# UrbNet Annual Report 2020

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 highdefinition archaeology to determine how urban networks catalysed societal and environmental expansions and crises in the past.



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### **Greetings from the Director**



UrbNet opened its doors 1 February 2015, and thus 2020 constituted the sixth and final year of UrbNet's first round of funding from the Danish National Research Foundation (DNRF). In 2019, the centre was evaluated by an international panel and the DNRF, and was approved for a second funding round, which will begin 1 February 2021. From the outset of 2020, we had high hopes and ambitious plans for how to make the most of our research platforms, direct resources into high-priority areas, push the urban agenda throughout projects and harness untapped potential in data we had collected over the first five years of existence. We had filled our first embedded tenured position, and scheduled strategically important conferences and workshops with specialists and experts coming to UrbNet from around the world. Things were looking promising, and we had prepared for a bash of a final year in round one. Then came COVID-19.

### Adaptability and change: Core abilities in academia

Around midnight 11 March, under the orders of the Danish Government, the AU management announced a university-wide lockdown starting 12 March. Suddenly we were faced with having to entirely reorganise our working days, which profoundly impacted our research, teaching and supervision. We had to cancel or postpone critical events and reach out to visitors en route. We had to ensure the safety of employees who were abroad on research stays or travelling, and we had to establish new lines of communication and deal with an array of other academic and operational issues – all from a distance.

Since then, UrbNet has had to adapt to a 'new normal' where developments in the pandemic have dictated sudden and significant changes to our activities and work schedule. It has not been easy. However, I am proud that our centre staff have pressed on and managed with insistence to continue their research — despite the lack of access to libraries, laboratories, offices and fieldwork. Regardless of the circumstances, the UrbNet spirit has remained high, and the centre's output has retained the same high quality for which it has always been known. Therefore, it is worth celebrating the great

performances and achievements of the past year, and it is with my head held high that I present to you the UrbNet annual report 2020, which underlines the agility and adaptability of UrbNet's researchers, administrative staff and students.

### UrbNet's sixth year of existence

Because of COVID-19, travel plans and international engagements had to be cancelled or reorganised, but we chose to see this as a golden opportunity to focus on writing, while maintaining virtual interaction within the UrbNet community. We refocused and spent even more time wrestling with new issues of urbanism – both methodologically and theoretically - crossing regional boundaries and pulling together results developed within the framework of the centre since 2015. The centre's excavation projects in Ribe and Jerash concentrated on writing up their final publications, bringing entirely new data and analyses from these projects to the scholarly communities and the general public. UrbNet's fieldwork efforts in Georgia went ahead by proxy through a local collaborator; the continuation of this work was critical, and I am pleased with the way the situation was handled from both sides.

1 February, we welcomed Tom Brughmans, who took up an associate professorship – UrbNet's first embedment position. Brughmans specialises in economic patterns and urban phenomena of the Roman world. His research is done through applying computational methods such as network science, agent-based simulation and geographical information systems to archaeological big data assemblies. His work thus ties in perfectly with the overall UrbNet research agenda, and several project ideas and new perspectives have emerged since he started. Being awarded a Sapere Aude grant in November 2020, Brughmans has already shown that his research can attract funding, and his project is deeply embedded in UrbNet's research agenda for the second round. We also had to say farewell to a number of employees whose contracts came to a natural close. While their absence is definitely felt at the centre, we recognise their invaluable contribution to UrbNet and

choose to celebrate their success in landing new positions around the world and the networks they offer UrbNet in future ventures, rather than mourn the loss of them.

In March, Julia Steding was awarded her PhD degree based on the project Carvers & Customers: The Production Economy of Limestone Loculus Reliefs in Roman Palmyra, 1st to 3rd Century AD. The thesis has now been reworked and is under publication as a monograph. In May, Olav E. Gundersen likewise obtained the degree of PhD based on the project Commercialisation and Urbanisation on the Periphery of Medieval Europe c. 986–1448: A Comparative Analysis of Denmark and Norway. Both vivas were held virtually, but the two candidates truly excelled and deservedly enjoyed solid moral backing and admiration from their UrbNet colleagues, thus making these two occasions festive in a socially distanced manner.

In the autumn, we advertised a series of post-doctoral fellowships and PhD scholarships, which will commence in 2021, marking the transition into UrbNet's second funding period.

#### **Visitors**

UrbNet hosted two visiting professors in 2020: Assistant Professor Elizabeth Murphy (Florida State University), and Professor Christopher Hallett (UC Berkeley). In the autumn, Elizabeth Murphy gave the five-part lecture series Socially Re-Constructing the Late Roman City: Labor, Networks, Economy, and Narratives of Urban "Decline", which examined issues of work and labour in the late antique period (3rd-7th centuries AD), through the archaeological record of worksites and work activities. The lecture format was part-physical/part-virtual, and we were positively surprised to see participants from research institutions worldwide attending, contributing interesting questions and stimulating comments, altogether enhancing our experience of an online format. Christopher Hallett will give a six-part lecture series in the spring of 2021, and we look very much forward to him sharing his unparalleled expertise in visual culture.

Before the COVID-19 lockdown, we also enjoyed a short-term visit by UrbNet's first visiting professor in 2015, Alain Schnapp (University Paris 1, Panthéon-Sorbonne). All subsequent physical visits were cancelled or postponed.

### **Events**

In January, we hosted the international workshop Exploring Publicness in Towns in Roman Britain and coorganised, together with the Ny Carlsberg Glyptotek, the public symposium Palmyra: Pearl of the Syrian Desert (held at the Ny Carlsberg Glyptotek in Copenhagen). In September, we organised the part-physical/part-virtual seminar Archaeocartography: The Challenges and Possibilities of Archaeological Distribution Mapping, and in October, we hosted (virtually) Tom Brughman's inau-

gural lecture Networking with the Romans: Examples of archaeological network research and where we should go from here. In November, we organised the virtual PhD course Urban Mega-Projects in the Roman Period and Late Antiquity: New Approaches and Future Directions. All other planned events were cancelled or rescheduled, including the international conference Anomalocivitas (postponed to June 2021).

### **Funding**

In light of COVID-19, funding agencies and foundations had to significantly reorder their priorities in 2020; however, UrbNet's dedication to raising external funds paid off, and centre staff attracted grants for a number of projects, totalling 10,659,025 DKK in new funding. To highlight a few, Tom Brughmans secured a Sapere Aude Research Leader grant (6,191,689 DKK) by the Independent Research Fund Denmark (DFF) for the project MINERVA: Understanding the Centuries-Long Functioning of the Roman Economy, and Trine A. Hass was awarded a Special Research Project (700,000 DKK) by the Carlsberg Foundation for the project With Caesar as Prism: Danish Receptions of Ancient Rome from the Middle Ages until Today. As always, I am proud of each and every effort to compete for a portion of the available funding pools – regardless of the outcome or the size of the grant. What matters is that UrbNet is raising a generation of junior researchers who are willing to stick their neck out, trusting that their work is of sufficient importance and quality to warrant recognition.

### Acknowledgements

I would like to thank UrbNet's many partners, collaborators and supporters from all around the world; we look forward to enjoying your physical visits with us again. I also wish to recognise the DNRF for their continued support of our research, as well as the other funding agencies and foundations that enable our projects. In the wake of the pandemic, it is clear that the unwavering UrbNet spirit rests on the strength of an exceptional community where people pull together and support one another. The initiatives that have been launched during lockdowns to spread joy and the creativity with which centre members have encouraged each other during periods of isolation are too numerous to mention. As centre director, I am impressed at the resilience shown by UrbNetters and their wilful insistence on finding the silver lining in a cloudy year. I thank all employees and affiliates for the part that they each play in continually shaping UrbNet and pushing the bounds of our field.

> Rubina Raja Aarhus, March 2020

### Staff

### Senior core group



**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 MSO, Deputy director School of Culture and Society, Aarhus University

Søren M. Sindbæk's research focuses on early urbanism and urban archaeology in Vikingage 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 14C 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** Senior lecturer 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 (embedded tenured position)



**Tom Brughmans** (1 February–31 December 2020) 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**



Thomas Birch (1 January–28 May 2020) Assistant professor School of Culture and Society, Aarhus University

Thomas Birch studies and scientifically analyses artefacts and materials from archaeological sites to learn about their origin and past technologies, aiming to understand how material assemblages influence and are influenced by the evolution of urban networks.



**Olympia Bobou** (1 January–31 December 2020) Assistant professor (Circular Economy, funded by the Carlsberg Foundation; 1 January–30 June: research assistant, Palmyra Portrait Project, funded by the Carlsberg Foundation) 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.



Sarah Croix (1 January–31 December 2020) Assistant professor (Northern Emporium, funded by the Carlsberg Foundation) 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.



Christopher P. Dickenson (1 January–30 September 2020) Assistant professor School of Culture and Society, Aarhus University

Christopher P. Dickenson researches the public spaces of the cities of the Roman Empire. Having previously worked on the cities of Greece, he now focuses on comparing the use and meaning of public space in different parts of the Empire and finding new ways of using archaeology to investigate the nature of publicness.



