heidelberg.
6. Scissors, found near Frankfurt, 2<sup>nd</sup> to 3<sup>rd</sup> Century, Museum für Ur- und Frühgeschichte, Frankfurt.
7. Imprinted lumps of clay, found near Heidelberg, Kurpfälzisches Museum, Heidelberg.
8. Snaffle, northern Caucasus region, 4th Century AD.

Future Research and Special Focus: the Roman army

Out of the numerous finds Sylvia and Annette have chosen to put a special focus on the military remains. Even though the question of a uniform dress still is not solved, it is well known from papyrological evidence that the military purchased clothing such as tunics in large quantities from factories. In order to produce large numbers, a certain degree of standardisation must have been established at least in the same workshop. Unfortunately only very few textile remains have been found at Kalkriese, but further military contexts will be investigated and the researchers will again be contacted individually.

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## **2) Report on her PhD-thesis by Sylvia Mitschke: Roman textile fibres - analysis and development of a reference database**

Within DressID Sylvia Mitschke has the opportunity to write her PhD-thesis at the University of Tübingen, Germany, in the field of prehistory and early history, respectively archaeometry. Her doctor father is Prof. Dr. Ernst Pernicka. The subject of her PhD-thesis is to develop a catalogue of roman textile fibres, which contains the topics listed below:

- ❖ Typology of fibre
- ❖ Terminology
- ❖ Chemical constitution/ structure
- ❖ Ageing
- ❖ Biology
- ❖ Production and preparation
- ❖ Ancient traditions
- ❖ Identification
- ❖ Bibliography

She has switched her field of study from conservation/ restoration to archaeology and therefore she attended lectures in the range of bio-archaeology at Tübingen University in 2007 and 2008. As she is still working in the museum, she is doing her PhD-thesis part-time and she will be working on it during the whole DressID-project period.

In 2007 she started with the development of the reference database, the collection of the samples and the analysis. In 2008 she has begun with the study of the different primary and secondary sources. 2011 is reserved for evaluation and interpretation.

- The Team of the Reiss-Engelhorn-Museums (REM) at Mannheim

To make Sylvia's job within the project possible at all, the REM engaged a new employee, Elke Michler. Elke is an art historian and a student of textile conservation in Cologne. Her main work is to disburden Sylvia from her museum's duties, but she will also participate in DressID. Her focus lies in the exhibition group and therein she will write her diploma thesis. A first report on it will be given at the 4<sup>th</sup> GM at Hallstatt in June 2009.

- Research on fibres

As fibre analysis is a comparing method the REM are establishing a fibre collection, consisting of new and ancient samples. Out of this group Sylvia is examining a selection of modern fibres as references with different methods to characterize the fibres as best as possible. At the REM they are doing the optical examinations with reflected and transmitted light microscopy and scanning electron microscopy. Their partner, Ina Vanden Berghe from Brussels is responsible for the chemical analysis. At the same time Mannheim is already working on ancient samples, which they compare with the references. Here Ina and Sylvia decide together in each case which examination method is the best.

- Fibre database

To record all these data Sylvia is producing, she is working on the development of a fibre database. As the database should be open to the public it should be available online for future research. For certain reasons she had to develop her own structure, which is built up out of four schedules. The first is for recording general information about the context of the sample. In the second part the technical details on the samples are to be listed. Then it is possible to document the sample taking and the analysis itself.

- Fibre Analysis

A scanning electron microscope of the Zeiss, type EVO MA 25 type, has been purchased by the Curt-Engelhorn-Centre for Archaeometry at Mannheim, where it is located now. It has been financed by the DressID-project to a large extent. It is capable of working at any pressure from vacuum up to one atmosphere, thus the specimens are not being coated with gold or carbon. Combined with the large chamber this allows non-destructive examinations of objects up to a diameter of 40 cm and a height of 30 cm at the Mannheim laboratories.

- Collecting fibres

– *Sampling modern fibres* –

It took Sylvia most of the past year to build up the reference collection. She sampled different existing collections, for example the hair collection of Prof. Uerpmann at the University of Tübingen. For the plant fibres the REM are collaborating with partners, such as the Royal Botanical Garden in Kew and Anne Reichert, who is doing experiments mainly on plant fibres known from Neolithic sites. Sylvia was also looking for at least locally expected specialities. Still she had to sample the object itself.

At the moment Mannheim has about 250 modern samples in their fibre collection, trend upward. Out of these Sylvia selected a number of 100 - 50 plant and 50 animal fibres. Ina is already working on the amino acid analysis of the animal fibres and Sylvia has also started with the optical examinations.

– *Ancient samples* –

Concerning the ancient samples Sylvia mentions the Mannheim call for samples in spring this year, which she and Annette sent out to different museum's and antiquities offices. Until now Sylvia analysed or is still analysing about 100 samples from different loaners, mostly from Germany and Austria, but also from Spain and Greece. The response rate on the call was rather average and mostly based on personal contacts. The reasons for this are due to the fact that most of the institutes still do not have a textile expert and the awareness of textiles had to be increased in intensive talks first - but this worked!

So Mannheim would like to strengthen this field in the next year to get a real overview about roman textiles, at least for the German-speaking area. As their starting point lies in Mainz they would like to concentrate therein especially on military contexts.

The main focus of DressID lies in the research of dress elements, but in some cases Mannheim also had some more technical applications, such as the thread they found in a roman horse head from Augsburg. Great bronze statues in antiquity are casted on a core made of clay and sometimes leaned with fibres. In this case they proved to be bastfibres, but there is also sometimes evidence for animal fibres. This result once again shows the widespread use of textiles. Sylvia also explains some more examples, such as the analysis of a little roman textile from Mainz. This little fragment turned out to be made of wool.

Another project Sylvia finished these days was the analysis of four cavalry helmets from Nijmegen and Xanten. She analysed material and technique and so she could find out that they were coated on the outside with decorations made of braided horse hair. Then one of her trainees in conservation carried out the reconstruction of the helmet from Xanten for their new permanent exhibition.

- Research on Fibres

Sylvia offers help in case of questions concerning fibres to all partners within DressID. But she asks to contact her before sending the fibres, so that she has a chance to coordinate her work. What she needs then is a completed form sheet with information on each sample, so that she is able to document her analysis. Therefore she and Ina have created some form sheets which can be downloaded also from DressID-homepage.

- Future questions/plans: Continuance of the analysis; completion of the references; implementation of the fibre-database; research on the bioarchaeological environment; evaluation of the secondary sources.

