

# UrbNet Annual Report 2021

A Centre of Excellence funded by  
the Danish National Research Foundation

Hosted by Aarhus University



## UrbNet Mission Statement

Centre for Urban Network Evolutions (UrbNet) explores the archaeology and history of urban societies and their networks from the Ancient Mediterranean to medieval Northern Europe and to the Indian Ocean World.

We are an interdisciplinary research initiative, which integrates new methods from contextual cultural studies rooted in the humanities with the natural sciences.

Approaching urbanism as a network dynamic, we aim to develop a high-definition archaeology to determine how urban networks catalysed societal and environmental expansions and crises in the past.



*Group photo from the UrbNet retreat at Sandbjerg Manor, 18–20 October 2021.*

# Table of Contents

Greetings from the Director .....	4
<b>Staff</b>	
Senior core group (dissoved in August 2021) .....	6
Associate professors .....	8
Assistant professors/postdocs .....	8
PhD students .....	10
Research assistants .....	11
Visiting researchers.....	12
Administrative employees .....	13
Research affiliates.....	14
Student assistants.....	14
<b>UrbNet Highlights 2021</b>	
Sharing Primary Source Data for the Study of Palmyra's Archaeology and History .....	16
Exploring Urban Sustainability in Roman Palmyra through Archaeological Big Data .....	18
Sustainability and Resilience: Palmyra's Hinterland Study .....	19
How Low Can You Go: Sampling Density and New Tools for Indoor Archaeological Investigations .....	20
Exchange and Reuse: Economy and Circularity at Palmyra .....	22
Award-Winning Paper Reveals Urban Amulet Production in Viking-Age Ribe .....	23
How Metalwork Craft and Expertise Evolved in Viking-Age Towns .....	24
The Archaeology of Seasonality and High-Definition Archaeology: Towards a Paradigm Shift .....	25
Regional Shipping: The Case of Viking, Medieval and Early Modern Schleswig .....	26
MINERVA: Understanding the Centuries-Long Functioning of the Roman Economy .....	27
Research Activities at Machkhomeri, Georgia .....	28
Søren M. Sindbæk Appointed Professor of Medieval Archaeology.....	29
Lecture Series by Visiting Professor Christopher H. Hallett.....	29
The Connected Past: Artefactual Intelligence .....	30
Rubina Raja Receives Queen Margrethe II's Roman Prize .....	30
The 1001 Faces of Palmyra.....	31
Two New Volumes of Journal of Urban Archaeology .....	31
Research Stay in a Hybrid World .....	32
Anomalocivitas: A Conference about Extraordinary and Invisible Urban Societies .....	33
<b>Events</b>	
Organisation of conferences and workshops.....	34
Invited talks.....	35
PhD courses.....	39
PhD defences / pre-defences .....	39
Other events.....	39
Public Outreach .....	40
Visitors and Virtual Lecture Participants.....	44
Collaborators .....	49
UrbNet Publications 2021.....	52

## Greetings from the Director



It is with great pleasure that I present to you the 2021 UrbNet annual report. Writing this opening statement is one of the highlights of my academic year, as it allows me to look back on the past year and revel in the centre's collaborative successes, achievements and other milestones worth celebrating.

This year we entered our second – and final – funding period, following a successful mid-term evaluation by the Danish National Research Foundation in 2019. In the wake of what felt like endless COVID-19 restrictions, several lockdowns and the resulting demand for activities to be adapted to a virtual format, it was an enormous relief and joy to finally be able to gather the centre members and meet in person again in late summer. With our targeted efforts to build up a physical centre presence again, things are slowly but surely re-adjusting to a normal state of affairs – at the same time reminding us that 2021 was really not business as usual at all. While it is too early to say whether – or what – we have learned from the new working experiences during COVID-19, I can say that I am immensely proud of all centre members for keeping their spirits up and their working moral high throughout more than one and a half year of varying insecurity.

### UrbNet 2.0

Having transitioned to our second round of funding, we welcomed several new employees in 2021, including six new UrbNet postdocs, who have been employed to strategically push various strands of research, both on individual projects as well as in collaborative constellations. Several of the centre's affiliated, externally funded projects have similarly recruited/extended junior researchers who play an important role in the larger UrbNet staff group.

A definite highlight of 2021 was the appointment of UrbNet Deputy Director Søren M. Sindbæk as Professor of Medieval Archaeology. Sindbæk's authority in Viking-age and medieval archaeology has earned him widespread acclaim over the years, and he is one of the absolute frontrunners of his discipline and his generation of archaeologists.

UrbNet affiliate Stephanie Wynne-Jones (University of York) was appointed Professor of Archaeology, based on her research on the archaeology of eastern Africa, with a particular focus on the material culture of the Swahili

coast and the movement and use of objects into the African interior and across the Indian Ocean.

A number of employees left the centre in 2021 after concluding their contract periods. Although we were not able to say goodbye with our usual festive farewell receptions, we sent them all off to new positions around the world with enthusiastic virtual performances and rejoice with them at the exciting new opportunities presented to them as skillful researchers and former colleagues. As centre director, I am profoundly proud of the way in which UrbNet has handled the COVID-19 crisis despite the inevitable challenges it has posed for all aspects of our working and private lives.

### PhD projects

In February, Pernille L. K. Trant obtained her PhD degree based on the dissertation *Indoor Use of a Viking Age House: Combining Geochemistry and Multi-Spectral Methods in Ribe, Denmark*. In August, Thomas S. Daugbjerg successfully defended his PhD dissertation entitled *Radiocarbon Dating of Lime Mortar*. In October, Nikoline Sauer was awarded the degree of PhD based on a dissertation entitled *An Archaeological Approach to Archaic Rome (6th–Early 5th Century BC): A Case Study of an Archaic Site in the Caesar's Forum Area*. In November, Johan S. Larsen obtained his PhD degree based on the project *The Ghosts of Archaeologies Past: Innovations, Developments, and Movements of Excavation Practices in Danish Towns*. Most of the vivas were held either in a virtual or hybrid format, which allowed not only opponents but also international guests to attend, despite not being able to travel. We have had immensely impressive PhD defence participation from all over the world – again underlining the impact that UrbNet's research agenda has beyond the centre and Denmark. Mahir Hrnjić submitted his PhD dissertation 22 November, entitled *Relinking Networks of Silver: The Archaeometry of Viking-Age Ring Ingots and Early Medieval Islamic Coinage*. His viva awaits in 2022.

In February, we welcomed the first new PhD student of UrbNet 2.0, Rhiannon Garth Jones, whose project, *Early 'Abbasid use of Graeco-Roman Traditions to Project Imperial Authority and Power: A Reassessment of the Material Culture and Written Sources*, will challenge ideas of derivative cultures and urban declines in Late

Antiquity and Early Islam. In December, we welcomed a second PhD student, Rowan English, whose project, *The North Sea, the Mediterranean, and the Indian Ocean: Using Ivory to Reveal Networks of Trade and Packages of Goods in the Early Medieval Period*, focuses on funerary archaeology of the North Sea in the 5th–7th centuries CE.

Another two PhD scholarships were advertised for enrolment (commencement date: 1 February 2022), and these scholarships were offered to Mette Lang Jansen and Derek Parrott. This concludes the hiring of core UrbNet PhD students.

### Long-term visitors

Visiting Professor Christopher Hallett (UC Berkeley) continued his stay at UrbNet until summer 2021, in the spring offering an illuminating lecture series entitled *New Research on the Materials of Ancient Sculpture*. Hallett's expertise was a much welcome addition to the centre, especially to the project *The Excavation of Caesar's Forum in Rome*, for which he also acted as a consultant, and his unsurpassed authority in the field of ancient sculpture and its cultural historical meaning greatly benefitted our overall research programme.

Visiting scholar, Assistant Professor Elizabeth Murphy (Florida State University) likewise remained at UrbNet until the end of summer, and her expertise on Roman networks and economy explored through in particular workshops and production tied in perfectly with much of the ongoing research at the centre, which made for many inspiring and synergetic discussions.

### Events

At UrbNet, we did everything in our power to exercise caution during the ongoing pandemic, including limiting activities. We carried through with only the absolutely strategically necessary conferences and did so in a virtual or hybrid format, allowing speakers and attendees the opportunity to participate without travelling. We held the agenda conference *Anomalocivitas* in June (virtual event) with participants from across Europe, the US, Australia and the Middle East. The annual conference held under the auspices of the multidisciplinary, international community *The Connected Past* was in 2021 organised and hosted by UrbNet (hybrid event). Almost 100 participants – both senior and junior from all around the world – contributed either in person or virtually to making this event a great success. The final conference of the year, *Exchange and Reuse: Economy and Circularity at Roman Palmyra*, was organised in the framework of the collaborative research project *Circular Economy and Urban Sustainability in Antiquity: The Case of Palmyra* (hybrid event). It was a focused, specialist-oriented conference, which allowed a targeted focus and discussion around resource management and economic patterns in Roman-period Palmyra.

Urbnet organised five PhD courses in 2021 – mostly virtual events – which also attested to UrbNet's ongoing

commitment towards talent development, both in the realms of urbanism in general and within more specialised corners of our research programme.

### Funding

The centre raised 8,564,291 DKK in new external funding and carried over projects worth 22,320,777 DKK. The new grants included UrbNet Deputy Director Søren M. Sindbæk's Monograph Fellowship from the Carlsberg Foundation and a Sapere Aude Research Leader Grant from the Independent Research Fund Denmark (DFF) and a Carlsberg Foundation Young Researcher Fellowship awarded to Associate Professor Tom Brughmans, in addition to a series of smaller grants towards publications and conferences.

As centre leader, my UrbNet heart and mind beam with pride at each successful fundraising effort, and I am tremendously excited to support all the new research projects and activities to come out of these funds – regardless of the size of the grants – as I believe they will all contribute towards bolstering the UrbNet framework.

I also wish to acknowledge here all the applications that did not obtain funding. I know how much time and energy was devoted to writing, brainstorming, discussing and dreaming of what could have been. In that sense, academia is ruthless, and I commend my employees' bold ideas, their positive approach and their persistent endeavours in pursuit of new academic heights.

### Acknowledgements

First and foremost I would like to extend my thanks to the Danish National Research Foundation for granting UrbNet a second round of funding; for this recognition of the importance of our research I am grateful, humble and proud, and excited to have four more years to push the urban agenda on the archaeological scene. I also wish to acknowledge here other funding bodies whose support of our projects is truly invaluable for the many disciplines represented at UrbNet.

A heartfelt thank you also goes to UrbNet's many friends around the world – partners, collaborators and supporters alike – thank you for contributing so positively and faithfully to our joint research passion, making our understanding of the past deeper and wider, and our work better and all worth it in the end.

Finally, I cannot emphasise enough the strength of the UrbNet team – scholars from a wide variety of academic backgrounds, representing all career stages, including our brilliant administrative team: The spectacular creativity and remarkable collegiality characteristic of the centre members, in my eyes, make UrbNet an outstanding workplace, oozing with positive and creative energy, inspiration and encouragement, critical reflection and an earnest desire by all members to foster both our scholarly endeavours and each other as colleagues.

Therefore, please join me in toasting to a successful 2021 at UrbNet!



## Staff

### Senior core group (dissoved in August 2021)



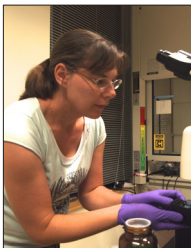
**Rubina Raja**  
Professor, Centre Director  
School of Culture and Society, Aarhus University

Rubina Raja's research focuses on urban societies and their manifestation in material and written culture, particularly in the Mediterranean and the Levant. She takes a special interest in regional and interregional development patterns from the Hellenistic to the early medieval period.



**Søren M. Sindbæk**  
Professor, Deputy Director  
School of Culture and Society, Aarhus University

Søren M. Sindbæk's research focuses on early urbanism and urban archaeology in Viking-age Scandinavia and early medieval Europe. He has a special interest in early medieval communication and social networks.



**Gry H. Barfod**  
Assistant Professor  
Department of Geoscience, Aarhus University

Gry H. Barfod specialises in isotope geochemistry and geochronology. Her work applies trace metals (Hg, Pb, As) and non-traditional isotope systems (e.g. Fe) to medical and archaeological sciences.



**Søren M. Kristiansen**  
Associate Professor  
Department of Geoscience, Aarhus University

Søren M. Kristiansen's work revolves around soils, and he works across a wide range of scientific and professional fields, including geoarchaeology, soil science, groundwater chemistry, medical geology, soil chemistry and geomorphology.



**Charles Lesher**  
Professor  
Department of Geoscience, Aarhus University

Charles Lesher's research revolves around geochemistry and experimental petrology, and he is an expert in Plasma Mass Spectrometry and volcanic rocks. He is director of the *Danish Interdisciplinary Center for Plasma Mass Spectrometry* (DK-ICPMS).



**Peter H. Mikkelsen**

Head of Department and Vice-Director  
Department of Conservation and Natural Science, Moesgaard Museum

Peter H. Mikkelsen is an expert in archaeobotany, and his work focuses mainly on Iron-age and medieval agriculture and consumption.



**Jesper Olsen**

Associate Professor  
Department of Physics and Astronomy, Aarhus University

Jesper Olsen's research focuses on radiocarbon and stable isotopes. He specialises in a number of statistical methods used in earth/archaeological sciences, including  $^{14}\text{C}$  analysis, and he is director of the *Aarhus AMS Centre* (AARAMS).



**Bjørn Poulsen**

Professor  
School of Culture and Society, Aarhus University

Bjørn Poulsen's work revolves around Viking-age and medieval Denmark/northern Europe with respect to the cultural, social and economic history. He specialises in towns, trade networks, town-country relations and agriculture.



**Stephanie Wynne-Jones**

Professor  
Department of Archaeology, University of York

Stephanie Wynne-Jones specialises in material culture and its relationship with practice. Her research focuses on craft and production for trade as well as daily life and the use of space at Songo Mnara where she uses scientific techniques to create a high-resolution picture of life in the town.

## Associate professors



**Tom Brughmans**  
Associate Professor  
School of Culture and Society, Aarhus University

Tom Brughmans' research interests include the study of Roman economic and urban phenomena, past social networks and visual signalling systems. He performs much of his work by applying computational methods such as network science, agent-based simulation and geographical information systems.

## Assistant professors/postdocs



**Irene Bavuso** (15 September–31 December 2021)  
Postdoc  
School of Culture and Society, Aarhus University

Irene Bavuso's work concentrates on the socio-economic history of northwestern Europe between the end of Late Antiquity and the beginning of the early Middle Ages. She focuses especially on the development of social hierarchies and urban networks through trade and production.



**Olympia Bobou** (1 February–31 December 2021)  
Assistant Professor (*Circular Economy*, funded by UrbNet)  
School of Culture and Society, Aarhus University

Olympia Bobou holds a DPhil in Classical Archaeology from University of Oxford and has been working on the *Circular Economy* project since July. Her main tasks include coordinating the work within the Palmyra projects and finalising the catalogue of funerary sculptures.



**Cristina Boschetti** (1 April–31 December 2021)  
Postdoc  
School of Culture and Society, Aarhus University

Cristina Boschetti's main research subject is the economy and technology of glass from the Roman to the medieval period in Europe. She is also interested in the aspects of making mosaics, paintings and jewellery.



**Sarah Croix** (1 February–31 December 2021; from 21 September on 70% employment)  
Postdoc (until 21 September as an assistant professor; *Northern Emporium*, funded by the Carlsberg Foundation and UrbNet)  
School of Culture and Society, Aarhus University

Sarah Croix specialises in Viking-age and early medieval archaeology in northwest Europe. She has worked extensively with the emergence of early Ribe, and is now involved in the *Northern Emporium* project, focusing on stratigraphic 3D documentation and analysis.



**Thomas S. Daugbjerg** (1 September–31 December 2021)  
Postdoc  
Department of Physics and Astronomy, Aarhus University

Thomas S. Daugbjerg works with radiocarbon and radiometric dating for the determination of absolute ages. He is especially experienced in the development of methodology, radiocarbon dating of lime mortars and radiocarbon dating of bones.





**Ioana Dumitru** (1 September–31 December 2021)  
Postdoc  
School of Culture and Society, Aarhus University

Ioana Dumitru investigates the climate-environment-society nexus, focusing on strategic resource exploitation, human-environment interactions, trends in settlement patterns and human cooperation.



**Guido Furlan** (1 October–31 December 2021)  
Postdoc  
School of Culture and Society, Aarhus University

Guido Furlan's research focuses on Roman archaeology and methodological issues concerning the study of ancient cities, including the dating of contexts and rubbish management.



**Emanuele E. Intagliata** (1 February–31 December 2021)  
Postdoc (until 28 February as an assistant professor)  
School of Culture and Society, Aarhus University

Emanuele E. Intagliata's research interests range across the history and archaeology of late antique and Byzantine cities in the Near East. He explores how cities transformed in the early Byzantine period (c. 7th–9th centuries CE), with an eye on the role of urban networks in this process.



**Amy C. Miranda** (1 February–31 December 2021)  
Postdoc (*Archive Archaeology*, funded by the ALIPH Foundation)  
School of Culture and Society, Aarhus University

Amy C. Miranda holds a PhD in the History of Art from Johns Hopkins University and has been with the *Archive Archaeology* project since October 2020. She is a specialist of the art and architecture of the Roman imperial period with a focus on the Middle Eastern provinces.



**Adam Pažout** (1 September–31 December 2021)  
Postdoc (*MINERVA*, funded by the Independent Research Fund Denmark)  
School of Culture and Society, Aarhus University

Adam Pažout's research interests span Roman roads and army, Hellenistic and Roman fortifications, landscape archaeology, GIS and computational methods in archaeology, and a particular region of interest is the Levant and Israel. He is employed in the project *MINERVA* focusing on the Roman travel networks.



**Iza Romanowska** (1 February–31 December 2021)  
Postdoc (*Circular Economy*, funded by the Carlsberg Foundation, and AIAS-COFUND fellow)  
School of Culture and Society and Aarhus Institute of Advanced Studies, Aarhus University

Iza Romanowska is a complexity scientist working on the interface between social sciences and computer science. She specialises in agent-based modelling – a simulation technique used for various research questions, from mobility in prehistoric cities to large-scale economic interactions across the Roman Mediterranean.



**Sine G. Saxkjær** (1 February–31 December 2021)  
Postdoc (Carlsberg Foundation Reintegration Fellowship)  
School of Culture and Society, Aarhus University

Sine G. Saxkjær's research focus is the study of urban ethnicities and the relation between people and cities in ancient Latium during the first millennium BCE, including the interaction between city formation, urbanisation and migration patterns, ethnogenesis and cultural exchange.



**Julia Steding** (1 October–31 December 2021)  
Postdoc  
School of Culture and Society, Aarhus University

Julia Steding holds a PhD from Aarhus University. In her research she explores the economy of cities in the Near East and in how far circular processes can be found in the archaeological data, e.g. through the reuse of building materials.

## PhD students



**Thomas S. Daugbjerg** (1 February–30 April 2021)  
PhD Student  
Department of Physics and Astronomy, Aarhus University

Thomas S. Daugbjerg's project focuses on methods of developing radiocarbon dating of lime mortar. The project includes sample characterisation, aiming to evaluate the feasibility of dating a given mortar sample.



**Rowan English** (1–31 December 2021)  
PhD Student  
School of Culture and Society, Aarhus University

Rowan English's research concerns the funerary archaeology of the North Sea in the 5th–7th centuries CE. His project focuses on long-distance trade goods that appear in graves in this area.



**Rhiannon Garth Jones** (1 February–31 December 2021)  
PhD Student  
School of Culture and Society, Aarhus University

Rhiannon Garth Jones uses an interdisciplinary approach to analyse the many ways the 'Abbasid caliphs, from 754–861 CE, deliberately and dynamically used 'Graeco-Roman' traditions to assert their political and religious authority.



**Line E. Hejlskov** (1 February–31 December 2021)  
PhD Student (*Caesar's Forum*, funded by the Carlsberg Foundation)  
School of Culture and Society, Aarhus University

Line E. Hejlskov's project re-investigates the long-term development of the use of public spaces in the heart of Rome by focusing on Caesar's Forum during late Antiquity and into the medieval period.



**Mahir Hrnjić** (1 February–31 December 2021)  
PhD Student (unfunded)  
School of Culture and Society, Aarhus University

Mahir Hrnjić's project aims to study the provenance of Viking-age silver in order to understand the development of the early medieval long-distance trading networks in Eurasia. The project bridges archaeology and the natural sciences by applying chemical and isotope analysis.



**Johan S. Larsen** (1 February–11 November 2021)  
PhD Student (until 14 July funded)  
School of Culture and Society, Aarhus University

Johan S. Larsen's project critically assesses past and current field methods utilised by archaeologists when excavating towns, with the aim of proposing an optimised methodology that encompasses the current technological advances and prepares for the next step in the discipline.



**Nikoline Sauer** (1 February–7 October 2021)  
PhD Student (*Caesar's Forum*, unfunded)  
School of Culture and Society, Aarhus University

Nikoline Sauer's project studies the urban development of central Rome from 600 to 480 BCE, the so-called archaic period, on the basis of archaeological evidence. The project is linked with The Excavation of Caesar's Forum in Rome.

## Research assistants



**Taylor FitzGerald** (15 February–15 March 2021)  
Research Assistant (*Northern Emporium*)  
School of Culture and Society, Aarhus University

Taylor FitzGerald is a research assistant with the *Northern Emporium* project, where she focuses on linguistic revisions to the two volumes for publication. Her PhD, completed in 2018 at the University of Exeter, looked at representations of imperial dynastic legitimacy in the Roman Empire in the 3rd and 4th centuries CE.



**Trine A. Hass** (1 June–31 August 2021)  
Research Assistant  
School of Culture and Society, Aarhus University

Trine A. Hass is a classicist specialised in the study of classical literature, classical reception studies and Danish receptions of the ancient Graeco-Roman world. By studying Julius Caesar and his reception, she traces the long-term influences of ancient Rome on Danish culture.



**Joan Campmany Jiménez** (1 February–31 December 2021)  
Research Assistant (*Circular Economy*, funded by the Carlsberg Foundation)  
School of Culture and Society, Aarhus University

Joan has a BA of Archaeology from the Autonomous University of Barcelona and an MSt in Classical Archaeology from Oxford University. He specialises in classical landscape archaeology and the archaeology of the Roman Empire. He took up employment in the *Circular Economy* project in 2020.



**Ditte K. Johnson** (1 February–31 August 2021)  
Research Assistant (*Archive Archaeology*, funded by the ALIPH Foundation and the Carlsberg Foundation)  
School of Culture and Society, Aarhus University

Ditte K. Johnson holds an MA in Classical Archaeology from Aarhus University and is currently part of the *Archive Archaeology* project where she is working on the corpus of Palmyrene funerary sculpture and different data collection assignments.



**Sif R. Lærke-Hall** (1 February–30 April 2021)  
Research Assistant  
School of Culture and Society, Aarhus University

Sif R. Lærke-Hall holds a BA in Ancient History from the University of Birmingham and an MSt in Greek and Roman History from University of Oxford. As a team member on the *Palmyra Portrait Project*, she works on editing catalogue entries for a corpus of Palmyrene funerary portraits.



**Mette Lang** (1 September–31 December 2021)  
Research Assistant  
School of Culture and Society, Aarhus University

Mette Lang holds an MA in Classical Archaeology from Aarhus University. Her main task is to prepare the corpus of funerary portraits collected by the *Palmyra Portrait Project* for publication.



**Nikoline Sauer** (1 August–31 December 2021)  
Research Assistant (*Caesar's Forum*)  
School of Culture and Society, Aarhus University

Nikoline Sauer holds a PhD from Aarhus University. Since August 2021, she has been a research assistant in the *Caesar's Forum* project, conducting copyediting, literary searches and image processing.



**Julia Steding** (1 October–30 September 2021)  
Research Assistant  
School of Culture and Society, Aarhus University

Julia Steding holds a PhD from Aarhus University. Since January 2020, she has been a research assistant in the *Circular Economy* project, mainly focusing on the archaeological remains from Palmyra.

