Book of **Abstracts**

UrbNet centre day with presentations

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UrbNet
CENTRE FOR URBAN NETWORK EVOLUTIONS
The Danish National Research Foundation

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Abstracts

The Doliche Urban Excavation project: State of affairs and future prospects

Michael Blömer (Assistant professor, Aarhus University)
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The Northern Levant is frequently referred to as a key region for our understanding of important trajectories of ancient urbanism, but our knowledge about cities and their biographies in this area is actually very limited and so far few attempts have been undertaken to explore single sites in a comprehensive and holistic way. The Doliche urban excavation project which I am co-directing has been launched in 2015 to change this and to shed new light on the development of cities in the region based on an emic approach and on high definition archaeology. Doliche was city of ancient Northern Syria, which is located in Turkey today, and offers good conditions for archaeological research. However, due to unfortunate political circumstances, no permit was issued by the Turkish authorities for excavations in 2016. Therefore, most of the activities planned for this year could not be put into practice. Nonetheless, it was possible to do a geophysical survey in some areas of Doliche. In my talk I will on the one hand present the results of this survey as well as some new observations about the site and its setting. On the other hand, I briefly want to discuss some new assumptions about Doliche and urbanism in North Syria. Finally I will give an outlook to the work planned for 2017.

Gerasa: Mortars matter!

Kristine Thomsen (PhD student, Aarhus University)
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The Romans were exceptional engineers and were able to create long-lasting lime-based mortars, plasters, concretes and cements. These materials were very visible in the Roman cityscape from Britannia to the Levant and still are to this day. The material was abundantly used for water channels, dams, cisterns, free-standing structures, decorations and for covering facades of monuments and crumbling grains. These materials are often stored away when excavated, which is a pity since it is such a large and crucial part of the urban developments all over the Roman Empire. The starting point for this project is Roman building materials and techniques in Gerasa, Jordan, from the Late Roman period to the Mamluk period. Gerasa has yielded large amounts of mortars, plasters and concretes from different periods – some still in situ. The present study will investigate the chemical compositions of these materials and cross-reference them over time as well as putting the results into the archaeological context.

Ceramics in Context 2.0: Reviews and new perspectives

Heike Möller (Assistant professor, Aarhus University)
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The Ceramics in Context Project is in its second year now, and it is time to sum up what has been done so far, introducing new results and discussing further perspectives. Dealing with the Roman to Early Islamic Pottery in Jerash, ancient Gerasa, in the framework of the Danish-German Jerash Northwest Quarter Project, I will give an overview of the basic work that has been done during the last year, including typo-chronological aspects of pottery sequences and fabric analyses from ceramic of closed contexts. Further first results of our archaeometric studies will be presented, done in collaboration with Stephen Merkel and Michael Prange (Bergbaumuseum Bochum). The second part of this presentation will focus on some general aspects and further perspectives on the study of pottery production and trade-relations on local/regional ceramics and also beyond: on imported finds and therefore exchange patterns on supra-regional levels.

An urban way of life: Urban practices, networks and identities in Odense, 1100-1500 CE

Kirstine Haase (PhD student, Aarhus University)
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My project is based on recent excavations of almost an entire block in the medieval town centre of Odense, older excavations and written sources related to medieval Odense. I will study the urban way of life in Odense from the 12th to 16th century.

Central research questions

- What characterises the social practices of the town?
- How are the networks of the town manifested?
- How are identities of the urban communities expressed in the material culture?

Social practices are seen as defining town life. They are expressed through the material culture as settlement patterns, use of resources, waste management and use of public and private space. Also, *networks* related to the town are of significance. Networks have played a crucial role in shaping the town and its people, as they have facilitated an exchange of material culture, practices and norms. Imported artefacts and their biographies will be used to shed light on the networks of medieval Odense. Furthermore, the inhabitants and visitors that peopled the town are key elements in understanding the urban way of life. Who were they, and what defined them? The vast and well-preserved material from Odense holds the potential to study the identities of the various communities (formal or informal) in the town – such as women, children, merchants, craftsmen etc. By combination of a contextual approach and scientific analyses, the project aims at establishing a new archaeological research approach to urbanity.

