



SUMMARY OF THE STUDY GROUP MEETINGS HELD AT THE 2ND GENERAL MEETING AT COPENHAGEN ON MAY 19, 2008

STUDY GROUP 1: ELEMENTS OF DRESS

Minutes by Ulla Mannering & Annemarie Stauffer

Spokespersons: Ulla Mannering, Annemarie Stauffer

Present Participants: Hans R. Goette, Lena Larsson Lovén, Friedrich Wilhelm von Hase

Not Present Participants: Margarita Gleba, Karina Grömer, Maureen Carol, Cécilia Fluck, Annette Schieck, Astrid Böhme-Schönberger

Listeners: Teresa Belanová, Konrad Vössing, Manel Garcia, Hero Granger-Taylor, Maria Schmidt, Kelvin Wilson, Sabine Schrenk

The meeting started with a short presentation of Study Group 1 and the spokespersons. Annemarie provided an overview of the projects registered in Study Group 1. Hereafter each participant got time to present their research project and affiliation to Study Group 1. After the presentations, working methods, work in progress, intermediary aims were discussed. The group agreed on the following points:

- Study Group 1. Elements of Dress is the official name from now on.
- Research will concentrate on “elements of dress” i.e. the single elements of different kinds of clothing. The Study Group 1 will provide basic information about elements of dress in different sources; archaeology, iconography and epigraphy according to the different capacities in the group. This will serve as the basis for further research in the other study groups, such as “self and Society”, “Cult ...”. Lists with descriptions and examples of different elements of dress from various sources should be compiled and made available by the end of 2009 latest. Thereafter Study Group 1 will end its activities and the participants will continue their work in study groups A–E.
- The group is aware of the fact that not all regions and provinces of the Roman empire are included in single projects. Important missing parts are dress in Gaul, dress in Spain, dress in Britain.
- Further individual work will concentrate on compiling elements of dress. The results will be presented and discussed within the group at the 3rd General Meeting in Crete, including the possibility of presentation and dissemination of results (glossary, data base etc.).
- For the next meeting participants should make proposals for objects they would like to see exhibited.
- The spokespersons kindly ask the participants who have not yet sent their description to the spokespersons to do so as soon as possible and we also remind that all participants should register with their profile and project on the homepage.

Maureen Carroll:

Roman-period costume and identity on the Lower Rhine as depicted in visual images: Ubii and Cananefates

No project description available

Maureen Carroll:

Roman-period costume and identity in Pannonia as depicted in visual images: Eraviski

No project description available

Caecilia Fluck:

Roman children's clothing. Gender and sociological information on a garment's decoration

The first aim is to record original and almost complete garments from Roman Egypt starting with the Katoen Natie collection in Antwerp and comparative material from other European collection. Special emphasis will be laid on children's dresses of which apart from Katoen Natie the Museum for Byzantine Art in Berlin, the Museum for Applied Arts in Vienna, the Louvre in Paris, the Royal Museums for Art and History in Brussels and several British collections keeping textiles from the former Petrie-collection possess a considerable quantity. In a second step garments from modern excavations (especially from Sharuna and Antinoopolis in Middle Egypt and in the western oasis) will be recorded before getting deeper into the analyses of the decorations. Are there and if what are the differences between women's and men's clothing? What patterns were preferred for children's dresses. Are there special patterns for different age? The originals should be compared to depictions of clothing on art objects of the Roman Empire. How does clothing appear in different aspects of life (official and representative monument, in the house, at work, at leisure, in funeral context).

Hans Rupprecht Goette:

Roman costumes depicted on monuments commissioned under the control and influence of the center of the Empire (city of Rome)

Analysis of monuments which show persons in official or private CONTEXTS and can be connected with the SOCIAL STATUS of the depicted person and determining the respective dress "code" (iconography):

- a) antiquarian studies (in connection with written sources) to define costumes and their use,
- b) studies of the "message" to the viewer (social status, profession, gender, age, location)

Karina Grömer:

Clothes in Roman Period graves from Austria

Two different kinds of sources are important for researches about roman period costume in Austria: one part is the textiles found in graves, usually corroded on metal grave-goods (belt buckles, fibular, needles etc.). Their position within the graves and their micro-stratigraphy give important hints for their reconstruction (as tunics, trousers, mantles ...).

On the other hand from Austrian territory a lot of tombstones with depictions of "Pannonian" and "Noric" dresses as well as "Roman style" survived. Therefore we know how Roman Period garments looked like.

With increased data about textiles in roman Period graves from Austria it could be possible to combine that knowledge with portraits of roman Period people (on tomb-stones, wall-paintings etc.). Maybe we can say what kind of fabrics (fabric qualities) were used for special parts and types of cloth (veils, mantles, tunics and so on).

Lena Larsson Lovén:

Dress codes in ancient Rome. Clothing in a socio-cultural context

This contribution is called *Dress codes in Ancient Rome: Clothing in a socio-cultural context*. It is the working label of a study that seeks to analyse Roman dress primarily from visual evidence and to discuss the function of dress in a socio-cultural context. The intention of the study is to focus on the city of Rome, i.e. the centre

of the Roman Empire, during the period from ca 50 B.C. to ca A.D. 100. This is a period which produced abundant visual evidence, together with other types of sources as well, and one of the main reasons for focusing on this particular area and period is the richness in various kinds of media.

During the selected time period (50 B.C.- to AD 100), there was an extensive production of sculpture in Rome, representing various social strata in the Roman society of this time. Many sculptures, and normally those of civilians, are represented with clothes, partly reflecting Roman clothing of the time. The basic idea of the study is to use sculpture from this time and from the city of Rome and its immediate surroundings as the primary evidence.

The evidence will constitute of free-standing sculpture including larger funerary sculpture of civilians (men, women and children) representing various groups within the social hierarchy. Aspects of social and economic status, of age, gender and if possible, of different ethnic groups will be considered. At the initial stage it is not my intention to include military dress or the clothing of religious ceremonies. Neither will representations of deities or mythological figures be included, but the focus will be on the clothing used by people more on a daily life basis.

In spite of the abundance of sculpture, the representations of dress in sculpture, however, are not complete and the primary function was never to give a full and exhaustive view of Roman clothing. Thus, information from other sources must also be used in order to be able to reach a more complete and detailed picture.

Supplementary information can be derived from other kinds of visual evidence such as (Pompeian) wall painting, from other kinds of sculpture/monuments such as smaller funerary reliefs of civilians, and from written sources. The latter would be mainly the writers of the first century B.C and of the first century AD. All of these categories were produced within the time parameters of this study and that is a second reason for the choice of the period of ca 50 B.C.-A.D. 100: the availability of contemporary sources with comparative information, both visual and written evidence.

Yet another reason for focusing on this particular period is the general development of Roman society at that time. In the first century B.C. there was an apparent social mobility, partly as a result of a larger number of people being freed and also as the city of Rome gradually became a more cosmopolitan place. The development meant a growing population of a variety of ethnic and social backgrounds living there. How did this situation of an increasing population with a more extended social and ethnic mix affect the use and importance of dress?

Furthermore, the first decades of this period coincides with the final collapse of the Roman Republic, followed by the establishing of Imperial power. Particularly in the initial phase of the Imperial era, when Augustus worked to create the public image of the recent political system including a new (or renewed) Roman identity, clothing played a vital part in displaying identity and the acceptance of socially conformed values. This situation may serve as an example of how dress could be used in the official political propaganda and of how clothing functioned to demonstrate political correctness and socially accepted values, status and identities in general. But also on a everyday life basis and for single individuals, dress would have been linked to the Roman social structure and it was used to display various identities.

The importance and significance of dress in Roman society and the sometimes complex system of symbols that could be implied by dress can be illustrated by the toga. This well-known Roman garment implies symbols of both social status, age and gender. We are familiar with the toga as a dress that could only be worn by men who were Roman citizens. At the period in focus of this study, the *toga virilis* was of course mostly used as a ceremonial dress, but, nevertheless, the toga signalled Roman citizenship and status in various contexts. In the visual arts, it was frequently used in the funerary iconography of freedmen to emphasize their new status as citizens and it was also used in the Roman provinces as a sign of status among a majority of non-Roman citizens. Furthermore the toga could imply a particular status such as the toga of Roman senators with the *latus clavus*, or being a symbol of a specific situation such as the *toga candidatus*, of political candidates. A toga worn by a man was normally a sign of status. A toga worn by a woman in this period had, however, completely different associations as a woman dressed in a toga would be either a prostitute, or an adulteress.