## Visiting researchers



**Christopher Hallett** (1 February–23 June 2021)  
Visiting professor (1 March–31 May funded)  
UC Berkeley, USA

Christopher Hallett is Professor of History of Arts and Classics at UC Berkeley. Hallett is a specialist in Roman sculpture and a practicing field archaeologist. His research interests include the visual culture of Roman Asia Minor.



**Eirini Kapogianni** (12 April–30 June 2021)  
ERASMUS intern  
University of Ioannina

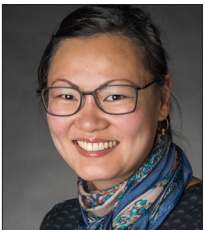
Eirini Kapogianni went through the wet samples of the Posthustorvet excavation in Ribe, focusing on the botanic remains. She also participated in two excavations, at Ginnerup and at Erritsø. Finally, she contributed to a geophysical survey at Aarhus Harbour.



**Elizabeth Murphy** (1 February–31 August 2021)  
Visiting Professor (self-funded)  
Florida State University, USA

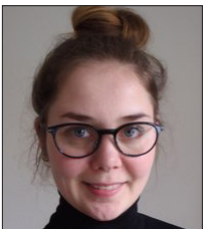
Elizabeth Murphy's research concerns the social and economic organisation of the Roman world, focusing on the history and archaeology of labour, production, and technology, through the lens of ancient urbanism, the Roman military, and socio-economic inequality in Antiquity.

## Administrative employees



**Christina A. Levisen** (1 February–31 December 2021)  
Centre Administrator  
School of Culture and Society, Aarhus University

Christina Levisen has an MA in Linguistics from Aarhus University and La Trobe University, Australia. She heads the centre's administrative team and coordinates UrbNet's editorial processes. She has worked with centre administration in both Denmark and abroad.



**Mie E. Lind** (1 February–31 December 2021)  
Assistant Centre Administrator  
School of Culture and Society, Aarhus University

Mie E. Lind has an MA in Classical Archaeology from Aarhus University. Mie works closely together with Christina Levisen, managing the day-to-day operation of UrbNet and pushing the centre's editorial processes. She is also in charge of UrbNet's SoMe profiles.



**Eva Mortensen** (1 February–31 December 2021)  
Research Administrator (*Circular Economy*, funded by the Carlsberg Foundation)  
School of Culture and Society, Aarhus University

Eva Mortensen has a PhD in Classical Archaeology. She is part of UrbNet's general editorial team and acts as editorial assistant of the UrbNet-founded *Journal of Urban Archaeology*. She is also in charge of a range of communications initiatives at UrbNet.

## Research affiliates

**Professor Roland Fletcher**  
University of Sydney, Australia

**Postdoc Trine A. Hass**  
University of Oxford, UK

**Professor Maura Heyn**  
University of North Carolina, Greensboro, USA

**Dr. Jan K. Jacobsen**  
The Danish Institute in Rome, Italy  
Head of excavations, *Caesar's Forum*

**Professor Jörg Rüpke**  
Max-Weber-Kolleg, Universität Erfurt, Germany  
Adjunct Professor at UrbNet, Aarhus University

**Professor Eivind Heldaas Seland**  
University of Bergen, Norway

**Professor Christopher Smith**  
University of St Andrews, UK

**Professor Mike E. Smith**  
Arizona State University, USA

**Senior Research Associate Federica Sulas**  
University of Cambridge, UK

**Assistant Professor Barbora Wouters**  
Vrije Universiteit Brussels, Belgium

**Associate Director of Research Dr. Jean-Baptiste Yon**  
Laboratoire HiSoMa, Beirut, Lebanon

## Student assistants

**Mette Lang** (1 February–30 June 2021)

**Joos Melander** (1 February–30 June 2021)

**Lasse Rievers Olesen** (1 February–31 December 2021)

**Gry Øfverlind Schack Petersen** (1 February–31 December 2021)



# UrbNet Highlights 2021



Excavating and water-sieving sunken-featured buildings in the production area of the Viking-age aristocratic site of Erritsø, Denmark. Student training excavation field campaign 2021 (© Sarah Croix).

# Sharing Primary Source Data for the Study of Palmyra's Archaeology and History



**Director:** Professor and Centre Director Rubina Raja

**Project:** *Archive Archaeology: Preserving and Sharing Palmyra's Cultural Heritage through Harald Ingholt's Digital Archives*

**Funding:** ALIPH Foundation

**Written by:** Assistant Professor Olympia Bobou, Postdoc Amy Miranda and Professor Rubina Raja

UrbNet's mission to explore the history of urban societies includes assessing archaeological methods and leading the field in developing best-practice scenarios. As such, the project *Archive Archaeology: Preserving and Sharing Palmyra's Cultural Heritage through Harald Ingholt's Digital Archives* has worked to make archaeological data openly available to facilitate the study and heritage preservation of Palmyra, Syria. Harald Ingholt, a significant figure in ancient Near Eastern archaeology throughout the 20th century, excavated in Palmyra during the 1920s and 1930s and kept detailed records of his work in six diaries. Alongside these diaries, Ingholt began collecting images of Palmyrene funerary sculpture that would serve as his personal research archive for decades. These two resources on Palmyra's archaeology and history have now been published in their entirety.

The excavation diaries stem from field campaigns in the south-west necropolis of Palmyra in 1924, 1925 and 1928. Ingholt documented the inscriptions, the layout of tombs and interior decoration, objects he bought and the (daily) life during the excavation months. A translated and commented version of the diaries has been published by Professor Rubina Raja, Research Assistant Julia Steding and Associate Director of *Laboratoire HiSoMa* Jean-Baptiste Yon. The scans of all six diaries have been made available as open data and will allow researchers to engage with the information that Ingholt collected over the years but never published himself.

Like the diaries, the Ingholt Archive was published online as open data through the *Journal of Open Archaeology Data*, thus making the 2347 archive sheets freely available in PDF form. This publication by Professor Rubina Raja, Assistant Professor Olympia Bobou and Postdoc Amy Miranda adheres to FAIR principles (Findable, Accessible, Interoperable, Reusable) and allows anyone with Internet to access the raw data. The publication also gives context for the dataset, describes the methods used in its compilation and interpretation and highlights its reuse potential. The reuse potential of the archive is particularly important, as this is a first step in democratising research on the archive: The physical paper archive and the diaries are housed at the Ny Carlsberg Glyptotek, Copenhagen, thereby limiting

access to these important resources. As open data, the Ingholt Archive and the diaries can provide the foundation for much research on Palmyra and facilitate restitution efforts in Syria. These resources have already been invaluable for the Palmyra Portrait Project, which has produced numerous publications using Ingholt's material for reference.

The publication of the diaries and the archive are in line with UrbNet's values, particularly responsibility and transparency, as it makes the raw archaeological data available. This not only provides primary source material that future research on Palmyra can be checked against; it also allows for anyone with an interest in preserving Syrian cultural heritage access to information that can assist in those efforts. After over a decade of strife in Syria, these publications aim to widely disseminate knowledge on the ancient past and provide a way forward for the preservation of Palmyra's cultural heritage.

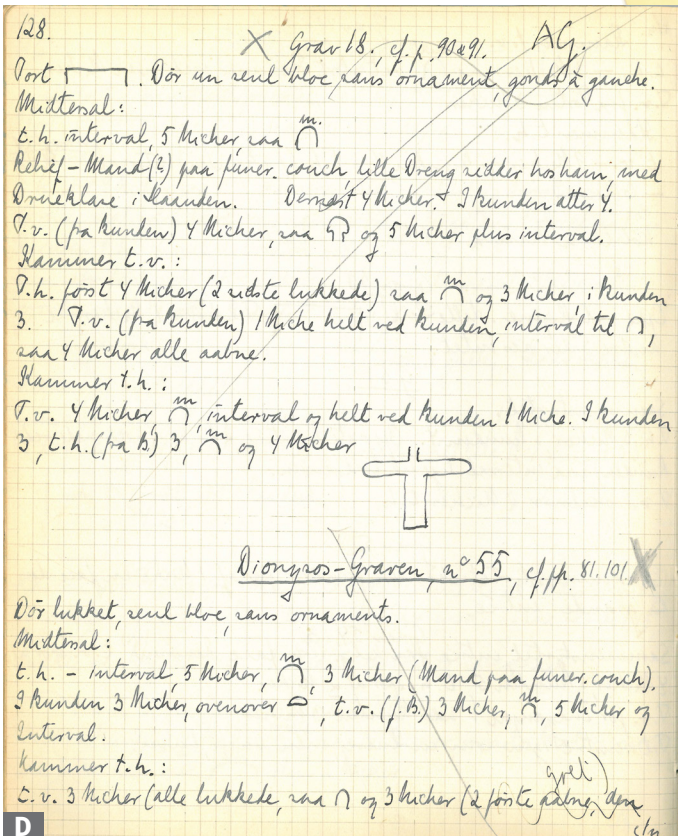
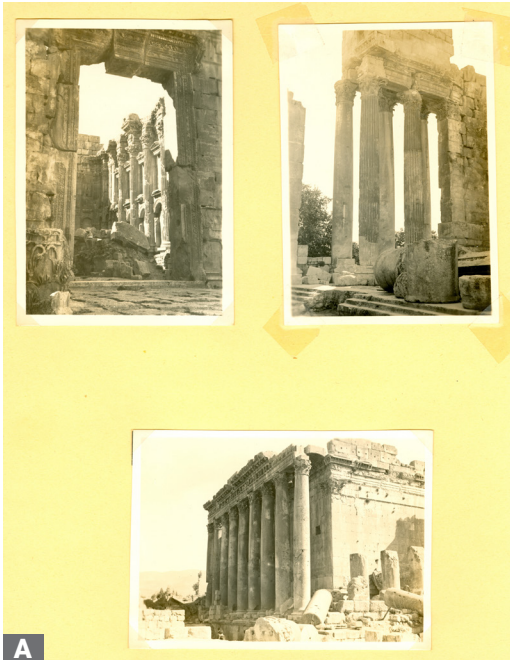
## Publications

Bobou, O., Miranda, A. C. and Raja, R. 2021. The Ingholt Archive: Data from the project, 'Archive Archaeology: Preserving and Sharing Palmyra's Cultural Heritage through Harald Ingholt's Digital Archives'. *Journal of Open Archaeology Data*, 9:6. <http://doi.org/10.5334/joad.78>

Raja, R. and Steding, J. 2021. Harald Ingholt's excavation diaries from his fieldwork in Palmyra: An open data online resource. *Journal of Open Archaeology Data*, 9:8. <http://doi.org/10.5334/joad.84>

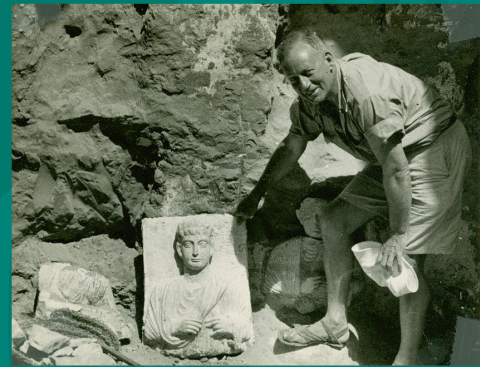
Raja, R., Steding, J. and Yon, J.-B. (eds). 2021. *Excavating Palmyra: Harald Ingholt's Excavation Diaries: A Transcript, Translation, and Commentary*, Studies in Palmyrene Archaeology and History, 4, 2 vols. Turnhout: Brepols Publishers.





## Excavating Palmyra

Harald Ingholt's Excavation Diaries.  
A Transcript, Translation, and Commentary  
Introduction and Ingholt's Diaries, 1-3

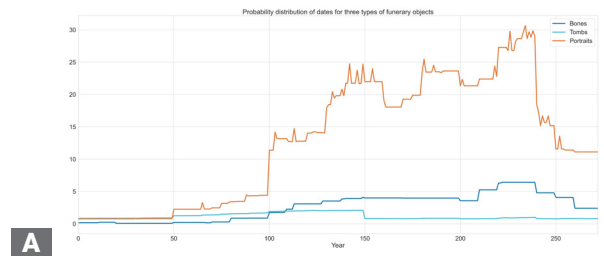


By Rubina Raja, Julia Steding,  
and Jean-Baptiste Yon

BREPOLS

STUDIES IN  
PALMYRENE  
ARCHAEOLOGY  
AND HISTORY  
SPAH 4.1

**A:** Archive sheet: View of Temple architecture in Baalbek, Lebanon (© Palmyra Portrait Project, Ingholt Archive at Ny Carlsberg Glyptotek and Rubina Raja). **B:** Archive sheet PS 151 showing a loculus relief with the bust of a priest (© Palmyra Portrait Project, Ingholt Archive at Ny Carlsberg Glyptotek and Rubina Raja). **C:** The Ingholt Archive at the Ny Carlsberg Glyptotek (© Rubina Raja); **D:** Diary page: Excerpt from Ingholt's 1924 diary, p. 128, with the descriptions of two graves (© Rubina Raja and the Palmyra Portrait Project, courtesy of the Ny Carlsberg Glyptotek). **E:** Book cover: Raja, R., Steding, J. and Yon, J.-B. (eds) 2021. Excavating Palmyra: Harald Ingholt's Excavation Diaries: A Transcript, Translation, and Commentary, Studies in Palmyrene Archaeology and History, 4, 2 vols. Turnhout: Brepols Publishers.



# Exploring Urban Sustainability in Roman Palmyra through Archaeological Big Data

**Director:** Professor and Centre Director Rubina Raja

**Project:** *Circular Economy and Urban Sustainability in Antiquity: The Case of Palmyra*

**Funding:** The Carlsberg Foundation, The Augustinus Foundation, AIAS, UrbNet, Marie Skłodowska-Curie grant no. 754513 and Aarhus University Research Foundation

**Written by:** Postdoc Iza Romanowska, Research Assistant Joan Campmany Jiménez and Professor Rubina Raja



The project *Circular Economy and Urban Sustainability in Antiquity: The Case of Palmyra* explores how a city could maximise its resources through reuse and maintenance, as well as sustain its population. The city of Palmyra offers a good case study for examining questions of sustainability and economic circularity and self-sufficiency. In 2021, project members under the leadership of Professor and Centre Director Rubina Raja published four articles that highlight how high-definition archaeology in an urban context can be practiced through the use of archival sources, archaeological material and new technologies and applications. Three of the papers used datasets compiled through the work of the *Palmyra Portrait Project* that represent the total number of published and recorded portraits (3704), tombs (329) and individual burials (769). The fourth paper introduced a theoretical conceptual framework for evaluating Environmental Kuznets Curves through the data available, using Palmyra as a case study.

The paper 'Three hundred years of Palmyrene history. Unlocking archaeological data for studying past societal transformations' (*PLoS ONE*) offers the first full overview of all the data collected in the *Palmyra Portrait Project* and presents new evidence for Palmyra's history. The collected information informs us of Palmyra's growth in the early 2nd century CE, as well as of two major points of crisis in the second half of the 2nd century and the middle of the 3rd century CE, respectively. Palmyra's epigraphy and historical sources potentially link these events to the city's prosperous merchants and the plagues and wars of the middle of the 3rd century CE, which had hitherto been undocumented in Palmyra through historical sources. The second paper, 'Reconstructing the social, economic and demographic trends of Palmyra's elite from funerary data' (*Journal of Archaeological Science*), explains why the Palmyrene datasets are used to calculate the city's elite-only population, presents the summed probability distribution method used to analyse them and the results of the analysis. The third paper, 'Historical trajectories of Palmyra's elites through the lens of archaeological data' (*Journal of Urban Archaeology*), correlates the archaeological material evidence to the literary, historical and epigraphical sources on the history of Palmyra in order to trace the various elite activities in the city. The fourth paper, 'Evaluating the Environmental Kuznets Curves through archaeological data: A conceptual and theoretical framework' (*Journal of Urban Archaeology*), introduces the model of Environmental Kuznets Curves, which hypothesis-

es that economic growth and increased urbanisation negatively impact the environment until the economy grows to such an extent that the trend of environmental degradation is reversed. The authors present all the proxies available for examining economic growth in the archaeological record, and by using Palmyra as a case study – a city excavated and studied through traditional methods – highlight the importance of quantifying archaeological material from old excavations and gathering palaeoenvironmental data in new ones.

The four papers demonstrate the need for baseline studies such as the *Palmyra Portrait Project* and show how the comprehensive data gathered by such projects can be used to further scholarly knowledge about past urban societies.

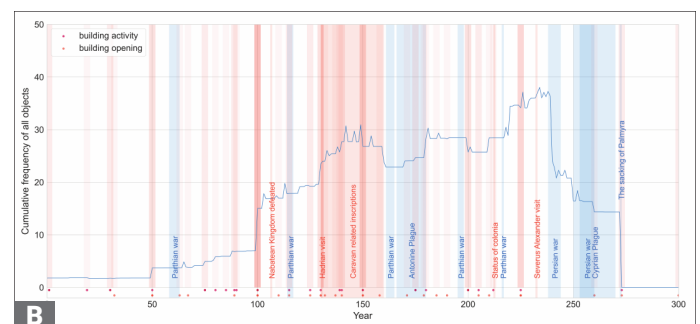
## Publications

Romanowska, I., Campmany Jiménez, J., Bobou, O. and Raja, R. 2021. Evaluating the Environmental Kuznets Curves through archaeological data: A conceptual and theoretical framework. *Journal of Urban Archaeology*, 4: 61–97. 10.1484/ J.JUA.5.126594

Bobou, O., Raja, R. and Romanowska, I. 2021. Historical trajectories of Palmyra's elites through the lens of archaeological data. *Journal of Urban Archaeology*, 4: 153–66. 10.1484/ J.JUA.5.126598

Romanowska, I., Bobou, O. and Raja, R. 2021. Reconstructing the social, economic and demographic trends of Palmyra's elite from funerary data. *Journal of Archaeological Science*, 133. <https://doi.org/10.1016/j.jas.2021.105432>

Raja, R., Bobou, O. and Romanowska, I. 2021. Three hundred years of Palmyrene history. Unlocking archaeological data for studying past societal transformations. *PLoS ONE*, 16.11: e0256081. <https://doi.org/10.1371/journal.pone.0256081>



**A:** Graph showing the probability distribution of all the objects in the three datasets used in the articles (© authors). **B:** Graph with the probability curve of all the objects in the three datasets used in the articles against the timeline of events known through historical sources and of building projects in Palmyra. Blue lines are used for events with a negative impact, and red lines for events with a positive one (© authors).

# Sustainability and Resilience: Palmyra's Hinterland Study



**Director:** Professor and Centre Director Rubina Raja

**Project:** *Circular Economy and Urban Sustainability in Antiquity: The Case of Palmyra*

**Funding:** The Carlsberg Foundation and The Augustinus Foundation

**Written by:** Postdoc Iza Romanowska, Research Assistant Joan Campmany Jiménez and Professor Rubina Raja

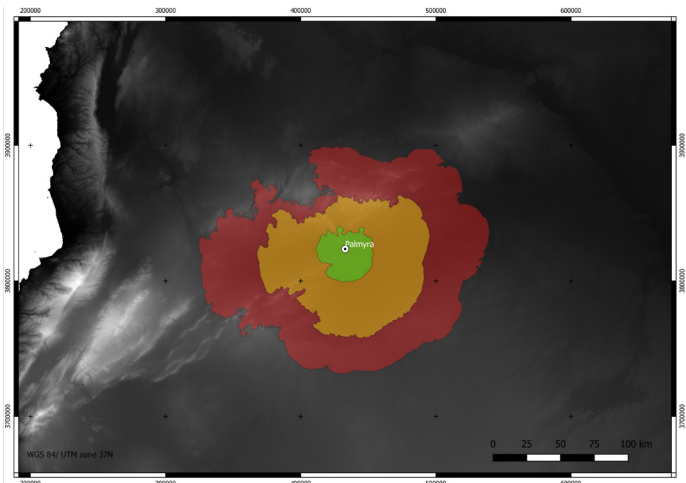
The collaborative research project *Circular Economy and Urban Sustainability in Antiquity: The Case of Palmyra* moved its research on aspects of societal resilience and climate changes forward in 2021 on a number of fronts related to the ancient city Palmyra, Tadmor, in the Syrian steppe desert, which flourished in the first three centuries CE. The city of Palmyra is a large urban centre whose prominence and wealth famously came from long-distance trade. However, given the long distances involved and the high cost of land transport of foodstuffs across the desert, it is likely that the bulk of food necessary to feed the city was produced in its surroundings.

Within the project *Circular Economy and Urban Sustainability in Antiquity: The Case of Palmyra*, we in 2021 among other things presented an estimation of the carrying capacity of Palmyra's hinterland, in order to quantify agricultural output and establish plausible limits for the city's population. To do this, we modelled movement across the Palmyrene hinterland with the aim of creating the activity catchment of the city. We then used existing data on local agriculture to establish how much land Palmyrenes would require for the city to sustain itself, and how many people the main agricultural areas could feed. Finally, we studied how changes in climate over time, specifically rainfall, would have affected the hinterland's carrying capacity. Palmyra is an excellent case for testing the methods and establishing the data requirements and limitations of such models.

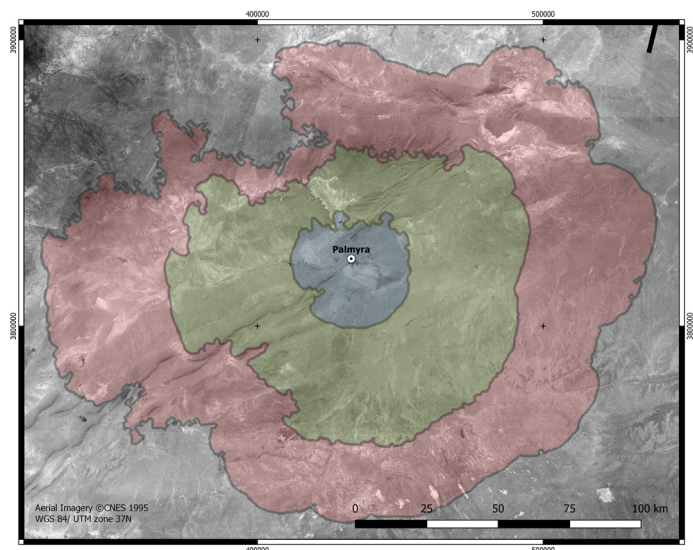
Our research has so far allowed us to significantly narrow down the estimate for the maximum limit of the population of Palmyra. To gain a minimum population estimate would require further research on the city itself. By quantifying the changes of the carrying capacity over time around Palmyra, the relation between food security and its historical development can be evaluated. While available palaeoclimatic proxies are limited, new high-resolution proxies collected closer to the city could be used to confirm the trends regional proxies outline for climatic changes in the first centuries CE. Our research suggests that food insecurity could have been an important factor in the history of Palmyra, especially during its militarisation and expansion in the second half of the third century.

While establishing the maximum population size of the city or studying the effect of rainfall variability over time are valuable results, this modelling allows us to explore questions of sustainability, imports, irrigation and infrastructure in the Syrian steppe desert, among other

things. Overall, the formal modelling of agricultural production opens up new avenues of research, and better grounds further discussions on urban sustainability in marginal environments over long time – a topical subject in a context of increasing climate uncertainty.



**A**



**B**

**A:** Catchments within one, three and five days by camel from Palmyra. In the background, the SRTM 1 arc-second global digital elevation model, courtesy of the USGS. **B:** Catchments within one, three and five days by camel from Palmyra. In the background, SPOT satellite imagery, courtesy of the USGS.

# How Low Can You Go: Sampling Density and New Tools for Indoor Archaeological Investigations



**Director:** Professor and Deputy Director Søren M. Sindbæk

**Project:** Northern Emporium: The Archaeology of Network Urbanism in Viking-Age Ribe

**Funding:** The Carlsberg Foundation

**Written by:** Dr. Pernille L. K. Trant

Archaeological excavations of ancient houses are always challenging as the soils and sediments surrounding the precious finds are very different from what is normally seen in outdoor contexts. A long-standing question has therefore been how detailed the excavator should actually sample to understand questions such as where was the bed placed, in which corner was the food stored etc. Due to the favourable preservation conditions of houses at the Viking-age emporium site in Ribe, we believed this to be one of the world's best suited sites to address such questions. We approached this by applying a "super-sampling" methodology where samples were collected at an unprecedented small scale.