Fur and skin trade in Viking and medieval Denmark

Luise Ørsted Brandt (Assistant professor, Aarhus University)
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Observers writing in the tenth to the sixteenth century describe fur as a central commodity in Viking and medieval towns and as a valued and demanded product amongst the upper classes. Fur trade has, however, been difficult to prove archaeologically, as its organic nature leads to rapid degradation. In cases where fur has survived, its species has been determined by microscopy of its fibres and used to investigate if its origin was local and corresponded with the species mentioned in written sources. Brandt et al. 2014, however, showed that microscopy can provide inconsistent species identifications on archaeological fibres while identifications by proteomics methods are more reliable. This paper presents work in progress of the project 'Fur and skin trade in Viking and medieval Denmark': the so far selected Viking fur materials from Denmark as well as discusses the methods chosen for species identification, aDNA, ZooMS and LC-MS/MS and tracing provenience, Sr and O. The analysis will contribute significantly with new knowledge to Viking Period utilisation of fur and animal skin, preferences, and fur trade.

Towards the making of a town: A study of urbanity as practice and lifeform in medieval Copenhagen

Hanna Dahlström (PhD student, Aarhus University)
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The main aim of my PhD project is to analyse the early urban development of Copenhagen from *c.* 1050 to *c.* 1300 through a view of urbanity as social practice. The first steps towards the established town are very much unknown but important in understanding the inception of an urban way of life. Recent years' excavations at the Town Hall Square in central Copenhagen have produced material evidence which gives new insight into the early phases of the settlement. In my project, I analyse the new material from the hypothesis that an urban place can and should be studied through the practices undertaken by the people active in the town. By doing so, information about activities, agents and networks important during the early urbanisation process will come to light. In this presentation, I will give an outline of my project, focusing on some theoretical and methodological considerations as well as some preliminary results.

Ceramics in Context: Pottery of a Middle Islamic hamlet in the Northwest Quarter of Jerash

Alex Peterson (PhD student, Aarhus University)
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Scholars researching the ancient city of Gerasa, modern day Jerash in Jordan, have typically focused on settlement patterns along its main street and/or on the city's development during antiquity. This paper discusses how recent excavations in the Northwest Quarter of Jerash have contributed to the understanding of the Middle Islamic period, which in this area is much better represented than previously thought. Past campaigns have documented an extensive Middle Islamic building complex across the hilltop of the Northwest Quarter. The architectural layout and the extensive construction effort suggest that the complex must have been the product of a sizable community. This activity is reflected in the material culture through handmade geometric painted ware (HMGP) and other Middle Islamic ceramic forms, both locally made and imported. The research presented is a work in progress and part of a PhD research effort with the *Ceramics in Context Project*, which is embedded within a larger excavation initiative called the *Danish-German NW Quarter Project*. Beyond technology and form, the ceramic material also reflects clues on daily life, social networks and human action in the past. By analysing the ceramics both empirically and contextually, this project aims to better understand the settlement history in the Northwest Quarter of Jerash during this less well understood period of Islamic settlement in Jordan.

Geoarchaeology of African urban landscapes

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In Africa, urbanism has deep historical roots from the Christian kingdom of late antique Ethiopia and the medieval emporia of the Swahili coast to the precolonial states of southern Zambezia. Across diverse environments, African urbanism has taken different pathways and forms. A long tradition of archaeological research has produced a great deal of information on the materiality of African urbanism—from monumental architecture and craft production to trading commodities. Yet, fundamental questions concerning urban dynamics, the use of space, food security, and resilience to climatic, environmental, social, and economic change remain poorly understood. One way to move research forward is by applying integrated geoarchaeological approaches and methods. In this paper, I will draw from recent and ongoing research to illustrate the application of geoarchaeology to address two specific topics: 1) urban crises and resilience at Aksum and Great Zimbabwe; 2) urban space at Songo Mnara. Building on and expanding from these case studies, current research at UrbNet is now developing new conceptual and methodological approaches to investigate urban transitions in the Zanzibar archipelago.