These examples connected to the toga may illustrate how one garment could contain several symbolic meanings and also the importance of studying dress more closely in order to reach a better and more complex understanding of a society in the past.

Ulla Mannering and Margarita Gleba:

Early Iron Age Danish costumes from bogs and burials

Denmark possesses a unique collection of prehistoric garments recovered from bogs and burials. In their totality they provide an outstanding contribution to our understanding of North European prehistoric textile and costume development. The mission of DTC programme is to create new international references for the well preserved textile and costume items from bronze and early iron ages in Danish collections.

A very special group of finds come from the Danish bogs and burials that can be dated to the Scandinavian Late Bronze and Early Iron Ages (900 BC-400 AD). The finds from the bogs can be divided into two context groups: bog deposits of costume items and clothed bodies, and weapon deposits. Textiles and skins from the Danish weapon deposits are examined by Susan Möller-Wiering in a separate project (study group E).

The aim of the current project is to examine the material from bogs and burials with modern scientific methods, focusing in particular on design and technology. The burial finds are used as reference material and are selected with specific criteria: information they provide about costume and Roman influences.

Annette Paetz gen. Schieck:

Elements of Costume. Iconographic analysis of Egyptian Mummy-Portraits, -Masks and Painted Shrouds

Under Hellenistic and Roman influence, the unique Egyptian funerary practise consisting of a mummified body and stylised traditional Egyptian mask, has changed. Not only has the quality of the mummification declined, but most obvious, three kinds of decorative covers were introduced in Roman times, from about the 1st to the 3rd Centuries AD. All of them resemble the traditional traits, but also incorporate new cultural influences.

One group still consists of masks, but they disconnect from the tradition. The show portrait-like human heads, sometimes even three dimensional, molded and painted with fine details in hair, jewellery and clothing, all of them designed after the latest Roman fashion.

The second group combines the mummy with a Roman way of remembrance. A painted portrait of the deceased (*imagine*) is included into the mummy, looking straight at its observer. Since the question has not been solved yet, if the portrait was painted sometimes in the life of the person and has later been taken for the burial, or if it pictures the dead person, quite a few questions arise concerning the degree of realism and idealness of the presentation.

The third group consists of large pieces of painted cloth that were wrapped around the mummy. The paintings present the deceased as a living person in the centre, accompanied by Anubis on the one side, and his nicely decorated mummy as Osiris, on the other. These paintings not only picture the complete person, the dress and habit of wearing in detail, they also show the mixture of Egyptian and Roman influences in death cult, and possibly in life as well.

Even though hundreds of objects belonging to these categories are known and many are published, no investigations have ever systematically analysed the elements of costume in detail. Therefore it is the aim of this project to trace, name and define these elements, always in comparison with actual finds in order to testify the reliability of the images and their correspondence to reality. A typology of clothing will be set up in correlation to the gender, age and status, as well as social rank, ethnicity, religion and occupation will be set up and it will be analysed if habits of depiction have changed throughout the time span. At the same time Roman sources will be investigated in order to find out if certain ways of self-presentation rely on Roman standards and if the pictured details do follow the Roman fashion.

Annette Paetz gen. Schieck:

Clothing in Roman Syria. Iconographic analysis of depictions represented in Palmyrene Loculus-reliefs in Roman Syria

The research interest focuses on the so called Loculus-reliefs found at Palmyra, Syria, hosted by the National Museum Damascus and basically dating to the 2nd Century AD. Large amounts of these square panels present the bust of - in most cases - one deceased person, in extraordinary detail and unique quality. Great effort has been spent on depicting especially the quality of cloth, the ornaments and the elements of clothing, but also in illustrating filigree necklaces, all kinds of jewellery, and attributes, but until nowadays no systematic investigation has been carried out on the question of clothing, dress-codes and self-depiction, so far.

The project analyses all these iconographic details especially in their combination: In the first step the elements of costume are to be named, different cultural influences will be traced, Roman elements and will

be distinguished from the Palmyrene, Parthian, or Persian and their ornamentation is to be investigated. Then the depicted elements will be confronted to the original textile finds from Palmyra in order to testify if they correspond to real objects – this will be done in cooperation with A. Stauffer and her project within this group. Regarding the codes of information, pictured objects like jewellery, fibulae, spinning devices etc. will also be investigated and related to archaeological finds, in order to read the inherited sociological information on social rank, clanship, and wealth. Therefore these questions will then be discussed in Study Group A.

Annemarie Stauffer:

Elements of clothing in Roman Syria. Part 1: Clothing and clothing contexts in Palmyra

The textiles from Palmyra (1. c. B.C. – 3rd c. A.D.) form one of the largest and best preserved amounts of textile finds known from late Roman times in the Near East. In the context of a Syro-German joint project focused on conservation, documentation and research on the late antique textiles from Palmyra, two different groups of clothing and their corresponding decoration systems could be distinguished: at one hand the classical “Roman” type of clothing, at the other hand the local “Parthian” one. Both types of clothing distinctly different in shape, cut, colours and patterns obviously show different ways of appearance at one single place. However the original textiles only reflect restricted aspects of clothing. From Palmyra a lot of works of art are preserved, reflecting cloths and combination of elements of clothing as well as lots of varieties within the same social group over more than three hundred years. The scope of this project as part of a combined study of clothing in Roman Syria (see project Schieck) is to collect elements of clothing as represented on local works of art, starting with monuments of the 1st century AD and ending with the 3rd century (destruction of the place in 273). The main scope of the project will be laid on Palmyrene funerary sculpture and sarcophagy. A databank of the compiled material will be established. At a later stage of the project the datas will be compared in order to find out about differences and similarities of “local palmyrene(?)” and “general Syrian” elements at one hand and to get more information about clothing “styles” at the other. The aim of the project is a database serving as starting point for questions touched in groups A, B and C.

Annemarie Stauffer:

Pre-Roman Textiles from Verucchio. Elements of Mens cloths in Villanovan Culture

The textiles from Verucchio (700 – 640 BC) range among the most spectacular textile finds known from prehistoric Europe. In the frame of a collaboration project run by the University of Applied Sciences Cologne and the Soprintendenza Archeologica dell’Emilia Romagna Bologna a series of mens garments of different shapes could be reconstructed, however textile historical interpretation is still missing. Within the EU – project these garments should be compared with representations of mens garment from the Villanovan and early Etruscan period, mainly with sculptures, votive bronzes and paintings. The aim will be to get ideas about the way these garments were worn and about their significance in general.

STUDY GROUP 2: MATERIAL AND TECHNIQUE (the Meeting was held with the Study Groups 3 & 4)

Minutes by Iris Tzachili

Spokespersons: Iris Tzachili, Christophe Moulherat

Participants of Study Group 2: I. Tzachili, C. Moulherat, H.-R. Goette, Susan Möller-Wiering, Katerina Panagopoulou

Participants of Study Group 3: A. P.g. Schieck, S. Mitschke, B. Hildebrandt, E. Pernicka

Participants of Study Group 4: C. Alfaro, I. Vanden Berghe, I. Van den Beeten, Mark van Strydonck

Silent Participants: L. Larsen Lovén ?, E. Andersson, M. Gleba, J. Pasztokai-Szeöke, K. Droß

The meeting of the Study group 2 (materials and techniques) in the 2nd General meeting at Copenhagen defined the research fields as following:

1. In order to assess the technical level of the weaving a central issue is the different weaving techniques as well as the different types of looms (horizontal or vertical). Therefore the scope is the clarification of the types of the looms, the distribution in space as well as the evolution in time. This must be done in regional level. We hope to establish a “geography” of the techniques in a European level.
2. Regarding spinning, the scope is more or less the same, that is to establish the differentiation in the techniques taking in account the different traditions as well as the different materials. Moreover an effort will be done to address the issue of the high or low spindle whorls, the localization of the findings, the different kinds of threads.
3. As for the materials, a close collaboration with group 3 is established. Our colleagues analyse the quality of the fibres and the raw materials there.
4. A very important source of information is the relevant representations. We need to prepare a corpus of the representations (*stelae*, reliefs, mosaics...) of weaving or spinning or simply the implements. This will help the (1) and (2) and also the exhibition group
5. An effort must be made for exploiting the potential of the written sources (literature and inscriptions). We will start with some technical terms and then use the Thesaurus *Linguae Graecae* and *Latinae*.