For this "super sampling" we collected 1059 soil samples from the floor layers of two overlapping house floors (denoted K22 and K23) from around 800 CE. The sampling was performed following a 25 cm grid laid out across the house surface. Compared to an average modern office of 10 m<sup>2</sup> this sampling grid would mean that we should collect 160 samples from the floor to study how the space was used and maintained. All these soil samples were subject to high-resolution analysis of visible near-infrared spectroscopy (vis-NIRS), portable X-ray fluorescence (pXRF), total elemental analysis by inductively coupled plasma mass spectroscopy (ICP-MS) and magnetic susceptibility. We then applied spatial statistics to predict the optimal sampling density in order to understand at which sampling distance the largest amount of information can be obtained with the lowest number of samples. With this statistically verified sampling density, we are now able to recommend the best suited sampling scheme for future studies. With this, it is possible to cover both the variation in geochemistry, post-deposition processes and use of domestic space to understand archaeological indoor settings.

We show that a sampling density of maximum 50 cm is most suited for indoor contexts. If a lower sampling resolution is applied, borders between activity areas are easily blurred, and it becomes increasingly difficult to identify smaller activity areas. Additionally, the results show that in the case of activities leaving behind a "hotspot tendency" in their geochemical fingerprint (e.g. activities concentrated in

a limited area), these might be missed when using a sampling density lower than 50 cm. Last, but not least, we found that spectroscopy is useful for fast and cost-efficient prediction of several anthropogenic markers such as calcium, copper, phosphorus and strontium.

These findings are relevant for all field archaeologists with an interest in indoor activities in prehistoric settlements. Moreover, no earlier archaeological studies have been carried out on the predictability of spectral data to magnetic susceptibility and anthropogenic elements. Neither have any earlier archaeological studies been carried out on the significance of sampling density and how closely one should sample to obtain statistically reliable correlation or predicted spatial maps of indoor areas. By integrating new high-resolution data at this well-preserved site, we are able for the first time to provide a statistically based methodological study with recommendations for future fieldwork as it may apply to indoor archaeological settings. The methodological considerations and statistically based guidelines for geochemical mapping that we provide can hopefully contribute to the use of carefully thought-through sampling strategies at many other urban sites in the future.

## Publications

Trant, P., Kristiansen, S. M. and Sindbæk, S. M. 2020. Visible near-infrared spectroscopy as an aid for archaeological interpretation. *Journal of Archaeological and Anthropological Sciences*, 12: 1866-9557. <https://doi.org/10.1007/s12520-020-01239-3>

Trant, P. et al. 2021. Sampling density and spatial analysis: A geochemical study of a Viking-age house in Ribe, Denmark. *Journal of Archaeological and Anthropological Sciences*, 13: 21. <https://doi.org/10.1007/s12520-020-01243-7>





Left and right: Sampling for geochemical analysis in progress during excavation at Posthustorvet, Ribe, 2017 (Photo: Museum of Southwest Jutland, © Pernille L. K. Trant).

# Exchange and Reuse: Economy and Circularity at Palmyra

**Director:** Professor and Centre Director Rubina Raja

**Project:** *Circular Economy and Urban Sustainability in Antiquity: The Case of Palmyra*

**Funding:** The Carlsberg Foundation, The Augustinus Foundation

**Written by:** Professor Rubina Raja



On 11–12 October 2021, UrbNet hosted an innovative conference entitled *Exchange and Reuse: Economy and Circularity at Palmyra*. In an effort to encourage researchers to create a broader economic picture of the Roman Empire and the ancient world by what the Syrian site of Palmyra can offer, the workshop probed what the critical features of Palmyra's economy were, both known and overlooked, on the basis of all the surviving materials that Palmyrenes produced or used. A particular emphasis was placed on the aspects of Palmyra's economy that involved the circularity of resources and the reuse of materials. An exploration of such issues in relation to all the diverse material remains that have survived at Palmyra can help archaeologists and historians establish whether ancient local economies are best classified as wasteful or circular.

Over the course of two days, the participants shared their recent research and discussed various aspects of economic and circular life at Palmyra in ways that created a starker vision of the economies that the Palmyrenes inhabited and created, both at Palmyra and abroad. Some of the key questions that they addressed were: How did ancient cities like Palmyra survive? How did their people produce and manage the resources for short- and long-term needs? Were their methods circular, or were they wasteful and destructive? Were their commercial transactions efficient or

costly (economically, socially or ecological)? Did they arrive at collective resolutions to economic and ecological problems? As for the papers presented at the workshop, key points of focus were how the Palmyrenes practiced alternative economic life and non-statist modes of exchange; how modern scholars can model their overall economic productivity; and the circular economic implications of the Palmyrenes' production and reuse of textiles, jewellery, funerary spaces, sculpted stones and building material. The participants also reflected on how the economic agency and roles of individual Palmyrenes can be theorised despite the lacunae in the evidence. The organisers of the conference, Nathanael Andrade and Rubina Raja, will publish this research in an edited volume in 2022 in an attempt to make the implications of Palmyra's material culture for understanding ancient economies, and economies in general, accessible to both an academic and public audience. Such a publication promises to have a substantial impact on how we understand ancient economies and ecologies and what they can teach us about analogous issues in contemporary life.



The Great Colonnade in Palmyra, Syria, 2010 (© Rubina Raja).

## Award-Winning Paper Reveals Urban Amulet Production in Viking-Age Ribe



**Director:** Professor and Deputy Director Søren M. Sindbæk

**Project:** *Northern Emporium: The Archaeology of Network Urbanism in Viking-Age Ribe*

**Funding:** The Carlsberg Foundation

**Written by:** Professor Søren M. Sindbæk

It was a great accolade to UrbNet researchers when their paper was awarded the prestigious 2021 Martyn Jope Award for best contribution to the journal *Medieval Archaeology*, Europe's leading academic periodical for the archaeology of the Middle Ages. The Martyn Jope Award is given annually for the best novel interpretation, application of analytical method or presentation of new findings. The paper "Assembling the full cast: Ritual performance, gender transgression and iconographic innovation in Viking-age Ribe", written by Pieterjan Deckers, Sarah Croix and Søren M. Sindbæk, reinterprets the content and production of Viking-age imagery based on new finds from urban workshops excavated in Ribe.

Between 2017 and 2018, the *Northern Emporium* project, directed by Professor Søren M. Sindbæk and funded by the Carlsberg Foundation, conducted excavations at the urban site of Viking-age Ribe, Denmark. Among the many thousands of finds were a group of casting mould fragments found in a workshop. Using 3D digital image reconstruction, the team at UrbNet was able to recreate the iconography of the pendant moulds. The moulds show religious iconography such as a woman with weapons, a man pulling his long hair, and a horse without a rider, and similar motifs are known from single finds of pendants from Scandinavia and England. In the paper the results were used to give a fascinating insight into hitherto little-known aspects of Viking-age religious rituals.

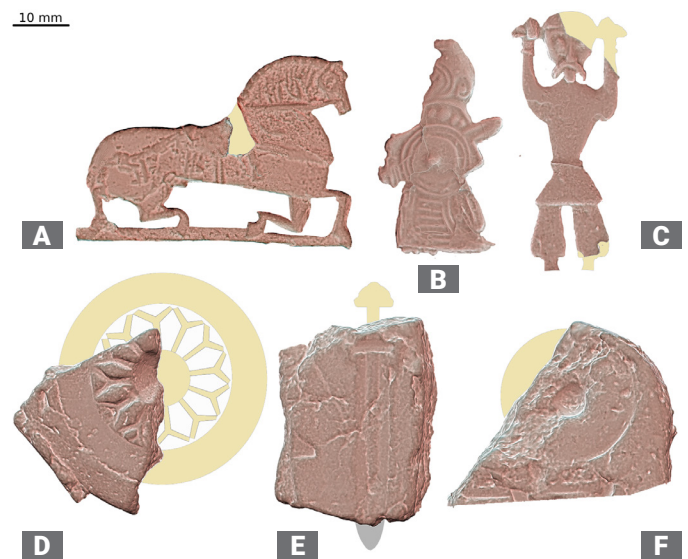
Previously, the images depicted on the pendants have been interpreted as gods or mythological creatures such as Valkyries. But based on the finds from Ribe, it is possible to re-evaluate the interpretation of the Vikings' imagery. By studying the different pendant moulds together in the contextualised setting of the workshop where they were found, the images can be understood in a completely new way. The authors argue that the images of the pendant moulds do not show mythological creatures, but instead show people participating in religious ceremonies. Such ceremonies are also depicted elsewhere, for example on the famous tapestry fragments from the Oseberg ship in Norway. In the case of the pendants and the pendant moulds, however, the new interpretation seems to showcase a specific development of the imagery in the Ribe workshop, which

give new insight into religious rituals in the Viking Age.

The development of the imagery exemplifies how the visual culture of the Viking Age was inspired by Western Europe and the legacy of classical times. It also exemplifies how the community of craftspeople and merchants in Ribe's emporium were able to create and disseminate cultural innovations through the particular connections facilitated by the early urban network.

### Publication

Deckers, P., Croix, S. and Sindbæk, S. M. 2021. Assembling the full cast: Ritual performance, gender transgression and iconographic innovation in Viking-age Ribe. *Journal of Medieval Archaeology*, 65.1: 30–65. <https://doi.org/10.1080/00766097.2021.1923893>



Casting moulds for miniature objects and comparable finds: **A:** Pre-Viking-age horse brooch with geometric detailing from Ribe (reversed casting mould impression). **B:** 'Valkyrie' pendant of Class 2 from Ribe (reversed casting mould impression). **C:** Viking-age pendant depicting frontal human figure Ribe (reversed casting mould impression). **D–F:** 3D models of casting mould fragments from Ribe (© authors).

# How Metalwork Craft and Expertise Evolved in Viking-Age Towns

**Director:** Professor and Deputy Director Søren M. Sindbæk

**Project:** *Northern Emporium: The Archaeology of Network Urbanism in Viking-Age Ribe*

**Funding:** The Carlsberg Foundation

**Written by:** Dr. Vana Orfanou and Professor Søren M. Sindbæk



Our understanding of the evolution of metalwork expertise and craftsmanship developed by Viking craftspeople in Denmark in the 8th and 9th centuries has been put on a new footing by a large-scale study now published in the journal *Archaeological and Anthropological Sciences*. The UrbNet team examined 1126 samples of metalworking tools (crucibles and moulds), 24 keys and brooches and 24 metal bar ingots and fragments of spare metal, most of them excavated from sites in the town of Ribe, Denmark, a trading port established by Vikings in the 8th century.

By analysing samples from the surface of tools and identifying metallic traces contained in them, as well as examining the metallic composition of finished objects, the study was able to reveal a series of rapid technological advances at the beginning of the Viking Age, as craftspeople were exposed to new skills. The metallic composition of objects dated to the 8th century CE suggests that alloys used at that time were not produced by combining materials in a consistent manner, whereas the alloys of objects dated to the 9th century were more standardised and consistent. While in the 8th century, leaded brass was a common component, by the 9th century high-zinc brass was more widely used. This development suggests that alloy mixes changed over time, possibly to improve quality and appearance.

The study also investigated what specific metal objects were made of. Across the 8th and 9th centuries, leaded alloys were used for practical objects, such as keys, possibly because leaded alloys are easier to cast into moulds. Brass was found across the 8th and 9th centuries mostly in decorative brooches, possibly because it looked more ornamental due to its bright golden colour.

The analyses also suggest that just like developing their alloys over time, Ribe's craftspeople improved their tools. Crucibles – clay cups for melting metals over fire – and the way they were made were essential to the efficiency of metalworking processes. The authors found that in the 9th century, craftspeople adopted a different, more heat-resistant clay for their crucibles, which would last longer. The changes and improvements in craftsmanship in Ribe may indicate that craftspeople learned from previous generations, or from travelling contemporaries who brought

with them techniques practiced in other Viking settlements, such as Hedeby.

The evolution of crafts in the Viking Age thus gives us unprecedented knowledge about the cultural and social consequences of this well-known case of 'proto-globalisation'.

## Publication

Orfanou, V. et al. 2021. On diverse arts: Crucible metallurgy and the polymetallic cycle at Scandinavia's earliest Viking town, Ribe (8th–9th c. CE), Denmark. *Archaeological and Anthropological Sciences*, 13: 81. <https://doi.org/10.1007/s12520-021-01308-1>



**A:** Copper oxides in the crucible slag (© Vana Orfanou). **B:** An oval brooch from the early Viking period (early 9th century CE) (© Søren M. Sindbæk).



# The Archaeology of Seasonality and High-Definition Archaeology: Towards a Paradigm Shift

Written by: Professor Rubina Raja



Shifting paradigms, setting agendas and pushing borders for archaeological research are some of UrbNet's core agendas, and the centre's engagement at the frontline of archaeology was underlined once again in the edited volume *The Archaeology of Seasonality*, which was published in the series *Studies in Classical Archaeology*. The volume ensued from one of the centre's joint conferences with Professor Achim Lichtenberger (Westfälische Wilhelms-Universität Münster).

Seasonality is a pivotal topic when studying the ways in which past societies organised themselves across the year. Environmental history and human-nature relationships have been at the forefront of research in general over the past decades; nonetheless, the topic of seasonality remains a neglected aspect in archaeological scholarship. The volume is the first to tackle wide-ranging aspects of seasonality based on archaeological evidence stemming from the discipline of classical archaeology.

Contributions in the volume draw directly from fieldwork and the broader corpus of archaeological materials, such as visual culture and groups of material from across the Mediterranean regions. The papers lay open and discuss empirical evidence of seasonal dimensions and the full range of seasonal activities that can be traced through such evidence. They discuss the potential and challenges presented by such evidence and ways in which we might optimise what we can get out of the evidence available and the methods used to investigate the data.

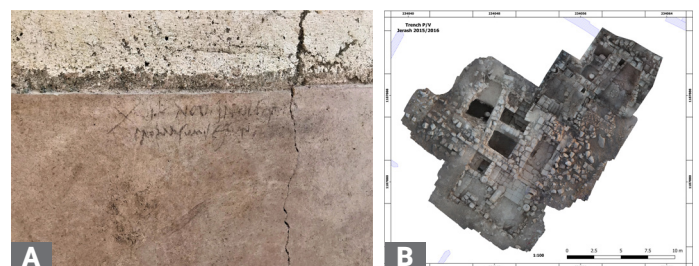
Some papers work with evidence where the date and time of year are already a given through the archaeological context; others investigate archaeological situations in which aspects of seasonality have only come to the forefront through the archaeological work undertaken. And authors discuss cyclic seasonal aspects, namely the activities that are undertaken throughout the course of a year, which are either dictated by seasonal determinism or culturally constructed aspects or both.

Furthermore, a wide array of aspects relating to the seasonality of daily life, such as the question of seasonal clothing and the impact of seasonality on the lives of individuals and societies, were included, as were religious dimensions of seasonality and iconographic investigations

into the meaning of representations of seasonal personifications in artworks.

In pre-modern societies, numerous activities would have taken place only at certain times of the year, mainly reflecting changing agricultural patterns, e.g. when fields could not be cultivated and animals could not graze, thus freeing up labour force for other tasks. It is widely assumed, for example, that indoor activities to a larger extent took place in winter than in summer, and that certain activities might even have been reserved for the winter months, such as interior repair of houses, textile production and the like.

Studying seasonality through archaeological evidence therefore offers the opportunity to understand the temporal dimension of human activities across the year and opens up new perspectives on space and spatial practices in the ancient world. The question of seasonality, i.e. understanding the impact of seasons on human lives in a broader perspective – without falling into the trap of simple climate determinism – has become increasingly relevant since climate change has proven to have an immense impact on the seasons. This has also underlined that climate and seasons are not normative but subject to a variety of dynamic factors. Therefore, the understanding of how societies perceived and dealt with seasons also impact our understanding of societal resilience. By bringing seasonality into the interpretational framework of archaeological materials, UrbNet aims to refine this framework and arrive at a more complete picture of the lessons that can be drawn from archaeological materials.



**A:** Charcoal graffiti on the wall of the 'House of the Garden', Pompeii, 2019. The graffiti gives a date which implies that Vesuvius only erupted months later than usually claimed (© The Archaeological Park of Pompeii). **B:** Parts of early Islamic house undergoing renovation at the time of the earthquake that devastated large parts of the Levant on 18th January 749 CE (© Danish-German Jerash Northwest Quarter Project).

# Regional Shipping: The Case of Viking, Medieval and Early Modern Schleswig

Written by: Professor Bjørn Poulsen (member of UrbNet advisory group)



The following presents a regional study of shipping, focusing on continuities and changes over a near thousand-year period from 800 to 1600. It might be easy to think that the region itself, namely the southern part of Jutland, also called Schleswig, constituted one of the constants of this history, but this is only the case to a certain degree. The political history of Schleswig is dramatic and often resulted in new internal borders. And when it comes to natural geography, especially its west coast experienced large-scale transformations as a result of rising sea levels and storms.

Large trading ships with sails, operating over large parts of northern Europe, existed from around the year 1000, as is clear from the large 60-ton ship from the harbour of Hedeby. Such large vessels were necessary parts of the commercial revolution of the Middle Ages; however, small ships, *skuder*, were much more important and ensured the daily transportation of goods such as grain and meat. In the Middle Ages and 16th century, large numbers of *skuder* sailed between the areas of Schleswig, Funen and the emerging Hanseatic towns of the Baltic. A phenomenon that can be attested throughout the whole period is the intense use of land-roads across the Schleswig area, which functioned as transit routes between sea harbours. This is not only a Viking-age phenomenon connected to the site of Hollingstedt but was also characteristic of the 15th and 16th centuries, when the Sound was closed because of war. An important change took place with the shift from Baltic trade to Atlantic trade during the 15th and 16th centuries. In this process the Schleswig sea routes were gradually reoriented and eventually reached destinations near the Mediterranean. In 1591, for instance, a Flensburg shipper returned with salt from Setubal in Portugal, and a few years later a Husum shipper came from Lisbon, also loaded with salt. Accordingly the Sound Toll registers reflect an increasing number of Schleswig shippers going through the Sound during the 16th century. The local centres of the routes also changed over time. During the Viking Age and the early medieval period, Hedeby (Haithabu) and, from the 1060s, the town of Schleswig constituted the main regional sites, both with large harbour facilities, but during the 12th and 13th centuries, a series of new towns appeared, and the town of Flensburg became the largest in the region. And even

though the new west-coast town of Husum from the 15th century offered some competition, still, at the beginning of the 17th century, Flensburg was absolutely dominating in the region.

## Publication

Poulsen, B. 2021. Vikingetidens og middelalderens søfart. In Jespersen, M. L. and H. S. Hansen (eds), *Sønderjysk Søfarts Historie: Indtil 1814*, Skrifter udgivet af Historisk Samfund for Sønderjylland, 121. Aabenraa: Historisk Samfund for Sønderjylland, pp. 90–151.



**A:** Map of documented shipping connections between Schleswigian and Baltic Sea towns in 1250–1400. Each link indicates a connection (© Jørgen Andersen, Museum Sønderjylland). **B:** Tønder's city seal from c. 1560 shows a beautiful three-masted ship, perhaps a so-called hulk. Although the city at this point suffered from the dikes that closed off access to the sea, shipping trade was still important for its inhabitants, and Tønder's ships frequently appear in the Oresund Toll's accounts (© Thorikild Jensen, Museum Sønderjylland). **C:** Some merchants from Southern Jutland were members of the so-called Knuds Guilds. From Flensburg, some of their regulations have been preserved, such as this page. Several of its decrees revolve around shipping (© Stadtarchiv Flensburg).

# MINERVA: Understanding the Centuries-Long Functioning of the Roman Economy



**Project leader:** Associate Professor Tom Brughmans

**Project:** MINERVA: Understanding the Centuries-Long Functioning of the Roman Economy

**Funding:** Independent Research Fund Denmark (DFF)

**Written by:** Associate Professor Tom Brughmans

Project MINERVA got off to a good start in 2021. Project members have analysed large datasets of Roman ceramics and are making great progress in digitising the roads of the Roman Empire.

The project aims to enhance our understanding of the economy of the Roman Empire. How did it function over centuries? Exploring this is made possible by archaeology, in particular thanks to the durability of ceramics. It is possible to study hundreds of thousands of ceramic tableware and amphora sherds, excavated and published for sites around the Mediterranean. Their study reveals aspects of the direction and volume of trade. In 2021, the MINERVA project collaborated with Aarhus University's Centre for Humanities Computing to develop a quantitative method for analysing large datasets of ceramics. The analysis is focused on exploring big ups and downs in the presence of ceramic types at sites, and the diversity of their provenance (their regions of production). This method was applied in the first instance to a large dataset that collects Roman amphorae published for sites throughout Central Italy, thanks to a collaboration with Paulina Komar (Uniwersytet Kardynała Stefana Wyszyńskiego w Warszawie).

A crucial element for the functioning of any economy is its transport infrastructure, including the roads over which people and goods moved. MINERVA is developing the first highly detailed digital model of the roads of the entire Roman Empire. This is a crucial missing resource to evaluate the effect of transport infrastructure on structuring the functioning of the Roman economy. The project has made great progress in this thanks to Dr. Adam Pažout's work on the project. Adam was hired in September 2021 and will be based at UrbNet as a postdoctoral researcher for MINERVA for two years. He is an expert on Roman roads and transport, especially in the Levantine region. Adam has been collecting all published evidence of roads, infrastructure and Roman milestones that were placed along roads, and critically assessing the reliability of these sources. He combines this evidence with scrutinizing satellite photography, aerial photography and maps, to retrace in detail in a GIS the actual paths that Roman roads might have followed.

This work is very much enhanced thanks to our collaboration with project VIATOR-E directed by Pau de Soto (Universitat Autònoma de Barcelona), who collects the roads for the western part of the Empire. MINERVA is also collaborating with the ERC Desert Networks project directed by Dr. Bérengère Redon (CNRS), to incorporate the most plausible routes through the Egyptian eastern desert.



**A:** Roman road in the Golan Heights. Looking east (© Adam Pažout). **B:** A segment of a Roman road in the Golan Heights, with milestones in situ on the left (© Michael Eisenberg).

## Research Activities at Machkhomeri, Georgia

Written by: Postdoc Emanuele E. Intagliata



Machkhomeri hill is situated in modern Khobi municipality, 3.5 km to the northwest of Khobi and approximately 22 km to the east of the Black Sea coast. A joint Georgian-Danish archaeological team lead by Emanuele E. Intagliata (UrbNet) and Revaz Papuashvili (Georgian National Museum) in collaboration with Ivane Javakhishvili Tbilisi State University (Davit Naskidashvili) and Khobi municipality (Gogita Chitaia) has been conducting excavations at this site since 2019. The excavations have brought to light a basilica church whose first phase of construction is dated to the 6th century CE, but which underwent significant later alterations. The investigations have revealed that the site placed itself as an intermediary node within a dense urban network with which it interacted culturally and economically. Although the exact function of this site remains to be ascertained, based on the epigraphic record it is clear by now that Machkhomeri was a place of religious convergence.

This year, due to COVID-19 restrictions, the planned joint excavation could not take place. Nonetheless, a short, two-weeks study campaign was still conducted in summer 2021. The study targeted a large lot of glass material retrieved during the excavation of the room to the west of the circular apse (Room D). The glass fragments were found immediately on top of a red-coloured mortar floor – mostly within a recess that was used to accommodate a burial. They were collected from the nave of the building and thrown into Room D during a phase of refurbishment of the church and when this room was no longer in use. The material was found in association with narrow metal straps that were used in glass lamps to hold wicks in position. Over 330 diagnostic glass fragments and 26 metal finds brought to light from the 2019 excavations have been systematically recorded, photographed and, in some cases, drawn. The glass material was further subdivided into fabrics and forms based on an autoptic analysis. The overwhelming majority of these fragments can easily be identified as belonging to glass lamps – whose forms are standardised and well-known throughout the Black Sea region and beyond from the 4th century onwards. A few fragments probably pertained to glass bottles.