**Emanuele E. Intagliata** (1 January–31 December 2020) 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.

### **Postdocs**



Pieterjan S. Deckers (1 January–2 December 2020) Postdoc (Northern Emporium, funded by the Carlsberg Foundation, and UrbNet) School of Culture and Society, Aarhus University

Pieterjan S. Deckers works with artefactual evidence from the Northern Emporium excavation in Ribe, focusing on how flows of things, both exotic and mundane, constituted urban life and connected the town with the outside world, in particular the maritime network of 8th–9th-century emporia across the North and Baltic Seas.



Amy C. Miranda (1 October–31 December 2020) 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.



Iza Romanowska (1 September–31 December 2020)
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 January–31 December 2020) Postdoc (UrbNet and 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.

### PhD students



**Thomas S. Daugbjerg** (1 January–31 December 2020) 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.



Line E. Hejlskov (1 January–31 December 2020) 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, in order to understand the urban development of central Rome.



Mahir Hrnjić (1 January–31 December 2020) PhD student (14 November–31 December: research assistant) 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 January–31 December 2020) PhD student 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.



Nora M. Petersen (1 January–31 December 2020, 24 February–31 December: unpaid leave) PhD Student (Caesar's Forum, funded by the Carlsberg Foundation) School of Culture and Society, Aarhus University

Nora M. Petersen's project studies the burials from the late Bronze Age and early Iron Age (c. 11th–9th century BCE) in Caesar's Forum. The focus is on the ritual practice, social implications and connectivity in pre-urban Rome.



**Nikoline Sauer** (1 January–31 December 2020) PhD Student (Caesar's Forum, funded by the Carlsberg Foundation) 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.



Pernille L. K. Trant (1 January–2 December 2020) PhD student Department of Geoscience, Aarhus University

Pernille L. K. Trant specialises in geocemistry and radiocarbon dating, and her project uses a geochemical approach to investigate early urban spaces in Denmark.

### **Research assistants**



**Taylor FitzGerald** (15 June–31 December 2020) Research assistant (Northern Emporium, funded by the Carlsberg Foundation) 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.



Joan C. Jiménez (1 November–31 December 2020) 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, specialising 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 September–31 December 2020) Research assistant (Palmyra Portrait Project and Archive Archaeology, funded by UrbNet, the Carlsberg Foundation and the ALIPH 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 Palmyra Portrait Project and Archive Archaeology where she is working on the corpus of Palmyrene funerary sculpture and different data collection assignments.



Nathalia B. Kristensen (1 January—31 August 2020) Research assistant (*Palmyra Portrait Project*, funded by the Carlsberg Foundation, and *Circular Economy*, funded by the Augustinus Foundation) School of Culture and Society, Aarhus University

Nathalia B. Kristensen holds an MA in classical archaeology from Aarhus University. She has been part of the *Palmyra* group since 2016. Since June 2018, she has been working on the catalogue of the Palmyrene funerary sculptures, on the basis of the online database entries.



**Sif R. Lærke-Hall** (1 November–31 December 2020) 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 Oxford University. As a team member on the Palmyra Portrait Project, she is currently editing catalogue entries for a corpus of Palmyrene funerary portraits.



Line K. Lauridsen (1–31 January 2020) Research assistant (Northern Emporium, funded by the Carlsberg Foundation) School of Culture and Society, Aarhus University

Line K. Lauridsen holds an MA in medieval and renaissance archaeology from Aarhus University. Line works with registrations and sampling of finds from the Northern Emporium project in Ribe.



Mikkel F. Schou (1 January–31 December 2020) Research assistant Department of Physics and Astronomy, Aarhus University

Mikkel F. Schou holds an MSc in physics from Aarhus University. He works with adjustment of the atmospheric 14C calibration curve, from decadedal to annual resolution for two separate periods spanning 200 years in total.



**Julia Steding** (1 February–31 December 2020; employment break 1–30 September) Research assistant (*Circular Economy*, funded by the Carlsberg Foundation) 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 project Circular Economy and Urban Sustainability in Antiquity, mainly focusing on the archaeological remains from Palmyra.

### Visiting researchers



Christopher Hallett (28 September–31 December 2020) Visiting professor (self-funded) UC Berkeley, USA

Christopher Hallett is Professor in 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.



**Elizabeth Murphy** (1 September–31 December 2020) Visiting professor (16–31 December: 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 January–31 December 2020) Centre administrator School of Culture and Society, Aarhus University

Christina Levisen has an MA in linguistics from Aarhus Universty 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 January–31 December 2020) 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.



Nickey Fregerslev (1 January—31 March 2020) Administrative employee School of Culture and Society, Aarhus University

Nickey Fregerslev works with copy-editing of various articles and edited volumes, as well as EndNote.



**Eva Mortensen** (1January–31 December 2020) Research administrator 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 Aarhus University HM Queen Margrethe II's Distinguished Postdoctoral Fellowship, The Danish Institute in Rome, Italy

**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 H. 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

**Director of research Dr. Jean-Baptiste Yon** Laboratoire HISOMA

### Student assistants

Mette Lang (1 January-31 December 2020)

Joos Melander (1–29 January; 1 March–31 December 2020)

Louise Matilde H. Møller (1 January–31 March 2020)

Sille Møller (1 January-31 March 2020)

Frederik Theisen (1 January–31 March 2020)

Lasse R. Olesen (1 January-31 December 2020)

Sara C. Utvaag (1 January-30 June 2020)

**Gry Øfverlind Schack Petersen** (15 November–31 December 2020)



Visiting Professor Elizabeth Murphy gives a part-physical/part-virtual lecture in the auditorium at Moesgaard Museum (Photo: Mie E. Lind).

### Visiting Professors during UrbNet 1.0 (February 2015–January 2021)



Alain Schnapp (April–June 2016) Université Paris 1, Panthéon-Sorbonne, France

Alain Schnapp is Professor Emeritus of Classical Archaeology at Université Paris 1, Panthéon-Sorbonne. His main research interests are Greek iconography and cultural history of Antiquity, and he is recognised among peers as one of the leading experts in his field. Alain Schnapp has been visiting professor at a number of institutions, including Princeton University and Stanford University. During his stay at UrbNet, Alain Schnapp gave a lecture series entitled Ruins and Their Significance for Urban History.



Michael E. Smith (April-July 2018 and 1-20 June 2019) Arizona State University, USA

Michael E. Smith is an archaeologist specialising in the Aztecs of central Mexico. He is Professor of Anthropology at Arizona State University, and his research focuses on two broad areas: Aztec social and economic organisation, and the comparative analysis of ancient urban societies. His theoretical and comparative interests derive from a scientific, materialist, political-economy approach to ancient state societies. Michael E. Smith gave a lecture series entitled Cities Before the Modern Era: Population, Functions and Urban Life (2018).



**Maura Heyn (1 June–31 July 2018)** University of North Carolina, Greensboro, USA

Maura Heyn is Professor of Roman Art and Archaeology at University of North Carolina, Greensboro. Her research focuses on funerary sculpture in the Roman Empire, particularly the sculpture from the Syrian city of Palmyra. She is interested in issues of social identity, cultural change, ancient clothing and dress, and the archaeology of the body. Other research interests include the mural decoration of the Temple of Bel in Dura-Europos, and the significance of hand gestures in Roman funerary portraiture. During her stay, Heyn co-organised the workshop Attributes in Palmyrene Funerary Sculpture within the framework of the Palmyra Portrait Project.



Roland Fletcher (8–30 June 2018 and 1–28 June 2019) University of Sydney, Australia

Roland Fletcher is Professor of Theoretical and World Archaeology at University of Sydney. His global and interdisciplinary perspective on archaeology which integrates research and teaching in new ways has expanded the field of archaeology immensely. His expertise includes theory and philosophy of archaeology, study of settlement growth and decline and analysis of large-scale cultural phenomena in diachronic perspectives. He gave the lecture series Material Behaviour: Theory and Things (2018) and Material Behaviour and the Dynamics of Settlement Trajectories from the Upper Palaeolithic to the Present (2019).



Innocent Pikirayi (23 April–15 June 2019) University of Pretoria, South Africa

Innocent Pikirayi is Professor of Archaeology and Head of the Department of Anthropology and Archaeology at the University of Pretoria. He is a leading scholar in African archaeology and social complexity, researching the rise, development and demise of ancient state societies. He has developed geoarchaeological and historical archaeological approaches to investigate past crises and resilience at Great Zimbabwe. Pikirayi gave the lecture and follow-up workshop Social Complexity and Urban Development in Africa/Southern Africa as well as the conference paper Environmental change impacts in sub-Saharan Africa: beyond the social ramifications (conference: Urbanising Landscapes and Traditions of Change in Africa and Beyond).



**Eivind H. Seland (23 April–30 June 2019)** University of Bergen, Norway

Eivind H. Seland is Professor of Ancient History and Premodern Global History at University of Bergen. He researches how economy, political power and ideology/religion interacted in early states/complex societies in the ancient world. In particular, he works with the Indian Ocean/Red Sea region and the Near East, but is also interested in the Mediterranean and Central Asia. He investigates how the physical environment influenced travel and communication along both sea and land routes, and also studies how historians, archaeologists and paleoclimatologists have cast climate as an agent of historical change. Seland gave the lecture series Urban Networks in the World Trade of the First Centuries CE.