These are more or less the issues we discussed and agreed that we are able to deal with. Of course if someone has something to propose in addition he or she is very welcome. Other issues may appear later or modifications or alterations as the research advance. We will adapt ourselves accordingly.

The group 2 will meet in Rethymnon in December.

Second General Meeting DressID, Copenhagen, May 2008

STUDY GROUP 3: QUALITY (the Meeting was held with the Study Groups 2 & 4)

Minutes by Annette Paetz gen. Schieck

Spokesperson: Annette Paetz gen. Schieck

Participants of Study Group 2: I. Tzachili, C. Moulherat, H.-R. Goette, Susan Möller-Wiering, Katerina Panagopoulou

Participants of Study Group 3: A. P.g. Schieck, S. Mitschke, B. Hildebrandt, E. Pernicka

Participants of Study Group 4: C. Alfaro, I. Vanden Berghe, I. Van den Beeten, Mark van Strydonck

Silent Participants: L. Larsen Lovén ?, E. Andersson, M. Gleba, J. Pasztokai-Szeöke, K. Droß

Since the scientific methods and techniques employed by study group 2 (Material & Technique), 3 (Quality) and 4 (Colour & Dating) are closely related and all depend on fundamental research, the three groups had a combined meeting in order to achieve a broader understanding and to tighten the interwoven teamwork.

The activities of Study Group 3 within the first seven months were demonstrated in a PPT-presentation by the spokesperson A. P.g. Schieck. Due to the short amount of time discussions on methods and content mostly concentrated on Study Group 2, thus Study Group 3 & 4 only had the chance to present rather than discuss their aims and methods.

The principle issue of selecting a second spokesperson for Study Group 3 was not solved in this meeting, no colleague volunteered for this position, but colleagues associated to DressID have been asked but have not agreed upon it, yet.

Activity report of Study Group 3:

1.) Collection of recent fibre material

The collection of recent fibre material is one of the major tasks of the Study Group 3 activities. Based on archaeological evidence and principal probability 50 kinds of plant and another 50 kinds of animal fibres have been chosen in order to set up a representative collection of recent fibres. Those fibres will be analysed by transmitted light and reflected light microscopy as well as scanning electron microscopy in order to reveal all relevant data which makes the kinds of fibres unique. The investigations aim at defining characteristic and unique traits that will later help to identify ancient fibres and materials. Therefore the following activities were initiated:

- Several meetings were held with various animal breeders, zoos and wild parks by Sylvia Mitschke in order to sample recent fibres.
- Intensive interchange with people in charge of botanical gardens in order to collect plant fibres by Sylvia Mitschke.
- Negotiations with archaeobotanic and archaeozoological University collections: University of Hohenheim, University of Cologne, University of Frankfurt a.M., University of Tübingen were undertaken, aiming at interchanging results and material.
- A request was placed at an international archaeobotany blog in order to draw attention on the Study Group 3 activities and to participate in an international network on this subject and to ask for interchange of knowledge, ideas and samples. Manifold reactions led to an intensive communication and various meetings with e.g. Dr. Mark Nesbitt, Royal Botanic Gardens Kew; Dr. Barbara Zach, Stuttgart; Prof. Dr. A. Neumann, University of Frankfurt.

2.) Collection of archaeologically preserved Roman textiles and fibres

In order to gain information on ancient Roman cloth materials and knowledge about breeding, treating and handling of textiles and fibres in antiquity, a large pool of ancient material needs to be collected. Thus several requests have been started and ancient material has already been investigated and catalogued.

- A Request to all German archaeological Museums was sent out on behalf of Roman textile finds in order to evaluate and to map the status. Several museums replied so far and offered their objects, mostly metal finds, corroded, with traces of ancient textiles.
- Two visits to the archive of the Römisch-Germanisches Museum Köln have been undertaken, several textile finds and corroded metal finds with traces of textile remains have been analysed. Further visits are scheduled.
- Objects stored in the museums at Kalkriese and Frankfurt will be transferred to the REM in order to have them analysed in Mannheim.
- Visits to the Kurpfälzisches Museum Heidelberg and other museums are being prepared.
- Meeting with Dr. Johanna Banck-Burgess, Landesdenkmalamt Baden-Württemberg, Esslingen, on textile remains in Baden-Württemberg.
- Sample-management of historic textile fibres (different samples from Germany (e.g. Mainz, Köln), Poland, Austria).
- A form-sheet for sample-taking (14C, HPLC, fibre analysis) has been prepared by Sylvia Mitschke in cooperation with Ina Vanden Berghe, Dr. Mark van Strydonck, and Prof. Dr. Ernst Pernicka. It has been sent out to all participants of DressID in order to maintain all available information on the sampled textiles. It is available on the DressID-Homepage.

3.) Study of ancient literature

Since results of the rather technical investigations have to be analysed in respect of the antique written and pictorial sources, the information provided by ancient authors and their literary sources need to be extracted and related to the scientific results.

- Systematic reading of Pliny's *Naturalis Historia* and Columella's *De Re Rustica* on textile and fibre mentioning.
- Interchange with Dr. Berit Hildebrandt, University of Hannover, on historic mentioning of silk production.
- Communication with Prof. Dr. Dr. Joris Peters, University of Munich, and Prof. Dr. Hans-Peter Uerpmann, University of Tübingen, on animal fibres.

4.) Acquisition of a scanning electron microscope (Zeiss EVO MA 25)

Since the images taken by a scanning electron microscope are the most informative concerning the surface structure of fibres, such device has been bought and set up in the laboratories of the "Curt-Engelhorn-Stiftung für die Reiss-Engelhorn-Museen" at Mannheim. Activities were basically coordinated by Dr. Roland Schwab.

5.) Investigation and reconstruction

Four metal helmets of Batavian horsemen that were found at Xanten, Germany and Nijmegen, Netherlands, were analysed by Sylvia Mitschke. The corroded helmets were covered by braids of horsehair decoration. The analyses aimed at regaining the system of decoration, determining the materials such as the kind of hair and glue, in order to produce a reconstruction of great quality, which later can be exhibited instead of the original find.

The results were published in the exhibition catalogue R. MEIJERS/F. WILLER (eds.), *Hinter der silbernen Maske* (Nijmegen/Bonn 2007).

STUDY GROUP 4: COLOUR AND DATING (the Meeting was held with the Study Groups 2 & 3)

Spokespersons: Ina Vanden Berghe, Carmen Alfaro Giner

Participants of Study Group 2: I. Tzachili, C. Moulherat, H.-R. Goette

Participants of Study Group 3: A. P.g. Schieck, S. Mitschke, B. Hildebrandt, E. Pernicka

Participants of Study Group 4: C. Alfaro, I. Vanden Berghe, I. Van den Beeten, Mark van Strydonck

Silent Participants: L. Larsen Lovén ?, E. Andersson, M. Gleba, J. Pasztokai-Szeöke, K. Droß

During the second general meeting, a common discussion meeting was held between the study groups 2, 3 and 4.

1.) Activities of KIK-IRPA – Minutes by Ina Vanden Berghe

Within study group 4, an overview was given by KIK about the number and type of requests for dye, fibre and dating analysis that were received by now from the partners from the DressID project, in return to the circular sent out in January08.

Overview of the specific studies:

- Study of the dyes (23) of 28 sarcophagi with clothed burials, Church St. Maximin, Trier, (Bischof Maximinus, 330-347 AD?) - Nicole Reifarth, Bischöfliches Dom- und Diözesanmuseum, Trier, DE
- Study of the dyes (? ~10) and dating (1) of 3 textiles from Austria, Roman province Noricum and Western Pannonia, Roman period (0-500 AD) - Karina Grömer, Museum of Natural History, Vienna, Austria
- Study of the dyes (21) from 5 textile fragments, grave finds in Jutland dated to the Scandinavian Roman Iron Age (0-400 AD) - Margareta Gleba, CTR, Denmark
- Study of the dyes (53) from 16 textile fragments in weapon deposits, Roman Iron Age (0-400 AD) - Susan Möller-Wiering, CTR, Denmark
- Study of dyes (17) and textile dating (17) of a series of Roman linen tunics with purple design - Antoine De Moor & Cécilia Fluck, Katoennatie, Belgium
- Study of dyes (9) and dating (1) 5 textile findings from Emmeranstrasse / Grosse Langgasse, dated 5 BC - Sylvia Mitschke, Reiss-Engelhorn-Museums, DE

Although the request forms for lab analysis were set up for dye, fibre and dating studies, for the moment, most of the requests are dealing with dyes. As Mannheim is in charge of the fibre analysis using microscopic techniques, please do consider using this opportunity of this interdisciplinary project to systematically study the fibres used in the Roman times. It is not necessary that exactly the same fibres be sampled for both dye and fibre analyses, as long as the samples are well described. For all questions about fibre analysis, contact should be taken with Mannheim directly.