Preliminary chemical trace analyses conducted by Gry H. Barfod (AGIR, Aarhus University) on a small sample

of this material in 2020 have revealed that this material was recycled Roman glass. The existence of recycled glass demonstrates the presence of local circular economic processes in which used material was not simply discarded after use but melted and reintroduced in the economic system. This is in line with what is visible in the walls and floors of the church, which often employed reused building material – from small broken tiles and bricks to large and entire thresholds. The preliminary results of the 2021 campaign, therefore, call for more intensive research on economic circularity in late antique western Georgia, starting with a more systematic examination of the material from Machkhomeri and surrounding sites.



**A:** A selection of hollow stems from glass lamps, Room D, basilica church, Machkhomeri (© Emanuele E. Intagliata, August 2021). **B:** The densely forested Machkhomeri hill as seen from the west (© Davit Naskidashvili, August 2019).

## Søren M. Sindbæk Appointed Professor of Medieval Archaeology



UrbNet's deputy director, Søren M. Sindbæk, was appointed full professor in August 2021 at the Department of Archaeology and Heritage Studies, School of Culture and Society, Aarhus University.

Søren M. Sindbæk's work has brought to the scholarly world new insights into urbanism in the medieval period in northern Europe. He is an internationally acclaimed leading expert on the Viking Age and its

wide range of networks. In 2021 he, both single-handedly and together with colleagues, published groundbreaking results on high-definition chronology, little-known aspects of Viking-age religious rituals and the production of metal objects in the Viking Age, among other things, in high-impact journals such as *Nature* and *Medieval Archaeology*. We are extremely proud that he has been appointed to a full professorship.

## Lecture Series by Visiting Professor Christopher H. Hallett

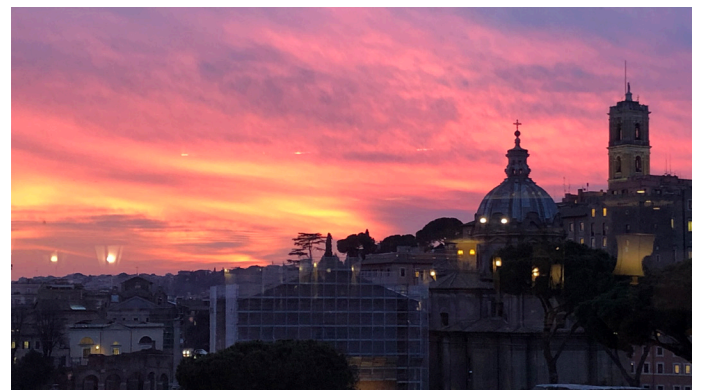


In the spring of 2021, researchers and students from all over the world tuned in to UrbNet's virtual lecture room to learn more about marble portraits, bronze statuettes and sculpture installations popular in the Roman Empire. UrbNet's visiting professor Christopher H. Hallett (UC Berkeley) guided the audience through the ancient sculptural landscape while presenting his new research.

Professor Hallett is a leading expert on ancient sculpture, and his research on visual culture of the ancient world has led him to explore related subjects such as Greek and Roman bronzeworking, nude portraiture, mummy portraits in Roman Egypt, Roman copies of Greek sculpture, and monumental sarcophagi. UrbNet had the pleasure of having Hallett as a visiting professor from September 2020 to June 2021 – a period in which he also acted as consultant to the project *The Excavation of Caesar's Forum in Rome*, co-directed by Professor and Centre Director Rubina Raja.

The lecture series was entitled *New Research on the Materials of Ancient Sculpture*, and through six lectures, developments in sculptural technique and in artistic taste in the urban centres of the Roman Empire, especially in Rome, were unfolded and explored. Urban centres prompted innovations and gave rise to sculpture production and new refined techniques. Hallett discussed, among many things,

the main-intended view of portrait sculpture, the formation of art collections by members of the Roman elite and the representation of different types of bronze statuettes in Roman visual culture. The audience was also taken to the centre of Rome, where aspects of Caesar's and Augustus' building programmes in the eternal city were highlighted through discussions about sacred G.s, wooden cult images and the first imperial forum. The final lecture was given jointly with Rubina Raja, and here the lecturers presented their joint research on the topic 'Caesar as the second founder of Rome' along with new results from the excavations in the heart of Rome.



View of Caesar's Forum and the Capitoline Hill, Rome (© Rubina Raja).

## The Connected Past: Artefactual Intelligence

In September, *The Connected Past 2021* conference was held at Aarhus University. We welcomed 40 international participants at the Museum of Ancient Art on campus as well as numerous online guests.

The theme of this year's *Connected Past* conference was Artefactual Intelligence. The presented papers and the lively discussions centered around artefacts, human and material agency, artificial and artefactual intelligence and their place within archaeological and historical network studies. Professor Joan A. Barceló (Universitat Àutònoma de Barcelona) gave the keynote lecture on Bayesian Belief network and probabilistic causal modelling to relate present observations (the archaeological record) with inferred social activity in the past.

Associate Professor Tom Brughmans, Professor Rubina Raja and Professor Søren M. Sindbæk (all from UrbNet) organised the conference in collaboration with Dr. Lieve Donnellan from the University of Melbourne within the framework of *The Connected Past* community. This community is led by a multi-disciplinary international steering

committee, and it aims to provide discussion platforms for the development of original and critical applications of network and complexity approaches to archaeology and history. To this purpose *The Connected Past* organises international conferences, focused seminars and practical didactic workshops.

In connection with the conference in Aarhus, UrbNet also hosted a workshop for PhD students of archaeology and history. Several international experts taught at the course, where the PhD students gained practical skills in network research.

## Rubina Raja Receives Queen Margrethe II's Roman Prize

This year, UrbNet's centre director, Professor Rubina Raja, received Queen Margrethe's Roman Prize. She received it for her research and work within the field of classical archaeology, which widely spans the Levant to the core of the Roman Empire. It was highlighted that her research has pushed the frontiers of classical archaeology in recent years, and that the ongoing excavation at Caesar's Forum in the heart of Rome is a good example of this. Doing high-definition archaeology in the urban context of ancient Rome, she has been part of a team setting new standards for classical archaeological projects.

The prize, and the accompanying 30,000 DKK, was awarded on 29 October 2021 at the Annual Meeting of The Danish Institute in Rome. In connection with this, Rubina Raja delivered the evening's gala lecture entitled 'Giraffes, lovers, tyrants and urban visionaries: The Danish-Italian excavations of Caesar's Forum', in which she presented both her own research on Caesar and the newest results from the excavation.

Queen Margrethe's Roman Prize was first estab-

lished in 2015 by the Carlsberg Foundation, and it is awarded to strengthen and honour research conducted at or in relation to The Danish Institute in Rome. Furthermore, the prize seeks to preserve and further develop the cultural ties between Denmark and Italy.



Professor Rubina Raja together with Charlotte Bundgaard (Director of The Danish Institute in Rome), Mads K. Holst (Chairman of the board of The Danish Institute in Rome) and Flemming Besenbacher (Chairman of the board of the Carlsberg Foundation) (Photo: Brian B. Nielsen).

## The 1001 Faces of Palmyra

In April 2021, the documentary *The 1001 Faces of Palmyra* premiered. The 90-minute long film is a documentary about the oasis city of Palmyra, which flourished in the Roman period. It takes as its point of departure the research conducted within the framework of the *Palmyra Portrait Project*, directed by Professor and Centre Director Rubina Raja and funded by the Carlsberg Foundation between 2012 and 2020.

The film follows Rubina Raja and the *Palmyra Portrait Project* around the world, as they collect the corpus of limestone funerary portraits from the city, which today are spread across the world: from the collection at Ny Carlsberg Glyptotek in Copenhagen (the largest collection of Palmyrene funerary portraits outside Syria) to the collection in the Musei Vaticani in Rome; and from the Getty Villa in Los Angeles, where an exhibition of Palmyrene funerary sculpture was featured in 2018, to the collection of the famous French sculptor Auguste Rodin in Paris. As the protagonist of the documentary, Rubina Raja unfolds and explores the fascinating history of Palmyra through her research on Palmyra. This is done together with several internationally acclaimed

experts on Palmyra – many of whom have collaborated closely with the project.

The documentary, which is directed by Meyar Al-Roumi and produced by Un film à la patte and ARTE France, underlines the great potential of studying Palmyra through the remaining limestone portraits of its former inhabitants.



A screenshot from the film. (ARTE France).

## Two New Volumes of Journal of Urban Archaeology

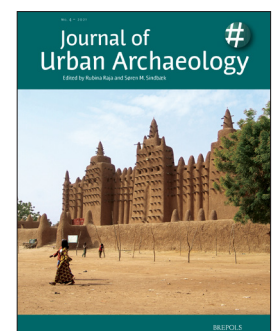
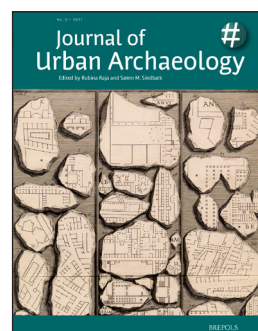
UrbNet is proud to present two further fantastic volumes of *Journal of Urban Archaeology* (JUA), issues 3 and 4. The journal is founded and edited by Professors Rubina Raja and Søren M. Sindbæk, and the first volume of the journal was published in 2020. The journal has come into existence as a result of the research done at the centre, and four volumes can now be found online, Open Access, as well as in print.

The third volume was published in April 2021, and its nine papers and editorial explore urban networks through the lens of network evolutions and high-definition archaeology. It is a special issue with contributions from two of UrbNet's agenda conferences (both held in 2017), which brought together scholars exploring how new forms of data can be harnessed to test, challenge and revise narratives of particular urban sites and fundamental assumptions about trajectories, dynamics and causal conditions of urbanisation in the pre-modern past.

In October 2021, the fourth volume appeared. Ten papers discuss urban archaeology, and the papers take us from Bronze-age China to the Early Viking Age in Northern

Norway, and open public spaces, epigraphic habit and Environmental Kuznets Curves are just some of the topics of this fourth volume of JUA.

The double-blind peer-reviewed journal is Open Access and invites papers covering a range of subjects, from major new fieldwork in urban sites to discussions of theory and methodology, or wider studies exploring the culture, conditions, and connectivities of urban societies in the past.



## Research Stay in a Hybrid World

**Project:** The Excavation of Caesar's Forum in Rome

**Funding:** The Carlsberg Foundation

**Written by:** PhD Student Line E. Hejlskov

Following the pandemic, the world is getting used to a new normal, where the hybrid format is gaining footing. During my research stay in Oxford, hosted by Professor Bryan Ward-Perkins, this became very apparent to me. From October to December 2021, I ventured into a different academic milieu than I am used to at UrbNet. My main focus was using the libraries at University of Oxford, while writing on my dissertation about the urban development of Rome examined through Caesar's Forum during Late Antiquity and the early medieval period. However, as the OCLA (Oxford Centre for Late Antiquity) offers a beautiful variety of weekly seminars, I also attended several of these and had the opportunity to present my own research and its embedment within UrbNet and The Excavation of Caesar's Forum in Rome. The seminars have a hybrid format this year, some only virtual still, but sometimes followed by drinks in the physical world. Attending seminars and presenting my research within this format made it possible to socialise and network and thus get the most out of my stay. However, presenting in a hybrid format, where I needed to remember to look into the camera and make eye contact with the audience simultaneously, proves a complex art with new problems to tackle. But, as I see, also at UrbNet's events, the possibility of reaching a broader audience is present. I think the hybrid world is here to stay, even when the pandemic is over. My stay in Oxford allowed me to practice my skills in the art of hybrid presenting, meet new and interesting people and write on my thesis.



*Line Egelund entering the Radcliffe Camera – the iconic Oxford landmark and working library (© Ole Hejlskov).*



# Anomalocivitas: A Conference about Extraordinary and Invisible Urban Societies

Written by: Professor Rubina Raja and Professor Søren M. Sindbæk

Urbanism has been regarded as nearly synonymous with social complexity and civilisation. And the discipline of urban archaeology has developed with a focus on particular examples of cities: Bronze-age cities of the Near East, Classical-period cities of the Mediterranean, highland cities of Mesoamerica and high-medieval cities of Northern Europe. This line of thinking was brought up for reconsideration in the UrbNet conference Anomalocivitas. Scholars were invited to discuss more globally oriented historical and archaeological research exposing urbanity as a phenomenon that varies widely across time and space – sometimes in extraordinary and surprising ways.

The conference was held virtually in June, and for two days the participants discussed urban characteristics, misidentification of sites, unexpected architecture, unusual settlement trajectories and the need to develop new assessment criteria – or a reconsideration of such criteria altogether. The difficulties of tracing settlements throughout time and the consequences for our understanding was stressed throughout the conference, and the role of social and economic hierarchies, the significance (or lack thereof) of longevity and the great heterogeneity of the urban societies discussed were all emphasised. The consequences of that heterogeneity for understanding how and indeed if the types of anomalocivitates relate was also debated.

The conference was organised by Professors Rubina Raja and Søren M. Sindbæk. The papers delivered at the conference have been turned into a special volume of the *Journal of Urban Archaeology*, which is due to be published in the spring 2022.

**Anomalocivitas**  
28–29 June 2021

Organisers:  
Rubina Raja and Søren M. Sindbæk  
Centre for Urban Network Evolutions (UrbNet), Aarhus University

UrbNet  
Danmarks  
Forskningsrådgivning  
Research Foundation  
AARHUS  
UNIVERSITY

## Events

### Organisation of conferences and workshops

Some of these events were co-organised with external partners, but for the purpose of this report, only the relevant UrbNet employee(s) is/are listed.

5 January 2021

Session: "Caesar's Forum: The urban histories of central Rome", conference: *Institute of America Annual Meeting* (virtual)  
Rubina Raja, Sine G. Saxkjær and Jan K. Jacobsen

5 January 2021

Session: "Archive archaeology and cultural heritage: Documentation in conflict zones", conference: *Institute of America Annual Meeting* (virtual)  
Rubina Raja, Olympia Bobou and Amy C. Miranda

7 January 2021

Session: "Circular economy and urban sustainability in Antiquity: Comparative perspectives from the ancient world with a point of departure in Palmyra", conference: *Archaeological Institute of America Annual Meeting* (virtual)  
Rubina Raja and Olympia Bobou

10 January 2021

Session: "Unusual choices in Palmyrene funerary iconography", conference: *Archaeological Institute of America Annual Meeting* (virtual)  
Rubina Raja

11 March 2021

Conference: *Measuring the World against the Body: Materialities and Meanings of Magnification and Miniaturisation in Religious Communication in Antiquity and Modernity*, International Graduate School Graz/Erfurt 'Resonant Self-World Relations in Socio-Religious Practices in Antiquity and Modernity' in collaboration with University of Liverpool and UrbNet, Aarhus University (virtual)  
Rubina Raja

17 May 2021

Colloquium: *Meaningful Memory Colloquium*, Aarhus University (virtual)  
Trine A. Hass

28–29 June 2021

Conference: *Anomalocivitas*, Aarhus University, Aarhus, Denmark (virtual)  
Rubina Raja and Søren M. Sindbæk

9 September 2021

Session: "Resource use and recycling in urban ecologies", conference: *The 27th Annual Meeting of the European Association of Archaeologists* (virtual)  
Olympia Bobou, Rubina Raja and Stephanie Wynne-Jones

9 September 2021

Session: "Misuse of the medieval in the Early 21st century", conference: *The 27th Annual Meeting of the European Association of Archaeologists* (virtual)  
Søren M. Sindbæk

10 September 2021

Session: "On the shoulders of Prometheus: International collaboration and the Archaeology of the South Caucasus", conference: *The 27th Annual Meeting of the European Association of Archaeologists*, virtual event  
Emanuele E. Intagliata

29–30 September 2021

Conference: *The Connected Past*, Aarhus University, Aarhus, Denmark (hybrid)  
Tom Brughmans, Rubina Raja and Søren M. Sindbæk

11–12 October 2021

Workshop: *Exchange and Reuse: Economy and Circularity at Roman Palmyra*, Aarhus University, Aarhus, Denmark  
Rubina Raja

21 October 2021

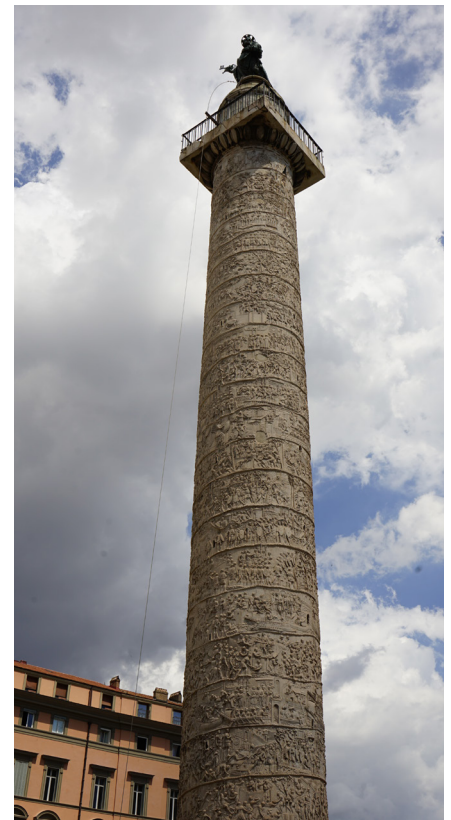
Conference: *Cities on the Edge: Exploring Late Antique urbanism in the Southern Caucasus (AD 300–600)*, Aarhus University, Aarhus, Denmark (NOTE: The conference was cancelled)  
Emanuele E. Intagliata

20 November 2021

Session: "Network approaches to Near Eastern archaeology and history", conference: *2021 ASOR Annual Meeting*, Chicago, US  
Ioana Dumitru

11 December 2021

Session: "Network approaches to Near Eastern archaeology and history", conference: *2021 ASOR Annual Meeting* (virtual component),  
Ioana Dumitru



Trajan's Column in Rome, Italy, November 2021  
(© Eva Mortensen).

## Invited talks

Some of these papers were co-authored/-presented with external partners, but for the purpose of this report, only the relevant UrbNet employee(s) is/are listed.

5 January 2021

'Caesar's Forum in the early medieval period', *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Line E. Hejlskov

5 January 2021

'Huts, houses, and the urbanization of archaic Rome', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Nikoline Sauer

5 January 2021

'Caesar's Forum: The urban histories of central Rome: An introduction', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Rubina Raja

5 January 2021

'New results from the Danish-Italian excavations on Caesar's Forum (The Caesar's Forum Project)', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Rubina Raja and Jan K. Jacobsen

5 January 2021

'New directions in archive archaeology: Unleashing the potential of the Ingholt Archives (Palmyra)', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Rubina Raja, Olympia Bobou and Amy Miranda

5 January 2021

'Urban ethnicities and Roman genealogies', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Sine G. Saxkjær

5 January 2021

'Caesar, Rome, and the Danes', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Trine A. Hass

7 January 2021

'An archaeological perspective on the Environmental Kuznets Curves (EKC)', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Iza Romanowska

7 January 2021

'Producing Palmyrene oculi reliefs', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Julia Steding

7 January 2021

'Coins and economic patterns in Roman Palmyra', *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Nathalia B. Kristensen

7 January 2021

'Circular economy and urban sustainability in Antiquity: New perspectives on ancient material', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Rubina Raja

10 January 2021

'Birds of prey', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Olympia Bobou

10 January 2021

'Portrait representations on attributes in the Palmyrene funerary sculpture', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Rubina Raja

10 January 2021

'Unusual choices in Palmyrene funerary iconography: An introduction', conference: *Archaeological Institute of America/Society for Classical Studies Joint Annual Meeting 2021* (virtual)  
Rubina Raja

8 February 2021

'Northern emporium: The archaeology of Ribe, the Anglo-Saxon mission in Frisia, and the making of Viking-age', University of St. Andrews, United Kingdom (virtual)  
Søren M. Sindbæk

23 February 2021

'(Re)using the past: reuse practices in Late Antique and Early Islamic Palmyra', *Archaeology Seminar Series*, Heidelberg University, Heidelberg, Germany  
Emanuele E. Intagliata

25 February 2021

'Stars and signs in Palmyra', conference: *Measuring the World against the Body*, University of Erfurt, Germany (virtual)  
Olympia Bobou

8 March 2021

'Ephemeral architecture, seasonal activities, permanent settlement – intersecting urban timelines in Viking-Age Ribe', *Medieval Archaeology Seminar Series*, University of Oxford, UK  
Sarah Croix

12 March 2021

'A Caesarian Christmas story', UrbNet staff seminar, Aarhus University, Aarhus, Denmark  
Trine A. Hass

23 March 2021

'Spirantia aera, vivos vultus: "Breathing bronze, living faces": The making of portraits at Aphrodisias and Rome', lecture series: *New Research on the Materials of Ancient Sculpture*, Aarhus University, Aarhus, Denmark  
Christopher H. Hallett

25 March 2021

"The most beautiful female portrait I have ever seen": Palmyrene funerary portraiture and its significance for the study of ancient portrait representations', Institute of Fine Arts, New York, USA (virtual)  
Rubina Raja

13 April 2021

'Ancient bronzes as art objects: Roman collectors and "Corinthian bronzes"', lecture series: *New Research on the Materials of Ancient Sculpture*, Aarhus University, Aarhus, Denmark  
Christopher H. Hallett

14 April 2021

'Introduction: New perspectives on archive archaeology', PhD course: *New Perspectives on Archaeology*, Aarhus University, Aarhus, Denmark (virtual)  
Olympia Bobou, Amy Miranda and Rubina Raja

14 April 2021

'Archive, Archaeology, Assemblage: Some Potentials of the Ingholt Archive', PhD course: *New Perspectives on Archaeology*, Aarhus University, Aarhus, Denmark (virtual)  
Amy Miranda

14 April 2021

'The tomb of Hairan: From excavation to reconstruction', PhD course: *New Perspectives on Archaeology*, Aarhus University, Aarhus, Denmark (virtual)  
Olympia Bobou

15 April 2021

'Introduction: Urban resilience in the ancient World', PhD course: *Urban Resilience in the Ancient World: Methodological Approaches and Reconsiderations*, Aarhus University, Aarhus, Denmark (virtual)  
Emanuele E. Intagliata and Rubina Raja

15 April 2021

'Resilience of what? Late antique Palmyra as a case study to shed light on urban resilience', PhD course: *Urban Resilience in the Ancient World: Methodological Approaches and Reconsiderations*, Aarhus University, Aarhus, Denmark (virtual)  
Emanuele E. Intagliata

15 April 2021

'Polycultures and production gardens – did with-in city food production make Late Antique Near East cities more resilient?', PhD course: *Urban Resilience in the Ancient World: Methodological Approaches and Reconsiderations*, Aarhus University, Aarhus, Denmark (virtual)  
Søren M. Kristiansen

15 April 2021

'Introduction: Urban resilience in the ancient world', PhD course: *Urban Resilience in the Ancient World: Methodological Approaches and Reconsiderations*, Graduate School at the Faculty of Arts, Aarhus University, Aarhus, Denmark (virtual)  
Emanuele E. Intagliata and Rubina Raja

15 April 2021

'Resilience of what? Late antique Palmyra as a case study to shed light on urban resilience', PhD course: *Urban Resilience in the Ancient World: Methodological Approaches and Reconsiderations*, Graduate School at the Faculty of Arts, Aarhus University, Aarhus, Denmark (virtual)  
Emanuele E. Intagliata

15 April 2021

'Simulating Roman economies', Department of Classics, Stanford University, Stanford, USA (virtual)  
Tom Brughmans

16 April 2021

'Mellem myter og material kultur: Rom i den arkaiske periode', The Saxo Institute, University of Copenhagen (virtual)  
Nikoline Sauer

20 April 2021

'Miniature cult images: "Corinthian bronzes", hand-held processional statuettes, and early imperial representations of the Roman Lares', lecture series: *New Research on the Materials of Ancient Sculpture*, Aarhus University, Aarhus, Denmark  
Christopher H. Hallett