In 2009 Sylvia will go on with her analysis, she has to finish the work on the samples from Mainz, Austria and of the Varus-battle. She and Annette also want to start the research on our collection of coptic textiles. Also the reference database has to be finished, there are still some samples missing.

What Mannheim really needs to implement in 2009, is the online-version of the fibre-database, so that everybody in the project can work with their results. Karina Grömer was so kind to offer her contacts in Vienna, so there is hope for a quick solution.

One of Sylvia's mayor questions for the next year is to deepen her knowledge about the bioarchaeological circumstances, i.e. evaluating pollen diagrams for indications of textile fibres or to find out criteria that will help to distinguish whether an animal was kept for retrieval of meat or fibres. What she also wants to intensify is the evaluation of the written and pictorial traditions for an evidence of textile raw materials and their processing.

**Sylvia finally kindly asks the colleagues to keep her in mind if someone touches the topic *quality* in his work.**

\* \* \*

### **3) Report of Christophe Moulherat**

La conservation des textiles est fonction de nombreux facteurs qui entrent en considération depuis leur réalisation jusqu'à leur abandon. Elle résulte de toutes les étapes qui constituent *la vie d'un textile*.

Le tableau illustre schématiquement la "vie" d'un textile archéologique (figure 1). Elle comprend les phases de réalisation, d'utilisation, d'abandon et de traitement, chacune séparée par les différents états dans lesquels se trouve le tissu: le textile à la tombée du métier, le textile après utilisation, le textile lors de sa découverte et, pour finir, le textile restauré. On définit la phase d'abandon comme étant l'événement traduisant le dernier rapport de l'objet avec un être humain ; l'abandon peut être volontaire (pratique funéraire) ou involontaire (incendie d'un habitat...). Cette notion est importante, car elle conditionne la méthode d'examen qui va être utilisée. Elle est étroitement liée au contexte archéologique.

On entend par "découverte" la façon dont se présente le textile lors de sa sortie de fouille. La phase de " post-découverte " comprend la période qui va de sa découverte à sa restauration, voire à sa présentation muséographique.

On observe deux grandes catégories de textiles archéologiques :

- **les textiles conservés sous une forme non altérée** : c'est-à-dire sans avoir subi de changements susceptibles de modifier la structure des fibres et par conséquent de perturber l'étude du tissu. Ils constituent une part infime des tissus étudiés.

- **les textiles conservés sous une forme altérée** : c'est-à-dire soumis à des transformations physico-chimiques plus radicales. Les conditions les plus favorables à leur étude dépendent de la façon dont ils se sont altérés.

### **Comment identifie-t-on les fibres ?**

L'étude des fibres est tributaire de leur état de conservation, et il existe de nombreux cas pour lesquels les méthodes traditionnelles d'identification s'avèrent inadaptées, notamment lorsque les fibres se sont conservées sous une forme minéralisée par les sels métalliques. La mise en place de nouvelles méthodes d'observation microscopique a permis de pallier ce handicap et d'envisager la détermination de la plupart des espèces végétales ou animales quel que soit leur état de conservation.

La microscopie électronique est un outil indispensable dans l'étude des textiles et, notamment, dans la connaissance des fibres, qu'il s'agisse des caractéristiques externes (écailles, genoux de flexion...) ou des caractéristiques internes (lumen, canal médullaire). Nous verrons plus en détail le potentiel qu'offre cet instrument dans l'analyse des fibres (GABRA-SANDERS, RYDER et WILLIAMS 1984).

L'identification des fibres nécessite l'utilisation de méthodes adaptées à leur état de conservation. L'information obtenue doit être soumise à un référentiel constitué d'images en vue longitudinale et de coupes transversales obtenues au microscope optique et au microscope électronique. Il existe un certain nombre de banques d'images publiées auxquelles on peut se référer. Mais il est aussi indispensable de créer

sa propre base de données dans laquelle l'éventail des références pourra être adapté à son propre champ d'application<sup>1</sup>.

### **Identification des fibres non altérées**

Il est nécessaire d'opérer un prélèvement pour identifier les fibres.

Une fibre s'observe de deux façons distinctes, comme dit précédemment, soit en vue longitudinale, soit en coupe transversale. A chacune de ces observations correspond une préparation spécifique.

Le microscope utilisé est un microscope optique à transmission de type Nikon - Universal Epi-illuminator 10.

#### ***-Vue longitudinale***

Pour l'observation en vue longitudinale, le grossissement nécessaire est de 200 ; on dispose quelques fibres entre lame et lamelle dans un liquide d'immersion (baume du Canada, par exemple) et on observe au microscope optique. Il est souvent utile d'effectuer l'observation sous une lumière polarisée pour mettre en évidence les structures caractéristiques des fibres.

#### ***-Coupe transversale***

L'observation en coupe transversale s'effectue sous un grossissement de 500 ; elle nécessite l'utilisation d'un microtome\*. Elle permet de déterminer de façon plus précise les principales espèces de fibres. Plusieurs techniques ont été proposées pour obtenir des coupes transversales de fibres.

Des microtomes développés spécialement à cet effet dans l'industrie des fibres commerciales ont été décrits par Wildman (WILDMAN 1954), Catling et Grayson (CATLING et GRAYSON 1982) et Taylor (TAYLOR 1990).

Celui utilisé au Laboratoire du Louvre a été mis au point par l'Institut Textile de France (ITF) et nécessite un mode opératoire spécifique (COLLECTIF 1986).

Les fils que l'on désire analyser doivent être disposés à l'intérieur d'une gaine de Téflon remplie par capillarité d'une résine polyester. Cette résine doit être préalablement mélangée à un catalyseur et à un accélérateur de polymérisation<sup>2</sup>. Le tout est mis à sécher soit 24 heures à température ambiante, soit 30 mn à l'intérieur d'une étuve portée à une température de 60°C.

Ce tube est ensuite positionné dans la gouttière porte-échantillon du fibrotome.

Les coupes transversales de 15 à 20 µm d'épaisseur sont obtenues avec des lames de rasoir rigides sous une loupe binoculaire. Ces coupes sont ensuite teintées par des méthodes histochimiques de coloration (rouge de Ruthénium et vert d'iode) pour améliorer la lecture des formes des cellules (GAY et MONROCQ 1972).

### **Identification des fibres altérées**

La diversité des formes d'altération des textiles archéologiques nuit considérablement à leur étude, qui se limite le plus souvent à l'examen de leur texture ; leur nature "minérale" ne convient pas aux méthodes traditionnelles d'identification (microscopie optique à transmission).

Afin de combler cette lacune, une nouvelle méthode d'identification a été mise au point au C2RMF. Elle s'appuie sur l'utilisation d'un référentiel unique constitué à partir de fibres souples et minéralisées. Elle consiste en la combinaison de la microscopie électronique et de la microscopie optique.