Christopher J. Smith(21 October–15 December 2019) University of St Andrews, UK

Christopher John Smith is Professor of Ancient History at University of St Andrews and former Director of the British School in Rome. His research interests include the social and economic development of early Rome and Latium, particularly as evidenced through archaeology and comparative developments in the southern and eastern Mediterranean. Within this, he has addressed general aspects of urbanisation and state formation. During his time as visiting professor at UrbNet, Smith gave the lecture Theorizing the urban in central Italy c. 200 BCE to 200 CE.



Elizabeth Murphy (1 September–31 August 2021) Florida State University, USA

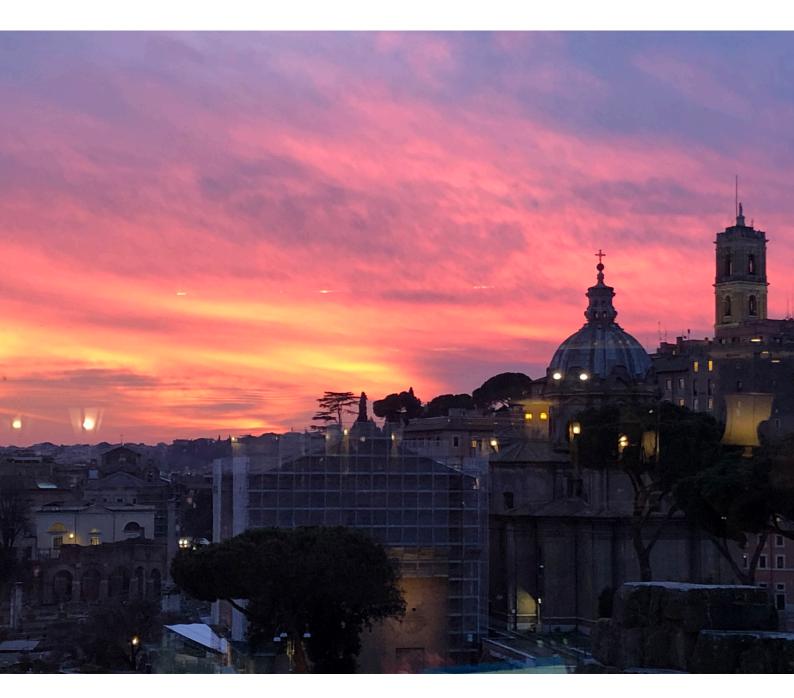
Elizabeth Murphy is Assistant Professor of Roman Archaeology at Florida State University. Her research concerns the social and economic organisation of the Roman world – specifically the history and archaeology of labour, production and technology, through the lens of ancient urbanism, the Roman military and socio-economic inequality in Antiquity. Murphy gave the lecture series Socially Re-Constructing the Late Roman City: Labor, Networks, Economy, and Narratives of Urban "Decline".



Christopher Hallett (14 September–30 June 2021) UC Berkeley, USA

Christopher Hallett is Professor in History of Arts and Classics at UC Berkeley. He is a specialist in Roman sculpture, having published a number of studies on Roman portraiture. He is a practicing field archaeologist, and has participated in archaeological fieldwork in Israel, Turkey and in Egypt. Since 1991, he has worked at New York University's excavations at Aphrodisias in southwestern Turkey. His research interests thus include the visual culture of Roman Asia Minor. Hallett will give a lecture series during the spring semester of 2021.

# UrbNet Highlights 2020



### Cultural Contextualisations through High-Definition Studies of Roman Glass from Gerasa (Jerash, Jordan)



Professor and Centre Director Rubina Raja

**Project**: Ceramics in Context

**Funding**: The Carlsberg Foundation, UrbNet, Deutsche Forschungsgemeinschaft, Deutscher Palästina-Verein, the Elite Research Prize (Danish Ministry of Higher Education and Science) and H. P. Hjerl Hansens Mindefondet for Dansk Palæstinaforskning

One of the focus areas of UrbNet's research is provenance and recycling studies of ancient glass. Through such studies, we can examine flows of materials, which allow for insights into networks and their evolution over time. UrbNet, in collaboration with the Aarhus Geochemistry and Isotope Research Platform (AGIR), has shown that the origin of Roman glass can be determined through hafnium isotopes.

The study, which was published in Nature Scientific Reports, is based on material from the Danish-German Jerash Northwest Quarter Project (DGINWQP), an international excavation project directed by Professor Achim Lichtenberger (Westfälische Wilhelms-Universität Münster) and Centre Director Professor Rubina Raja (Aarhus University). The new study unleashed the potential of high-definition approaches applied to archaeological material coming from controlled excavations, showing that through a context-first approach, scattered material evidence from complex stratigraphic situations can be used in such studies. Not only does this study lay the archaeological methodological ground for future studies on glass; it also shows that UrbNet's approach to archaeological materials combining context-first approaches with high-definition studies yields groundbreaking results.

Since 2011, Achim Lichtenberger and Rubina Raja have directed the DGJNWQP, a field project that investigates the urban archaeology of Gerasa (modern Jerash in northern Jordan) in a diachronic perspective through small-scale excavations. Excavation and study campaigns were conducted between 2011 and 2017 in the Northwest Quarter of the archaeological site of ancient Gerasa, the highest point within the Roman-period city walls. Registering all excavated material, the project has used full-quantification methods to accumulate datasets and samples for analyses. By approaching case studies in a high-definition perspective, the project has gained new knowledge and developed new methods, which have been widely published. The latest example is the study of the origin of Roman glass found in Jerash.

The Hellenistic and Roman city of Gerasa was one of the classical cities of the Decapolis in the east of the Roman Empire. It flourished until a devastating earthquake in the mid-eighth century CE led to an almost complete abandonment of the site. Archaeological evidence indicates that it was settled again in the later Ayyubid–Mamluk period.

### The origin of Roman colourless glass: A groundbreaking study

The production of large quantities of clear and colourless glass is a particularly fascinating aspect of Roman-period glass production. Both were favoured as e.g. high-quality drinking vessels. The fourth-century Price Edict issued under the Roman emperor Diocletian refers to colourless glass as being 'Alexandrian', indicating an origin in Roman Egypt. However, archaeological evidence of colourless glass is mainly known from other regions. Large amounts of Roman glass were produced in Judaea-Palestine, where furnaces for colourless glass production have been found. Such furnaces have not been uncovered in Egypt until now, and hitherto, it has been challenging to scientifically pin down the exact differences between glass from the two regions.

In the new international study involving the DGJNWQP, AGIR and Professor and glass expert Ian Freestone (University College London), researchers have found a way to determine the origin of Roman colourless glass. The results show that the isotopes of the rare element hafnium can be used to distinguish between Egyptian and Levantine glass. The analyses provide compelling evidence that the prestigious colourless glass known as 'Alexandrian' was indeed made in Egypt. It is the first time hafnium isotopes have been used by archaeologists to examine the provenance of ancient materials such as glass and, through these, study trade networks. Therefore, the new study and its results received broad international media coverage.

The ground-breaking results are expected to have a profound impact on scientific analyses of archaeological materials. The new study demonstrates the potentials of high-definition archaeology: Applied to archaeological questions, such methods not only provide us with a better understanding of one specific material group from a given site but pave the way for scientific breakthroughs in the wider field of archaeology.

### **Publication**

Barfod, G. H., Freestone, I., Lesher, C. E., Lichtenberger, A. & Raja, R. (2020). 'Alexandrian' Glass Confirmed by Hafnium Isotopes. Nature Scientific Reports 10, 11322.

### Crafts and Social Networks in Viking Towns

Professor MSO and Vice Centre Director Søren M. Sindbæk Senior Lecturer Steve P. Ashby (University of York)





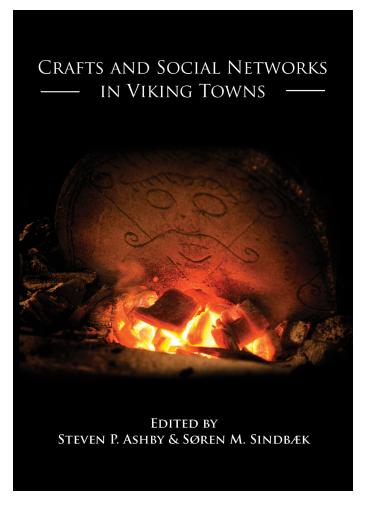
How was metal-casting undertaken in Dublin, York and Ribe? Are the similarities and differences in practice mirrored in what we see in textile manufacture? Or comb-making? What might these patterns tell us about the organisation of urban craft, or about the mechanics of contact and communication?

Viking-period towns were the hubs of cross-cultural communication of their age, and innovations in specialised crafts provide archaeologists with some of the best evidence for studying this communication. This evidence is now analysed in the comparative study Crafts and Social Networks in Viking Towns (Oxbow Books, 2020). The volume grew from a British Academy-funded network project conceived by Steve P. Ashby (University of York) and Søren M. Sindbæk (Aarhus University). The idea was to bring together specialists in the study of different crafts from around the North Sea, to compare notes on the practice and development of these activities, with a view to learning about communication, travel and knowledge networks in the Viking Age.

Completed under the aegis of UrbNet, the real potential of this way of looking at the Viking world has revealed itself. The integrated results presented in these papers have been made possible through the sustained collaboration of a group of experts with complementary insights into individual crafts. The idea behind the project is that urban craft offers a unique window into the organisation of past society, allowing us to directly study how people learned and passed on knowledge and skills. With most archaeological materials, it is an impossible task to really understand the social networks of past people – in the way an anthropologist might in studying a living group – but the remains of craft workshops offer exceptional potential.