Trade, import, and urban development in medieval Denmark

Neeke Hammers (PhD student, Aarhus University)
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The PhD project *Trade, Import, and Urban Development* aims to integrate archaeobotanical data with isotope studies and contextual analyses to reconstruct patterns in food economy and trade networks in medieval Denmark. The archaeological excavations at Thomas B. Thrigesgade form the main body of data for this project. The high research intensity of the city excavation provides an opportunity for a high definition analysis of spatial and temporal changes in the botanical assemblages. The archaeobotanical data from Thomas B. Thrigesgade will be compared to available botanical data from other medieval sites in Denmark (1000-1550) to establish how the development at Thomas B. Thrigesgade can be compared to general spatial and temporal trends in Denmark. In addition to archaeobotanical analysis, the material will be subjected to isotope analysis to assess the provenance of economic plant remains. Combining archaeobotanical analyses with isotope based provenance studies can be of interest for the interpretation of subsistence strategies within urban contexts, as well as the assessment of potential local and international trade networks.

Material people in a material world, part I: provenance and connected materials

Thomas Birch (Assistant professor, Aarhus University)
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This talk aims to highlight the potential of materials-based approaches in archaeology to answering well-defined research questions, illustrated using different examples. Archaeometry, or the study of archaeological materials, tends towards the same key themes: provenancing, organisation, technological practices, as well as continuity and change through time. This joint presentation (see Material people in a material world, part II: Workshops, organisation and identity) will focus on the origins of materials and artefacts, as well as how they are connected and socially embedded. Two case studies will focus on the complex movement and supply of iron in Northern Europe, during both the Late Roman/Early Germanic Iron Age and late medieval period, revealing the social importance of standardised products and centralised manufacture. Another case study will address choices made minting some of the earliest silver coinage systems in the Western Mediterranean. The last case study will briefly look at the significance of clay in Iceland's early metallurgy. Finally, some thoughts and plans for UrbNet project collaborations presented will be up for discussion.

Urbanisation and commercialisation in the far north

Olav Elias Gundersen (PhD student, Aarhus University)
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The aim of my project is to present a new take on what has often been a mostly theoretically driven discussion on the role of towns in the commercialisation of medieval society. I will approach the subject by looking at a large body of material that has been unearthed in the last couple of years but not considered comprehensively in the discussion, namely coins. A wide period, from 1000–1450, and a large geographical area, Scandinavia, has been chosen, so that underlying trends are easier to spot. The study will primarily consist of correlating the emergence of medieval towns with the numismatic material and will hopefully reveal much more about what the urbanisation and commercialisation process actually was, who were able to partake in it, and when did it actually occur. The goal is to test the numismatic material up against other material – archaeological and written – and to use this to frame new, fruitful questions on the nature of urbanisation and commercialisation. In this presentation, I will focus on the theoretical background of my project and the approach to the material I have decided upon, in addition to presenting some preliminary finds.

Urban geoarchaeology of Jerash

Genevieve Holdridge (postdoc, Aarhus University)
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Archaeological excavations of urban sites in the Mediterranean have a long history, and more recent geoarchaeological landscape studies have provided much needed insight on city surroundings. However, the study of soils and sediments on-site, and the interaction of processes on- and off-site have the potential to provide a more in-depth understanding of the resilience and sustainability of cities. These studies will also inform on both the beneficial and adverse environmental impacts of these urban centers. The present city of Jerash is the location of one of the major Roman urban centers of the Syrian Decapolis. The city was continuously occupied from the Roman period to the Ummayad period in the 8th century AD. The long-history of the city was partially enabled by food and water security, which is often overlooked in urban archaeology. It appears that the Romans initially developed a well-organized water management system, though it is unclear how it functioned and how it affected the local wadi system. In addition, it is not clear how the city was supplied with food and how this changed over time. For instance, was food supplied only by trade? Or does local agriculture such as urban gardens or local rural farms have a substantial role in the city's longevity? Furthermore, how did on- and off-site land use impact the surrounding landscape and fluvial system?