La préparation des échantillons pour l'observation est spécifique aux fibres minéralisées et a été mise au point dans le cadre de ce travail.

Les observations fournies sont d'excellente qualité. Il devient possible d'apprécier les vues longitudinales (microscope électronique) et les coupes transversales (microscope optique) indispensables à la détermination de la nature des fibres, chacune d'elles possédant ses propres caractéristiques (forme et importance des écailles, diamètre des fibres, présence ou non d'un lumen, forme du lumen...).

#### ***-Vue longitudinale***

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<sup>1</sup> La plupart des échantillons de fibres d'origine végétale et animale nous ont été généreusement donnés par l'Institut Textile de France, mais aussi pour des cas particuliers par A. Rast-Eicher. Le Muséum d'Histoire Naturelle de Paris nous a été également d'une aide considérable en nous autorisant à prélever des poils dans sa réserve d'animaux naturalisés.

<sup>2</sup> Les lames utilisées sont de type Ega.  
Résine Norsodyne S 807 en 5 kg, Catalyseur Butanox M 50 en 1 kg et Accélérateur NL 51 en 1 kg.

On procède au prélèvement d'un échantillon dont la taille n'excède pas 5 mm<sup>2</sup>; préalablement recouvert d'une fine couche d'or pour rendre la surface conductrice, celui-ci est alors observé au microscope électronique à balayage<sup>3</sup>. L'utilisation exclusive de vues longitudinales a contraint Janaway à être prudent pour toute identification de fibres végétales (JANAWAY 1979, 51 fig.4).

#### **-Coupe transversale**

L'échantillon est inclus dans un bloc de résine époxy translucide. Après une polymérisation dont la durée n'excède pas 24 heures, il est poli à la pâte diamantée jusqu'au 1/4 de µm. La coupe obtenue est observée au microscope optique en réflexion<sup>4</sup>.

Il convient de choisir judicieusement le plan de coupe. Il est alors possible d'apprécier les sections transversales indispensables à la détermination de la nature des fibres, chacune d'elles possédant des caractéristiques spécifiques.

Deux modes d'observation sont appliqués à l'échantillon : en lumière directe (fond clair) et en lumière indirecte (fond noir).

- L'observation en lumière réfléchi (fond clair) permet de déceler, par contraste, la forme de la fibre (**figure a**). C'est à partir de cette observation que sont effectuées les mesures de diamètres.

- L'observation en lumière diffusée (fond noir) permet la différenciation des différents modes de conservation des fibres grâce à la couleur diffusée par chacun d'entre eux (**figure b**).

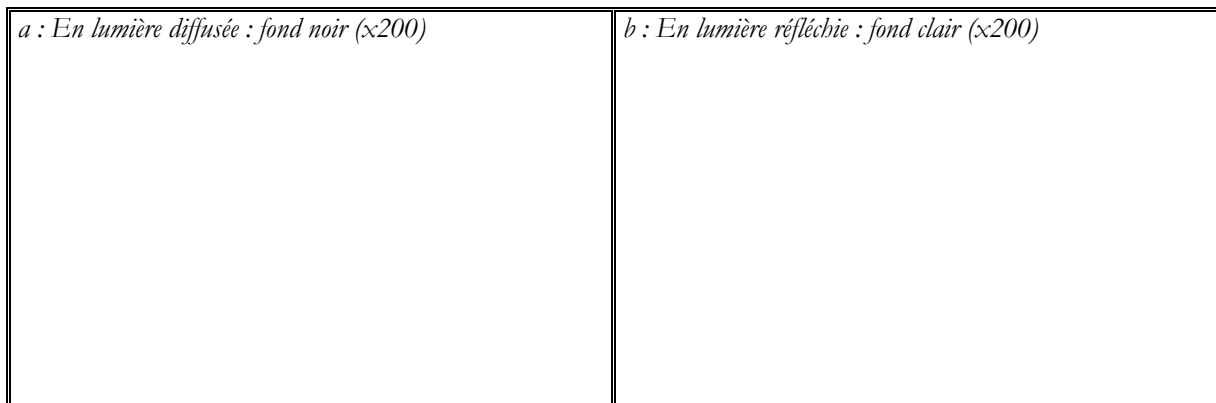


Figure a-b-Poils minéralisés provenant d'un fourreau d'épée mérovingienne découvert à Cutry (Meurthe-et-Moselle).

L'originalité de cette approche tient dans la double observation, au MEB et au microscope métallographique, et dans la préparation des coupes transversales (la plupart des spécialistes qui travaillent sur les fibres minéralisées procèdent aux identifications à partir de l'observation de cassures rendant toutes mesures de diamètres précises impossibles).

## **Conclusion**

<sup>3</sup> Le principe de fonctionnement est fondé sur l'incidence d'un faisceau d'électrons émis par le microscope sur la surface de l'échantillon. L'interaction entre les électrons du faisceau et l'objet provoque l'émission de différents rayonnements et particules (électrons secondaires, électrons rétrodiffusés, rayons X ...). Les électrons secondaires sont émis après excitation de la matière par le faisceau d'électrons incidents. Faiblement énergétiques, ils proviennent d'une profondeur limitée d'environ 10 nm. L'image reconstituée grâce aux électrons secondaires est topographique, proche de celle obtenue au microscope optique ; elle permet l'identification des fibres textiles minéralisées.

Les avantages du microscope électronique par rapport au microscope optique sont :

- un grossissement plus important pouvant atteindre x300 000. Dans la pratique, on l'utilise couramment jusqu'à x10 000
- une plus grande profondeur de champ, c'est-à-dire la possibilité de voir nets des plans distincts.
- si le microscope est couplé à un système d'analyse des rayons X émis, il permet alors d'étudier la composition élémentaire de l'échantillon.

<sup>4</sup> Deux types de résine sont utilisés : une de couleur verte dont la polymérisation s'effectue en 10 mn, permet l'étude d'un échantillon rapidement, mais les phénomènes de retrait sont importants (LAM PLAN Résine 605 en poudre de 1 kg et le catalyseur en bouteille de 500ml). L'autre polymérise en 24 heures, mais elle est translucide et ne provoque pas de phénomène de retrait. Elle permet une meilleure manipulation des échantillons après déposition dans le moule (Struers Epofix résine en bouteille de 1l. et Epofix catalyseur en bouteille de 130 ml).

Les textiles restent des témoins archéologiques peu étudiés. Ils renferment pourtant, de nombreuses informations tant sur le degré technologique atteint pour les réaliser que sur l'exploitation du milieu naturel.