The artisans of the past often maintained locally distinctive manufacturing traditions, and tracing the spread of these ways of working offers us great insight into connectivity and communication pathways. Thankfully, these skilled craft workers were also very messy, leaving piles of rubbish for us to study. By looking at this waste material – mould fragments, antler cut-offs or droplets of molten metal – alongside tools and the much better-

studied finished artefacts, we gain invaluable insight into exactly how the products of Viking towns were made, and how these practices varied across time and space. The secrets of the big picture, it turns out, are in the tiny details.



Ashby, S. P. & Sindbæk, S. M. (eds.) (2020). Crafts and Social Networks in Viking Towns. Oxford: Oxbow Books.

### Journal of Urban Archaeology: A New Forum for Interdisciplinary Research





Professor and Centre Director Rubina Raja Professor MSO and Vice Centre Director Søren M. Sindbæk

Urban archaeology engages a large number of practitioners across the world, both at universities and museum institutions as well as in the private sector. Yet, up to now, this field has often been discussed within the framework of different regional and topical approaches with no or little dialogue bringing research together across regions – despite the fact that scholars working in urban areas often face similar questions about societies and draw on common theories, methods and benchmark studies. One important reason for this is that no dedicated publication forum has existed to unify the field.

Now, thanks to UrbNet's initiative, the first two volumes of the new Journal of Urban Archaeology have been published. It is an international journal focusing exclusively on the archaeology of urban societies on a millennial-long scale and with a global focus.

Journal of Urban Archaeology (JUA) is published by Brepols Publishers. The journal has emerged from the work done at the Centre for Urban Network Evolutions (UrbNet), where the two founding editors, Rubina Raja and Søren M. Sindbæk, centre director and deputy director, have undertaken research in urban networks and high-definition archaeology since the centre was initiated in 2015.

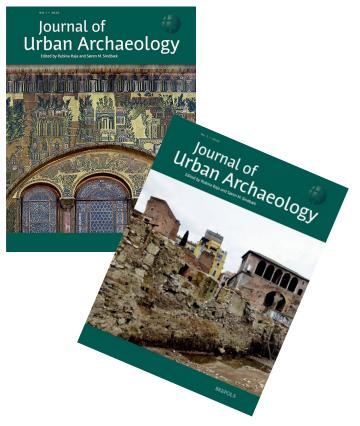
JUA is the first dedicated academic journal to recognise urban archaeology as a field in its own right. It provides an intellectual forum for researchers working on the archaeology of urban societies and networks in all parts of the world and across all periods. JUA is thus a new and much-needed forum for discussing, sharing and exploring the unique agendas and challenges specific to urban archaeology. It is a double-blind peer-reviewed journal which will appear twice a year with the option of publishing Open Access.

### A broad range of aspects on urban archaeology covered in the first two volumes

The inaugural volume is an agenda volume with contributions by leading urban archaeologists. They cover a broad range of aspects on urban archaeology: high-definition archaeology from the field, new perspectives on

how we do urban archaeology and theoretical discussions on definitions, cross-comparisons and scaling of urban societies. Across different time periods, the first volume takes its readers from the far East over Africa and the Mediterranean to Northern Europe and the Americas. The second volume focuses on one of UrbNet's core agendas: biographies of place. And it holds a set of articles written by leading scholars from across the world. Both volumes are published in print and Open Access.

The journal was launched at the virtual Annual Meeting of the European Association of Archaeologists (EAA), 24–30 August 2020.



The first two volumes of Journal of Urban Archaeology.

### Practicing Urban Archaeology in Modern Cities: Towards a Best-Practice Scenario

Professor and Centre Director Rubina Raja

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

Funding: Aarhus University Research Foundation, The Carlsberg Foundation and UrbNet

Directors: Jan Kindberg Jacobsen, Claudio Parisi Presicce and Rubina Raja



UrbNet has throughout its existence aimed at setting new agendas for how to conduct urban archaeology, share data from complex excavation projects and create new best-practice scenarios in order to make available data and results in published form as soon as possible after excavations have taken place. The project The Excavation of Julius Caesar's Forum in Rome, which is a large-scale excavation project in the heart of Rome, in one of the most visited spots of the city, has from the very beginning been designed as a case-study excavation that would apply and test best-practice scenarios. Now the project has produced a major study published Open Access in the high-impact Journal of Field Archaeology. Professor and Centre Director Rubina Raja has specialised in urban archaeology for decades, and together with Dr. Jan K. Jacobsen (The Danish Institute in Rome) and Dott. Claudio Parisi Presicce (Sovrintendenza Capitolina ai Beni Culturali, Direzione Musei archeologici e storico-artistici), Raja has directed the Caesar's Forum project since 2017. In 2020, the three project directors published the bestpractice method article together with Postdoc Dr. Sine G. Saxkjær (UrbNet) and Dott. Giovanni Murro (The Danish Institute in Rome).

Excavations in modern big cities are often challenging projects to conduct, since urban life is constantly ongoing, and the complex urban archaeological stratigraphies contain immense amounts of densely accumulated material. In order to investigate the urban history of such places in a longue durée perspective, archaeologists need targeted strategies, which are developed in close collaboration between practitioners and researchers in order to gain as much information as possible. It is this strategy and the results that have come out of the first phase of the project which have been published in the new article. The article highlights the excavation and data-sharing strategies implemented by the Caesar's Forum Project during the first phase of the excavations, which aim to adhere closely to the FAIR principles regarding Open Access and Open Data in research. During the first phase of the project, the team has excavated - and systematically documented - an area of the Alessandrino Quarter. This residential area

was constructed at the end of the sixteenth century CE and housed about 4000 people until its demolition under Mussolini in connection with the construction of parade street Via dell-Impero (today the Via dei Fori Imperiali) in the centre of Rome. Through the strategic implementation of UrbNet's high-definition paradigm, where certain groups of material or stratigraphies are investigated in particular detail, it has already at this early stage in the project been possible for the team to bring forth new crucial knowledge about the importance of the Alessandrino Quarter and in particular about details surrounding the time of its demolition.

Adhering to the FAIR principles, which aim at improving the accessibility and searchability of data outside the framework of specific projects, the new article addresses the use of Open Access and even more importantly Open Data in the Caesar's Forum Project. As a supplement to more traditional scientific publications, the raw data from the project is made available to other researchers and also to the general public. Already now, a 3D model of the excavated area at Caesar's Forum and the associated data are freely available on FigShare. The model is based on photogrammetric images from the excavations and highlights the focus on detailed documentation implemented by the Caesar's Forum project in the new excavations. Sharing raw data – both in its raw shape as well as in the condensed form through scientific publications - contributes to a new bestpractice scenario in urban archaeology in modern cities. This aligns with one of UrbNet's core agendas to push the boundaries of how archaeology is conducted in urban contexts.

### Publication

Jacobsen, J. K., Murro, G., Presicce, C. P., Raja, R. & Saxkjær, S. G. (2020). Practicing Urban Archaeology in a Modern City: The New Excavations of the Alessandrino Quarter in the Heart of Rome. Journal of Field Archaeology. DOI: 10.1080/00934690.2020.1834255.

### Urban Archaeology in Gerasa/Jerash: Bringing the Results of High-Definition Narratives to the Forefront



Professor and Centre Director Rubina Raja

**Project**: The Danish-German Jerash Northwest Quarter Project

Funding: The Carlsberg Foundation, UrbNet, Deutsche Forschungsgemeinschaft, the Elite Research Prize (Danish Ministry of Higher Education and Science) and H. P. Hjerl Hansens Mindefondet for Dansk Palæstinaforskning

Since 2011, Professor Achim Lichtenberger (Westfälische Wilhelms-Universität Münster) and Centre Director, Professor Rubina Raja (Aarhus University) have headed the Danish-German Jerash Northwest Quarter Project, an archaeological fieldwork project in the Decapolis city Gerasa/Jerash in northern Jordan. The excavation has covered 24 trenches located within a 4-hectare large area. The excavation has been research driven and focused on understanding the urban development of the site in a longue durée perspective. From the outset, the project has focused on publication of data following every campaign, in the shape of preliminary reports and topic- or material-focused articles following the results of each campaign. This has led to the publication of 139 articles and 8 edited books, which have been published between 2012 and 2020. The last study campaign was undertaken in 2017, and since then the directors have together with team members and specialists - focused on writing up the final publications of the project. In 2020, two of the final publication volumes were published: Environmental Studies, Remote Sensing, and Modelling in Jerash: Final Publications from the Danish-German Jerash Northwest Quarter Project I and Metal Finds and Coins: Final Publications from the Danish-German Jerash Northwest Quarter Project II.

Further four edited volumes are in preparation and will be published in 2021. Two monographs on the ceramic material will also appear. All volumes are published in the series Jerash Papers, both in print and in electronic form making the results of the project as widely available as possible.