21 April 2021

'Caesar, Romerriget og danskerne', lecture for sixth form Latin students from Ikast-Brande Gymnasium, Aarhus University Park, Aarhus University, Aarhus, Denmark  
Trine A. Hass

4 May 2021

'The wood comes to the city: Ancient trees, sacred G.s, and the "greening" of early Augustan Rome', lecture series: *New Research on the Materials of Ancient Sculpture*, Aarhus University, Aarhus, Denmark  
Christopher H. Hallett

6 May 2021

'The impact of archaeology students on the development of Danish field methods', MCH Seminar: PhD-conversations (virtual)  
Johan S. Larsen

18 May 2021

'Archaic wooden sculpture in Augustan temples: Greek and Etruscan cult images in new and refurbished architectural settings: 33–20 BC', lecture series: *New Research on the Materials of Ancient Sculpture*, Aarhus University, Aarhus, Denmark  
Christopher H. Hallett

19 May 2021

'Introduction: Reuse in the archaeological record', PhD course: *Reuse Practices in Roman and Late Antique Cities*, Aarhus University, Aarhus, Denmark (virtual)  
Emanuele E. Intagliata and Rubina Raja

19 May 2021

'Contextualising finds from complex urban archaeological stratigraphies: Methodological considerations on the finds from the Danish-German Jerash Northwest Quarter (2011–2016)', PhD course: *Reuse Practices in Roman and Late Antique Cities*, Aarhus University, Aarhus, Denmark (virtual)  
Rubina Raja

19 May 2021

'An inconvenient truth: New methods for evaluating the impact of amphora reuse', PhD course: *Reuse Practices in Roman and Late Antique Cities*, Aarhus University, Aarhus, Denmark (virtual)  
Tom Brughmans

19 May 2021

'Reuse practices in the Roman east: The case of late antique Palmyra', PhD course: *Reuse Practices in Roman and Late Antique Cities*, Aarhus University, Aarhus, Denmark (virtual)  
Emanuele E. Intagliata

26 May 2021

'Wood gilding and painting in Ptolemaic Egypt: the Syrens coffin from Saqqara', conference: *From Trees to Arts and Crafts in Classical Antiquity: Exploring Making in Wood*, King's College London; UK (virtual)  
Cristina Boschetti

3 June 2021

'Itiner-e. A gazetteer of roads', Pelagios Network (virtual)  
Tom Brughmans

6 June 2021

'Methods and current research: Urban development in Rome – space through time: A study of Caesar's Forum', UrbNet, Aarhus University, Aarhus, Denmark (virtual)  
Line E. Hejlskov

15 June 2021

'Julius Caesar as second founder of Rome and the evolution of the first Imperial Forum', lecture series: *New Research on the Materials of Ancient Sculpture*, Aarhus University, Aarhus, Denmark  
Christopher H. Hallett and Rubina Raja

24 June 2021

'Networked medieval strongholds in 'Garhwal Himalaya, India', workshop: *Mathematical geographical modelling for environmental humanities*, Kyoto Research Institute for Mathematical Sciences, Kyoto, Japan (virtual)  
Tom Brughmans

9 July 2021

'A kinship network analysis of Palmyrene genealogies', conference: *Networks 2021*, Indiana University, Bloomington, USA  
Tom Brughmans, Olympia Bobou, Nathalia B. Kristensen, Rikke R. Thomsen, Jesper Jensen and Rubina Raja

9 July 2021

'Archaeometry of silver', *ARCHMAT Summer School 2021*  
Mahir Hrnjić

20 August 2021

'Power, empowerment and disempowerment in the field: Western female archaeologists, writers and travelers in the 19th- and 20th-century Near East', keynote lecture, conference: *The 13th Nordic Women's and Gender History Conference*, Aarhus University, Aarhus, Denmark  
Rubina Raja

3 September 2021

'The Rubicon of Stevns: Julius Caesar and King Christian IV of Denmark-Norway in Elverhøi (1828) and Asterix romernes skræk (1972, orig.: *Le bouclier arverne*, 1967)', keynote lecture, conference: *Popular Receptions of Classical Antiquity: The Aarhus Studies in Mediterranean Antiquity 2021 Conference*, Aarhus Institute of Advanced Studies, Aarhus University, Aarhus, Denmark  
Trine A. Hass

3 September 2021

Interview about the Palmyra Portrait Project in connection with the Danish premiere of the documentary "The 1.001 Faces of Palmyra", Grand Teatret, Copenhagen, Denmark  
Rubina Raja

4 September 2021

'Cæsar: Manden og myten', Ny Carlsberg Glyptotek, Copenhagen, Denmark  
Rubina Raja and Trine A. Hass

9 September 2021

'Om Cæsar, Cæsarreception og om at arbejde som forsker', lecture for sixth form Latin students from Skanderborg Gymnasium, The Museum of Ancient Art, Aarhus University, Aarhus, Denmark  
Trine A. Hass

10 September 2021

'Praying at the foot of the Greater Caucasus: Preliminary results of the excavations at Machkhomeri (Khobi municipality, western Georgia)', conference: *27th Annual Meeting of the European Association of Archaeologists*; session: On the shoulders of Prometheus: International collaboration and the Archaeology of the South Caucasus, Kiel, Germany (virtual)  
Emanuele E. Intagliata

16 September 2021

'Simulating the complexity of societies with agent-based modelling', AIAS Book Launch, Aarhus University, Aarhus, Denmark  
Iza Romanowska

22–23 September 2021

'Hvordan påvirker klimaet kulturarven?', Norsk Institutt for Kulturminneforskning, Oslo, Norway (virtual)  
Søren M. Kristiansen

1 October 2021

'Textile production and use of space in urban contexts: A contextual analysis at Ribe's Viking-Age emporium', conference: *38th Interdisciplinary Viking Symposium*, National Museum of Denmark, Denmark  
Sarah Croix

4 October 2021

'A city in a desert: What can we learn about urban resilience from ancient Palmyra?', AIAS Seminar, Aarhus University, Aarhus, Denmark  
Iza Romanowska

6 October 2021

'Cæsar og Cæsars Rom', Danish University Extension, Aarhus, Denmark (virtual)  
Sine G. Saxkjær

11 October 2021

'Introduction', workshop: *Exchange and Reuse: Economy and Circularity at Roman Palmyra*, Aarhus University, Aarhus, Denmark  
Rubina Raja

11 October 2021

'Modelling urban hinterland: The case study of Roman Palmyra', workshop: *Exchange and Reuse: Economy and Circularity at Roman Palmyra*, Aarhus University, Aarhus, Denmark  
Iza Romanowska, Joan Campmany Jiménez and Rubina Raja

12 October 2021

'Reuse of building material in Late Antique and Early Islamic Syria: The evidence from Palmyra', workshop: *Exchange and Reuse: Economy and Circularity at Roman Palmyra*, Aarhus University, Aarhus, Denmark  
Emanuele E. Intagliata

12 October 2021

'The jewellery of the women of Palmyra', workshop: *Exchange and Reuse: Economy and Circularity at Roman Palmyra*, Aarhus University, Aarhus, Denmark  
Olympia Bobou

12 October 2021

'(Re-)carving and (re-)use of Palmyrene funerary portraits', workshop: *Exchange and Reuse: Economy and Circularity at Roman Palmyra*, Aarhus University, Aarhus, Denmark  
Julia Steding

13 October 2021

'På sporet af vikingetidens handelsnetværk i Ribe', lecture series: *Vin & Videnskab*, Natural History Museum of Denmark, Copenhagen, Denmark  
Søren M. Sindbæk

13 October 2021

'Palmyras afdøde som vinduer til fortiden', lecture series: *Vin & Videnskab*, Natural History Museum of Denmark, Copenhagen, Denmark  
Rubina Raja

19 October 2021

'Crafts in Emporia: Comacchio versus Ribe', meeting: *Ten Years after "From One Sea to Another": Venice, Comacchio and the Northern Adriatic emporia during the Early Middle Ages*, Ca' Foscari University of Venice, Venice, Italy  
Søren M. Sindbæk

21 October 2021

'Faglitterær Salon i Aarhus: Et eksklusivt interview med Rubina Raja', Godsbanen, Aarhus, Denmark  
Rubina Raja

28 October 2021

'Caesar's Forum in Late Antiquity', Late Roman Seminar, OCLA, University of Oxford, UK (virtual)  
Line E. Hejlskov

28 October 2021

'Introduktion til vikingetiden', Danish University Extension, Aarhus, Denmark (virtual)  
Søren M. Sindbæk

29 October 2021

'Giraffes, lovers, tyrants and urban visionaries: The Danish-Italian excavations of Caesar's Forum', *The Annual Meeting of The Danish Institute in Rome*, The Danish Institute in Rome, Rome, Italy  
Rubina Raja

3 November 2021

'Hvorfor blev det vikingetid', Danish University Extension, Aarhus, Denmark (virtual)  
Søren M. Sindbæk

6 November 2021

'Cæsar: Manden og myten – og hans oneliners', Bogforum, Bella Center, Copenhagen, Denmark  
Sine G. Saxkjær and Trine A. Hass

8 November 2021

'Cæsar i dansk romantisk litteratur', Dansk Selskab for Oldtids- og Middelalderforskning, The National Museum of Denmark, Copenhagen, Denmark  
Trine A. Hass

9 November 2021

'Kulstof 14 datering', lecture for students from Aarhus Statsgymnasie, Department of Physics and Astronomy, Aarhus University  
Thomas S. Daugbjerg

10 November 2021

'Cæsar – manden og myten,, lecture series: *Cæsar – Manden og Myten i Samtiden og Eftertiden*, The Danish University Extension, Aarhus University, Campus Emdrup, Denmark  
Sine G. Saxkjær

10 November 2021

'Urban archaeology in the heart of Rome in a longue durée perspective: Results from the new Danish-Italian excavations on Caesar's Forum', lecture series: *Althistorisches Forschungsscolloquium*, Freie Universität Berlin, Berlin, Germany  
Rubina Raja

12 November 2021

'Living closely together in the ancient world: But how, when, where and why?', conference: *The Challenges of Living Closely Together: Cross Cultural Perspectives*, Johannes Gutenberg-Universität Mainz, Ingelheim, Germany  
Rubina Raja

18 November 2021

'Arkæologisk og historisk forskningsetik: Hvem ejer fortiden?', PhD course: *Forskningsintegritet og Etik*, Graduate School at the Faculty of Arts, Aarhus University, Aarhus, Denmark  
Rubina Raja

20 November 2021

'Cæsar efter antikken – Vestens og vores', lecture series: *Cæsar – Manden og Myten i Samtiden og Eftertiden*, The Danish University Extension, Aarhus University Campus Emdrup, Copenhagen, Denmark  
Trine A. Hass

20 November 2021

'Cæsars Forum-projektet – de nye udgravninger på Cæsars Forum', lecture series: *Cæsar – Manden og Myten i Samtiden og Eftertiden*, The Danish University Extension, Aarhus University Campus Emdrup, Copenhagen, Denmark  
Sine G. Saxkjær

20 November 2021

'Cæsar – manden og byen, lecture series: *Cæsar – Manden og Myten i Samtiden og Eftertiden*, The Danish University Extension, Aarhus University Campus Emdrup, Copenhagen, Denmark  
Rubina Raja

20 November 2021

'Let him play the lyre, the drum, and the ...? Using SNA to simulate musical ensembles in Mesopotamian texts', conference: *2021 ASOR Meeting*, Chicago, USA  
Ioana Dumitru

20 November 2021

'Power and cooperation in decentralized regional economies: A diachronic perspective on the development of Obsidian supply networks in Northern Ethiopia (ca. 800 B.C.E. – 825 C.E.)', conference: *2021 ASOR Meeting*, Chicago, USA  
Ioana Dumitru

24 November 2021

'Why simulate ancient economies', workshop: *Forschungscluster 8: Methodisch-theoretisches Grundgerüst: Soziale Netzwerkanalyse, Archäo-Informatik und Naturwissenschaften im Zusammenspiel mit Wirtschaftsarchäologie*, The German Archaeological Institute (virtual)  
Tom Brughmans

25 November 2021

'Materialitet og religiøs praksis i Danmarks Middelalder', Research seminar: *Creating the New North*, University of Tromsø, Norway  
Sarah Croix

30 November 2021

'People, time and space in Viking-Age Ribe', conference: *From Central Place to Urban Space*, Lindholm Høje, Denmark  
Sarah Croix

30 November 2021

'Past, present and future approaches to research in the earliest urbanization, conference: *Spaces, Places and the Earliest Urbanization of South Scandinavia*, Lindholm Høje Museum, Aalborg, Denmark  
Søren M. Sindbæk

6 December 2021

'Approaching a new understanding of Archaic Rome: Archaeological material and archaeological science', Later European Prehistory Group, Cambridge University, UK (virtual)  
Nikoline Sauer

8 December 2021

'MINERVA: Digitising the roads of the Roman Empire', colloquium: *Viabundus Denmark Launch*, Moesgaard Museum, Denmark  
Adam Pažout



Walk and talk in the streets of Rome, July 2021 (© Eva Mortensen).

*Some of these events were co-organised with external partners, but for the purpose of this report, only the relevant UrbNet employee(s) is/are listed.*

18–19 January 2021  
Introduction to Metalwork Wear Analysis, Aarhus University, Aarhus, Denmark (virtual)  
Mahir Hrnjić

14 April 2021  
New Perspectives on Archive Archaeology, Aarhus University, Aarhus, Denmark (virtual)  
Rubina Raja, Olympia Bobou and Amy Miranda

5 February 2021  
*Indoor Use of a Viking Age House: Combining Geochemistry and Multi-Spectral Methods in Ribe, Denmark*, PhD defence, Aarhus University, Aarhus, Denmark (virtual)  
Pernille Lærke Krantz Trant

11 March 2021  
*Urban Development in Rome: Space through Time*, PhD pre-defence, Aarhus University, Aarhus, Denmark (virtual)  
Line E. Hejlskov

*Some of these events were co-organised with external partners, but for the purpose of this report, only the relevant UrbNet employee(s) is/are listed.*

15 April 2021  
Urban Resilience in the Ancient World: Methodological Approaches and Reconsiderations: Cases from the Late Antique and Early Islamic Near East, Aarhus University, Aarhus, Denmark (virtual)  
Rubina Raja, Emanuele E. Intagliata and Søren M. Kristiansen

19 May 2021  
Reuse Practices in Roman-Period and Late Antique Cities: Current Perspectives and New Approaches, Aarhus University, Aarhus, Denmark (virtual)  
Rubina Raja, Emanuele E. Intagliata and Tom Brughmans

6 August 2021  
*Radiocarbon Dating of Ancient Cities, Castles and Cathedrals: Use of Lime Mortar as a Datable Material*, PhD defence, Aarhus University, Aarhus, Denmark  
Thomas S. Daugbjerg

7 October 2021  
*An Archaeological Approach to Archaic Rome (6th–Early 5th Century BC): A Case Study of an Archaic Site in the Caesar's Forum Area*, PhD defence, Aarhus University, Aarhus, Denmark (hybrid)  
Nikoline Sauer

4 September 2021  
The 1001 Faces of Palmyra, Danish premiere of the documentary *The 1001 Faces of Palmyra* (Les visages oubliés de Palmyre) during the festival Golden Days, Grand Teatret, Copenhagen, Denmark  
Rubina Raja

27 September 2021  
Archaeological and Historical Network Research, Aarhus University, Aarhus, Denmark  
Tom Brughmans, Rubina Raja and Søren M. Sindbæk

12 November 2021  
*The Ghosts of Archaeologies Past: Innovations, developments, and movements of excavation practices in Danish towns*  
PhD defence, Aarhus University, Aarhus, Denmark (hybrid)  
Johan S. Larsen

6 November 2021  
'Cæsar: Manden, myten – og hans oneliners', Bogforum 2021, Copenhagen, Denmark  
Sine G. Saxkjær and Trine A. Hass

## PhD courses

## PhD defences / pre-defences

## Other events

## Public Outreach

*Some of these public outreach initiatives were made in collaboration with external partners, but for the purpose of this report, only the relevant UrbNet employee(s) is/are listed.*

7 January 2021

Myrdet med 23 dolkestød, 'hyggeonkel' og manden bag ordet kejsler – hvem var Cæsar?  
Videnskab.dk  
Trine A. Hass and Sine G. Saxkjær

22 February 2021

Stop udhulingen af universiteternes bevillinger  
Politiken  
Rubina Raja

11 March 2021

Lokal keramik var populært i den antikke by Gerasa  
Carlsberg Foundation  
Rubina Raja and Iza Romanowska

12 March 2021

Viaggio nella Roma del Divo Giulio: Foro di Cesare, nuovi scavi archeologici  
affaritaliani.it  
Jan K. Jacobsen and Rubina Raja

12 March 2021

Roma: Ripartono scavi Tempio di Venere al Foro di Cesare  
Radio Colonna  
Jan K. Jacobsen & Rubina Raja

12 March 2021

Roma, al via scavo Foro di Cesare, Raggi: "Città riserva continue sorprese"  
Adnkronos  
Jan K. Jacobsen and Rubina Raja

12 March 2021

La Danimarca finanzia scavi Foro di Cesare alla ricerca di resti Tempio di Venere  
Finestre sull'Arte  
Jan K. Jacobsen and Rubina Raja

12 March 2021

Foro di Cesare, iniziano scavi archeologici  
Roma Daily News  
Jan K. Jacobsen and Rubina Raja

12 March 2021

Foro di Cesare: Il Campidoglio annuncia l'avvio del 2° scavo archeologico  
ilCaffèdiRoma.it  
Jan K. Jacobsen and Rubina Raja

12 March 2021

È ripartita la ricerca di possibili resti del Tempio di Venere ai Fori  
Agenzia Italia  
Jan K. Jacobsen and Rubina Raja

12 March 2021

Al via scavi al Foro di Cesare, Raggi: "Città riserva continue sorprese"  
Il Messaggero  
Jan K. Jacobsen and Rubina Raja

12 March 2021

Al via lo scavo archeologico del Foro di Cesare  
comune.roma.it  
Jan K. Jacobsen and Rubina Raja

12 March 2021

A Roma scavi a Foro Cesare, in cerca resti Tempio di Venere  
prealpina.it  
Jan K. Jacobsen and Rubina Raja

12 March 2021

A Roma scavi a Foro Cesare, in cerca resti Tempio di Venere  
Oggi Notizie  
Jan K. Jacobsen and Rubina Raja,

12 March 2021

A Roma scavi a Foro Cesare, in cerca resti Tempio di Venere  
Ansa ViaggiArt  
Jan K. Jacobsen and Rubina Raja

13 March 2021

Foro di Cesare, nuovi scavi: si cerca il Tempio di Venere Genitrice  
Metropolitan Magazine Italia  
Jan K. Jacobsen and Rubina Raja

14 March 2021

Oldtidsby er forvandlet til ruiner af ruiner  
Politiken  
Rubina Raja

14 March 2021

Virginia Raggi, partono gli scavi al Foro di Cesare e il sindaco promette: "Roma riserva continue sorprese"  
liberoquotidiano.it  
Jan K. Jacobsen and Rubina Raja

14 March 2021

Roma: Ripartono gli scavi nel Foro di Cesare  
Arte News  
Jan K. Jacobsen and Rubina Raja

14 March 2021

Foro di Cesare, al via gli scavi per cercare i resti del tempio di Venere: Le immagini  
il Giornale.it  
Jan K. Jacobsen and Rubina Raja

14 March 2021

Al via scavi al Foro di Cesare, Raggi: "Città riserva continue sorprese"  
tgc24.it  
Jan K. Jacobsen and Rubina Raja

15 March 2021

Foro di Cesare, al via scavi archeologici: si cercano parti del Tempio di Venere Genitrice  
RomaToday  
Jan K. Jacobsen and Rubina Raja

16 March 2021

Al via lo scavo archeologico sul lato est del Foro di Cesare  
ArcheoMe  
Jan K. Jacobsen and Rubina Raja

17 March 2021

10 års borgerkrig i Syrien  
DR Kulturen på P1  
Rubina Raja

17 March 2021

Al via Roma lo scavo archeologico del Foro di Cesare  
TG Tourism  
Jan K. Jacobsen and Rubina Raja

18 March 2021

Shades of Middle-earth: Ancient fortresses loom over the Himalayas  
Nature  
Tom Brughmans

27 March 2021

Les visages oubliés de Palmyre  
12th edition of the Festival international du film d'archéologie  
Nyon  
Rubina Raja

27 March 2021

Intervention de Rubina Raja  
12th edition of the Festival international du film d'archéologie  
Nyon  
Rubina Raja



- 30 March 2021  
Les visages oubliés de Palmyre  
Twitter tweet by ARTE pro  
Rubina Raja
- 30 March 2021  
How signals of fire and smoke  
connected 193 forts in Himalayas  
Times of India  
Tom Brughmans
- 9 April 2021  
Anden udgravningsfase på Cæsars  
Forum i Rom  
Carlsberg Foundation  
Jan K. Jacobsen and Rubina Raja
- 14 April 2021  
Les Visages oubliés de Palmyre  
Télé Magazine  
Rubina Raja
- 16 April 2021  
Podcast: Evolution of sculptures in  
Ancient Greece  
The Ithaca Bound podcast with  
Andrew Schiestel  
Olympia Bobou
- 19 April 2021  
Ny storslået publikation om Julius  
Cæsars eftermæle  
Carlsberg Foundation  
Trine A. Hass and Rubina Raja
- 19 April 2021  
Les Visages oubliés de Palmyre  
Télé Star  
Rubina Raja
- 19 April 2021  
Les Visages oubliés de Palmyre  
Télé Câble Sat Hebdo  
Rubina Raja
- 19 April 2021  
Study reveals Vikings mastered  
metalworking in less than a century  
Courthouse News Service  
Vana Orfanou, Søren M. Sindbæk, Gry  
Barfod and Charles Leshner
- 20 April 2021  
Viking metalwork craft and expertise  
evolved from 8th to 9th century  
Springer Nature  
Vana Orfabou, Søren M. Sindbæk, Gry  
Barfod and Charles Leshner
- 20 April 2021  
Forskningsprojekt giver nyt indblik i  
vikingetidens håndværksproduktion  
JydskeVestkysten.dk  
Vana Orfabou, Søren M. Sindbæk, Gry  
Barfod and Charles Leshner
- 21 April 2021  
Les Visages oubliés de Palmyre  
Télérama  
Rubina Raja
- 22 April 2021  
Premiere på ny dokumentarfilm om  
Palmyra  
Carlsberg Foundation  
Rubina Raja
- 22 April 2021  
Nicht alle Wege führen nach Rom  
tagesspiegel.de  
Rubina Raja
- 22 April 2021  
Les Visages oubliés de Palmyre  
Valeurs actuelles  
Rubina Raja
- 24 April 2021  
Forskningsprojekt giver nyt indblik i  
vikingetidens håndværksproduktion  
Jyllands-Posten.dk  
Vana Orfabou, Søren M. Sindbæk, Gry  
Barfod and Charles Leshner
- 24 April 2021  
Sur Arte, "Les visages oubliés de  
Palmyre" dans un documentaire  
Ouest-France  
Rubina Raja
- 24 April 2021  
Palmyre: Sous les ruines, des visages  
oubliés  
Presse Océan  
Rubina Raja
- 24 April 2021  
Palmyra, unwiederbringlicher  
Wüstenschatz  
prisma.de  
Rubina Raja
- 24 April 2021  
"Les Visages oubliés de Palmyre",  
quand les pierres parlent  
Téléobs  
Rubina Raja
- 24 April 2021  
"Les Visages oubliés de Palmyre" sur  
Arte: Pourquoi l'antique cité syrienne  
fascine-t-elle tant l'Occident?  
Télérama  
Rubina Raja
- 24 April 2021  
Les visages oubliés de Palmyre,  
samedi soir sur ARTE  
frenchtouch2  
Rubina Raja
- 24 April 2021  
Les visages mystérieux de la cité de  
Palmyre  
Le Petit Bleu  
Rubina Raja
- 24 April 2021  
La Cité perdue  
Le Parisien  
Rubina Raja
- 24 April 2021  
Grandeur et décadence de Palmyre  
Paris Normandie  
Rubina Raja
- 24 April 2021  
Grandeur et décadence de Palmyre  
Le Télégramme de Brest  
Rubina Raja
- 24 April 2021  
Face á face avec Palmyre sur Arte  
Le Figaro  
Rubina Raja
- 30 April 2021  
Uncovering metal crafts Of the Viking  
Age  
Science Friday  
Vana Orfanou, Søren M. Sindbæk, Gry  
Barfod and Charles Leshner
- 11 May 2021  
Geomorfologi  
Aarhus Studenterradio, no. 49  
Søren M. Kristiansen
- 20 May 2021  
Jerash: Revealing a 'peripheral' part of  
an ancient city in northern Jordan  
Feature in Current World Archaeology  
107  
Eva Mortensen and Rubina Raja
- 3 June 2021  
Vikingeforskeren Søren Michael  
Sindbæk udnævnt til professor  
Folkebladet Lemvig  
Søren M. Sindbæk
- 3 June 2021  
Vikingeforskeren Søren Michael  
Sindbæk udnævnt til professor  
Dagbladet Holstebro Struer  
Søren M. Sindbæk
- 7 July 2021  
Vikingeforsker leverer Danmarks  
startopstilling: "For mange er det  
nok en stor overraskelse, at Svend  
Tveskæg starter på bænken"  
Politiken  
Søren M. Sindbæk
- 16 July 2021  
Ny professor til arkæologi  
Nordjyske Stiftstidende  
Søren M. Sindbæk
- 21 July 2021  
Graven in oasestad Palmyra fungerer  
als spegels van het wel en wee van  
de elite  
NRC  
Rubina Raja