Les renseignements fournis par l'étude d'un textile et plus encore par l'identification des fibres renforcent le fait qu'ils doivent être préservés, quel que soit leur état de conservation.

Si une urgence exige l'extraction voire la destruction de ces restes, il est alors possible de procéder à une couverture photos à partir desquelles l'étude sera possible, suivi d'un prélèvement qui peut être réalisé à l'aide d'une aiguille droite ou coudée pour la détermination de la nature des fibres.

Un matériau s'apprécie non seulement par sa nature mais aussi par sa position sur l'objet ; il est indispensable de noter sa localisation sur la totalité du support, les matériaux utilisés pouvant être différents d'un endroit à l'autre ; en effet, deux échantillons prélevés sur le même objet peuvent livrer des tissus différents.

Tous les fragments de tissus piégés dans la corrosion prélevés lors d'une restauration peuvent ainsi être étudiés ultérieurement. Aussi, est-il préférable de noter leur emplacement d'origine et de les stocker en vue d'un examen ultérieur.

Mais, les conditions idéales restent l'intervention, avant et pendant la restauration de l'objet.

Conscient des nouvelles possibilités d'exploitation des informations incluses dans les textiles, l'attention a été portée sur l'identification des fibres, afin de tirer le meilleur parti possible des nombreux vestiges trouvés en France, ou ailleurs. Se situant à l'interface entre les études paléo-environnementales et l'analyse technologique, ce type d'approche a également le mérite d'établir un pont avec un autre aspect important pour la recherche en archéologie encore peu exploité, à savoir l'exploitation du milieu naturel.

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#### **STUDY GROUP 4: COLOUR AND DATING**

Minutes by Ina Vanden Berghe

Spokespersons: Ina Vanden Berghe

##### **General information**

Thanks to the Study Group 4 meeting in November in Naples, which was organised by Mrs Carmen Alfaro, in connection with the meeting 'Purpureae Vestes III', it became clear that the research on purple and colours in general generates a lot of important questions in direct relation to the context study groups in the DressID project. In order to overcome too much overlapping between the groups, it was agreed by the coordinator and Mrs Alfaro that she would become the spokesperson of the context study group B "Rome and the Provinces".

So, to summarise and/or clarify to all partners, Study group 4 "Colour and Dating" stays mainly focused on the technical aspects of dyes, dye identification and dating, having its centre in Brussels, while the more contextual part is shifted to the Study Group B, having its centre in Valencia.

##### **Study group 4 participants**

Ina Vanden Berghe, KIK (Belgium)

Mark Van Strydonck, KIK (Belgium)

Mathieu Boudin, KIK (Belgium)

Iris Vanderbeeten, KIK (Belgium)

Antoine De Moor, Katoennatie (Belgium)

Căcilia Fluck, Katoennatie (Belgium)

Mieke Van Raemdonck, KMKG (Belgium)

Carmen Alfaro Giner, (Spain)

Annemarie Stauffer, Fachhochschule Köln (Germany)

Nicole Reifhart, Bischöfliches Dom-und Diözesanmuseum, Trier (Germany)

Sabine Schrenk, (Germany)

Sylvia Mitschke, REM (Germany)

Annette Schieck, REM (Germany)  
Rolf Haubrichs (Switzerland)  
Karina Grömer, Museum of Natural History (Austria)  
Margareta Gleba, CTR (Denmark)  
Suzanne Möller-Wiering, CTR (Denmark)  
Eleni Zimi, University of Crete, Rethymnon (Greece)  
Tereza Stolcova-Belanova, (Slovakia)

### **Studies ongoing**

Since the second general meeting in Copenhagen in May 2008, a study group meeting was held in Brussels in July 2008 and in Naples in November 2008.

At the occasion of the last meeting, Mr. Rolf Haubrichs, specialised in purple murex, was brought into contact thanks to Mrs Alfaro, with the DressID project and dye related study group. A close collaboration around Murex purple dyeing - the study subject initiated by KIK within the project (\*) - will be established during this project. In Rethymnon, Mr Haubrichs presented the development of his specialised website ([www.porphyra.net](http://www.porphyra.net)) dealing with all kind of aspects of Murex purple (1300 species of purple shells, a very extensive online literature database,...), the result of more than ten years of research in this field. The website will be available online in February / March 2009).

A working group meeting to this specific subject is planned in the beginning of 2009.

In the framework of the systematic investigation of the natural dyes found through the Roman Empire, an overview of the actual state of the dye studies of relevant collections is given below, together with the ongoing dating studies. Other studies planned within the project and not listed below, will start later on.

### Studies in progress (started in the second half of 2008):

- Dyes of 28 sarcophagi with clothed burials, Church St. Maximin, Trier, (Bishop Maximinus, 330-347 AD?) – Collaboration between KIK and Nicole Reifarh, Bischöfliches Dom- und Diözesanmuseum, Trier, DE. Reporting is expected in the beginning of 2009. Final dissemination will be done by a joint publication.
- Study of dyes and textile dating of a series of 17 Roman linen tunics with purple design – Collaboration between KIK and Antoine De Moor & Cäcilia Fluck, Katoennatie, Belgium. Reporting is expected in spring 2009. Final dissemination will be done through a joint publication and lectures at the International Conference “Textiles from the Nile Valley, organised by the Katoennatie, Antwerp, September 2009.
- Study of dyes and dating of 5 textile findings from Emmeranstrasse / Grosse Langgasse, dated 5 BC – collaboration KIK - Sylvia Mitschke, Reiss-Engelhorn-Museums, DE. Reporting will be done in the beginning of 2009.
- The mummies from Antinoë. <sup>14</sup>C dating and Dye analysis of the Coptic mummy called Euphemiaan – a collaborative study between KIK and Mieke Van Raemdonck, KMKG. Reporting is expected in spring 2009. Final dissemination will be done through a joint publication and lectures at the International Conference “Textiles from the Nile Valley, organised by the Katoennatie, Antwerp, September 2009.
- Comparative study of natural organic dye identification by colorimetric measurement (non-destructive) and chromatography (micro-destructive), applied on textiles from the Coptic collection from REM, Mannheim. Collaboration between the KIK lab and the lab from the Fachhochschule in Köln (Mr Fuchs), together with REM. First non-destructive tests were executed in 2008 and discussed at the meetings in Naples and Rethymnon. In the first part of 2009, more textiles will be examined in Köln and Brussels.
- <sup>14</sup>C dating of Murex shells from the Balearic Islands. (\*) Study project of KIK dealing with specific dating issues. The aim of this study is to compare contemporary terrestrial material with murex shells in order to calculate the reservoir age of the Mediterranean waters around the Balearic Islands. Relevant series of Murex shells and other material, excavated in Cabrera and Bocchoris are under study.