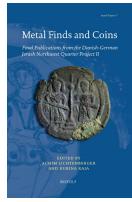
Since 2015, the project has been closely associated with UrbNet, and much of the work that was done within the project before UrbNet has lead to the development of core agendas within the centre. Within the project and in close collaboration with UrbNet, the collective project Ceramics in Context has been undertaken (2015–2020). The aim of this project, which was brought to a successful close in 2020, was to establish an until now non-existing typology for the entire repertoire of the locally produced ceramics from Gerasa, a thriving urban centre throughout the Hellenistic period until the

middle of the 8th century CE. This was done through a full-quantification approach (documenting without exception all finds from an excavation), which is seldom undertaken in archaeological excavations and has never before been done in the Near East, due to the complexities involved as well as the extensive resources needed for such an undertaking. Thus, a secondary aim was to evaluate how a full-quantification approach informs excavation strategies and the planning of excavations in the big picture. The project has therefore had a focused methodological aim and was based on debates at workshops and conferences as well as detailed publications. Ceramics in Context has worked towards evaluating methods and their impact on our scientific understanding of empirical material from archaeological excavations. Within this project, a set of articles and three edited volumes have been published.

The Ceramics in Context project has significantly changed both the field of ceramic studies and the field of cultural history of the Middle East and Roman Empire. The broader impact will be increasingly visible over the coming years when the research community has had the opportunity to respond to the publications that have come out of the project.

The Danish-German Jerash Northwest Quarter Project has set new standards for urban archaeological field projects in the Near East, and its legacy will together with the work done within the framework of UrbNet show how international collaborative and interdisciplinary research groups indeed move borders for what can be achieved within the field of urban archaeology.





### Urban Ecology and Transitions on the Zanzibar Archipelago

Senior Lecturer Stephanie Wynne-Jones (University of York)

Project: Urban Ecology and Transitions on the Zanzibar Archipelago

Funding: UrbNet and The Leverhulme Trust, UK (major research grant: Stephanie Wynne-Jones)



Work in Zanzibar continues, with an intensive season of fieldwork in autumn 2019 and ongoing laboratory and post-excavation analysis. The 2019 fieldwork was based at the early urban site of Unguja Ukuu, with a focus on excavating domestic structures at the site. Between the 8th and the 11th centuries, this site was densely packed with houses built of wattle and daub. These houses have proven an archaeological challenge, as these ephemeral materials do not survive well in the archaeological record. UrbNet's work in the region has specifically targeted these houses, as part of our interest in understanding the precise chronology of settlement here and the ways that people exploited landscape resources in their daily lives. We conducted a comprehensive photogrammetric survey of the site, using a drone, and complemented this with shovel test pit survey on the ground to produce a map of site layout, allowing us to target areas of dense housing. We excavated three wattle and daub structures, exposing the burnt collapsed structures and recording artefacts and features in position. In order to get information on diet and subsistence, two midden/rubbish pits were also targeted, providing faunal and botanical material for further study. Landscape survey in the surrounding landscape identified buried landscapes and features such as wells.

Analysis of this data is ongoing. Dr. Federica Sulas is analysing the geoarchaeological and landscape data, which includes sediment samples and microstratigraphy from what appears to be agricultural settings outside the town. Landscape and excavation data are being drawn together in a project GIS, which also maps the artefact and environmental data. Faunal analysis and isotopic studies of diet are recovering information on animal husbandry and subsistence practices at the site.

Although fieldwork is not currently possible, we are working with a team from the State University of Zanzibar (SUZA; collaborating with Fatma Said) to create a participatory GIS of the area around Unguja Ukuu. Students from SUZA are conducting interviews with local inhabitants to map the ways that the landscape is used today, building up a composite picture of past and present resource use.

2020 has also seen the launch of a visitor centre at the site of Unguja Ukuu, using displays and exhibition materials produced by the UrbNet team. Using additional funds awarded by the University of York, we have designed and produced a series of posters for the centre, as well as a leaflet for visitors. This was a collaboration with the Department of Antiquities, Zanzibar, and a direct response to their request for input. The posters also advertise a podcast, produced by the team and intended to provide an introduction to the urban history of Zanzibar for non-specialists.

### **Publication**

Wynne-Jones, S., Sulas, F., Out, W. A., Kristiansen, S. M., Fitton, T., Abdallah, A. K. & Olsen, J. (2020). Urban Chronology at a Human Scale on the Coast of East Africa in the 1st Millennium a.d., Journal of Field Archaeology 46.1. DOI: 10.1080/00934690.2020.1854549.



Excavations of a house, showing Ema Bauzyté, Henriette Rødland and Said Said, September 2019 (Photo: Steaphanie Wynne-Jones).

### Exploring Urban Networks in the Southern Caucasus: The Case of the River Rioni in Western Georgia



Assistant Professor Emanuele E. Intagliata Funding: UrbNet

Navigable rivers acted as important routes for communication and trade between the coast and the interior throughout history. Cities and villages that were situated along riverbanks and that functioned as river stations could be directly affected by trading activities. They could grow and prosper if trade was at its peak, or they could decline and disappear if commercial exchanges were not possible. Therefore, the fate of these sites was very much entangled: The collapse of a single distribution node or any interruption in trade along a river route could have important repercussions for the entire distribution network.

A new paper by Assistant Professor Emanuele E. Intagliata published in WIREs Water has explored this topic in western Georgia (southern Caucasus). Traveller reports were used to reconstruct the network of cities and villages that functioned as nodes of a complex network of communication and trade along the River Rioni between the 17th and the 19th centuries. In this period, cities and villages along the Rioni flourished as river stations to support the six-to-eight days' journeys from the coast to the interior conducted by using shallow boats or rafts. These stations, which included cities but also small villages, were equipped with inns and markets, where merchants, travellers and military personnel could stop,

rest, trade and resupply. The historical narratives of each of these river stations were greatly affected by their being part of a transport network. Eventually, in the 1870s, the construction of a railroad connecting the coast with the interior made river transport in the Rioni redundant and most of these stations gradually disappeared.

The paper has concluded that a similar network of river stations might have existed in antiquity, especially in periods in which the river functioned as a military supply route for troops garrisoned in western Georgia (for example, in the 6th century CE). Because of their role in the river network, in these periods river cities and villages may have experienced the same process of growth and decline that would be visible in later times. Furthermore, the paper has advocated the importance of moving beyond single sites' historical narratives and explore human occupation in riverine settings with a network and landscape perspective.

#### Publication

Intagliata, E. E. 2020. Settlement Networks and River Navigation in the Rioni – Western Georgia: From Strabo to Jean-François Gamba and Back Again. WIREs Water. DOI: https://doi-org.ez.statsbiblioteket. dk:12048/10.1002/wat2.1492.



### Individual Geographic Mobility in Viking-Age Ribe: A High-Definition Approach to the Study of Human Remains in an Urban Context

Assistant Professor Sarah Croix **Project**: The City of the Dead

Funding: The Danish Ministry of Culture's Research Committee, the Beckett Foundation, the Queen

Margrethe II's Foundation and UrbNet



The long-distance exchanges that characterised maritime network urbanism in Northern Europe during the beginning of the Viking Age not only involved flows of ideas, materials and goods, but also flows of individuals sailing between and settling at newly emerged coastal settlements away from their home regions. Previous research has described the communities of the emporia as culturally diverse and prone to assimilation and hybridisation. Recent advances in bioarchaeology have also led to groundbreaking results about the geographic mobility of past individuals, not least in the emporia, where the presence of 'non-local' individuals among the buried population has been suggested in several instances.

The research project *The City* of the Dead, carried out at the Museum of Southwest Jutland in 2015–2016 and affiliated to UrbNet, sought to apply the principles of high-definition archaeology at the core of UrbNet's agenda to the analysis of the human remains of an urban community, that of Viking-age Ribe. One of the main goals of the project was to assess the degree of cultural diversity, integration and mobility of this community, based on the hypothesis that the range of long-distance trading contacts attested by the artefact remains from the settlement area would be reflected in the identities of the buried individuals. The main project's results, published in the scientific journal *PLOS ONE* in 2020, came as a surprise to the project team: Whereas cultural affinities other than those of south-west Jutland,

where Ribe is located, appeared, individual geographic mobility was only attested for two individuals. However, this revelation does not necessarily allow concluding that Ribe's community was mostly local.

The methodological design of the study envisaged the integration of several variables to inform the cultural historical interpretation. It combined the osteological analysis of the human remains, which produced estimates for sex and age at death; the analysis of the various burial practices (inhumation/cremation, coffin, cremation deposit in urn, orientation of the body etc.)

and their regional and supra-regional distribution; and multiple strontium isotope analyses of teeth and pars petrosa, interpreted in the light of bioavailable ranges for strontium isotopes in Denmark and neighbouring regions. The results revealed some consistency between the cultural affinity of 'local' individuals, that is, buried following regional customs and with regional strontium isotopic values, but also some apparent inconsistencies, for example for individuals associated to a seemingly foreign burial custom, but with 'local' strontium isotopic values. This discrepancy may partly be explained by the similarity between the bioavailable strontium values along the Frisian coast and Northern Germany and most of Denmark, a limitation which does not allow tracing mobility across these particular regions. Remarkably, the two 'non-local' individuals in a strontium isotopic sense, both juvenile and possibly female, were also inhumed following practices not previously documented in Ribe's region in the 8th century, suggesting a geographic origin in distant regions.

The full integration of the various specialist studies proved the validity of the high-definition approach and the necessity of incorporating several variables in studies of cultural affinity and mobility among buried urban communities. Such integration also requires a refined understanding of the limitations and degree of explanatory power of different methods. This true

interdisciplinary effort bears important implications for future studies of urban communities in Northern Europe.