From now on, lab analysis will be started as soon as possible. Information about the sampling (sizes, specifications...) can be found on the form (annexe 1). In case of any doubts, for dye analysis, take contact with ina.vandenbergh@kikirpa.be, for dating, mark.vanstrydonck@kikirpa.be or mathieu.boudin@kikirpa.be. The samples will be analysed in order of receiving them. An overview of the work realised will be presented at the next general meeting in December 2008 in Rethymnon. The final outcome of these studies will be disseminated through joint publications in the next two years.

Three specific 'sub'-projects, initiated by KIK, dealing with dating and the study of the dyes found in historical material were presented by powerpoint presentations, to the study group 4.

1. 'Royal' Purple and 'ordinary' Red. Study on the dye sources and dye technology in textiles from the Roman empire

Dealing with the systematic investigation of the natural dyes found in the wide range of textile collections within the context of the DressID. With emphasis to two specific dye sources, the vegetable red dye source madder and Royal Purple.

In order to obtain a representative study, as much as reddish and purple shaded samples need to be analysed for their dye content. Ideally, from every collection of textiles, included in the project. A circular was sent out (April08) to all partners to inform about these studies and to ask for their collaboration. Concretely, we would appreciate it very much if you could send us samples for dye analyses in a wide range of shades: from orange/reddish to purple and even black samples.

2. 'The mummies from Antinoë'. ¹⁴C dating and Dye analysis of a Coptic mummy.

A former ¹⁴C study of the bones and textiles from the mummy of the Coptic princes Thaias (the Louvre Museum), excavated by the French archaeologist Albert Gayet, strongly suggest an artificial setup of the ensemble of this mummy at the exhibition in Paris (before 1944). A study of the Coptic mummy from the Jubelpark Museum in Brussels (the so-called mummy of Euphemiaan) and the Musée du Château in Lunéville France, could contribute to reveal this hypothesis.

3 '14C dating of Murex shells from the Balearic islands'.

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. Once this is done ¹⁴C ages of MUREX shells can be corrected for marine reservoir ages and the comparison with terrestrial material is not needed anymore. Relevant series of Murex shells (Cabrera, Bocchoris...) will be studied in this context.

A database for ¹⁴C dated Textiles will be developed by Sabine Schrenk in collaboration with KIK. The database will cover dated textiles within the time span of ca. 500 BC to 1000 AD.

Only published information will be included (from KIK and other labs). All ideas or information about the creation of this database should be sent to Sabine Schrenk.

2.) Activities of the University of Valencia – Minutes by Carmen Alfaro

General working plan

Key–words: Colour, History, Social Studies, Production, Economy, Trade, Use of the colour, Political control, Raw materials, Experiments.

The use of colour on the dress is common fact to the human history. Nature is plenty of colours, and textile's raw materials providing elements of colour are presents in the everyday live.

But colouring the textile fibres is a complex technique that needed a lot of time of hard evolution. Plants, animals and, in minor proportion, minerals elements, were used in all Europe before the Romanization. Greek and Roman authors describe the local traditions in the different countries of the Mediterranean area. Some of these traditions attract her attention. The most difficult question is: to distinguish the real influence of the roman technology and fashion over the native populations.

Field investigation

Colour in Ancient History,

Philological information: the pre-roman and roman traditions.

Colour on textiles through the Archaeological information.

Dyes production and trade,

Symbolism of colour,

Colour and religion,

Iconographical identification,

Raw materials for tanning (oak's fruits, bark of pine, alum ??),

Raw material for dyeing (plants: *rubia tinctoria*, *genista*, *reseda luteola*; animals: *murex*, *purpura*; *cochineal*),

Ancient dyes on textiles on Experimental Archaeology (Collaboration with Study Group 6).

STUDY GROUP 5: EXHIBITION

Minutes by Karina Grömer

Spokespersons: Michael Tellenbach, Anton Kern

Participants: all participants of the 2nd GM at Copenhagen

Presentation: Anton Kern (chair exhibition group; Dpt. Prehistory, Natural History Museum Vienna) and Karina Grömer (Dpt. Prehistory, Natural History Museum Vienna)

Summary:

The presentation of the Viennese part of study group 5 covered mainly technical and structural questions and a lot of questions to the researcher such as: what results shall be presented? From the researcher's point of view, which objects are wished to be presented at the exhibition (clothes, textiles, steles, tombstones, tools...), which are available? Which reconstructions of clothes are available? Some ideas to the exhibitions concept from the facts known by the presenters until now were given too.

The presentation also concerns some remarks on the catalogue accompanying the exhibition.

Paper Kern and Grömer:

- At first a general schedule for the exhibition-preparation was presented (with hypothetical beginning of the exhibition at 1.1. 2011 in Mannheim). It is important that by mid of 2009 we need the first results (Zwischenbericht) of the study groups that we have enough time to develop the definite concept for the exhibition. Graphics and exhibition design go hand in hand with the "read thread" through the exhibition. Information about the objects that can be exhibited are necessary until end of 2009, because pieces have to be selected, making contracts and insurance needs also time as the transport of the objects.
The catalogue for the exhibition has to be written until Jan.-March 2010, next to and after that the time-consume for translations is planned until July 2010 (the catalogue has to be published in English and the languages of the exhibiting countries: e.g. German for Mannheim and Vienna; Spanish and Catalan for Valencia...). Beside that the time needed for layout and print is scheduled with 4-6 months. The catalogue has to be published with the start of the exhibition in Mannheim (scheduled 1.1.2011).
- **Facts we do need from the museum partners (Mannheim, Valencia, Vienna, Brussels?)**
 - At first technical questions arise such as the size of the exhibition areas/rooms, therefore floor maps and room maps are needed.
 - Another important informations are about the security systems, the light systems and the climatic conditions, especially important for the textiles planned to be exhibited.
 - Beside that we need to know which displays are available in the museums, because there is a need for special displays for textiles (specific temperature, humidity, light).
As an example Anton Kern presented the Museum of Natural History Vienna, the exhibition areas.
Beside that there should be a list of objects available in the partner-museums.
- **Facts we do need from ALL project members (researchers):**
In February 2008 a letter was sent out by mail with following content:
 - Each researcher shall give a short description of his project part and of the expected results.
 - Each researcher should make from his point of view a list of objects that are absolutely necessary to be exhibited (e.g. mantle from Verucchio, Egypt tunic from Katoen Natie museum, bog people clothing from Denmark...).
 - If somebody knows from reconstructed dresses which are available. This can be dresses which are made within the project (like the hispanic dresses planned by Carmen Alfaro and Ida Demant)

or dresses which are still existing in different museums (e.g. mantle from Verucchio from Anna Norgaard).

Important additional information about the quality of the reconstructions is needed too (based on the quality-types employed by the study group 6, experimental archaeology:

Quality A: handspun, handwoven, natural dye, hand-sewn

Quality B: machine-spun, handwoven, natural dye, hand-sewn (or machine-sewn on invisible seams

Quality C: machine made fabric, machine-sewn

For the exhibition the Quality groups A and B are preferred

- **Problems with large-sized textile objects:**

- need for special displays (Klimavitrinen)
- how to exhibit them: flat or three-dimensional (what is allowed?)

- **Different concepts for an exhibition:**

Just a few questions, what the researchers expect from the exhibition:

* Shall it be a collection of a high quantum as possible of textile objects at one place. Note: It can be a problem to exhibit a lot of (more than 10) large-size complete garments. For there is a need for special displays (Klimavitrinen): costs, size and transport

* Shall the exhibition be a Presentation of ALL scientific results at a high scientific level

* Or shall we make a modern exhibition for visitors aged 6-100 years with selected results?

* Is there a need for a strictly chronological concept or can it be a regional concept (centre Rome and periphery)?