Apart from the specific material technical studies marked with (\*), all dye and dating studies will give new information and insights into the context of the related textile finds, hence resulting in further dissemination through specific context study groups.

### **Database of <sup>14</sup>C dated Textiles**

The database for <sup>14</sup>C dated Textiles, a collaborative work between Sabine Schrenk and Mark Van Strydonck, is under construction. A first version is developed and will be evaluated in the next period. More information will be announced at the next general meeting in Hallstatt.

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### **STUDY GROUP 5: EXHIBITION**

Minutes by Karina Grömer & Annette P.g. Schieck

Spokespersons: Michael Tellenbach & Anton Kern

The Exhibition Group highly depends on the input of all participants. It is in need of information about ongoing research activities and expected results. The exhibition will be one of the major products of the DressID-project, visualizing the various scientific approaches, activities, and results, and making it accessible to a broad public. It is constituted as a democratic joint venture product, composed out of the ideas and influences of all participants, not just of a small group.

Since the exhibition will be presented in 2011, already, and since its creation takes time regarding negotiations on the loans, setting up the concept, and design, these information need to be available to this group before 2011.

In order to envisage first ideas of the brainstorming of the previous study group meetings, a circular letter was sent out to all the DressID-colleagues. Attached to it were two documents that have been designed as preliminary results of the study group's activities. The first document consisted of a brochure combining colorful images and texts on basic topics that may be of relevance within the exhibition. The brochure was composed as an outline, a sketch, illustrating brief ideas and thoughts about a possible exhibition concept, serving as a tool to motivate the participants to join in the discussion and provide creative input, and transmit topics. It was designed to be constantly renewed and enhanced through the collaboration of all DressID-participants.

The second document to be introduced was the form sheet on exhibits. The participants were asked to name at least three objects that they consider as most important to envisage their research. In order to create the exhibition, the exhibition group relies on these suggestions in order to start the lending communication with the museums as soon as possible. The advancing procedure is that the participants hand in their suggestions and provide necessary information on the objects such as the museum where it is stored and the inventory number. The loan requests and negotiations with the museums will then be initialized and carried out by the registrars of the collaborating museums. The form sheet serves as a paper version of the database which will be posted on the homepage in 2009. From then on, filling in the forms will be implemented online. K. Grömer and A. Schieck will be in charge of the database administration.

In addition to the circular, scholars have been addressed individually by A. Schieck in order to share their knowledge about biographies of persons in antiquity. The idea of telling about individual fates testified in written documents, literature or inscriptions on buildings, for instance, was tantalizing and quite a few suggestions were sent in before the 3<sup>rd</sup> General Meeting.

The documents that were passed around before the General Meeting were intended so serve as a basis of discussion at the meeting. Therefore they were presented at the conference by M. Tellenbach, A. Kern, A. Schieck, and K. Grömer, in order to motivate and provoke the audience to join in the dialogue and

participate in the conception of the exhibition. Since the participation in the communication was little ambitious, other paths of communication have to be thought of. The dialogue will be picked up again on an individual basis and at the next General Meetings. It needs to be intensified in order to create a modern and new way of presenting ancient textiles in an exhibition.

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### **STUDY GROUP 6: EXPERIMENTAL ARCHAEOLOGY**

Minutes by Eva Andersson

Spokespersons: Eva Andersson & Marianne Rasmussen.

#### **Research 2008**

At the meeting study group 6 activities, July to December 2008 were presented.

The most important were:

1. The tests on weaving with different types of loom weights have given new and important information and understanding regarding how different loom weights may have been used. As a result we can suggest which types of fabrics were likely to have been produced with a certain type of loom weight. This new approach is applicable not only to “Roman material” but also to loom weight research in general. We have therefore presented all the results in an academic paper “Shape of Things: Understanding a Loom weight”. This will be published in the Oxford Journal of Archaeology 2009.
2. In October we arranged an international workshop on Experimental Archaeological Research – new approaches in Östersund Sweden with 40 participants from 5 different European countries.
3. In August Lejre Experimental Centre arranged a textile and fibre workshop where several important experiments took place. The experiments were supported by grants from Lejre centre.

#### ***Research in 2009***

Ulla Mannering and Eva Andersson Strand will work on both the textile remains and the textile tools from a very well investigated settlement in Jutland, **Vorbasse**, dated to the Roman Iron Age. This will provide us with information on the coherence (or lack of?) between the tools and the production, and through analyses of the textiles we will learn much more on trade and exchange of both actual goods and technology in Barbaricum, north of the Roman Limes.

Eva Andersson Strand will work closely together with both Karina Grömer and member of the Greek team in order to set up probably looms in the Roman period in various provinces of the Empire.

Eva Andersson Strand and Marie-Louise Nosch will continue to investigate the functional parameters of textile tools in order to determine what textiles were produced in areas – such as the Mediterranean area – where only textile tools are preserved but no real textiles.

Carmen Alfaro will in collaboration with Ida Demant and Lejre experimental centre make a B-reconstruction of the Lady of Baza (Spain) costume.

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### **STUDY GROUP A: SELF AND SOCIETY**

## DressID

Minutes by Maureen Carroll & Ursula Rothe

Spokespersons: Maureen Carroll & Ursula Rothe

*Programme, Saturday 13 December*

10.00

Maureen Carroll and Ursula Rothe, *Exploring 'Self and Society': An introduction to dress as an expression of identities*

10.10

Maureen Carroll, *Dressed for eternity: The adoption of Roman funerary monuments as a vehicle for expressing ethnic identities*

10.15

Ursula Rothe, *Appearance and reality: discrepancy between portraits and scenes from everyday life on gravestones*

10.20

John Peter Wild, *Status in the Roman army at Vindolanda: some evidence from textiles and tablets*

10.25-11.00

Reports on individual projects of registered participants and discussion on the work of the Study Group

Registration of new participants in the Study Group

Short report on the planned workshop of Study Group A in Sheffield, 27-28 February 2009

### Minutes of the Session on Study Group A, 13<sup>th</sup> December

The session was opened by Maureen Carroll and Ursula Rothe with a statement of the purpose, aims and objectives of this Study Group. A ten minute power-point presentation followed in which various selected examples of monuments and works of art were explored to demonstrate how dress was used to express identities. The presentation aimed to stimulate ideas and debate and to attract participants from the DressID project to contribute to this Study Group.