- 3 August 2021  
Mytiske figurer på vikingeamuletter  
forestiller måske udklædte vikinger –  
ikke nordiske guder  
Videnskab.dk  
Pieterjan Deckers, Sarah Croix and  
Søren M. Sindbæk
- 5 August 2021  
Amuletter fra vikingetidens Ribe viser  
scener fra religiøse ritualer  
Carlsberg Foundation  
Søren M. Sindbæk
- 5 August 2021  
Viking 'amulet factory' discovery  
forces rethink of enigmatic artifacts  
National Geographic  
Pieterjan Deckers, Søren M. Sindbæk  
and Sarah Croix
- 31 August 2021  
Harald Bluetooth and the Danish Ring  
Forts  
Gone Medieval  
Søren M. Sindbæk
- 4 September 2021  
Golden Days Festival: Cæsar –  
manden og myten, live conversation  
in front of audience (published as a  
podcast by the Carlsberg Foundation,  
24 September 2021)  
Trine A. Hass
- 15 September 2021  
I dag vil vi kende den enkelte viking  
Kristeligt Dagblad  
Søren M. Sindbæk
- 16 September 2021;  
Cæsar: Kejser no. 1, in the series  
RomerRiget, live conversation at Café  
Europa (published as a podcast by the  
Carlsberg Foundation, 7 November  
2021)  
Trine A. Hass
- 19 September 2021  
10 trends i vikingeforskningen:  
Arkæologer vil ind under hjelmen på  
den enkelte viking  
Videnskab.dk  
Søren M. Sindbæk
- 24 September  
Podcast: Cæsar – manden og myten  
Carlsberg Foundation  
Trine A. Hass and Rubina Raja
- 24 September  
Harald Ingholts dagbøger afslører  
væld af nye detaljer fra udgravninger i  
Palmyra  
Carlsberg Foundation  
Rubina Raja and Julia Steding
- 30 September 2021  
Cæsar er det spejl vi altid har holdt  
op for os selv – Caesar, receptions  
of Caesar, and the book Cæsar:  
Manden og myten, eds.: T.A. Hass  
and S.G. Saxkjær, Aarhus: Aarhus  
University Press, 2020 – on occasion  
of Bogforum  
Trine A. Hass
- 3 October 2021  
Forskere: Mytiske vikingefigurer  
forestiller ikke nordiske guder  
Jyllands-Posten  
Pieterjan Deckers, Sarah Croix and  
Søren M. Sindbæk
- 6 October 2021  
Archive Archaeology: Preserving and  
Sharing Palmyra's Cultural Heritage  
through Harald Ingholt's Digital  
Archives  
ALIPH foundation YouTube Channel  
Amy Miranda and Rubina Raja
- 18 October 2021  
Professor: Vi står med en tikkende  
stressbombe på uddannelserne  
Politiken  
Rubina Raja
- 20 October 2021  
Forskere kan nu bevise, at vikingerne  
var i Nordamerika i år 1021  
Videnskab.dk  
Søren M. Sindbæk
- 20 October 2021  
Arkæologiske fund beviser, at  
vikingerne var i Amerika allerede for  
1.000 år siden  
dr.dk  
Søren M. Sindbæk
- 21 oktober 2021  
Nyt studie har fundet bevis for, at  
vikingerne var i Nordamerika i år 1021  
Jyllands-Posten  
Søren M. Sindbæk
- 21 October 2021  
Banebrydende forskning kaster lys  
over vikingetiden  
TV2  
Søren M. Sindbæk
- 22 oktober 2021  
Bevis hakket i træ: Vikinger var i  
Amerika for præcis 1000 år siden  
Fyns Amts Avis  
Søren M. Sindbæk
- 23 oktober 2021  
Vikingerne kom til Nordamerika for  
præcis 1000 år siden  
Kristeligt Dagblad  
Søren M. Sindbæk
- 30 October 2021  
Cæsar er det spejl, vi altid har holdt op  
for os selv  
Politiken Bøger  
Trine A. Hass
- 1 November 2021  
Professor Rubina Raja modtager  
Dronning Margrethes Romerske Pris  
2021  
Carlsberg Foundation  
Rubina Raja
- 3 November 2021  
Gåden om Danmarks første konge  
DRTV  
Søren M. Sindbæk
- 5 November 2021  
Han levede for mere end 2.000 år  
siden, men er stadigvæk højaktuel  
Politiken  
Trine A. Hass and Sine G. Saxkjær
- 6 November 2021  
Cæsar: Manden, myten – og hans  
oneliners  
Bogforum  
Trine A. Hass and Sine G. Saxkjær
- 8 November 2021  
Rubina Raja har altid gravet i fortiden,  
og lige nu befinder hun sig i centrum  
af den på Cæsars Forum i Rom  
Carlsbergfondet  
Rubina Raja
- 12 November 2021  
Computational modelling provides  
insight into the Roman economy  
The Community Research and  
Development Information Service's  
website  
Tom Brughmans
- 12 November 2021  
Professor Rubina Raja receives Queen  
Margrethes's Roman Prize 2021  
The Danish National Research  
Foundation  
Rubina Raja
- 20 November 2021  
Cæsars Forum-projektet – de nye  
udgravninger på Cæsars Forum  
Cæsar – manden og myten i samtiden  
og eftertiden, Danish University  
Extension  
Sine G. Saxkjær
- 20 November 2021  
Cæsar – manden og byen  
Cæsar – manden og myten i samtiden  
og eftertiden, Danish University  
Extension  
Rubina Raja

20 November 2021  
Cæsar efter antikken – Vestens og vores  
Cæsar – manden og myten i samtiden og eftertiden, Danish University Extension  
Trine A. Hass

22 December 2021  
Oldgammel solstorm og 107.000 nye fund fra Ribe ændrer den danske vikingehistorie  
Videnskab.dk  
Søren M. Sindbæk and Bente Philippsen

23 December 2021  
Forskere kaster klarere lys over vikingetidens handel mellem Mellemøsten og Skandinavien  
Carlsberg Foundation  
Søren M. Sindbæk

2021  
Vikings: The Rise and Fall  
TV documentary series, Abacus  
Søren M. Sindbæk



The Trevi Fountain in Rome, July 2021 (© Eva Mortensen).

## Visitors and Virtual Lecture Participants

Elizabeth Murphy  
(Florida State University)  
1 September 2020 – 16 June 2021

Christopher Hallett  
(UC Berkeley)  
29 September 2020 – 23 June 2021

Aggelos Mefsout  
(University of Crete)  
Lecture series, Spring 2021

Alice Clinch  
(Cornell University)  
Lecture series, Spring 2021

Alice Tetstall  
(Swansea University)  
Lecture series, Spring 2021

Alicia Jimenez  
(Duke University)  
Lecture series, Spring 2021

Alison Cooley  
(University of Warwick)  
Lecture series, Spring 2021

Alison Pollard  
(University of Oxford)  
Lecture series, Spring 2021

Allison Kidd  
(Clemson University)  
Lecture series, Spring 2021

Amalie Skovmøller  
(University of Copenhagen)  
Lecture series, Spring 2021

Amanda Claridge  
(Royal Holloway)  
Lecture series, Spring 2021

Andreas Neinhaus  
(Finanz und Wirtschaft)  
Lecture series, Spring 2021

Andrew Fox  
(University of Nottingham)  
Lecture series, Spring 2021

Andy Carr  
(Open University UK)  
Lecture series, Spring 2021

Anja Kloeckner  
(Goethe-University Frankfurt)  
Lecture series, Spring 2021

Anna Minor  
(Ny Carlsberg Glyptotek)  
Lecture series, Spring 2021

Annalisa Marzano  
(University of Reading)  
Lecture series, Spring 2021

Ashton Fancy  
(Princeton University)  
Lecture series, Spring 2021

Asuman Lätzer-Lasar  
(Max Weber Centre, University of  
Erfurt)  
Lecture series, Spring 2021

Audrey Gouy  
(UCPH)  
Lecture series, Spring 2021

Barbara Borg  
(University of Exeter)  
Lecture series, Spring 2021

Barry Strauss  
(Cornell)  
Lecture series, Spring 2021

Ben Russell  
(University of Edinburgh)  
Lecture series, Spring 2021

Ben Salisbury  
(University of Birmingham)  
Lecture series, Spring 2021

Bert Smith  
(University of Oxford)  
Lecture series, Spring 2021

Blair Fowlkes Childs  
(Independent researcher)  
Lecture series, Spring 2021

Brady Kiesling  
(ToposText.org)  
Lecture series, Spring 2021

Brian Martens  
(ASCSA)  
Lecture series, Spring 2021

Camilla Nielsen  
(Aarhus University)  
Lecture series, Spring 2021

Casper Meyer  
(Bard Graduate Center)  
Lecture series, Spring 2021

Catherine Vanderpool  
(American School of Classical Studies  
at Athens)  
Lecture series, Spring 2021

Cecilie Brøns  
(Ny Carlsberg Glyptotek)  
Lecture series, Spring 2021

Christiane Reitz  
(Universität Rostock)  
Lecture series, Spring 2021

Christina Nielsen  
(Aarhus University)  
Lecture series, Spring 2021

Consuelo Martino  
(University of St. Andrews)  
Lecture series, Spring 2021

Crystal Rosenthal  
(The University of Texas at Austin)  
Lecture series, Spring 2021

Daniel Healey  
(Princeton University)  
Lecture series, Spring 2021

Diana Spencer  
(University of Birmingham)  
Lecture series, Spring 2021

Dylan Rogers  
(University of Virginia)  
Lecture series, Spring 2021

Eva-Maria Vittnen  
(Independent researcher)  
Lecture series, Spring 2021

Eva Falaschi  
(Independent researcher)  
Lecture series, Spring 2021

Ewen Bowie  
(Corpus Christi College)  
Lecture series, Spring 2021

Felipe Rojas  
(Brown University)  
Lecture series, Spring 2021

Francesca D'Andrea  
(Scuola Normale Superiore, Pisa)  
Lecture series, Spring 2021

Gabriella Cirucci  
(University of Copenhagen)  
Lecture series, Spring 2021

George Watson  
(Swansea University)  
Lecture series, Spring 2021

Georgine Brabec  
(Northeastern Illinois University)  
Lecture series, Spring 2021

Gino Canlas  
(University of Alberta)  
Lecture series, Spring 2021

Giulietta Guerini  
(Scuola Normale Superiore)  
Lecture series, Spring 2021

Glenn Most  
(Scuola Normale Superiore)  
Lecture series, Spring 2021

Henriette van Der Blom  
(University of Birmingham)  
Lecture series, Spring 2021

Hallie Meredith  
(Washington State University)  
Lecture series, Spring 2021

Hannah Cornwell  
(University of Birmingham)  
Lecture series, Spring 2021

Helen Cheyne  
(Associazione Culturale Roma  
Sotterranea)  
Lecture series, Spring 2021

Helene Whittaker  
(University of Gothenburg)  
Lecture series, Spring 2021

Hercules Van Wyk  
(University of Stellenbosch)  
Lecture series, Spring 2021

Inge Hansen  
(John Cabot University)  
Lecture series, Spring 2021

Ingo Wickop  
(RTL News)  
Lecture series, Spring 2021

Jan Stubbe Østergaard  
(Ny Carlsberg Glyptotek)  
Lecture series, Spring 2021

Jane Fejfer  
(University of Copenhagen)  
Lecture series, Spring 2021

Jeffrey Collins  
(Bard Graduate Center)  
Lecture series, Spring 2021

Jen Baird  
(Birkbeck College, University of  
London)  
Lecture series, Spring 2021

Jeremy Punt  
(Stellenbosch University)  
Lecture series, Spring 2021

Jerome Reavey Sr.  
(Independent researcher)  
Lecture series, Spring 2021

Jessica Bartz  
(Humboldt-Universität zu Berlin)  
Lecture series, Spring 2021

John Muccigrosso  
(Drew University)  
Lecture series, Spring 2021

Johnathan Devogelaere  
(Aix-Marseille University)  
Lecture series, Spring 2021

Jorunn Økland  
(Norwegian Institute at Athens)  
Lecture series, Spring 2021

Julia Lenaghan  
(Oxford University)  
Lecture series, Spring 2021

Juliette Delalande  
(Université Paris 1, Panthéon-  
Sorbonne)  
Lecture series, Spring 2021

Katia Schörle  
(Aix Marseille University)  
Lecture series, Spring 2021

Kearstin Jacobsen  
(University of Texas, Austin)  
Lecture series, Spring 2021

Kresimir Vukovic  
(LMU Munich)  
Lecture series, Spring 2021

Kristine Bülow  
(University of Copenhagen)  
Lecture series, Spring 2021

Laurel Bestock  
(Brown University)  
Lecture series, Spring 2021

Lisa Anderson-Zhu  
(The Walters Art Museum)  
Lecture series, Spring 2021

Lucia Athanassaki  
(University of Crete)  
Lecture series, Spring 2021

Mads Heilskov  
(Calsberg Foundation)  
Lecture series, Spring 2021

Mads Vincent  
(Aarhus University)  
Lecture series, Spring 2021

Marco Weppelmann  
(Freie Universität Berlin)  
Lecture series, Spring 2021

Maria Lloyd  
(University of Reading)  
Lecture series, Spring 2021

Marietta Horster  
(University of Mainz)  
Lecture series, Spring 2021

Marios Mylonas  
(University of Athens)  
Lecture series, Spring 2021

Mark Abbe  
(University of Georgia)  
Lecture series, Spring 2021

Mark McCahill  
(University of Glasgow)  
Lecture series, Spring 2021

Marlis Arnhold  
(University of Bonn)  
Lecture series, Spring 2021

Maurice Thurn  
(Universität Hamburg)  
Lecture series, Spring 2021

Mette Hoffgaard  
(Lund University)  
Lecture series, Spring 2021

Mireia Lopez Bertran  
(Universitat de València)  
Lecture series, Spring 2021

Myrina Kalaitzi  
(National Hellenic Research  
Foundation)  
Lecture series, Spring 2021

Nathaniel Solley  
(University of Pennsylvania)  
Lecture series, Spring 2021

Nicola Barbagli  
(Scuola Normale Superiore)  
Lecture series, Spring 2021

Orit Barkat  
(Hebrew University)  
Lecture series, Spring 2021

Paul Stanwick  
(New York University)  
Lecture series, Spring 2021

Peter De Staebler  
(Pratt Institute)  
Lecture series, Spring 2021

Peter Hambro Mikkelsen  
(Moesgaard Museum)  
Lecture series, Spring 2021

Petra Hermankova  
(Aarhus University)  
Lecture series, Spring 2021

Phoebe Lakin  
(Harvard University)  
Lecture series, Spring 2021

Rachel Patt  
(Emory University)  
Lecture series, Spring 2021

Rebecca Levitan  
(UC Berkeley)  
Lecture series, Spring 2021

Rhiannon Pare  
(Princeton University)  
Lecture series, Spring 2021

Richard Gordon  
(Max Weber-Kolleg, University of  
Erfurt)  
Lecture series, Spring 2021

Richard Teverson  
(Fordham University)  
Lecture series, Spring 2021

Robert Harding  
(University College London)  
Lecture series, Spring 2021

Roko Rumora  
(The University of Chicago)  
Lecture series, Spring 2021

Rolf Schneider  
(Ludwig Maximilians University)  
Lecture series, Spring 2021

Sara Utvaag  
(Aarhus University)  
Lecture series, Spring 2021

Sarah Beckmann  
(UCLA)  
Lecture series, Spring 2021

Sarah Sheard  
(University of Cambridge)  
Lecture series, Spring 2021

Savannah Marquardt  
(Yale University)  
Lecture series, Spring 2021

Sheila Dillon  
(Duke University)  
Lecture series, Spring 2021

Sinclair Bell  
(Northern Illinois University)  
Lecture series, Spring 2021

Sofia Gunnarsdottir  
(Yale University)  
Lecture series, Spring 2021

Sofie Heiberg Plovdrup  
(University of Copenhagen)  
Lecture series, Spring 2021

Sophia De Medeiros  
(University of Oxford)  
Lecture series, Spring 2021

Stephanie Langin-Hooper  
(Southern Methodist University)  
Lecture series, Spring 2021

Stephanie Pearson  
(Humboldt-Universität zu Berlin)  
Lecture series, Spring 2021

Susannah Roberts  
(University of Cambridge)  
Lecture series, Spring 2021

Suzan van De Velde  
(Leiden University)  
Lecture series, Spring 2021

Tea Katunaric  
(UMAS)  
Lecture series, Spring 2021

Thomas Lassen  
(University of Copenhagen)  
Lecture series, Spring 2021

Timothy Adams  
(Loyola University)  
Lecture series, Spring 2021

Torben Schandel  
(Retired)  
Lecture series, Spring 2021

Troels Myrup Kristensen  
(Aarhus University)  
Lecture series, Spring 2021

Valentina Matta  
(Aarhus University)  
Lecture series, Spring 2021

Vanda Strachan  
(Oxford University)  
Lecture series, Spring 2021

Vincenzo Timpano  
(Humboldt Universität Berlin)  
Lecture series, Spring 2021

Vinnie Nørskov  
(Aarhus University)  
Lecture series, Spring 2021

Welmoed Out  
(Moesgaard Museum)  
Lecture series, Spring 2021

Will Wootton  
(King's College London)  
Lecture series, Spring 2021

Yuan Zhang  
(University of California, Berkeley)  
Lecture series, Spring 2021

Yuhuan Chang  
(UCL)  
Lecture series, Spring 2021

Yusi Liu  
(Bryn Mawr College)  
Lecture series, Spring 2021

Zacharoula Petraki  
(University of Crete)  
Lecture series, Spring 2021

Eirini Kapogianni  
(University of Ioannina)  
12 April – 30 June 2021

Adam S. Green  
(McDonald Institute for  
Archaeological Research)  
28–30 June 2021

Eivind Heldaas Seland  
(University of Bergen)  
28–30 June 2021

Gary M. Feinman  
(Field Museum of Natural History,  
Chicago)  
28–30 June 2021

Hai Ashkenazi  
(Goethe-Universität Frankfurt am  
Main)  
28–30 June 2021

John W. Hanson  
(University of Reading)  
28–30 June 2021

Kevin S. Lee  
(University of Texas at Austin)  
28–30 June 2021

Kirstine Haase  
(Odense City Museums)  
28–30 June 2021

Linda M. Nicholas  
(Field Museum of Natural History,  
Chicago)  
28–30 June 2021

Manuel Fernández-Götz  
(University of Edinburgh)  
28–30 June 2021

Michael E. Smith (Arizona State University) 28–30 June 2021	Øyvind Eide (Universität zu Köln) 29–30 September 2021	Benjamin Winnick (University of British Columbia) 29–30 September 2021
Phillip Parton (Australian National University) 28–30 June 2021	Louise Felding (Vejle Museum/Aarhus University) 29–30 September 2021	Lieve Donnellan (University of Melbourne) 29–30 September 2021
Pieterjan Deckers (Vrije Universiteit Brussels) 28–30 June 2021	Tomas Glomb (University of Bergen) 29–30 September 2021	Andreas Angourakis (University of Cambridge) 29–30 September 2021
René Ohlrau (Christian-Albrechts-Universität zu Kiel) 28–30 June 2021	Lola Hauguel-Bleuven (Université de Rennes 1) 29–30 September 2021	Rebecca Benefiel (Washington and Lee University) 29–30 September 2021
Roland Fletcher (University of Sydney) 28–30 June 2021	Petra Hermankova (Aarhus University) 29–30 September 2021	Greta Boers (Duke University) 29–30 September 2021
Susanne Kerner (University of Copenhagen) 28–30 June 2021	Sara Ann Knutson (UC Berkeley) 29–30 September 2021	Chico Camargo (University of Exeter) 29–30 September 2021
Thomas Leppard (AIAS, Aarhus University) 28–30 June 2021	Molly Masterson (University of Oxford) 29–30 September 2021	Carolina Cucart Mora (Universidad de Alicante) 29–30 September 2021
Tom Moore (Durham University) 28–30 June 2021	Francesca Mazzilli (University of Bergen) 29–30 September 2021	Aline Deicke (Akademie der Wissenschaften und der Literatur) 29–30 September 2021
Christina Alam (University College London) 29–30 September 2021	Fernando Moreno-Navarro (Universidad Carlos III de Madrid) 29–30 September 2021	Tim Evans (Imperial College London) 29–30 September 2021
Juan Barcelo (Universitat Autònoma de Barcelona) 29–30 September 2021	Antonio Rivero Ostoic (Aarhus University) 29–30 September 2021	Jeremy Farrell (NYU Abu Dhabi) 29–30 September 2021
Thomas Britton (Rijksuniversiteit Groningen) 29–30 September 2021	Olga Palacios Martinez (Universitat Autònoma de Barcelona) 29–30 September 2021	Mariachiara Franceschini (Universität Freiburg) 29–30 September 2021
Anna Collar (University of Southampton) 29–30 September 2021	Stig Pedersen (University of Southern Denmark) 29–30 September 2021	Teifion Gambold (Cardiff University) 29–30 September 2021
Michele Coscia (IT University of Copenhagen) 29–30 September 2021	Deborah Priß (Durham University) 29–30 September 2021	Claudia Glatz (University of Glasgow) 29–30 September 2021
Fiona Coward (Bournemouth University) 29–30 September 2021	Eivind H. Seland (University of Bergen) 29–30 September 2021	Esther Griffin (University of Warsaw) 29–30 September 2021
Katherine Crawford (The Cyprus Institute) 29–30 September 2021	Huixin Sha (Aarhus University) 29–30 September 2021	Diane Harris-Cline (George Washington University) 29–30 September 2021
Sarah Dalle (Ghent University/Vrije Universiteit Brussel) 29–30 September 2021	Adela Sobotkova (Aarhus University) 29–30 September 2021	Paul Harwood (Runette Software) 29–30 September 2021
Clément Dutrey (University Toulouse 2 – Jean Jaurès) 29–30 September	Marie Héléne Van De Ven (Aarhus University) 29–30 September 2021	Torsten K. D. Himmel (Independent scholar) 29–30 September 2021