Various burial practices are attested at Ribe's earliest cemetery, including cremation deposits in small pits and inhumations in pits (Photo: Aarhus University/Museum of Southwest Jutland).

# Associate Professor Tom Brughmans Receives Sapere Aude Grant from the Independent Research Fund Denmark (DFF)

Associate Professor Tom Brughmans

**Project**: MINERVA: Understanding the Centuries-Long Functioning of the Roman Economy **Funding**: Independent Research Fund Denmark (DFF)

The project MINERVA: Understanding the Centuries-Long Functioning of the Roman Economy will explore how a massive integrated economy like the Roman Empire evolved over centuries, by combining archaeological ceramics and the Roman transport network in computational simulation experiments. The project will run for four years from 2021, and will apply Centre for Urban Network Evolutions' (UrbNet) relational perspective to the study of the Roman economy.

This Sapere Aude grant is a game-changer for myself and for this experimental research line. It will enhance my project management and supervision experience, and allow me to develop proof-of-concept studies for a challenging new research topic.

### Using material culture to investigate complex economic processes

At its peak, the Roman Empire covered an area similar in size to the European Union, uniting almost 100 million inhabitants. But similarities do not end here: The different peoples, languages and religions within the Empire were united under a single political system with the Roman Emperor at its head, they used the same money, followed the same trade regulations, and were subject to the same legal system. Archaeologists uncover evidence that show the ups and downs of this bustling economy. Amphora containers, for example, were used for centuries to move vast quantities of necessities such as grain from Egypt or olive oil from Spain to the capital of Rome and everywhere else in the Empire. For centuries, the flow

of goods and traders along the first European transport network went virtually uninterrupted, despite limited means of communication, and transport technology and infrastructure making sea and road voyages slow and dangerous.

The material remains they left behind offer us a unique glimpse at how huge integrated economies can change and evolve over centuries. But understanding how these complex economic processes emerge from everyday behaviour of individual Romans is not a mean feat. To make this possible, this project combines state-of-the-art computer simulations, archaeological ceramics evidence, and a detailed model of the Roman road network for the first time.

MINERVA addresses three challenges related to ceramics data, Roman roads and centuries-long simulations. First, what changes are visible over periods of centuries in the distribution and consumption of Roman plates, cups, bowls and containers? And what do they reveal about the long-term functioning of the Roman economy? MINERVA aims to quantitatively identify such patterns. Second, what was the structure of the Roman transport network through which such goods were distributed? We currently do not have a highly detained model of this network, and MINERVA aims to create this. And third, How does one simulate aspects of a large economy over a period of centuries? This has never been done before because for other large economies, like the integrated markets of the EU or the US, we simply do not have data for such long timespans. This will be an exciting challenge to explore that will benefit from collaboration with economic historians.

Continued from p. 28

Croix, S., Frei, K. M., Sindbæk, S. M. & Søvsø, M. (2020). Individual Geographic Mobility in a Viking-Age Emporium: Burial Practices and Strontium Isotope Analyses of Ribe's Earliest Inhabitants, PLOS ONE 15.8, e0237850.

Croix, S. (2020). Ribe's Pre-Christian Cemetery: The Burial Customs of an Early Urban Community, in: Pedersen, A. & Sindbæk, S. M. (eds.), Viking Encounters: Proceedings of the 18th Viking Congress, Aarhus, 465–480.

Croix, S. (2020). The Dead of the Viking-Age Towns in Scandinavia, in: Aannestad, H. L., Pedersen, U., Moen, M., Neuman, E. & Berg, H. L. (eds.), Vikings Across Boundaries: Viking-Age Transformations 2, Abingdon, 236–257.

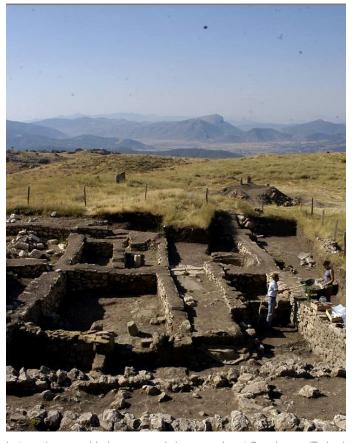
Croix, S., Sindbæk, S. M. & Søvsø, M. (2020). An 8th–Century Mayen Ware Pitcher Found in Ribe, Denmark, Archäologisches Korrespondenzblatt 50.4, 601–612.

## Socially Re-Constructing the Late Roman City: Labour, Networks, Economy and Narratives of Urban 'Decline'

Visiting Professor Elizabeth A. Murphy (Florida State University)

Residency in 2020: 1 September-31 December 2020

Funding: UrbNet and independent funding



Late antique moulded-wares workshop complex at Sagalassos (Turkey) (Photo: Sagalassos Archaeological Research Project).

In the fall of 2020, Dr. Elizabeth A. Murphy (Assistant Professor of Classics, Florida State University) presented a series of lectures, entitled Socially Re-Constructing the Late Roman City: Labour, Networks, Economy, and Narratives of Urban 'Decline'. The lectures investigated the shifting topographies of economic spaces (particularly workshops and shops) in the reorganisation of cities in the Eastern Mediterranean during Late Antiquity (3rd–7th centuries CE). Late antique cities in the region witnessed major changes in their populations, spatial layouts and uses of public buildings. These lectures examined the important roles that crafts- and tradespeople played in urban change during this period.

Following the completion of the lecture series, Murphy's remaining time in Aarhus in spring 2021 is dedicated to the completion of a book manuscript entitled Craft Communities and Working Practices: The Pottery Industries of the Eastern Mediterranean during the Roman and Late Antique Periods. The book investigates the economic organisation, daily life practices and social relations of potter communities in the areas of Asia Minor, the Near East and Egypt from the 1st through 7th centuries CE. Pulling together a disparate body of data, the project intends to not only highlight these production sites as the workplaces of small-scale working communities of Antiquity, but also to understand the diversity of socio-economic experiences found within a single profession.

### **Guest Professorship at UrbNet**



Visiting Professor Christopher Hallett (University of California, Berkeley)

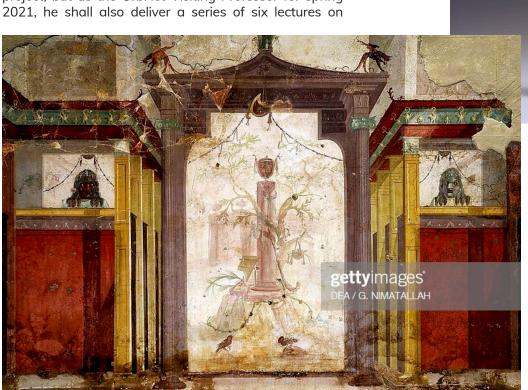
Residency in 2020: 28 September–31 December 2020

Funding: UrbNet and independent funding

Christopher Hallett is spending a sabbatical year as a Visiting Professor at UrbNet, acting as a consultant for the Danish-Italian Caesar's Forum project. The goal of his visit is to produce, working in collaboration with Project Co-Director Rubina Raja, a short historical and archaeological introduction to Caesar's Forum, setting out clearly and succinctly the potential of the new excavations for answering some of the most important questions about the site, its buildings and its monuments.

Hallett spent the fall semester conducting research on the ways in which ancient and modern views of Julius Caesar, as a political figure, have shaped the ways in which his Forum – and his other (unrealized) building plans – have been interpreted and understood. In the coming semester, he will continue working on this project, but as the UrbNet Visiting Professor for spring 2021. he shall also deliver a series of six lectures on

some of his most recent research. Hallett will present on a wide selection of topics, from Roman portraiture and 'Corinthian bronzes' to sacro-idyllic landscapes and the early Augustan building programme (33–20 BCE).



Hercules, bronze statuette, 1st century BCE; Kyoto, Miho Museum (Photo: Miho Museum).

Sacro-idyllic landscape; 'Room of the Masks', 'House of Augustus', 40–30 BCE; Rome, Palatine Hill (Photo: Getty Images).



The organisers open the symposium (Photo: Christina Levisen).

### Palmyra: Pearl of the Syrian Desert

Professor and Centre Director Rubina Raja

**Project**: Palmyra Portrait Project

Funding: The Carlsberg Foundation and UrbNet



On 18 January 2020, the Ny Carlsberg Glyptotek hosted the symposium Palmyra - Pearl of the Syrian Desert for all interested. The day-long event featured talks by leading experts on Palmyrene history and archaeology, and the very engaged and active audience was taken on a journey back in time to learn much more about the city and its rich culture.

The day was organised by Curator Anne Marie Nielsen and UrbNet Centre Director Rubina Raja. During the symposium, archaeologists, historians and epigraphists shed light on the desert city's development, on trade between the East and the West, on the Palmyrene elite and societal structures, on gods worshipped in Palmyra and on the funerary portraits from the city.

Furthermore, the audience had the opportunity to join the speakers in the museum's special exhibition on Palmyra. Situated in the gallery around the winter garden of the museum, the extensive collection of Palmyrene objects from the Ny Carlsberg Glyptotek was on display. Funerary portraits, religious banqueting tickets, altars, inscriptions and other ancient objects together with letters and excavation diaries brought ancient Palmyra back to life in the special exhibition The Road to Palmyra.

The exhibition was curated by Anne Marie Nielsen (Ny Carlsberg Glyptotek) and Professor Rubina Raja (UrbNet), director of the Palmyra Portrait Project.