Three short five minute power-point presentations followed. These were given by Maureen Carroll, Ursula Rothe and John Peter Wild, and in these lectures, a synthesis of the individual research projects was presented.

In the discussion during this one-hour session and in subsequent conversations, it was acknowledged that various Study Groups are closely related and that co-operation between the Study Groups is highly desirable and should be actively pursued. Several new participants to Study Group A signed up to contribute to the topic of "Self and Society".

The Workshop of Study Group A in February in Sheffield was briefly discussed, and various colleagues signed up for the Workshop or expressed interest in attending. It was agreed that the Sheffield website for Study Group A, and all other websites of the institutions participating in DressID, would be updated with a current list of researchers and individual research projects. The creation of links to websites of other participating institutions was approved.

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**STUDY GROUP B: ROME AND THE PROVINCES**

Spokespersons: Carmen Alfaro & Eleni Zimi

Dear colleagues of the DressID Project,

a new study group is going to start at the meeting in Crete:

Study Group B: Rome and the Provinces

The group of Valencia University and me, being the speaker, do cordially invite all the colleagues of DressID to take part and welcome you in this study group.

Your personal or cooperative projects can help us to develop a program, which should primarily aim at

- assembling and integrating concepts, to reach a common concept of our knowledge and
- avoiding that any territory which belonged to the Roman Empire in its time would be left outside in the final results of other study groups.

We aim at capitalizing our efforts on a general development of different historic aspects of the theme we are treating about: dressing and identity. This can only be realised by joining and reorganising information which is being provided by the basic groups which are mainly technologically oriented.

It is a complex endeavour, because large geographic areas of the Roman Empire have not been considered in any of the study groups. We think especially of Northern Africa (except Egypt), both Gallia, Italy itself, some regions of the Orient etc.

Some themes of general character introduced as new aspects might provide an instrument for study group B for to reach our objective: avoid any voidage in our study

Proposals we are going to develop in Rethymnon:

- a) “Legal rules related to the use of dress and colour in the Roman Empire”. This project is being elaborated by Prof. Dr. Francisco Javier Salinas (Department of Roman Law, University of Valencia).
- b) “The voice of the provinces in the Roman Empire, dress and other identities”. This project will be realised by Prof. Dr. Xaverio Ballester, Philological Faculty of Valencia-Universidad.
- c) From Reims University, our colleague Prof. Dr. Ricardo González Villaescusa will try to reassemble information about the “Gallia Bélgica”.
- d) “the exploitation of the purple factories en the Mediterranean”, directed by C. Alfaro/ E. Zimi.
- e) “Vegetal dyes in the Roman Empire”: based on the doctoral thesis of M. Julia Marínez it is intended to offer a general vision of the subject based on literary, epigraphic and papyrological evidence. This group will be continuously in touch with study group 6 (Experimental Archaeology) and study group 4 (Colour and Dating).

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**STUDY GROUP C: GENDER AND AGE**

Spokespersons: Cécilia Fluck & Manel Garcia

Minutes by Cécilia Fluck & Manel Garcia

### **Report of the presentation at the 3<sup>rd</sup> general meeting December 13<sup>th</sup>, 2008 in Rethymnon**

Study group C “Gender and Age” officially took up its work with the 3<sup>rd</sup> general meeting of DressID on December 13<sup>th</sup>, 2008. Individual research projects were presented, and the aims of the study group were discussed. At the moment the group consists of ten active members (see research plan below).

Research on “gender and age” is starting from three main points. These are foremost:

- the originals, meaning archaeological dresses made of several kinds of vegetable or animal fibres, fragments or even negative traces of clothing, and their find context
- Depictions of dresses on art-monuments of the Roman Empire
- Written sources: literary and documentary (papyrological and epigraphic evidence)

Although recently few books had been published on the subject of gender and age in the Roman period, only little has been investigated on the question how gender and age are expressed in clothing. If so, it was more or less accidentally, not going into depth and restricted to the testimonia of a special country or region. Furthermore, it was mostly treated from only one viewpoint, for example, literary sources were evaluated without taking into consideration original dresses and depictions, or vice versa.

The different specialisation of the members signed so far will make an interdisciplinary exchange and a transcendent view across the country borders of the Roman Empire’s provinces possible.

Study group C will try to find answers to following questions focusing specific aspects of gender and age:

- Is there a special dress code, expressed in colour, decoration, shape or even basic material for adults and children in their various stages in life, and in a second step for women and men or girls and boys?
- What are the linking elements and where are the diachronic and/or geographical differences in representation of adult’s and children’s garments in the provinces?
- Are there gender- and age-specific elements of dress (e.g. indoors – outdoors)?
- Is a dichotomy between private and public spheres of action expressed in gender-specific depiction of clothing?
- What makes the difference between representative dress and that of every-day life?
- What makes the difference between dress of every-day life and funeral dress?
- How are sex and identity expressed in clothing (moral values and political significance)?
- Who passes on traditional ethnic clothing to subsequent generations and can this be detected in pictorial depictions of children?

And finally:

- How does all this develop and/or change from the 1<sup>st</sup> till 5<sup>th</sup> century AD?

The study group aims to identify dress- and colour codes relatable to age and gender on the basis of find contexts. Non-textile goods assembled with textiles that might be gender-specific attributes will also be taken into consideration. Furthermore, the study group will investigate changes of meaning, depending on the wearer’s age, gender and status, by evaluating written and pictorial sources.

#### **Research plans of members**

- Roman Working Women and Dress (Carmen Alfaro, Manel Garcia, schedule: 2008-2012)
- Gendered dress and behaviour in Roman funerary commemoration on the Rhine and Danube frontiers (Maureen Carroll, schedule: 2008-2012)
- Roman and Late Antique children’s dresses from Egypt (Cécilia Fluck, 2008-2012)
- Gender and sociological information on garment’s decoration from Roman and Late Antique Egypt (Tineke Rooijackers, Cécilia Fluck, 2008-2012)
- Grave textiles in Roman Austria – conclusions due to gender and age (Karina Grömer, schedule: 2008-2010)
- Silk and other fine textiles (Berit Hildebrandt, schedule: 2008-\*\*\*)
- Dress codes in Ancient Rome. Clothing in a socio-cultural context (Lena Larsson Lovén, schedule: 2008-\*\*\*)

- [Evaluation of Greek written sources, title to be specified] (Maria Patera, schedule: 2008-\*\*\*)
- Changing dress. The Egyptian tunic from the Ptolemaic to the Roman period (Tineke Rooijakkers, schedule: 2008-\*\*\*)
- The 'embroideress Euphemia' of the Cinquantenaire Museum in Brussels (Mieke van Raemdonck, autumn 2008–spring 2009)

The next meeting of study group C is scheduled for October 3<sup>rd</sup>, 2009 in connection with the “Textiles from the Nile Valley” conference at Katoen Natie, Antwerp (Belgium). Members will kindly be asked to report on the progress of their research.