* Maybe the center shall be questions (Identity, production...), to be answered with the displayed objects

- **some Ideas:**

Different groups of objects can answer different questions in the exhibition:

* e.g. textiles from Hallstatt: here various textile techniques can be shown as basis for techniques in Roman Empire; additional: textile tools

* e.g. bog textiles: complete pre-roman dresses with shoes, mantles, hats; development of dress in Roman periphery

* e.g. Coptic textiles: presenting different parts of Roman clothing with the well preserved wonderful complete dresses

* e.g. Verucchio: the cloaks as basis for the famous Roman toga

* e.g. tomb stones with depictions of native dresses in Roman periphery – discussion about local identities. Problem: transport costs of the heavy stone objects!

>> to minimize transportation costs: present more the local stuff, but in the catalogue all different types can be shown together and can be discussed in their significance of local identity (z.- B: tomb stones with local costume from Austria, Spain, Germany....)

- **Supporting Activities**

to be planned and done by the partner-museums due to the facilities at the museums we can prepare a basis-programme for edutainment

- **Ideas:**

- lectures for adults

- ancient fashion shows

- microscopy

- for children: dressing up like a roman...

- Computer-program: the user can give information to the computer such as age, gender, profession, hight/weight and the program will dress him as a roman citizen would have looked like due to this status

- spinning/weaving workshops or demonstrations

- **Discussion:**

At the beginning of the discussion the second chair of the exhibition group, Michael Tellenbach gave an overview of the general structure of the exhibition, as based on the structure of the DressID Project with the study groups 1-6 and A-E. Some important points:

- contrasting pre-roman, extra-roman and roman textiles to see what are different traditions.
- different materials have a certain background of necessities and exchange, trade, exchange of cultural goods and changes in the cultural development
- what represents different dress? social, political, gender, profession?
- the differentiation in dress begins with the fibre.

Within this structure the results of the study groups should be fit in. We need ideas how to present all this. The making of an exhibition is not limited to put things on view: graphics, media station, films and so on should be used too: Some objects are not possible to be shown.... how to present them? films, animations ... graphics

Some scientists in the audience shared their ideas

Astrid Böhme-Schönberger thinks that drawings can show the things and faces that we do not know (e.g. graphical reconstructions of clothes where we have only small pieces. But it is absolutely necessary to make clear, which facts are the archaeological basis and what is reconstruction!

For the Exhibition it is wished that objects are shown which are important to illustrate the results of our research. The big question: “what do we want to tell the people to learn about textiles?” We need three dimensional objects to depict the aim of the project.

Iris Tzachili wants to know from the audience a general plan of what idea we want to express in the exhibition. For her it is important that the things to be exhibited represent the main topic identification: for example: marble steles. For the catalogue she likes to have 2 books for the people visiting the exhibition: general overview and exhibited objects.

For Ernst Pernicka it is important to present the scientific results in an understandable way. It is necessary to explain how we get to our results. The catalogue should communicate the important parts of the scientific research.

STUDY GROUP 6: EXPERIMENTAL ARCHAEOLOGY

Minutes by Eva Andersson, Marianne Rasmussen

Spokespersons: Eva Andersson, Marianne Rasmussen.

Participants: Ida Demant (minutes), Sylvia Mitschke, Monika Lange, Nahum Ben Yahuda.

Later Carina Grömer joined the group.

Eva Andersson and Marianne Rasmussen presented the theories and methodology of experimental archaeology in order to set the standards for experimental archaeology in this study group.

One of the issues is to understand the difference between experimental archaeology and experience archaeology. Experience archaeology might not address a specific question or problem, but by trying out methods and techniques – even on a very basic and simple level - it can work as an eye opener and give the individual a sense of the processes involved - and maybe lead on to questions which can be tested through experiments. However with experimental archaeology the researcher tests hypotheses and ideas in a constant dialog with the archaeological material.

In archaeological interpretation we also often use analogies. We find analogies from ethnographic investigations, ethno-archaeology, history and our own present time. However, also a performed experiment can be considered an analogy.

These divisions between experience and experiment are important when using the results in the archaeological interpretation, and thus important for the work both in this study group and in the DressID program.

In experimental archaeology the researcher chooses the stage and creates the setting. These are very important factors which must be presented along with the results of the experiments, as there can be factors present which can have had an influence on the results.

The most optimal method is the controlled approach where you try to isolate all variables as if you were conducting an experiment in a science lab. However, when doing archaeological experiments it can never be perfectly conducted, as not all variables can be isolated. As a consequence it is very important to present all variables along with the results of the experiment.

As an example on how experiments can be used to solve textile archaeological problems, Eva Andersson presented the tool experiments performed at CTR regarding spindle whorls and loom weights. An important element in this work is the initial set up of guidelines for how these experiments should be performed, regarding the craftsperson and the material involved. These guidelines can be found on CTR's webpage along with the reports of the experiments (www.hum.ku.dk/ctr). The aim of the experiments was to test the tools for the relevance of different aspect of their shape and weight in relation to the products made – that is the yarn and the fabrics. Thus the focus was on the tools — not on reconstruction of specific fabrics — though the results are useful for deducting knowledge of the fabrics made in a certain context by studying the proportions of loom weights and spindle whorls.

Furthermore, the question of reconstruction also has a place in a discussion of experimental archaeology. A set of working standards for reconstruction was presented at the 1st general meeting in Valencia, named A-B-C. The main idea of this standard is to question what it is we want to do when we are reconstructing archaeological textiles in order to make the right choices. If we want to test ideas or methods for producing textiles at the same time as we reconstruct a piece of fabric, then the A-model should be chosen.

However if the aim is to give a general impression of textiles of a given period, maybe on a larger scale, then there is no need to do more than a B-model. Of course it is still paramount to choose the right material – i.e. yarn, dyestuff etc. and that the reconstruction is performed by a skilled craftsperson.

Discussion:

The question was then "how can experiments be used in relation to the DressID research program?"

Different points of view were put forward:

The first suggestion was that other study groups for example the tools-study group and the quality study group, might have questions that can be tested through experiments. If reconstructions will be included in

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the exhibition the outlined standards (A-B-C) can be use as an important too to secure the scientific quality.

Nahum Ben Yahuda brought the issue of different linen qualities into discussion, in relation to the quality study-group. The production of "feeling-samples" for the exhibition would combine experimental production of textile and ancient written sources in a tactile result that may be presented at the exhibition.

A general problem for the discussion was that the people who could be interested in the result of experimental archaeology were not present at the meeting. We would like to encourage members of the Dress-ID program to contact us if anyone wants to design and carry out an experiment.

It was agreed that it would be a good idea to start by making a common reference list of all experiments performed regarding archaeological textiles and ancient textile technology, as many experiments performed in different countries are not yet published — or maybe only in minor publications.

This could help us see what has already been tested and maybe help us to deduce new questions instead of reproducing old knowledge.

Regarding reconstructions for the exhibition it was also agreed that it would be a good idea to find out what is already produced; what does the different museums have in their possessions. That could also be used as base for a discussion of the A-B-C-standards.

STUDY GROUP D: DRESS AND RELIGION

Minutes by Sabine Schrenk, Konrad Vössing

Dear friends and colleagues,

in the inspiring and pleasant setting of the CTR during our first general meeting and while seeing so many colleagues we took the chance to think already a little about our future plans concerning study group D "Clothing and Religion".

To those who are members of this study group or who are interested in joining us, yet could not come to Copenhagen: Do not worry that you missed the beginning as, of course, we shall stick to our plan to take up work on the forthcoming meeting in December on Crete. However, it was good to do some "brain storming" already and here are the results of it:

- As the term "religion" is wider and also includes the term "cult" – and not vice versa – we would like to change the name of study group D to "Clothing and Religion".
- Our objectives so far could be characterized as: The coherence between clothing and religious practices. How are different forms of religion expressed and reflected in clothing? ... and so on!
- In this connection we thought it to be wise to stress again: We should not forget that we are not just analysing clothing. But we do this with respect to "IDENTITY"! So, please, keep this in mind when you are creating your own topic and field of research for study Group D.
- So far we know of the following research topics or fields concerning study group D:
(The following names and issues were transmitted to us by Annette Schieck resp. were presented personally at Copenhagen.)