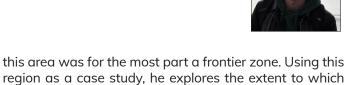
Emanuele E. Intagliata at the award ceremony (Photo: Marta C. Ravizza).

### **Best young Italian** Researcher in Denmark (BIRD)

2020, the Italian Embassy in Copenhagen awarded Emanuele E. Intagliata the award for Best young Italian Researcher in Denmark (BIRD) in Social Sciences and Humanities. Emanuele E. Intagliata received the award for his

work on urban networks and cities in the eastern Black Sea

Emanuele E. Intagliata's research at UrbNet revolves around the study of cities in ancient Lazica (present-day western Georgia). In the Byzantine period,



urban networks were a catalyst for urban resilience

and expansion between the 4th and 10th centuries CE.

The theoretical framework of the research goes beyond traditional approaches to the study of urbanism and explores cities as nodes of densely entangled urban networks rather than static entities. Emanuele E. Intagliata thus contributes to theoretical and methodological developments in the field of archaeology – one of the overall

aims of UrbNet.



The BIRD award (Photo: Marta C. Ravizza).

### Tales from Lockdown as a PhD Student



PhD student Nikoline Sauer

Project: The Excavation of Caesar's Forum in Rome

Funding: The Carlsberg Foundation

Despite the corona pandemic, I somehow managed to go abroad twice in 2020, as part of my PhD studies. On 1 March, I went to London for a research stay, as the Danish health authorities still considered COVID-19 as low risk. I was planning to spend three months as an Academic Visitor at the Institute of Classical Studies, University of London. During the first few weeks of my stay, everything

proceeded as planned. I went to the library, attended seminars, ate my lunch at the British Museum across the street, and I even gave a talk in the ICS Fellow's Seminars, which was well attended. But 20 March, the Institute was forced to close by the COVID-19 pandemic. I spent the rest of my stay in London in a rented apartment in southern Hackney, where I was only allowed to go out to do exercise or shop for essentials. What was supposed to be a research stay became an intense writing retreat instead.

In the early autumn, I went abroad again, as I was in the favourable position to have been granted accommodation by the Danish Institute in Rome for two months. The Institute served as an excellent basis for a writing retreat, as it comprises a research library which covers classical archaeology.

Due to the COVID-19 restrictions, it was an exceptional experience to be in Rome. There were relatively few tourists in the city, and it was mandatory to wear face masks everywhere – even indoor at the Institute and walking in the outdoor parks. On the bright side, it was for once possible to visit the amazing Vatican Museums without standing in line.



Visiting Caesar's Forum in Rome in October 2020 wearing a face mask (Photo: Sine G. Saxkjær).

### Research Stay in Rome during COVID-19

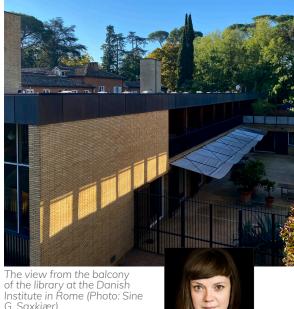
Postdoc Sine G. Saxkjær

Project: Urban Ethnicities: Centre and Periphery in Ancient Latium

Funding: The Carlsberg Foundation

In September and October 2020, I had a research stay at the Danish Institute in Rome. The research stay had been granted in relation to the research project Urban Ethnicities: Centre and Periphery in Ancient Latium, funded by the Carlsberg Foundation. The project examines the interaction between ethnicity and urbanism through studies of potential ethnic markers in urban contexts, this being in archaeological as well as in literary and epigraphic sources. The chronological framework is the 1st millennium BCE, i.e. before and during the Roman expansion. As a starting point, the project includes two central case studies, Rome and Aquinum, which represent centre and periphery in ancient Latium. With case studies from both the centre and periphery of the region, the project covers very different arenas for the synergic relationship between ethnicity and urbanism – both from the earliest times as well as when the cities become part of the same state - which contributes to a multifaceted understanding of urban ethnicities.

The research stay had a dual purpose: to make first-hand studies of archaeological material in Rome and in Aquinum in addition to making use of Rome's research libraries. While it was possible to meet the first aim despite the COVID-19 restrictions in Italy, which were gradually intensified especially during the month of



G. Saxkiær).

October, the relevant research libraries remained closed throughout the autumn of 2020. The library at the Danish Institute in Rome was, however, open to fellows living at the Institute. What is more, due to extraordinary efforts from the Institute's library staff, it was made possible to borrow books from the libraries of the surrounding foreign institutes, which contributed to the research stay being fruitful on this front as well, in spite of the circumstances.



The museums in Rome were open – and empty – in the autumn, which made it possible to take photos without any tourists in the background (Private photo).

### **Events**

### Organisation of conferences and workshops

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

16 January 2020 Workshop: Exploring Publicness in Towns in Roman Britain, Moesgaard Museum, Aarhus, Denmark Christopher P. Dickenson and Rubina Raja

18 January 2020 Symposium: Palmyra – Pearl of the Syrian Desert, Ny Carlsberg Glyptotek, Copenhagen, Denmark Rubina Raja 13–14 February 2020 Workshop: Urban Space Between the Roman Age and Late Antiquity, University of Regensburg, Regensburg, Germany Rubina Raja

9 September 2020 Seminar: Archaeocartography: The Challenges and Possibilities of Archaeological Distribution Mapping, virtual Pieterjan Deckers and Søren M. Sindbæk 18–20 November 2020 CHR2020: Computational Humanities Workshop, virtual Iza Romanowska (part of steering committee)

### **Invited talks**

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

9 January 2020 "Guldaldermalernes arkæologiske motiver", Romselskabet SPORs nytårskur 2020, Det Italienske Kulturinstitut, Copenhagen, Denmark Sine G. Saxkjær

16 January 2020
"Exploring publicness in towns in Roman Britain", Exploring Publicness in Towns in Roman Britain, Moesgaard Museum, Aarhus, Denmark Christopher P. Dickenson

27 January 2020 "Biographies of death: The funerary portraits from Palmyra", Morphomata, University of Cologne, Cologne, Germany Rubina Raja

28 January 2020 Seminar on the paper "Biographies of death: The funerary portraits from Palmyra", Morphomata, University of Cologne, Cologne, Germany Rubina Raja

28 January 2020 "Studying Ribe's iron, results and status", UrbNet Lecture Series, UrbNet, Aarhus, Denmark Line K. Lauridsen 3 February 2020
"Palmyra, ørkenens perle: Én by,
tusindevis af skæbner, Public
Lecture, The Royal Danish
Academy of Sciences and Letters,
Copenhagen, Denmark
Rubina Raja

13 February 2020
"Doliche and the urban
development of Northern Syria
in the third and fourth century
CE", Urban Space between the
Roman Age and Late Antiquity
– Continuity, Discontinuity, and
Changes, Universität Regensburg,
Regensburg, Germany
Michael Blömer

13 February 2020
"Militarising cities in Late Antiquity? The eastern Roman frontier", Urban Space between the Roman Age and Late Antiquity – Continuity, Discontinuity, and Changes, Universität Regensburg, Regensburg, Germany Emanuele E. Intagliata

13 February 2020
"Transforming urban spaces:
Religious architecture in the Near
East from the Roman period to the
end of Late Antiquity", Urban Space
between the Roman Age and Late
Antiquity – Continuity, Discontinuity,
and Changes, Universität
Regensburg, Regensburg, Germany
Rubina Raja

13 February 2020
"Communal spaces in towns large and small in Late Antique Britain", Urban Space between the Roman Age and Late Antiquity – Continuity, Discontinuity, and Changes, Universität Regensburg, Regensburg, Germany Christopher Dickenson

26 February 2020 "Palmyra Portrait Project", Faglig Dag, Moesgaard Museum, Aarhus, Denmark Ditte K. Johnson, Nathalia Kristensen and Olympia Bobou

26 February 2020
"UrbNet: Centre for Urban Network
Evolutions, Danish National
Research Foundation", Faglig Dag,
Moesgaard Museum, Aarhus,
Denmark
Emanuele E. Intagliata

26 February 2020 "Rom blev ikke bygget på én dag", Faglig Dag, Moesgaard Museum, Aarhus, Denmark Nikoline Sauer

26 February 2020 "En dansk antologi om Cæsar", Faglig Dag, Moesgaard Museum, Aarhus, Denmark Sine G. Saxkjær and Trine A. Hass

27 February 2020 "En arkæolog fortæller: Alle veje fører til Rom", Lecture, Viborg Private Realskole, Viborg, Denmark Line E. Hjejlskov

10 March 2020 "Craft specialists? Urban metallurgy in early medieval Northern Europe", Baltic Archaeometallurgy Meeting, University of Tarty, Tartu, Estonia Thomas Birch 19 June 2020 "Archaeometry of silver", ARCHMAT Summer School 2020, University of Évora, Évora, Portugal (virtual) Mahir Hrnjić

26 June 2020
"The visotorian: Exploring
archaeological networks. At network
analysis for the humanities",
Network Analysis for Humanities,
Centre for Digital History, Aarhus
University, Aarhus, Denmark (virtual)
Tom Brughmans