- Vojtech Kase  
(Aarhus University)  
29–30 September 2021
- Maxim Kupreyev  
(Max Planck Institute for Legal History)  
29–30 September 2021
- Mark Lake  
(University College London)  
29–30 September 2021
- Rachael Lane  
(University of Sydney)  
29–30 September 2021
- Filomena Lopedoto  
(Heinrich-Heine-University Düsseldorf)  
29–30 September 2021
- Rodrigo Loyola  
(Université Paris Nanterre)  
29–30 September 2021
- Camilla Mazzucato  
(Copenhagen University and Stanford University)  
29–30 September 2021
- Kelly McClinton  
(University of Oxford)  
29–30 September 2021
- Hallie Meredith  
(Washington State University)  
29–30 September 2021
- Maria-Gabriella Micale  
(Freie Universität Berlin)  
29–30 September 2021
- Takehiro Miki  
(University of Tokyo)  
29–30 September 2021
- Jessica Nowlin  
(University of Texas at San Antonio)  
29–30 September 2021
- Katerina Panagopoulou  
(University of Crete)  
29–30 September 2021
- Christie Pavey  
(Royal Holloway, University of London)  
29–30 September 2021
- Henry Price  
(Imperial College London)  
29–30 September 2021
- Ulla Pajala  
(Stockholm University)  
29–30 September 2021
- Amanda Ralph  
(Lancaster University)  
29–30 September 2021
- Ray Rivers  
(Imperial College London)  
29–30 September 2021
- Arianna Sacco  
(Austrian Academy of Sciences)  
29–30 September 2021
- Marco Serino  
(Università degli Studi di Torino)  
29–30 September 2021
- Anthony Sinclair  
(University of Liverpool)  
29–30 September 2021
- Amy Smith  
(University of Reading)  
29–30 September 2021
- Thea Sommerschild  
(Università Ca' Foscari Venezia)  
29–30 September 2021
- Eirini Stagkouraki  
(University of Crete)  
29–30 September 2021
- Lena Tambs  
(ANEE, University of Helsinki)  
29–30 September 2021
- Maria Torras Freixa  
(University of Barcelona)  
29–30 September 2021
- Martina Trognitz  
(ACDH-CH, Austrian Academy of Sciences)  
29–30 September 2021
- Joana Valdez-Tullett  
(Historic Environment Scotland)  
29–30 September 2021
- Robin van Vilet  
(University of Groningen)  
29–30 September 2021
- Marek Vlach  
(Institute of Archaeology of the Czech Academy of Sciences)  
29–30 September 2021
- Adam Wznura  
(University of Groningen)  
29–30 September 2021
- Miara Fraikin  
(KU Leuven)  
29–30 September 2021
- Erika Cappelletto  
(Universität Heidelberg)  
29–30 September 2021
- Jan S. Østergaard  
(Ny Carlsberg Glyptotek)  
7 October 2021
- Ditte K. Johnson  
(University of Gothenburg)  
7 October 2021
- Anna Minor  
(Ny Carlsberg Glyptotek)  
7 October 2021
- Luise Ø. Brandt  
(The GLOBE Institute)  
7 October 2021
- Sophus Helle  
(Freie Universität Berlin)  
7 October 2021
- John Lund  
(Nationalmuseet, Antiksamlingen)  
7 October 2021
- Sandi Rizvic  
(Saxo, University of Copenhagen)  
7 October 2021
- Rikke Christiansen  
(University of Copenhagen)  
7 October 2021
- Hanna Louise Nielsen  
(University of Copenhagen)  
7 October 2021
- Søren L. Sørensen  
(Freie Universität Berlin)  
7 October 2021
- Kristina Winther-Jacobsen  
(University of Copenhagen)  
7 October 2021
- Julie Christensen  
(Aarhus Universitet/Ny Carlsberg Glyptotek)  
7 October 2021
- Nadia Maria Kristensen  
(National Museum of Denmark)  
7 October 2021
- Josephine Nielsen-Bergqvist  
(Ribe Kunstmuseum)  
7 October 2021
- Mathias Sauer  
7 October 2021
- Julia Kilian  
(Region Hovedstaden)  
7 October 2021
- Kristine Bülow  
(University of Copenhagen)  
7 October 2021
- Christian Djurslev  
(Aarhus University)  
7 October 2021



Emilie Gjaldbæk-Sverdrup  
(European University Institute)  
7 October 2021

Lone Wriedt Sørensen  
(SAXO Institute)  
7 October 2021

Frederik Engel Møller  
(University of Copenhagen)  
7 October 2021

Christie Pavey  
(Royal Holloway, University of London)  
7 October 2021

Astrid Buus-Nielsen  
7 October 2021

Sissel Madsen  
(Copenhagen Business School)  
7 October 2021

Troels Myrup Kristensen  
(Aarhus University)  
7 October 2021

Christian Jørgensen  
(Aarhus University)  
7 October 2021

Olav Gundersen  
(University of Oslo)  
7 October 2021

Christina Videbech  
(Universitetet i Bergen)  
7 October 2021

Joos Melander  
(University of Copenhagen)  
7 October 2021

Kitt Holm  
(The Agency for Culture and Palaces)  
7 October 2021

Nathanael Andrade  
(Binghamton University)  
10–12 October 2021

Aleksandra Kubiak-Schneider  
(Independent researcher)  
11–12 October 2021

Eleonora Cussini  
(Università Ca' Foscari Venezia)  
11–12 October 2021

Katia Schörlé  
(Centre National de la Recherche  
Scientifique)  
11–12 October 2021

Kevin Butcher  
(University of Warwick)  
11–12 October 2021

Marta Zuchowska  
(University of Warsaw)  
11–12 October 2021

Matthew Cobb  
(University of Wales Trinity Saint  
David)  
11–12 October 2021

Kirstine Haase  
(Odense City Museums)  
11–12 October 2021

Maura Heyn  
(University of North Carolina –  
Greensboro)  
11–12 October 2021

Annalisa Marzano  
(University of Reading)  
11–12 October 2021

Nathalia B. Kristensen  
(University of Warwick)  
11–12 October 2021

Eleni Papaefthymiou  
(Warwick University)  
11–12 October 2021

Camilla Bertini  
(Newcastle University)  
23 October – 7 November 2021

Tim Evans  
(Imperial College London)  
7–8 December 2021

Abigail Buffington  
(College of William and Mary)

Achim Lichtenberger  
(Westfälische Wilhelms-Universität  
Münster)

Alex Peterson  
(SNS International)

Alexander J. Sivitskis  
(Royal University of Berlin)

Aleksandra Kubiak-Schneider  
(Independent scholar)

Alf Lindroos  
(Åbo Akademi)

Amir Zaribaf  
(University of Sydney)

Andreas Springer  
(Freie Universität Berlin)

Andrew Wilson  
(University of Oxford)

Andrey Vinogradov  
(Higher School of Economics)

Anna Glenn  
(Ludwig-Maximilians-Universität  
München)

Anna-Katharina Rieger  
(Universität Graz)

Anne Pedersen  
(National Museum of Denmark)

Antonella Corsaro  
(Sovrintendenza Capitolina)

Barbara Mills  
(University of Arizona)

Beatrice Pinna Caboni  
(Sovrintendenza Capitolina)

Beatrice Rehl  
(Cambridge University Press)

Bente Philippsen  
(Museum Lolland-Falster)

Bernard Gratuze  
(IRAMAT-CEB CNRS Orléans)

Bruce Chapman  
(NASA Jet Propulsion Lab)

Bryan Ward-Perkins  
(University of Oxford)

Camilla Poulsen  
(University of Copenhagen)

Carina Hasenzagl  
(Gent University)

Carmen Ting  
(Cambridge University)

## Collaborators

Caroline Oliveira (University of Copenhagen)	Eske Willerslev (University of Copenhagen)	Jean-Baptiste Yon (HiSoMa)
Catherine D'Andrea (Simon Fraser University)	Evelyn Keaveney (Queens University Belfast)	Jens Ulriksen (Museum Southeast Denmark)
Chiara Raimondo (The Danish Institute in Rome)	Felix Herter (Zuse Institute Berlin)	Jesper Olsen (Aarhus University)
Charlotte Bundgaard (The Danish Institute in Rome)	Fiona Kidd (NYU Abu Dhabi)	Jesper V. Jensen (Humboldt Universität zu Berlin)
Christine L. Johnston (Western Washington University)	Frances Wiig (University of New South Wales)	Jessica Munson (Lycoming College)
Christopher Hallett (UC Berkeley)	Francesca Zagari (Sovrintendenza Capitolina)	John Lund (National Museum of Denmark)
Christopher Keller (Bonn Museum)	Francisca Corsetti (The Danish Institute in Rome)	John M. Larsen (Independent scholar)
Claudia Minniti (University of Salento)	Genevieve Holdridge (University of Georgia)	Joseph C. Mazzariello (Impact Observatory)
Claudio Parisi Presicce (Sovrintendenza Capitolina)	Gerrard Barrett (Queens University Belfast)	Joseph W. Lehner (University of Sydney)
Claus Feveile (Museum of Southwest Jutland)	Gidey Gebreegziabher (Tigrai Culture and Tourism Bureau)	Julie Lund (Oslo University)
Colm Donnelly (Queens University Belfast)	Giovanni Murro (The Danish Institute in Rome)	Jörg Rüpke (Max-Weber-Kolleg, Universität Erfurt)
Cristiano Nicosia (University of Padova)	Gloria Mittica (The Danish Institute in Rome)	Katherine Crawford (The Cyprus Institute)
Cristina Boschetti (Centre national de la recherche scientifique)	Gry H. Barfod (Aarhus University)	Kenneth Lapatin (J. Paul Getty Museum)
Daniel Baum (Zuse Institute Berlin)	Heiko Stukenbrok (Freie Universität Berlin)	Kifle Zerue (Aksum University)
David Stott (Moesgaard Museum)	Hélène David-Cuny (CEFREPA-CNRS)	Lars K. Larsen (Moesgaard Museum)
Davit Naskidashvili (Ivane Javakishvili Tbilisi State University)	Helina S. Woldekiros (Washington University)	Laura di Siena (The Danish Institute in Rome)
Douglas C. Comer (Cultural Site Research and Management Foundation)	Ian Simpson (Leiden University)	Liam Lanigan (University of Copenhagen)
Eivind H. Seland (University of Bergen)	Ilaria de Luca (The Danish Institute in Rome)	Lucas R. Martindale Johnson (Far Western Anthropological Research Group)
Eli N. Dollarhide (NYU Abu Dhabi)	Irka Hajdas (ETH Zürich)	Mads Ravn (Vejle Museum)
Elizabeth A. Peterson (Museum of Surry)	Isabella Toffoletti (Sovrintendenza Capitolina)	Mads Runge (Odense City Museums)
Engelbert Winter (Westfälische Wilhelms-Universität Münster)	Jacob A. Comer (Cultural Site Research and Management Foundation)	Massimiliano Munzi (Sovrintendenza Capitolina)
Ersilia de Ambrosio (Sovrintendenza Capitolina)	Jacopo De Grossi Mazzorin (University of Salento)	Massimo Vitti (Sovrintendenza Capitolina)
	Jan Heinemeier (Aarhus University)	Matt Peeples (Arizona State University)

Mattia D'Acri  
(University of Missouri-Columbia)

Maura Heyn  
(University of North Carolina –  
Greensboro)

Michael Blömer  
(Westfälische Wilhelms-Universität  
Münster)

Michael J. Harrower  
(John Hopkins University)

Michael E. Smith  
(Arizona State University)

Michael Sharp  
(Cambridge University Press)

Michalska Danuta  
(Adam Mickiewicz University)

Mikkel Winther  
(Copenhagen University)

Morten F. Mortensen  
(National Museum of Denmark)

Morten Søvsø  
(Museum of Southwest Jutland)

Nadia Andersen  
(University of Copenhagen)

Nathalia B. Kristensen  
(University of Warwick)

Nadine Schibille  
(IRAMAT-CEB CNRS Orléans)

Nicoletta Bernacchio  
(Sovrintendenza Capitolina)

Nina J. Koefoed  
(Aarhus University)

Paige E. Paulsen  
(Johns Hopkins University)

Pau de Soto  
(Universitat Autònoma de Barcelona)

Paul Everill  
(University of Winchester)

Paula Reimer  
(Queens University Belfast)

Paulina Komar  
(Cardinal Stefana Wyszyńskiego  
University)

Philip Bes  
(Independent scholar)

Revaz Papuashvili  
(Georgian National Museum)

Richard Gordon  
(Universität Erfurt)

Rikke R. Thomsen  
(University of Lund)

Rikke Schmidt Kjærgaard  
(The Science Club)

Roberto Menghini  
(Sovrintendenza Capitolina)

Roland Fletcher  
(University of Sydney)

Rosie Bonté  
(Brepols Publishers)

Silvia Polla  
(Freie Universität Berlin)

Simon Carrignon  
(McDonald Institute for  
Archaeological Research)

Smiti Nathan  
(JPMorgan Chase & Co.)

Stefan Vranka  
(Oxford University Press)

Stefani Crabtree  
(Santa Fe Institute)

Stefania Fogagnolo  
(Sovrintendenza Capitolina)

Steven A. Brandt  
(University of Florida)

Suleiman al-Jabri  
(Ministry of Heritage and Culture)

Theis Zetner Trolle Jensen  
(University of Copenhagen)

Tim Evans  
(Imperial College London)  
Tim Kinnaird  
(University of St. Andrews)

Ulla Mannering  
(National Museum of Denmark)

Walter Pantano  
(Università La Sapienza)

Will Wootton  
(King's College London)

William S. Ayres  
(University of Oregon)

Åsa Ringbom  
(Åbo Akademi)



UrbNet retreat, Sandbjerg Manor, October 2021 (© UrbNet).

## UrbNet Publications 2021

- Baum, D., Herter, F., Larsen, J. M., Lichtenberger, A. & Raja, R. (2021). "Revisiting the Jerash Silver Scroll: A New Visual Data Analysis Approach", *Digital Applications in Archaeology and Cultural Heritage* 21, e00186. DOI: <https://doi.org/10.1016/j.daach.2021.e00186>.
- Bauzyt , E., Barfod, G. & Wynne-Jones, S. (2021). "Innovation, Tradition, and Metals at Kilwa Kisiwani", *International Journal of African Historical Studies* 54:1, 53–75.
- Bl mer, M. (2021). "The Sanctuary of Jupiter Dolichenus at Doliche", in: Lichtenberger, A. & Raja, R. (eds.), *The Archaeology of Seasonality, Studies in Classical Archaeology* 11, Turnhout: Brepols, 165–178.
- Bobou, O. (2021). "A Girl from Cyprus: Protection and Devotion from the Classical to the Hellenistic Period", in: Christidis, M., Hermay, A., Koiner, G. & Ulbrich, A. (eds.), *Classical Cyprus: Proceedings of the Conference University of Graz, 21–23 September 2017, Studies on ancient Cyprus* 5, Vienna: Holzhausen, 245–258.
- Bobou, O. (2021). "Children's Roles in Hellenistic Religion", in: Beaumont, L. A., Dillon, M. & Harrington, N. (eds.), *Children in Antiquity: Perspectives and Experiences of Childhood in the Ancient Mediterranean*, London: Routledge, 357–369.
- Bobou, O. (2021). "Review of L. de Jong, The Archaeology of Death in Roman Syria: Burial, Commemoration, and Empire", *Journal of Roman Studies* 111, 291–292. DOI: <https://doi.org/10.1017/S007543582100037X>.
- Bobou, O. (2021). "Plants in Palmyrene Funerary Iconography of Adults", in: Heyn, M. K. & Raja, R. (eds.), *Individualizing the Dead: Attributes in Palmyrene Funerary Sculpture*, Studies in Palmyrene Archaeology and History 3, Turnhout: Brepols, 31–50.
- Bobou, O. & Thomsen, R. R. (2021). "Collecting Then and Now", in: Bobou, O., Jensen, J. V., Kristensen, N. B., Raja, R. & Thomsen, R. R. (eds.), *Studies on Palmyrene Sculpture: A Translation of Harald Ingholt's Studier over Palmyrensk Skulptur, Edited and with Commentary*, Studies in Palmyrene Archaeology and History 1, Turnhout: Brepols, 533–536.
- Bobou, O., Jensen, J. V., Kristensen, N. B., Raja, R. & Thomsen, R. R. (eds.) (2021). *Studies on Palmyrene Sculpture: A Translation of Harald Ingholt's Studier over Palmyrensk Skulptur, Edited and with Commentary*, Studies in Palmyrene Archaeology and History 1, Turnhout: Brepols.
- Bobou, O., Miranda, A. C. & Raja, R. (2021). "The Ingholt Archive: Data from the Project 'Archive Archaeology: Preserving and Sharing Palmyra's Cultural Heritage through Harald Ingholt's Digital Archives'", *Journal of Open Archaeology Data* 9:6. DOI: <https://doi.org/10.5334/joad.78>.
- Bobou, O., Romanowska, I. & Raja, R. (2021). "Historical Trajectories of Palmyra's Elites through the Lens of Archaeological Data", *Journal of Urban Archaeology* 4, 153–166. DOI: <https://doi.org/10.1484/J.JUA.5.126598>.
- Boschetti, C., Lichtenberger, A., Raja, R., Wootton, W. & Schibille, N. (2021). "Loose Glass Tesserae and Lost Decorations: Chronology and Production of Mosaics from Gerasa's Northwest Quarter", *Archaeometry* 63:5, 960–974. DOI: <https://doi.org/10.1111/arcm.12654>.
- Brughmans, T. (2021). "Evaluating the Potential of Computational Modelling for Informing Debates on Roman Economic Integration", in: Verboten, K. (ed.), *Complexity Economics: Building a New Approach to Ancient Economy History, Palgrave Studies in Ancient Economies*, Cham: Palgrave Macmillan, 105–123.
- Brughmans, T., Bobou, O., Kristensen, N. B., Thomsen, R. R., Jensen, J. V., & Raja, R. (2021). "A kinship network analysis of Palmyrene genealogies", *Journal of Historical Network Research* 6:1, 41–84. DOI: <https://doi.org/10.25517/jhnr.v6i1.65>.
- Christensen, J., Daly, A., Henriksen, P. S., Holm, N., Jessen, C., J rgensen, S., Olesen, L., Olsen, J., Kildetoft Schultz, M., Sindb k, S. M. & Ulriksen, J. (2021). "Borgring: Uncovering the Strategy for a Viking-Age Ring Fortress in Denmark", *Journal of Danish Archaeology* 10, 1–22. DOI: <https://doi.org/10.7146/dja.v10i0.121920>.
- Croix, S. (2021). "The Loss of Innocence: Childhood and Transition to Adulthood in the Mortuary Practices of the Early Viking Age", in: Preston-Matto, L. & Valante, M. (eds.), *Kids Those Days: Children in Medieval Culture*, Leiden: Brill, 197–227.
- Croix, S. & Heilskov, M. V. (eds.) (2021). *Materiality and Religious Practice in Medieval Denmark*, Acta Scandinavica 12, Turnhout: Brepols.
- Croix, S. & IJssennagger-van der Pluijm, N. (2021). "Cultures without Borders? Approaching the Cultural Continuum in the Danish-Frisian Coastal Areas in the Early Viking Age", *Scandinavian Journal of History* 46:3, 304–327. DOI: <https://doi.org/10.1080/03468755.2019.1687332>.
- Daugbjerg, T. S. (2021). *Radiocarbon Dating of Lime Mortar*, unpublished PhD dissertation, Aarhus University.
- Daugbjerg, T. S., Lindroos, A., Hajdas, I., Ringbom,  ., & Olsen, J. (2021). "Comparison of Thermal Decomposition and Sequential Dissolution: Two Sample Preparation Methods for Radiocarbon Dating of Lime Mortars", *Radiocarbon* 63:2, 405–427. DOI: <https://doi.org/10.1017/RDC.2020.144>.
- Daugbjerg, T. S., Lindroos, A., Heinemeier, J., Ringbom,  ., Barrett, G., Michalska, D., Hajdas, I., Raja, R. & Olsen, J. (2021). "A Field Guide to Mortar Sampling for Radiocarbon Dating", *Archaeometry* 63:5, 1121–1140. DOI: <https://doi.org/10.1111/arcm.12648>.

Deckers, P., Croix, S. & Sindbæk, S. M. (2021). "Assembling the Full Cast: Ritual Performance, Gender Transgression and Iconographic Innovation in Viking-Age Ribe", *Medieval Archaeology* 65:1, 30–65. DOI: <https://doi.org/10.1080/00766097.2021.1923893>.

Detlef, H., Reilly, B., Jennings, A., Jensen, M. M., O'Regan, M., Glasius, M., Olsen, J., Jakobsson, M. & Pearce, C. (2021). "Holocene Sea-Ice Dynamics in Petermann Fjord in Relation to Ice Tongue Stability and Nares Strait Ice Arch Formation", *The Cryosphere* 15, 4357–4380. DOI: <https://doi.org/10.5194/tc-15-4357-2021>.

Dickenson, C. P. (2021). "Making Space for Commerce in Roman Britain: Reevaluating the Nature and Impact of the Forum/Basilica Complex", in: Vermeulen, F. & Zuiderhoek, A. (eds.), *Space, Movement and the Economy in Roman Cities in Italy and Beyond*, London: Routledge, 130–157. Dickenson, C. P. (ed.) (2021). *Public Statues Across Time and Cultures*, London: Routledge.

Dickenson, C. P. (2021). "Statues and Public Space: An Introduction", in: Dickenson, C. P. (ed.), *Public Statues Across Time and Cultures*, London: Routledge, 1–31.

Fogtmann-Schulz, A., Baittinger, C., Karoff, C., Olsen, J. & Knudsen, M. F. (2021). "Changes in Solar Activity during the Wolf Minimum: New Insights from a High-Resolution 14C Record Based on Danish Oak", *Radiocarbon* 63:1, 91–104. DOI: [doi.org/10.1017/RDC.2020.126](https://doi.org/10.1017/RDC.2020.126).

Furlan, G. (2021). "Se le conosci non le eviti? Tra terra, induzione e deduzione a partire da un caso studio aquileiese", in Magnini, L., Bettineschi, C., and Burigana, L. (eds.), *Traces of Complexity: Studi in onore di Armando De Guio/Studies in honour of Armando De Guio*, Quingentole: SAP (MN), 237–246.

Gordon, R., Raja, R. & Rieger, A.-K. (2021). "Economy and Religion", in: Rüpke, J. & Woolf, G. (eds.), *Religion in the Roman Empire*, *Religionen der Menschheit* 16:2, Stuttgart: Kohlhammer 262–305.

Haase, K. & Olsen, J. (2021). "Building a High-Resolution Chronology of a Medieval Urban Site through Bayesian Modelling", *Archaeometry* 63:4, 860–877. DOI: [doi.org/10.1111/arc.12651](https://doi.org/10.1111/arc.12651).

Hass, T. A. (2021). "A Bad Tyrant Born to Command: N. F. S. Grundtvig's Representation of Caesar in the Handbook of World History (1833)", in: Hass, T. A. & Raja, R. (eds.), *Caesar's Past and Posterity's Caesar*, Rome Studies 1, Turnhout: Brepols, 167–182.

Hass, T. A. & Raja, R. (eds.) (2021). *Caesar's Past and Posterity's Caesar*, Rome Studies 1, Turnhout: Brepols.

Hass, T. A. (2021). "Epik (og lidt komik) i St. St. Blichers "Juleferierne" (1834)", in: Sørensen, P. A., Fauth, S. R., Hass, T. A. & Møller, A. H. (eds.), *Lys og Lærd*, Aarhus: Klim, 87–107.

Hass, T. A. (2021). "Latin eller folkesprog? En diskussion i hyrdeklæder", *Sfinx* 44:3, 26–31.

Hass, T. A. (2019/2021). "The Meaning of Jul (Christmas) According to Pontanus, Vedel and Worm: Etymology, Controversy, and Foundation Myths of the Danes", *Analecta Romana Instituti Danici* 44: 217–236. Open source.

Hass, T. A. & Pade, M. (2019/2021). "Making Sense of Texts: From Early Modern Philology to Contemporary Philology", *Analecta Romana Instituti Danici* 44: 97–98. Open source.

Hass, T. A. & Pade, M. (eds.) (2019/2021). *Philology Then and Now: Proceedings of the Conference Held at the Danish Academy in Rome, 16 July 2019*, Analecta Romana Instituti Danici 44, Rome: Quasar. Open source.