Please **confirm** your participation or **complete resp. rectify** the list with your name and the topic of your research:

Researcher (please note, if the period you are involved in will not cover the whole run of the DressID-project)	Issue	E-mail
Carmen Alfaro-Giner	Attis' Attire: Aspects of Cultural Dress in Eastern Religions	Carmen.Alfaro@uv.es
Nahum Ben-Yehudd	Characteristics of the Jewish in accordance with Jewish law. Dress used in the Temple – literal sources and originals (?)	pishtani@gmail.com
Anne Marie Carstens (2008-2010)	Anatolian cult practice and textile offerings – a 2 nd century AD revival of ancient traditions?	carstens@hum.ku.dk
Benjamín Costa Ribal (2008-2011)	Study of the costumes of Punic terracotta figurines representing goddesses found in Punic necropolis of Ibiza	bcrmaef@telefonica.net
Kerstin Dross	Production of clothing in temples of Roman Egypt (monopols?)	kerstin.dross@staff.uni-marburg.de
	Astral Representations in Dress	Paz.garcia-gelabert@uv.es

Maria Paz García-Gelabert	and Personal Ornamentation	
Manel García Sánchez	Dress of the Mithraism: Roman or Iranian?	manel.garcia@uv.es
Hans Rupprecht Goette	Clothing of the Vestal virgins	hrg@dainst.de
José Antonio Molina	The use of purple in early Christian cult	jamolgom@um.es
Javier Fernández Nieto , Maria Paz García-Gelabert	Dress and cults in the Hellenistic and Roman world	Fco.Javier.Fernandez@uv.es ; Paz.garcia-gelabert@uv.es
Javier Fernández Nieto	Religious significance of costume through history	Fco.Javier.Fernandez@uv.es
Miguel Requena	• Die Kleidung der paganen sacerdotes (Schriftquellen)	Miquel.Requena@uv.es
Annette Schieck	Textile production and dress-codes in Late Antique Egyptian monasteries	annette.schieck@cez-archaeometrie.de
Sabine Schrenk ,	Self-presentation and death in Roman catacomb-paintings: the evidence of the textiles	schrenk-sa@netcologne.de
Konrad Vössing	The clothing of the 'itinerant preacher' in the pagan and Christian world	voessing@uni-bonn.de
Friedrich-Wilhelm von Hase	Dress of the Etruscan priests (<i>auguri</i> and <i>haruspices</i>)	friewihase@googlemail.com

• In October 30th and 31st, 2009, we shall organize a conference in Bonn university aiming directly to our study group. The title will be "Clothing and Religion in the Roman World" and we want to invite you very kindly to participate with a paper.

• We would appreciate it very much if you could spread this news to anybody who might be interested and is active in our field of research, because this meeting is open to any scholars, not only to those belonging to DressID.

• As you will have learned from Annette Schieck and also Karina Grömer meanwhile everybody should hand in a list with objects to be on display during the exhibitions. This indeed applies also for us – even though many of us do not deal a lot or at all with original textiles. However, please keep in mind that we could also propose photos or other works of art (reliefs, mosaics etc.) as long as they can illustrate our studies and our results.

So, please, send such a list to us **until September 21st 2008**.

To sum up: the schedule of study group D so far is:

– Until September 21st 2008: please, send us the list of objects for the exhibition

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- December 11th to 13th, 2008: beginning of study group D;
A mayor task will be: to define our objectives in general and for our meeting in Bonn in particular
- Until April 1st 2009: characterizing our particular projects within study group D on one page, to be sent to and distributed by Sabine Schrenk and Konrad Vössing as preparation for the spring / summer meeting of 2009
- In spring / summer 2009: 3rd general meeting. Short presentation of our projects and discussion of emerging contacts and connections between them
- October 30th and 31st, 2009: meeting of study group D in Bonn and conference. The results will be published.

Please, remember that we now can and should register in: www.dressid.eu !

And please, if you have any comments, additions, changes: Do not hesitate to contact us. With pleasure we shall add it in this list or distribute it to the colleagues of study group D.

With best wishes,
looking forward to seeing you on Crete

Sabine Schrenk and Konrad Vössing
(schrenk-sa@netcologne.de
voessing@uni-bonn.de)

STUDY GROUP E: PRODUCTION AND TRADE

Minutes by Judit Pásztókai-Szeőke, Margarita Gleba

Spokespersons: Judit Pasztokai-Szeőke, Margarita Gleba

Participants: Margarita, Judit Pásztókai-Szeőke, Benjamí Costa, Kerstin Droß, Karina Grömer, Berit Hildebrandt, Christophe Moulherat, Susan Möller-Wiering, Katerina Panagopoulou

Group E members not present at the meeting: Zsolt Bernert (associate, Hungary), Lena Larsson Lovén (associate, Sweden), Mónika Merczi (associate, Hungary), Annette Paetz gen. Schieck (partner, Germany) Ivan Radman-Livaja (associate, Croatia), Enikő Sipos (associate, Hungary), Annemarie Stauffer (partner, Germany)

Study Group E was established at the 2nd General Meeting on 19 May 2008 in Copenhagen, Denmark. The meeting started with a short presentation of Study Group E by the spokespersons and individual presentations of all present participants.

The group agreed on the following points:

- The **key-words** for the group include but are not limited to: Identity, technology, know-how, trade, exchange, distribution, trade routes, commodities, luxury, producers, traders, consumers, economy, production
- The **general description** of the group remains: The great mobility and the vast exchange of subsistence and luxury goods within the borders of the Roman Empire and beyond is a firmly known subject, but the importance of textiles has been underestimated. The origin of fibres reveals the trade of textiles and raw materials over large distances throughout the Roman Empire. It makes it possible to determine special regional production which may have formed central parts of the regional economy, it is also possible to locate production centres and to get information on the organisation and infrastructure of production and trade even in large scale co-operations, and we are able to trace the idea of copying foreign techniques and motives by using regionally common facilities. This study-group focuses on the technology and organisation of textile production and exchange networks as well as on the producers, traders and consumers of textiles.
- Due to the specific nature of the individual projects and, at the same time, gaps in the expertise in specific areas of economic history, the following **sub-project** for the group as a whole was proposed by the spokespersons and accepted by the participants:

Work and Identity: The agents of textile production and exchange in the Roman period

During 2008–2010, this study group will approach the 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 organized; 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.

Outcome: a volume co-written by the Study Group E participants, edited by Margarita Gleba and Judit Pásztókai-Szeőke. The volume will explore the various sources, methods and approaches of investigating the identity of textile producers, traders and consumers in the Roman world and beyond.

Timeline:

June 2009 One day open workshop at the 4th general meeting in Hallstatt, where participants will present their work on the topic. Key-note speaker will be invited, who will contribute to the introduction for the volume.

Summer 2009 Editors will apply for funding for the publication.

1 October 2009 Corrected manuscripts due.

Oct. 2009-March 2010 Editing.

1 April 2010 Manuscript submitted to press.

- Further participants may be invited to participate in the Group E Work and Identity sub-project, if deemed relevant and important to increase the breadth of the investigation.
- It was furthermore agreed that there is a need for Creation of running resources database of references on specific materials with particular reference to their importance as trade and/or luxury goods, such as: silk, cotton, gold thread, cashmere wool, camel wool, horse hair, etc. The goal is to collect references to finds containing the specified materials and to create a running database of these resources. This activity will be coordinated and carried out in collaboration with Study Group 3.
- The next meeting of the Study Group E will be at the 4th general meeting in Hallstatt.

Projects included in Study Group E to date

1. Dr. Margarita Gleba

Research Programme Manager, Centre for Textile Research, University of Copenhagen
102 Njalsgade, 2100 Copenhagen S, Denmark

Title: Textile Production in Pre-Roman Italy

Description: An understanding of the development of textile production in pre-Roman Italy is crucial to any attempt to set textile technology in its social, economic and historical context. The goal of the project is to provide a starting point for a more comprehensive consideration of textile production as an important and integral part of the ancient Italian economy. Among the various sources of evidence for the study of textile production, archaeological material is the most direct as it documents the process through tools, installations, raw materials and finished products. The surviving textiles and the great quantity of implements associated with textile manufacture can be used to study the craft and its technological and economic aspects. By reference to other, secondary, sources of information, namely the representational material, ancient literature, experimental archaeology and ethnography, it is then possible to reconstruct the sequence of production processes involved in textile manufacture. Such analyses offer historical perspective on ancient Italian society, ethnic and political relationships, and exchange and commerce across the Mediterranean basin and Europe.