In order to tackle sustainability, resilience and degradation in an urban setting, it requires both on- and off-site geoarchaeological and geomorphological studies at various spatial and temporal scales. I will present some of the various techniques that we use in attempt to unravel these issues. In sum, we have examined both on- and off-site urban stratigraphy, and are currently analyzing the sediments and soils from both a landscape scale and an intra-site scale. These studies will help to determine land use and use of space, and their local and regional environmental impact. We have also applied both relative and absolute dating techniques (i.e., OSL and radiocarbon dating) to constrain short-term events, and better understand long-term change.

East-African pyro-technological processes and networks in 7th-10th centuries AD

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The PhD project focuses on East African contexts and is designed to address the questions of connectivity and networks via the study of byproducts of archaeometallurgical processes. A range of high-resolution laboratory techniques will be employed to investigate chemical, mineralogical and isotopic composition of iron smelting and smithing debris in order to make conclusions about raw materials, technological processes for carrying out comparisons across different sites and evaluate the extent to which technologies are comparable. The research incorporates a range of sites, including Dakawa in mainland Tanzania, Kilwa Nguruni on the island of Kilwa and Shanga in the Lamu archipelago in Kenya, Unguja Ukuu, Fukuchani, Mkokotoni in Zanzibar Island, and Tumbe in Pemba Island. The results of the analyses will be used to reverse engineer the manufacturing technologies, answer questions about production standardization and efficiency.

Material people in a material world, part II: Workshops, organisation and identity

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The interdisciplinary field of archaeometry brings together scholars from a wide range of scientific disciplines. At the same time, the analytical examination of archaeological materials is currently an ever integrated aspect of archaeological practice. This presentation, as part of a joint effort (see Material people in a material world, part I: Provenance and connected materials), aims to discuss how cultural-historical questions in various archaeological contexts can be addressed by the scientific analysis of past technologies, their products and by-products. A selection of case studies of archaeometallurgical nature, i.e. examination of ancient metals and metallurgical ceramics, will be discussed in order to exemplify the above. Case studies will cover a range of periods and geographical regions including the eastern Mediterranean and the Persian world from the protohistoric to the Byzantine and Islamic periods. Amongst the main themes addressed will be a) the exploration of workshops seen as not only spatially defined but rather as embodying certain technological traditions, b) the social embeddedness of the technological practice, and c) expressions of individual and collective identity as depicted in the production and use of the metallurgical output, namely the end-products. Technology and metallurgy, in particular, have been amongst the defining elements of past communities and their investigation holds worth-exploring potentials for the comprehensive understanding and interpretation of past peoples' lives.

Grasping urbanisation and defining urbanity in Roman Moesia: The case of Viminacium

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Aerial photograph taken in 1996 of Viminacium's major known settlement areas – the legionary camp and the canabae legionis – next to the ancient course of the Mlava still visible in the terrain and the thermo power plant Kostolac B.

Working on urbanism in the Roman province of Moesia (Superior, Inferior) covering large parts of modern Serbia, Kosovo and Bulgaria as well as small parts of Macedonia and Romania is a challenging task. The amount of available data on urban or possibly urban settlements is very limited due to late antique, medieval or modern occupation of sites and very fragmented archaeological research. The data we actually have seem to point towards comparatively late and slow urbanisation processes of small scale and influence. The lack of supposedly typical Roman city features at many sites has led to questioning the denomination of settlements as cities and the existence of a defined urban landscape in Moesia per se. My PhD now tries to get a hold of this problem by addressing 30 settlements throughout Moesia that might be called urban in order to rephrase criteria for urbanisation processes and urbanity definitions in this part of the Roman Empire. In doing so, I view urbanity as social practice performed on a local scale and urbanisation as a self-processing system of growth of settlement space, population and/or importance directed by and also constantly generating developmental factors for economic and social agglomerative potential. In the course of this year's UrbNet centre day, this approach will be exemplified by presenting and discussing one of the Moesian settlements in question of urban status to give an overview over common problems of research and possibilities to solve or rethink them. For this, Viminacium has been chosen, since it is best suitable to depict both problems and the potential of urban research in Moesia.