Süderlügum, December 16<sup>th</sup>, 2008  
Cäcilia Fluck, Manel Garcia

### Study Group C: Individual project descriptions

- *Lena Larsson Lovén: Dress codes in Ancient Rome. Clothing in a socio-cultural context*

This project seeks to analyse Roman dress of civilians from visual evidence and to discuss the function of dress in a socio-cultural context. The focus of the study will be the city of Rome, the centre of the Roman Empire, during the period from ca 50 B.C. to ca A.D. 100, and the primary evidence will be free-standing sculpture from this time. The evidence will come primarily from the city of Rome and its immediate surroundings.

There is abundant visual evidence from Rome of this time and one of the reasons for choosing this particular period is the richness in sources. During the selected period there was an extensive production of sculpture in Roman society and many of the sculptures are represented with clothes – reflecting Roman dress. However, the representations of dress in sculpture are not a complete source and the primary function was never to give a full and exhaustive view of Roman clothes. Thus, information from other sources must also be used in order to be able to present a more complete and detailed picture.

Supplementary information can come from other kinds of visual evidence such as painting, and reliefs, and from written sources. All of these categories are available between 50 B.C. and A.D. 100.

Yet another reason for focusing on this particular period is the general development of Roman society at the time. In the first century B.C. the city of Rome gradually became a more cosmopolitan place with a larger population of a variety of ethnic backgrounds living there. How did this situation of an increasing population with a mixture of social and ethnic backgrounds affect the use and importance of dress?

Particularly in the initial phase of the Imperial era, when Augustus created the public image of the recently established political system including a new (or renewed) Roman identity, clothing played a vital part in displaying identity and the acceptance of socially conformed values. But also on an everyday life basis and for single individuals, dress could be linked to the Roman social structure and it was used to display various identities.

Both, male, female and children's clothing will be included in the study, and if possible the clothing of different age groups of adults may be also considered.

- *Berit Hildebrandt: Silk and other fine textiles*

The project regards garments made of silk and other fine fibres and the way these materials are discussed about in ancient written sources. She wants to find out whether there are gender- and/or age-related differences in the descriptions of persons wearing those clothes.

It would be highly useful to confront the evidence of the written sources with the evidence given by the archaeological testimonia. Written sources mention a great variety in dress. It should be investigated whether this variety is mirrored in any archaeological material (statues, paintings, mosaics, textile finds etc.)

- *Carmen Alfaro and Manel Garcia: Roman working women and dress*

Roman literary sources are rich in data about the working world in general and on women's work in particular. The objective of our study is to develop a comprehensive catalogue of women's offices to discuss their working dress, with its colours and its shapes in terms of gender and age. The study of female working dress in the Roman Empire can inform us about the woman's rank and status too and we can also discover, against to the *mundus muliebris* of the higher class or elites and female middle class, the clothing of female slaves and the women of the lower-class, with, for instance, their *tunicae*, *caracallae*, *toga* and *colores meretricios*, *calcei feminarum*, *soleae*... and some other ornaments more (*ornamenta muliebria*). We will analyse not only Greek and Latin literary sources, the Diocletian's *Edict*, the *Digest*, but also the epigraphical, papyrological and iconographical sources too, which reveal many aspects of the representation of Roman working women all over the Roman empire.

- *Maureen Carroll: Gendered dress and behaviour in Roman funerary commemoration on the Rhine and Danube frontiers*  
Women more often than the men are depicted wearing their native costume rather than Roman dress foreign to the Rhine and Danube regions. This may, in part, be a result of the conservativeness of female dress, but the retention of national costume cannot simply be classed as mere conservatism. The dichotomy between private and public may also be expressed in this gender specific depiction of clothing. Generally in these works of art it is the men who not only dress in Roman clothing, but who also style their hair and beards to emulate contemporary elite fashions seen in Rome and Italy. Perhaps what we see here is the need for men to behave and dress in Roman fashion because they operated far more frequently in the public arena and wanted to appear "Roman". Women, whose activities related primarily to the private domestic sphere, on the other hand, may have played a greater role as transmitters of traditional values and ideals, including clothing. These ideas will be explored by looking at gravestones depicting married couples.

- *Karina Grömer: Grave-textiles in Roman Austria – conclusions due to gender and age*  
To specify the Roman period textiles in Austria within this project all known textiles found in Austria have to be analysed. This is a field where there is a lack of information until now (just a few analysed and published Roman period textiles in Austria) and this gap has to be filled. Thanks to good cooperation with the Cultural Heritage Department (Bundesdenkmalamt), with different museums and excavators it is possible that even unpublished material can be included to the project. One of the main tasks is the analysis of textile fragments from the graveyard Mautern-Burggartengasse (4<sup>th</sup>-5<sup>th</sup> centuries AD). There the archaeological evidence is important, on which part of the body the textiles are found, together with metal objects. Maybe some elements of costume can be connected with special types of cloth and those information can be brought forward to the gender of the person.

- *Tineke Rooijackers: Changing dress. The Egyptian tunic from the Ptolemaic to the Roman Period*  
This study is treating the development of the tunic in Egypt from the Ptolemaic to the Roman period. Research is based on the analysis of actual remaining tunics, combined with textual and pictographic sources. For the different periods the changing aspects of the role of the tunic within society are discussed, e.g. the technological, economical and social side. The emphasis lies on the function of (elements of) the tunic within different identities, among which gender and age (e.g. Is there a distinction visible in the types of tunics or their decoration? How can we distinguish surviving tunics as being male or female?). This study is aimed at understanding the underlying mechanisms of changes in dress over time, through the proposition of a new model, *reconfiguration* theory.

- *Mieke van Raemdonck: The 'embroideress Euphemia' of the Cinquantenaire Museum in Brussels*  
The purpose is to get a clearer view of the mummy – found in Antinoupolis, Middle Egypt –, the cloths she is wearing and the content of her grave (according to the notes of A. Gayet). The fact that the cloths are still untouched is an opportunity to find out what she wore and/or was buried in, although for reasons of conservation we could not go to the bone. The list of the samples we made on the different pieces dispersed over two museum collections, the Egyptian one and the one of the Christian Art from the East, has already been transmitted.