Hass, T. A. & Raja, R. (2021). "The Man behind the Sources: Caesar's Past and Posterity's Caesar", in: Hass, T. A. & Raja, R. (eds.), *Caesar's Past and Posterity's Caesar*, Rome Studies 1, Turnhout: Brepols, 1–9.

Heilskov, M. V. & Croix, S. (2021). "Introduction: Materiality and Religious Practice in Medieval Denmark", in: Croix, S. & Heilskov, M. V. (eds.), *Materiality and Religious Practice in Medieval Denmark*, Turnhout: Brepols, 9–25.

Heyn, M. K. & Raja, R. (eds.) (2021). *Individualizing the Dead: Attributes in Palmyrene Funerary Sculpture*, Studies in Palmyrene Archaeology and History 3, Turnhout: Brepols.

Heyn, M. K. & Raja, R. (2021). "Attributes in Palmyrene Funerary Sculpture: Functions and Meanings", in: Heyn, M. K. & Raja, R. (eds.), *Individualizing the Dead: Attributes in Palmyrene Funerary Sculpture*, Studies in Palmyrene Archaeology and History 3, Turnhout: Brepols, 1–11.

Holdridge, G., Kristiansen, S. M., Barfod, G. H., Kinnaird, T. C., Lichtenberger, A., Olsen, J., Philippsen, B., Raja, R. & Simpson, I. (2021). "A Roman Provincial City and its Contamination Legacy from Artisanal and Daily-Life Activities", *PLoS ONE* 16:6, e0251923. DOI: <https://doi.org/10.1371/journal.pone.0251923>.

Imer, L. & Sindbæk, S. M. (2021). "Nye Fund af Runer i Ribe", *Danske Studier* 2021, 5–30.

Intagliata, E. E. (2021). "Due note sul Bâtiment Nord del Santuario di Baalshamin a Palmira", *Lanx – Rivista della Scuola di Specializzazione in Archeologia dell'Università degli Studi di Milano* 29, 13–21. DOI: <https://doi.org/10.54103/2035-4797/16944>.

Jacobsen, J. K., Larocca, F., Melander, J. & Mittica, G. (2021). "The Seasonality of Timpona della Motta (Northern Calabria) during the Iron Age and the Archaic Period", in: Lichtenberger, A. & Raja, R. (eds.), *The Archaeology of Seasonality*, Studies in Classical Archaeology 11, Turnhout: Brepols, 143–164.

Jacobsen, J. K., Murro, G., Presicce, C. P., Raja, R. & Saxkjær, S. G. (2021). "Practicing Urban Archaeology in a Modern City: The Alessandrino Quarter of Rome", *Journal of Field Archaeology* 46:1, 36–51. DOI: <https://doi.org/10.1080/00934690.2020.1834255>.

Jacobsen, J. K., Murro, G., Presicce, C. P., Raja, R., Saxkjær, S. G. & Vitti, M. (2021). "High-Definition Urban Narratives from Central Rome: Virtual Reconstructions of the Past and the New Caesar's Forum Excavations", *Journal of Urban Archaeology* 3, 65–86. DOI: [doi.org/10.1484/J.JUA.5.123676](https://doi.org/10.1484/J.JUA.5.123676).

Jacobsen, J. K., Presicce, C. P., Raja, R. & Vitti, M. (2019/2021). "Excavating Caesar's Forum: Present results of the Caesar's Forum Project", *Analecta Romana Instituti Danici* 44: 239–245. Open source.

- Kanters, H., Brughmans, T. & Romanowska, I. (2021). "Sensitivity Analysis in Archaeological Simulation: An Application to the MERCURY Model", *Journal of Archaeological Science: Reports* 38, 102974. DOI: <https://doi.org/10.1016/j.jasrep.2021.102974>.
- Kristensen, N. B. (2021). "A Symbol of a City: The Iconography of the Palmyrene Coinage", in: Heyn, M. K. & Raja, R. (eds.), *Individualizing the Dead: Attributes in Palmyrene Funerary Sculpture*, Studies in Palmyrene Archaeology and History 3, Turnhout: Brepols, 119–130.
- Larsen, J. S. (2021). *The Ghosts of Archaeologies Past: Innovations, Developments, and Movements of Excavation Practices in Danish Towns*, unpublished PhD dissertation, Aarhus University.
- Lichtenberger, A., Mortensen, E. & Raja, R. (2021). "Jerash: Revealing a 'Peripheral' Part of an Ancient City in Northern Jordan", *Current World Archaeology* 107, 24–31.
- Lichtenberger, A., Peterson, A., Polla, S., Raja, R., Springer, A., Stukenbrok, H. & Ting, C. (2021). "New Insights from Middle Islamic Ceramics from Jerash", *Journal of Islamic Archaeology* 8.1: 53–86. DOI: <https://doi.org/10.1558/jia.17852>.
- Lichtenberger, A. & Raja, R. (eds.) (2021). *Glass, Lamps, and Jerash Bowls: Final Publications from the Danish-German Jerash Northwest Quarter Project III*, Jerash Papers 8, Turnhout: Brepols.
- Lichtenberger, A. & Raja, R. (2021). "Glass, Lamps and Jerash Bowls: The Finds from the Danish-German Jerash Northwest Quarter Project's Excavation Campaigns 2012–2016", in: Lichtenberger, A. & Raja, R. (eds.), *Glass, Lamps, and Jerash Bowls: Final Publications from the Danish-German Jerash Northwest Quarter Project III*, Jerash Papers 8, Turnhout: Brepols, 1–12.
- Lichtenberger, A. & Raja, R. (2021). "Seasonality and Urban Economy: The Case of Gerasa in the Decapolis", in: Lichtenberger, A. & Raja, R. (eds.), *The Archaeology of Seasonality*, Studies in Classical Archaeology 11, Turnhout: Brepols, 9–24.
- Lichtenberger, A. & Raja, R. (eds.) (2021). *The Archaeology of Seasonality*, Studies in Classical Archaeology 11, Turnhout: Brepols.
- Lichtenberger, A. & Raja, R. (2021). "The Archaeology of Seasonality: Widening Archaeology's Interpretational Framework", in: Lichtenberger, A. & Raja, R. (eds.), *The Archaeology of Seasonality*, Studies in Classical Archaeology 11, Turnhout: Brepols, 3–8.
- Lichtenberger, A., Raja, R., Seland, E., & Simpson, I. (2021). "Scaling up and Zooming in: Global History and High-Definition Archaeology Perspectives on the Longue Durée of Urban–Environmental Relations in Gerasa (Jerash, Jordan)", *Journal of Global History* 16:3, 395–414. DOI: <https://doi.org/10.1017/S1740022821000012>.
- Ljungkvist, E., Thomsen, B., Sindbæk, S. M., Christensen, J., Holm, N., Schultz, M. K. & Ulriksen, J. (2021). "The Coldest Case of All: Fire Investigation at the Viking Age Ring Fortress of Borgring, Denmark", *Journal of Danish Archaeology* 10, 1–12. DOI: <https://doi.org/10.7146/dja.v10i0.121916>.
- Lund, J. & Sindbæk, S. M. (2021). "Crossing the Maelstrom: New Departures in Viking Archaeology", *Journal of Archaeological Research* 2021. DOI: <https://doi.org/10.1007/s10814-021-09163-3>.
- Madsen, L. H. & Sindbæk, S. M. (2021). "Preface", in: Pedersen, A. & Schifter Bagge, M. (eds.), *Horse and Rider in the late Viking Age: Equestrian Burial in Perspective*, Aarhus: Aarhus University Press, 9–14.
- Miranda, A. & Raja, R. (2021). "Archive Archaeology: Preserving and Sharing Palmyra's Cultural Heritage through Harald Ingholt's Digital Archives. A Case Study in the Accessibility and Potential of Archives", *Antiquity* 96:385 (2022), 229–237. DOI: <https://doi.org/10.15184/aqy.2021.165>.
- Mortensen, M. F., Baittinger, C., Christensen, J., Nielsen, A. B., Nielsen, S., Pihl, A., Prøsch-Danielsen, L., Ravn, M., Sindbæk, S. M. & Ulriksen, J. (2021). "Turfs and Timbers: Resource Use in the Construction of a Viking Age Ring Fortress", *Journal of Danish Archaeology* 10, 1–18. DOI: <https://doi.org/10.7146/dja.v10i0.121918>.
- Olsen, J. (2021). "Solar Flare Events and Archaeology", in: Lichtenberger, A. & Raja, R. (eds.), *The Archaeology of Seasonality*, Studies in Classical Archaeology 11, Turnhout: Brepols, 121–126.
- Orfanou, V., Birch, T., Sindbæk, S. M., Feveile, C., Barfod, G.H. & Leshner, E. E. (2021). "Correction to: On Diverse Arts: Crucible Metallurgy and the Polymetallic Cycle at Scandinavia's Earliest Viking Town, Ribe (8th–9th c. CE), Denmark", *Archaeological and Anthropological Sciences* 13, 173. DOI: <https://doi.org/10.1007/s12520-021-01440-y>.
- Orfanou, V., Birch, T., Sindbæk, S. M., Feveile, C., Barfod, G.H. & Leshner, E. E. (2021). "On Diverse Arts: Crucible Metallurgy and the Polymetallic Cycle at Scandinavia's Earliest Viking Town, Ribe (8th–9th c. CE), Denmark", *Archaeological and Anthropological Sciences* 13, 81. DOI: <https://doi.org/10.1007/s12520-021-01308-1>.
- Orfanou V., Sulas F., Ljungberg T. & Kristiansen S. M. (2021). "Mapping the Invisible Traces: Soil Geochemistry of the Floor of the Fregerslev II Burial", in: Pedersen, A. & Bagge, M. S. (eds.), *Horse and Rider in the Late Viking Age: Equestrian Burial in Perspective*. Aarhus: Aarhus University Press, 82–99.
- Papushvili, R., Intagliata, E. E., Vinogradov, A., Naskidashvili, D., Chitaia G. (2021). "Report of the 2020 Excavations at Machkhomeri (Khobi Municipality)", *Pro Georgia – Journal of Kartvelological Studies* 31, 295–304.
- Raja R. (2021). "Adornment and Jewellery as a Status Symbol in Priestly Representations in Roman Palmyra: The Palmyrene Priests and their Brooches", in: Heyn, M. K. & Raja, R. (eds.), *Individualizing the Dead: Attributes in Palmyrene Funerary Sculpture*, Studies in Palmyrene Archaeology and History 3, Turnhout: Brepols, 75–117.
- Raja, R. (2021). "Den Smukkeste Kvindebuste, Jeg Endnu Har Set': The Palmyra Excavation Diaries of Harald Ingholt, 1924–1928", in: Raja, R., Steding, J. & Yon, J.-B. (eds.), *Excavating Palmyra: Harald Ingholt's Excavation Diaries: A Transcript, Translation, and Commentary*, Studies in Palmyrene Archaeology and History 4: 1, Turnhout: Brepols, 23–68.

- Raja, R. (2021). "Harald Ingholt and Palmyrene Sculpture: Continuing a Lifelong Relationship a Century Later", in: Bobou, O., Jensen, J. V., Kristensen, N. B., Raja, R. & Thomsen, R. R. (eds.), *Studies on Palmyrene Sculpture: A Translation of Harald Ingholt's Studier over Palmyrensk Skulptur, Edited and with Commentary*, Studies in Palmyrene Archaeology and History 1, Turnhout: Brepols, 1–27.
- Raja, R. (2021). "Negotiating Social and Cultural Interaction through Priesthoods. The Iconography of Priesthood in Palmyra", in: Hoffmann-Salz, J. (eds.), *The Middle East as Middle Ground? Cultural Interaction in the ancient Middle East Revisited*, Vienna: Holzhausen, 129–146.
- Raja, R. (2021). "Palmyra Portræt Projektet (2012–2020): Forskningens uforudsigelighed og interdisciplinaretens styrker", *Det Unge Akademis Årsskrift* 2021, 30–33.
- Raja, R. (2021). "Populating Public Palmyra: Display of Statues and Their Impact on the Perception of Public Space in Roman Palmyra", in: Dickenson, C. P. (ed.), *Public Statues Across Time and Cultures*, London: Routledge, 81–101.
- Raja, R. (2021). "Reading the Ingholt Excavation Diaries, and Acknowledgements", in: Raja, R., Steding, J. & Yon, J.-B. (eds.), *Excavating Palmyra: Harald Ingholt's Excavation Diaries: A Transcript, Translation, and Commentary*, Studies in Palmyrene Archaeology and History 4, Turnhout: Brepols.
- Raja, R. (2021). "Review: GREG WOOLF, THE LIFE AND DEATH OF ANCIENT CITIES: A NATURAL HISTORY. Oxford: Oxford University Press, 2020. Pp. 528, illus. isbn 9780199664733. £25", *Journal of Roman Studies* 111 297–298. DOI: doi.org/10.1017/S0075435821000435.
- Raja, R., Bobou, O. & Romanowska, I. (2021). "Three Hundred Years of Palmyrene History: Unlocking Archaeological Data for Studying Past Societal Transformations", *PLoS ONE* 16:11, e0256081. DOI: https://doi.org/10.1371/journal.pone.0256081.
- Raja, R. & Rieger, A.-K. (2021). "Sanctuaries: Places of Communication, Knowledge and Memory in Roman Religion", in: Rüpke, J. & Woolf, G. (eds.), *Religion in the Roman Empire, Religionen der Menschheit* 16:2, Stuttgart: Kohlhammer, 61–95.
- Raja, R. & Rüpke, J. (2021). "Creating Memories in and of Urban Rome: The Forum Iulium", in: Hass, T. A. & Raja, R. (eds.), *Caesar's Past and Posterity's Caesar*, Rome Studies 1, Turnhout: Brepols, 53–66.
- Raja, R. & Rüpke, J. (2021). "Introduction: Urban Archaeology", *Religion in the Roman Empire* 7:2, 217–220. DOI: https://doi.org/10.1628/rre-2021-0016.
- Raja, R. & Seland, E. H. (2021). "Horses and Camels in Palmyrene Art: Iconography, Contexts and Meanings", *Zeitschrift für Orient-Archäologie* 13, 300–329.
- Raja, R. & Sindbæk, S. M. (2021). "Dark Sides of the City" (editorial), *Journal of Urban Archaeology* 4, 11–14. DOI: https://doi.org/10.1484/J.JUA.5.126591.
- Raja, R. & Sindbæk, S. M. (eds.) (2021). *Journal of Urban Archaeology* 3, Turnhout: Brepols. DOI: https://doi.org/10.1484/J.JUA.5.123655.
- Raja, R. & Sindbæk, S. M. (eds.) (2021). *Journal of Urban Archaeology* 4, Turnhout: Brepols.
- Raja, R. & Sindbæk, S. M. (2021). "Network Evolutions and High-Definition Narratives: An Introduction", *Journal of Urban Archaeology* 3, 11–12. DOI: https://doi.org/10.1484/J.JUA.5.123672.
- Raja, R. & Steding, J. (eds.) (2021). *Production Economy in Greater Roman Syria: Trade Networks and Production Processes*, Studies in Palmyrene Archaeology and History 2, Turnhout: Brepols.
- Raja, R. & Steding, J. (2021). "Production Economy in Roman Syria: New Views on Old Stones", in: Raja, R. & Steding, J. (eds.), *Production Economy in Greater Roman Syria: Trade Networks and Production Processes*, Studies in Palmyrene Archaeology and History 2, Turnhout: Brepols, 1–8.
- Raja, R. & Steding, J. (2021). "Harald Ingholt's Excavation Diaries from his Fieldwork in Palmyra: An Open Data Online Ressource", *Journal of Open Archaeology Data* 9:8. DOI: https://doi.org/10.5334/joad.84.
- Raja, R., Steding, J. & Yon, J.-B. (eds.) (2021). *Excavating Palmyra: Harald Ingholt's Excavation Diaries: A Transcript, Translation, and Commentary*, Studies in Palmyrene Archaeology and History 4, 2 vols. Turnhout: Brepols.
- Raja, R., Brughmans, T., Kinnaird, T. C., Kristiansen, S. M., Lichtenberger, A., Romanowska, I., Seland, E. H., Simpson, I. A. & Stott, D. (2021). "Urbanization and Riverine Hinterlands: A Proposal for an Integrative High-Definition and Multi-Scalar Approach to Understanding Ancient Cities and their Dynamic Natural Resources", *Journal of Urban Archaeology* 4, 33–59. DOI: https://doi.org/10.1484/J.JUA.5.126593.
- Rawat, N., Brughmans, T., Nautiyal, V. & Chauniyal, D. (2021). "Networked Medieval Strongholds in Garhwal Himalaya, India", *Antiquity* 95:381, 753–772. DOI: https://doi.org/10.15184/aqy.2021.4.
- Romanowska, I., Bobou, O. & Raja, R. (2021). "Reconstructing the Social, Economic and Demographic Trends of Palmyra's Elite from Funerary Data", *Journal of Archaeological Science* 133, 105432. DOI: https://doi.org/10.1016/j.jas.2021.105432.
- Romanowska, I., Brughmans, T., Bes, P., Carrignon, S., Egelund, L., Lichtenberger, A. & Raja, R. (2021). "A Study of the Centuries-Long Reliance on Local Ceramics in Jerash Through Full Quantification and Simulation", *Journal of Archaeological Method and Theory* 29 (2022), 31–49. DOI: https://doi.org/10.1007/s10816-021-09510-0.
- Romanowska, I., Lichtenberger, A. & Raja, R. (2021). "Trends in Ceramic Assemblages from the Northwest Quarter of Gerasa/ Jerash, Jordan", *Journal of Archaeological Science: Reports* 36, 102778. DOI: https://doi.org/10.1016/j.jasrep.2020.102778.
- Romanowska, I., Campmany Jiménez, J., Bobou, O. & Raja, R. (2021). "Evaluating Environmental Kuznets Curves through Archaeological Data: A Conceptual and Theoretical Framework", *Journal of Urban Archaeology* 4, 61–97. DOI: https://doi.org/10.1484/J.JUA.5.126594.

Sauer, N. (2021). *An Archaeological Approach to Archaic Rome (6th–Early 5th Century BC): A Case Study of an Archaic Site in the Caesar's Forum Area*, unpublished PhD dissertation, Aarhus University.

Sauer, N. (2021). "The Forum of Caesar: A Historiographical Review", in: Hass, T. A. & Raja, R. (eds.), *Caesar's Past and Posterity's Caesar*, Rome Studies 1, Turnhout: Brepols, 213–241.

Sauer, N. (2021). "Tracing Networks of the Hellenistic Amphora Market: A Study Based on Rhodian, Cnidian and Coan Transport Amphoras", in: Poulsen, B., Pedersen, P. & Lund, J. (eds.), *Karia and the Dodekanese: Cultural Interrelations in the Southeast Aegean 2*, Oxford: Oxbow Books, 125–139.

Sauer, N. (2021). "Urbanism in Archaic Rome: The Archaeological Evidence", *Journal of Urban Archaeology* 4, 119–136. DOI: <https://doi.org/10.1484/J.JUA.5.126596>.

Saxkjær, S. G. (2021). "The Role of the Romans' Early History in the Late Republican Period", in: Hass, T. A. & Raja, R. (eds.), *Caesar's Past and Posterity's Caesar*, Rome Studies 1, Turnhout: Brepols, 13–26.

Saxkjær, S. G. (2021). "Considerations of the Narrow-Necked Jugs from Amendolara and their Cultural Significance", in: Mittica, G., Colelli, C., Larocca, A. & Larocca, F. (eds.), *Dal Pollino all'Orsomarso: Ricerche archeologiche tra Ionio e Tirreno*, Analecta Romana Instituti Danici supplementa 56, Rome: Quasar, 199–210.

Saxkjær, S. G. & Jacobsen, J. K. (2021). "Etruscan Imagery outside Etruria? Exploring Mythological Representations at Timpona della Motta", in: Taliano Grasso, A. & Medaglia, S. (eds.), *Tra paralia e mesogaia: Studi e ricerche per il decennale del Laboratorio di Topografia antica e Antichità calabresi*, Rome: Ferrari editore, 349–360.

Steding, J. (2021). "Partly Finished Objects from the Palmyrene Funerary Context", in: Raja, R. & Steding, J. (eds.), *Production Economy in Greater Roman Syria Trade Networks and Production Processes*, Studies in Palmyrene Archaeology and History 2, Turnhout: Brepols, 17–32.

Steding, J. (2021). "Sozialisation im römischen Reich: Mädchen und Jungen als Spiegelbilder antiker Geschlechterrollen?", in: Gutsmiedl-Schumann, D., Helmbrecht, M. & Kranzbühler, J. (eds.), *Feministische Perspektiven auf Gender und Archäologie: Beiträge der Tagung zum 25-jährigen Bestehen von FemArc – Netzwerk archäologisch arbeitender Frauen e.V.*, Münster: Waxmann Verlag, 189–216.

Sulas F., Orfanou V., Ljungberg T. & Kristiansen S. M. (2021). "Mapping the Invisible Traces: Soil Micromorphology at Fregerslev II", in: Pedersen, A. & Bagge, M. S. (eds.), *Horse and Rider in the Late Viking Age: Equestrian Burial in Perspective*, Aarhus: Aarhus University Press, 100–109.

Sørensen, P. A., Fauth, S. R., Hass, T. A. & Møller, A. H. (eds.) (2021). *Lys og Lærd*, Aarhus: Klim.

Sørensen, P. A., Fauth, S. R., Hass, T. A. & Møller, A. H. (2021). "Forord", in: Sørensen, P. A., Fauth, S. R., Hass, T. A. & Møller, A. H. (eds.), *Lys og Lærd*, Aarhus: Klim, 9–11.

Thomsen, R. R. (2021). "Unlocking a Mystery? The Keys in Palmyrene Funerary Portraiture", in: Heyn, M. K. & Raja, R. (eds.), *Individualizing the Dead: Attributes in Palmyrene Funerary Sculpture*, Studies in Palmyrene Archaeology and History 3, Turnhout: Brepols, 51–62.

Trant, P. L. K. (2021). *Indoor Use of a Viking Age House: Combining Geochemistry and Multi-Spectral Methods in Ribe, Denmark*, unpublished PhD dissertation, Aarhus University.

Trant, P. L. K., Kristiansen, S. M., Christiansen, A. V., Wouters, B. & Sindbæk, S. M. (2021). "Sampling Density and Spatial Analysis: A Methodological pXRF Study of the Geochemistry of a Viking-Age House in Ribe, Denmark", *Archaeological and Anthropological Sciences* 13, 21. DOI: <https://doi.org/10.1007/s12520-020-01243-7>.

Wynne-Jones, S., Sulas, F., Out, W. A., Kristiansen, S. M., Fitton, T., Ali, A. K. & Olsen, J. (2021). "Urban Chronology at a Human Scale on the Coast of East Africa in the 1st Millennium A.D.", *Journal of Field Archaeology* 46:1, 21–35. DOI: <https://doi.org/10.1080/00934690.2020.1854549>.







Excavation equipment at Caesar's Forum, Rome, July 2021 (@ Eva Mortensen).



## UrbNet Annual Report 2021

Published March 2022

Printed in Aarhus, Denmark, AU TRYK, Aarhus University

**Editors:** C. A. Levisen, Mie E. Lind, E. Mortensen, R. Raja and S. M. Sindbæk

**Cover:** View of Via dei Fori Imperiali meets UEFA EURO 2020, with Caesar's Forum in the background, July 2021 (© Eva Mortensen).

**Back cover:** UrbNet's Christmas 2021

### Centre for Urban Network Evolutions (UrbNet)

Aarhus University  
 Moesgård Allé 20, 4230, 2nd floor  
 DK-8270 Højbjerg  
 Denmark

+45 8716 2537  
<http://urbnet.au.dk>

**Centre director:** Professor Rubina Raja  
[rubina.raja@cas.au.dk](mailto:rubina.raja@cas.au.dk)

**Deputy director:** Professor Søren M. Sindbæk  
[farksms@cas.au.dk](mailto:farksms@cas.au.dk)

**Centre administrator:** Christina A. Levisen  
[levisen@cas.au.dk](mailto:levisen@cas.au.dk)

**Assistant centre administrator:** Mie E. Lind  
[melind@cas.au.dk](mailto:melind@cas.au.dk)