The research on textiles and textile implements in pre-Roman Italy is still in its embryonic state. The project aims to fill a significant gap in studies of ancient Italian technology and to place textile production among other crafts, such as metal and pottery manufacture in order to insure more balanced assessment of ancient economy in future scholarship. Craft specialization, workshop production, labour division and gender are examined in the case of textile manufacture in pre-Roman Italy. More specifically, the study aims to answer the questions of what were the geographical and chronological variations in textile work as evidenced by differences in textile implements and how these technologies were transmitted between different geographical areas. In addition to the relevant theoretical considerations, the project will also contribute to future research methodologically in its focus on of implements, as opposed to raw materials, finished products or waste products, to study technology and production, also during Roman period.

Timeline: May-July 2008 (completing the publication)

Methods: Morphological study of archaeological textiles and textile tools; synthesis of published material

Outcome: book *Textile production in pre-Roman Italy* (Oxbow Books, 2008)

2. Judit Pásztoókai-Szeőke, Ph.D-candidate

Centre for Textile Research, University of Copenhagen, 102 Njalsgade, 2300 Copenhagen S, Denmark;
University of Aarhus, Nordre Ringgade 1. DK-8000 Aarhus C, Denmark

Title: Textile Production in Pannonia

Description: Textiles have always been an important part of people's lives, from the cradle to the grave. Textiles are delicate and perishable materials and when textile remains are found in archaeological contexts they are, with few exceptions, very small in most areas of the former Roman Empire, thus the manufacture of textiles in the Roman world is not adequately reflected by the number and state of preservation of archaeological textiles. In order to get a more detailed picture of Roman textile products, the process of manufacture, the labour involved in the production etc., we must also rely on other sources which in diverse ways can contribute to our knowledge of this field. By using various kinds of source

material, a more complex picture of Roman textile manufacture can be created, although the information in each source must be carefully examined.

The project is fundamentally based on two groups of archaeological evidence: the textile finds (remains of the end-products manufactured locally or elsewhere within or beyond the borders of the Roman empire), and the textile tools (evidence of the locally executed practical work). The term textile production is used here to denote the preparation of raw material and the manufacture of textiles.

The archaeological evidence forming the base of this study originates from the area of the two ancient Roman provinces of *Pannonia Superior* and *Inferior*, more exactly from the territory of *Savaria* and *Aquincum* and furthermore from the excavations of the building I in *Gorsium*. The associated span of time is not restricted only to the Roman Period, but the investigation is extended to the material culture of the antecedent Late Iron Age. The main focus of the research project is the interpretive possibilities of the archaeological evidence for the technology, organization of the local textile production. The general aim is to place Pannonian textile production and the need for textiles in a local, regional and imperial context on the basis of the archaeological evidence and to outline the technological, economical aspects as well as social dimensions of the local Roman textile manufacturing. This research project would be also an important gap-filling step toward the better understanding of the changes and progress in textile production and trade of the Carpathian Basin from the very beginning to our era.

Timeline: 20th May, 2008-31st March, 2009

Methods: Interpretation relies on the data registered in the Textile Tools Database of the Danish National Research Foundation's Centre for Textile Research, Copenhagen.

Outcome: not yet decided

3. Ivan Radman-Livaja

Curator, Archaeological Museum Zagreb, Greek and Roman Department

Zrinjevac 19, 10000 Zagreb, Croatia

Ph. D. candidate, Ecole Pratique des Hautes Etudes, Section des Sciences historiques et philologiques

46, rue de Lille, 75007 Paris, France

Title: Roman commercial lead tags from Siscia

Description: There are over 1100 Roman lead tags kept in the holdings of the Zagreb Archaeological Museum, all of them found during the dredging of the Kupa river in the centre of the city of Sisak, formerly a Roman town called Siscia. The study of these tags has been underway for the past several years and it would seem that almost all of them are connected to the textile industry and trade of that large Roman provincial town. Those lead tags were made following an identical pattern: all of them are small rectangular plaques pierced with a small hole in order to allow them to be attached to the merchandise and with incised inscriptions on both sides. Usually, one side contains the names of individuals while the other side displays the data about the merchandise (such as type, colour, weight, price, etc...). The inscriptions are all in the so called *capitalis cursiva*, i.e. the everyday script used by the Romans.

The study of those tags is important from several aspects: it gives us an insight into the lives of the inhabitants of Siscia, who were somehow connected to the textile industry as well as information about the type and extent of textile production and trade in Siscia.

A computer database of those lead tags has been done recently and the current research is concentrating on the onomastics, the status and role of the individuals mentioned on the tags (Roman citizens or peregrines, free men or slaves, producers and traders or customers and commissioners) as well as the services, deals and types of production which required the use of such tags (trade in unprocessed wool, finished clothing items production and trade, fulling, dyeing and cleaning).

By recovering all the available evidence that could be provided by those tags, we might learn a lot about some aspects of the economical life of a Roman provincial town, as well as about its inhabitants. As far as textiles are concerned, we could learn the prices for a given item or service, which people were mostly involved in that trade, who the customers mainly were, what items or services were the most wanted in a given time, as well as the extent of textile production and trade in that part of Pannonia.

Timeline: February 1st, 2008 – 31st March 2010

Methods: Study, translation and interpretation of the inscriptions incised on the lead tags

Outcome: The project will be published as a monograph

4. Dr. Karina Grömer

Naturhistorisches Museum Wien, Burggring 7, A-1010 Vienna, Austria

Title: Development of textile production from pre-roman to roman period in Austria

Description: For the understanding of textile technology in the Roman Period till 500 AD in Austria it is necessary to know the basics of textile production of the Austrian Iron Age.

The comparison of the textiles in case of spinning and weaving techniques can show the technical development of the handicraft – tradition, innovation, influences and imports from other regions.

To specify the nature of the roman textiles in Austria, whose research is the aim of the planned project, it is necessary to give an overview of the numerous and well-preserved Iron Age textiles, namely from the salt-mines at Hallstatt and Dürrnberg. At Hallstatt we know due to the impregnation with salt excellent preserved textiles covering a time-span from 16th to 4th century BC more than 550 single fragments. The analysis comprises dyestuffs, textile techniques, development of production and the different functions of textiles in prehistoric times. From Latène Period Dürrnberg salt-mines we know more than 600 textiles. Beside that Iron age grave finds can be used as reference material.

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 even that even unpublished material can be included to the project.

To the textiles itself as sources for knowledge about textile production information about textile tools together with their archaeological evidence is added - from Iron Age, Roman Period and beyond.

Timeline: 2007-2010

Methods: Collecting data from textiles and tools in Iron Age and Roman Austria. Textile analysis within the project, information about tools and archaeological evidence mainly from published sources and from the latest excavations of the Cultural Heritage Department

Outcome: Short articles about the different sites will be published in Austrian books in german (Archäologie Österreichs, Fundberichte aus Österreich...), synthesis of the results in english (for Prehistory in CTR publications, Roman Period synthesis about 2010)

5. Kerstin Droß

PhD candidate, Seminar für Alte Geschichte, Philipps-Universität Marburg, Germany

Title: Textile industry in Roman Egypt/*Textilwirtschaft im Römischen Ägypten*

Description: This projects aims, in the course of a doctoral theses, at looking at the Roman textile industry, particularly the distribution and production of clothing by way of example of the province Egypt from the first to the third century A.D. Egypt is a suitable region for such an analysis due to the availability of a large number of ancient papyri concerning economic aspects such as tax receipts or work and labour contracts. Regardless of the abundance of the available data, a comprehensive and updated study on the Egyptian textile industry and its economic aspects in Roman times is till today a desideratum for research.

Im Rahmen der Dissertation soll die römische Textilwirtschaft des 1.–3. Jh. n.Chr. untersucht werden, wobei die Provinz Ägypten als Paradigma für das Imperium Romanum dienen soll, da sie sich für eine detaillierte Untersuchung dieses Wirtschaftszweiges auf Grund außerordentlich günstiger Überlieferungsbedingungen besonders anbietet. Ungeachtet der besonderen Überlieferungssituation und der Fülle des vorhandenen papyrologischen wie archäologischen Materials liegt bislang keine umfassende Monographie über die Textilindustrie des römischen Ägyptens vor.

Timeline: Oct. 2007 - Sept. 2009.

Methods: Collection and interpretation of printed editions of papyri, as well as common papyrological databases concerning the textile industry in Roman Egypt.

Outcome: The project will be published as a book.

6. Dr. Susan Möller-Wiering

Centre for Textile Research, University of Copenhagen, 102 Njalsgade, 2100 Copenhagen S, Denmark

Title: Textiles for War

Description: Ever since man had learned to make fabrics out of fibers, textiles have played an important role in all fields of daily life. In Iron Age Denmark, two types of sources shed light on every day costumes and on the textiles chosen for death and perhaps for the next world: the bog bodies and the graves. In both these types of sources, the textile finds are connected to human remains.