• *Cäcilia Fluck: Roman and Late Antique children's dresses from Egypt*

Although proportionally often preserved among the numerous finds of clothing from Roman and Late Antique Egyptian cemeteries, children's dresses have not been regarded as an independent group until now. The first impression on the children's apparels recorded so far is that they were fabricated with great care and affection for details. This indeed reflects a respected social status of children in the society of Roman Egypt.

The first task within this project is to record children's dresses in the Katoen Natie Collection in Antwerp and comparative material in other European collections.

In a second step children's garments from recent excavations will be recorded, before getting deeper into the analyses of decoration that will focus on following topics:

- Difference or conformity between garments for boys and girls?
- Proportions of children's dresses: which size for which age?
- Special pattern for different age?
- Comparison of motifs and patterns for adult's and children's dresses.
- Comparison with depictions of children's clothing on various art-works of the Roman Empire (esp. polychrome artefacts like mosaics, paintings, textiles where details of clothing are shown etc.)
- How does children's clothing appear in different context: official / representative, private, sepulchral?

• *Cäcilia Fluck – Tineke Rooijakkers: Gender and sociological information on a garment's decoration*

This study is dealing with the iconography of garments' decoration in general. Does it refer to the gender of the owner? Are there particular, gender specific preferences of patterns? What makes the difference between decorations for adult's tunics and those for children apart their size?

Tineke Rooijakkers treats this subject on a broad scale on the basis of her PhD thesis, while Cäcilia Fluck concentrates on findings from "ancient" and recent excavations, mainly in Antinoupolis (for example Riding costume in male graves, Persian style equipment in a female tomb), and selected samples of dress with special type of decoration, technique, function, or shape. The latter is done in close cooperation with KIK-IRPA and Antoine De Moor, and connected with Study Group 4 "Colours and Dating". Together, we compile series of 12-15 or – if possible even more – coherent pieces for 14C- and dye-analyses. The analyses of a series of tunics and dalmatics with purple coloured design has are in progress. The next series will be hairnets in sprang technique, mainly made of linen which seem to date to the Late Roman period.

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**STUDY GROUP D: DRESS AND RELIGION**

Spokespersons: Sabine Schrenk & Konrad Vössing

Minutes by Sabine Schrenk & Konrad Vössing

Dear colleagues,

our 3rd General Meeting – this time in Rethymnon – has passed and we hope those of you who had been able to come, had a safe journey back home – and a not too long one!

We suppose that you agree with us that it had been very stimulating to hear more in detail about the many "sub-projects" in DressID. It was also very valuable to see and hear how research done in study groups 1-6 merges and fits into the questions of study group A-E – and – of particular interest for us - will merge into study group D.

For the start of study group D short concepts of research of most of our members were presented.

Also, we are pleased to tell you that there is a number of new contributors resp. themes in our project: Maria Patera, Athens ([maria.patera@libertysurf.fr](mailto:maria.patera@libertysurf.fr)): Ritual dress prescriptions in Greek inscriptions of the Hellenistic & Roman periods. Also Claudia Nauerth, Bad Bergzabern, Germany, and Olga Osharina, St.

DressID

Petersburg have joined us. We shall send you a new list of all the participants, the guests and of all the themes to be discussed soon.

As you know, the next General Meeting will be in Hallstatt – mind you: moved to June 7<sup>th</sup> to 10<sup>th</sup> 2009 !! – , which is from a Sunday evening until a Wednesday morning. Now in Rethymnon we have decided to assemble our group already on Sunday at 18.00 in order to discuss in a vis-à-vis exchange at what point of our research we are standing and which steps and questions we plan to deal with or have achieved already. As scheduled before please send us a conceptual design of your individual research project (1 – 2 pages) in April or, at the latest in May, so that we can correlate our research even if you can't come to Hallstatt.

Additionally we would like to remind you again of our meeting in Bonn:

Time: October 30<sup>th</sup> to 31<sup>st</sup>, i.e.: arrival 29<sup>th</sup>, departure Nov. 1<sup>st</sup>  
Place: Bonn University  
Participants: Study Group D and other scholars interested, open to public  
Title: "Dress and Religion in the Roman Empire"

For those who are participants of the DressID-Project the travel-costs will be reimbursed by the project. For the others we shall try to find a funding.

Last not least:

In Rethymnon we were asked to hand in our ideas concerning the final publication of the project DressID (should this be, in your eyes, only the catalogue for the exhibition? Or also the papers of our last General Meeting? Or something else?). Please, send your ideas to us, we shall put them forward to Annette Schieck.

Now we wish you a good and happy Christmas time and a very peaceful, healthy and vital New Year  
Yours  
Konrad and Sabine.

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### **STUDY GROUP E: PRODUCTION AND TRADE**

Minutes by Anne Marie Carstens

Spokespersons: Judit Pásztoókai-Szeőke & Margarita Gleba

CTR / Study Group E report at the 3rd General Meeting, Rethymnon

Firstly a warm thank you to Iris and to your colleagues for organizing this meeting – we all know what it takes, and we are grateful for all you have done for us these two days in Rethymnon.

I will just briefly tell you of the activities of CTR, which is described in greater detail in our report on our work, that is CTR work besides what Eva talked about this morning, and the work of Study Group 1 as presented by Annemarie Stauffer yesterday. I have printed 10 copies of the CTR report, and those of you that are interested can take one up here afterwards. It is also available on the CTR webpage.

In the period April through November 2008 CTR dedicated its work in connection with the DressID project to the final preparation and completion of in all five international conferences and academic gatherings, as well as the launching and implementation of the DressID website. We are right now editing conference proceedings and otherwise continue our work – more details available in our report.

I am here to report on the activities of Study Group E:

At the 2<sup>nd</sup> General Meeting in Copenhagen in May, Group E decided to make a one-day open workshop at the 4<sup>th</sup> General Meeting in Hallstatt entitled: *Work and identity: the agents of textile production and exchange in the Roman period*.

Here, the study group will approach investigation of textile production and trade in the Roman Empire and beyond its borders by focusing on identity of the agents involved in these activities, that is, textile producers, traders and consumers. The questions to be explored are:

- Who produced and distributed textiles and clothing?
- How were they organised?
- What was their social status and could it change during the working life?
- How did their profession affect the personal identity?

Identity is understood here in broad terms and includes gender, status, kin-group, ethnicity etc.

I know that Margarita Gleba and Judit Pásztoókai-Szeőke plan to invite key-note speakers and the contribution will be published as an anthology on production and trade of textiles and related goods within and beyond the Roman Empire.

For the exhibition, Study Group E will be able to work as consultants as well as provide one or more articles concerning issues debated at the Hallstatt workshop. I am sure that the exhibition team will benefit also from participating in the meeting.

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