Another side of life always present during that period was war. The weapon deposits in bogs, the best

known of which are Illerup Ådal, Nydam and Thorsberg in Jutland and Vimose on Funen, contained thousands of weapons and other objects. The results of the thorough investigations of these metal objects form the basis for reconstructions not only of weaponry but of the structures of the armies, of strategies for war and of sacrifices for the gods.

It is less well known that these four deposits also contain collections of textiles. The textiles are now mostly mineralized through the contact with the metals. In contrast to textiles from bogs and graves, the textiles were placed in weapon deposits together with weaponry, but without contact with human bodies. So far, only the textiles from Thorsberg have been published, and these publications are very incomplete and out of date. The aim of the present project is to propose a joint analysis of the textiles from all four weapon deposits at Illerup Ådal, Nydam, Thorsberg and Vimose. The focus is to view these textiles together, not only as finds belonging to specific locations but as a complex of their own: as *Textiles for War*.

Timeline: Feb 2007 - June 2008

Methods: Macroscopic and microscopic analyses of archaeological of archaeological textiles, fibre analyses, context analysis, comparative analysis

Outcome: The project will be published as a book.

7. Enikő Sipos and Prof. Dr. Annemarie Stauffer

Budapest, Nationalmuseum, ...

University of Cologne, CICS, Ubierring 40, D-50678 Köln

Title: Late Roman Textiles from Iovia (Hungary)

Description: Iovia was a Roman Fort at the Limes in southern Hungary. In a tomb dated to the end of the 4th century two bodies of a couple were found. The bodies of the man and woman were wrapped in different types of textiles, among them fine silk (scutulatum silk), linen fragments of different density and very fine silk interwoven with purplish blue wool and gold. The textiles are partially impregnated with oils and balms. The finds from Iovia are of outmost interest showing close parallels to textiles found in Syria especially in Palmyra. A profound analyses of fibre materials, dyestuffs, goldthreads and embalming substances will be the starting point of further research in a broader context. The data will make it possible to compare the textile finds from Iovia with other similar finds from late Roman time found in Syria and in Europe (Naintré, Köln, Conthey). Thus we hope to get more inside into trade with luxury textiles in Roman times.

Timeline: 2008-2012

Methods: Material analyses, fibre analyses, dyestuff analyses (KIKIRPA group C), DTA spectroscopy oils and balms, analyses of metal threads, analyses of weaving structure, comparisons with other finds

Outcome: not yet decided

8. Judit Pásztókai-Szeőke, Mónika Merczi and Dr. Zsolt Bernert

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2. Ph.D-candidate, Department of Archaeology, Balassa Bálint Museum, H-2500 Esztergom, Mindszenti tér 5, Hungary

3. Department of Anthropology, Hungarian Natural History Museum, H-1083 Budapest, Ludovika tér 2, Hungary

Title: Curry-comb or toothed weft-beater? How to identify the function of those serrated iron tools from Pannonia

Description: Functional identification of tools from archaeological context is never an easy task for the researchers of past time technologies. Some basic implements are very long-lived, but only the formal similarities of these ancient objects to present-day ethnographical items could mislead the interpretation of their function.

One of the aims of this project is to specify the function of a certain iron objects known from Roman Pannonia. Our claim is that the focus on the archaeological context they are from and on the human handling of them would lead to a more unambiguous functional identification.

Up to now at least 26 iron objects of the same type are known among the archaeological finds from the territory of Roman province Pannonia which are elongated rectangular iron blades with the length of 16-29cm, serrated with small teeth on one of their longer sides and having an iron prong for the handle in a

right or an obtuse angle in the middle of the other. Usually at each corners of this latter side, they have one wavy prong bended back to the blade with a ring hanging on them. Opposed to the generally accepted opinions identifying them as scrapers for hides or curry-combs used for horse-grooming, their use as textile tools, namely toothed weft-beaters used for passing the weft thread into its place while working on a two-beam vertical loom is more probable. This opinion is based on ethnographical parallels from Hungary and from other present-day territory of the former Roman Empire where a similar object was in use for weaving sacks and tent-coverings on the two-beam vertical loom.

During the first part of this project cataloguing of these particular iron objects from Pannonia and from other Roman provinces is basic as well as of the parallels from later period (archaeological finds and ethnographical items), too. It is followed by the analysis and functional interpretation based on their morphological characteristics and archaeological context.

The second part of the project has a focus on the human handling of this particular iron object. This part is a work in collaboration with an anthropologist and based on the funeral evidence offering an opportunity to investigate the relationship between people and objects. Its aim is to elucidate if there are activity markers (for horse-grooming or weft-beating activity) in the skeletal material.

The materiality of the human body is not given and immutable, it can be understood as the material outcomes of human plasticity at a given point in time. The mechanical load - e.g. repetitive motions integrated into a technical gesture of occupational activities - applied to living bone influences the structure of bone tissue, in terms of both morphology and density. Since objects are involved in skills performed by the body, and similar objects used for different technical gestures require different skills, this leads to different kinds of influences on the body.

Skeletal markers of occupational stress are well described in the sports medicine and occupational pathology literature, which examined activity-related change in skeletal samples with varying degrees of success using musculoskeletal stress markers, morphological articular modifications, directional asymmetry, cross-sectional geometry of bone, and pathological lesions, the latter including degenerative changes to joints and trauma (Sofaer 2007).

Timeline: From the end of 2009 to 2012. (a pilot study would take place during the end of 2009, than depending on the results an extended research would follow it till the end of 2012.)

Methods: Following the parallel running archaeological and osteological-pathological research an interdisciplinary dialogue between anthropologists-osteologists and archaeologists

Outcome: Not yet decided.

9. Dr. Berit Hildebrandt

Alte Geschichte, Historisches Seminar, Universität Hannover, Im Moore 21, D - 30167 Hannover

Title: Silk textile production and trade in written sources; production and trade of fine textiles other than silk in written sources; interpretation of the results in comparison with archaeological finds

Description: Study of written sources, about silk and other fine textiles, their production and trade; comparison with archaeological material

Timeline: Silk: 1 year research about written sources; work in progress: collection of written sources about other fine textiles, archaeological material (textile-finds, depiction of textiles)

Methods: Evaluation of written sources, esp. historical background, questions of chronology etc., archaeological sources: problems of „Darstellungsweisen“/ways of representation in Greek and Roman art; textile finds: questions of defining organic material

Outcome: Production of silk: B. Hildebrandt, Am seidenen Faden. Die Herstellung von Seide in der Antike, in: K. Brodersen et al. (ed.), Die Schätze der Erde. Natürliche Ressourcen in der antiken Welt (in preparation); silk as a prestige good in antiquity: B. Hildebrandt, Seide als Prestigegut in der Antike, in: B. Hildebrandt – C. Veit (ed.), Der Wert der Dinge. Güter im Prestigediskurs (to be published Munich 2008).

10. Dr. Annette Paetz gen. Schieck

Curt-Engelhorn-Stiftung für die Reiss-Engelhorn-Museen

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Title: Textile Production in Late Antique Egyptian Monasteries

Description: Various archaeological sources are to be analysed and interpreted in order to achieve a broad view on Late Antique Egyptian Monasteries and their economic structures. The dwellings where nuns and monks lived and operated will be investigated and their graffiti analysed. Written sources will be

questioned, interpreted and confronted to the archaeological finds from the ruins of the monasteries, like tools and original textiles, as well as the preserved mummies and burials of the monastic graveyards.

The investigation aims at reconstructing the system of textile production as one branch of economic activity of the monasteries and their federations. Three aspects will be focussed on:

First, the production for internal needs will be analysed according to the monastic rules and dress-codes of Pachom set up for the cult and rituals of the religious community.

Second, the organisation, division, and specialisation of labour within a monastery and a monastic federation will be examined, and the system of exchanging goods will be analysed.

Third, the sources are questioned concerning the mercantile aspects of production and trade with an extern market. The purchase of raw materials, the sale of finished textile products, the geographical range of trade, as well as the question, if there has been a production of goods specially designed for the extern market, will be explored.

Timeline: 2008 – 2012

Methods: Analysis of various archaeological and written sources.

Outcome: Article in a scientific magazine or within the publication of the papers given at the meeting at Bonn in 2009.