10 August 2020 "Søborg Sø: Et forsvundet kulturlandskab genopstår", Public meeting, Søborg, Denmark Bjørn Poulsen

26 August 2020
"Fragments of a valkyrie: A
reconstructed amulet from Vikingage Ribe", European Association of
Archaeologists Annual Conference
(virtual)
Pieterjan Deckers, Sarah Croix and
Søren M. Sindbæk

27 August 2020
"MERCURY: Resources for computational modelling in Roman Studies", European Association of Archaeologists Annual Conference (virtual)
Tom Brughmans

29 August 2020
"Licence to loot? The challenges
of a cooperative approach metaldetecting in Europe", European
Association of Archaeologists
Annual Conference (virtual)
Pieterjan Deckers

9 September 2020
"Archaeological distribution maps and network visualisations",
Archaeocartography: The
Challenges and Possibilities
of Archaeological Distribution
Mapping, Aarhus University, Aarhus,
Denmark (virtual)
Tom Brughmans

14 September 2020
"The sacred power of portrait statues at Messene", Guest lecture at University of Southern Denmark, Odense, Denmark
Christopher P. Dickenson

20 September 2020 "The beginning of Viking-age towns. New excavations in Ribe, Denmark", Dublin Festival of History (virtual) Søren M. Sindbæk 20 September 2020 "Understanding networked medieval strongholds in Garwal Himalaya", NetSci Satellite CUDIM, Rome (virtual) Tom Brughmans

30 September 2020
"Items of value in the western Indian
Ocean", Silsila Webinars on Islam
in Africa, New York University, New
York, USA (virtual)
Stephanie Wynne-Jones

1 October 2020 "African Spice Routes Directorate of Cultural Heritage", Spice Route International Webinar, Jakarta, Indonesia (virtual) Stephanie Wynne-Jones

6 October 2020
"Late Antiquity: Situating work and labour in narratives of change", Socially Re-Constructing the Late Roman City: Labour, Networks, Economy, and Narratives of Urban 'Decline', Moesgaard Museum, Aarhus, Denmark (part-virtual) Elizabeth Murphy

9 October 2020
"Mohammed, Charlemagne... and
the Miyaki Solar Proton Event. A
Global exchange in new light", MCH
Seminar: Back from the Field, Lab
and Library, Aarhus University,
Aarhus, Denmark
Søren M. Sindbæk

20 October 2020
"Economic spaces in shifting cityscapes", Socially Re-Constructing the Late Roman City: Labour, Networks, Economy, and Narratives of Urban 'Decline', Moesgaard Museum, Aarhus, Denmark (partvirtual)
Elizabeth Murphy

21 October 2020
"Integrating excavation
methodologies at the late antique
site of Mackhomeri (western
Georgia)", Oxford Archaeological
Fieldwork Seminar, University of
Oxford, Oxford, UK (virtual)
Emanuele E. Intagliata

23 October 2020
"An introduction to archaeological network research of Mediterranean connectivity", Arqueologia del Mediterraneo. Una vision transdisciplinary. X Dialogos de Arqueologia, Universidad de Granada, Granada, Spain (virtual) Tom Brughmans

27 October 2020
"Workshops and industry in the
Late Antique city: Negotiating
new workspaces", Socially ReConstructing the Late Roman
City: Labour, Networks, Economy,
and Narratives of Urban 'Decline',
Moesgaard Museum, Aarhus,
Denmark (virtual)
Elizabeth Murphy

27 October 2020
"Networking with the Romans:
Examples of archaeological network research and where we should go from here", Inaugural lecture at UrbNet, Moesgaard Museum, Aarhus, Denmark (virtual)
Tom Brughmans

3 November 2020
"Production in the Late Antique city: Innovation, technique, and technology", Socially Re-Constructing the Late Roman City: Labour, Networks, Economy, and Narratives of Urban 'Decline', Moesgaard Museum, Aarhus, Denmark (virtual)
Elizabeth Murphy

5 November 2020 Livestream of the book "Cæsar: Manden og myten", Virtual book presentation, Aarhus University Press, Aarhus, Denmark (virtual) Sine G. Saxkjær and Trine A. Hass 5 November 2020 "Romernes glas fra Alexandria", Seminar at The Danish Egyptological Society, Museum of Ancient Art, Aarhus, Denmark Gry H. Barfod

17 November 2020
"Consumerism and consumption in the Late Antique city", Socially Re-Constructing the Late Roman City: Labour, Networks, Economy, and Narratives of Urban 'Decline', Moesgaard Museum, Aarhus, Denmark (virtual)
Elizabeth Murphy

17 November 2020 "Kvinder, vikinger, og valkyrier", Lecture, The Danish University Extension Aalborg, Hobro Bibliotek, Hobro, Denmark Sarah Croix

27 November 2020
"Travel, religion and trade: Exploring the cosmopolitan world of the medieval Indian Ocean through daily life in an East African town", Oxford Talks, University of Oxford, Oxford, UK (virtual)
Stephanie Wynne-Jones

1 December 2020 "Cæsars Forum: En tidsrejse på tværs af 3000 års byhistorie i det centrale Rom", Vindue til Fortiden, Natural History Museum of Denmark, Copenhagen, Denmark Sine G. Saxkjær

1 December 2020 "Romernes glas fra Alexandria", Seminar at The Danish Egyptological Society, Copenhagen, Denmark Gry H. Barfod

2 December 2020 "A spatial art history of Rome's provinces: Dougga as thirdspace", The Spatial Turn in Roman Studies, Durham University, Durham, UK (virtual) Amy Christine Miranda

2 December 2020
"Modelling Death in Palmyra: The significance of the Roman period funerary portraits", Research Seminar, Trinity College Dublin, Dublin, Ireland (virtual)
Rubina Raja

### Other events

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

9 January 2020
"Tour of the special exhibition 'The Road to Palmyra' at Ny Carlsberg Glyptotek", The Royal Danish Academy of Sciences and Letters and Ny Carlsberg Glyptotek, Copenhagen, Denmark Rubina Raja

17 March 2020
"Rome wasn't built in a day:
An investigation of the urban
development in Archaic Rome
starting from the Forum of Caesar
Aarhus University", PhD predefence, Aarhus University, Aarhus,
Denmark (virtual)
Nikoline Sauer

27 March 2020 "Carvers & customers: The production economy of limestone loculus reliefs in Roman Palmyra, 1st to 3rd century AD", PhD defence, Aarhus University, Aarhus, Denmark (virtual) Julia Steding

28 May 2020
"Commercialisation and urbanization on the periphery of medieval Europe c. 986-1448: A comparative analysis of Denmark and Norway", PhD defence, Aarhus University, Aarhus, Denmark (virtual)
Olav E. Gundersen

24 October 2020 "All roads lead to (Caesar's Forum in) Rome", Guided tour, The Danish Institute in Rome, Rome, Italy, Nikoline Sauer and Sine G. Saxkjær 10 November 2020 PhD course: Urban Mega-Projects in the Roman Period and Late Antiquity: New Approaches and Future Directions, virtual Emanuele E. Intagliata

### **Public Outreach**

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

3 January 2020 "Arkæologien i Danmark: Med Carlsbergfondet i ryggen", Carlsberg Foundation Eva Mortensen and Rubina Raja

8 January 2020 "Når Trump sigter mod verdens kulturarv", Kulturen på P1 Rubina Raja

14 January 2020 "Oldtidens Palmyra gemmer på vigtig viden om bæredygtighed", Videnskab.dk Rubina Raja

February 2020
"Cæsars Forum i Rom udgraves
lige nu: Danske arkæologer er
med", LOGOS: Klassikerforeningens
medlemsblad
Sine G. Saxkjær, Rubina Raja and
Jan K. Jacobsen

12 March 2020 "Vejen til Palmyra", Ny Carlsberg Glyptotek Podcast Rubina Raja

April 2020 "The last journey of the Vikings", Viaplay.dk Sarah Croix

30 April 2020
"Palmyra Portræt Projektet og
Caesars Forum Projektet indgår som
led i digitalt kursus med over 2.300
deltagere verden over", Carlsberg
Foundation
Rubina Raja

5 May 2020 "3D-Model af Hairans grav i Palmyra offentliggjort", Carlsberg Foundation Rubina Raja

14 May 2020 "Viator-e: Un atlas de las carreteras romanas", National Geographic: Historia Tom Brughmans 30 May 2020 "Oplev de antikke græske og romerske byer på gratis onlinelæreplatform og YouTube", Videnskab.dk Mie E. Lind and Rubina Raja

3 June 2020
"Tag med på en rejse tilbage
til Romerriget", Cæsars Forumpodcastserie (Videnslyd, Aarhus
University Research Foundation)
Jan K. Jacobsen, Rubina Raja, Sine G.
Saxkjær and Trine A. Hass

3 June 2020
"Excavating the untouched history of Rome", Cæsars Forum-podcastserie (Videnslyd, Aarhus University Research Foundation)
Rubina Raja

5 June 2020 "Ny podcastserie om Cæsars Forumudgravningerne i Rom", Carlsberg Foundation Jan K. Jacobsen, Rubina Raja, Sine G.

10 June 2020 "I Rom hang krop og stat uløseligt sammen", Politiken Historie Trine A. Hass

Saxkjær and Trine A. Hass

11 June 2020
"Hvem var Cæsar?", Cæsars Forumpodcastserie (Videnslyd, Aarhus
University Research Foundation)

14 June 2020
"Tre kæmpe fund på to uger:
Nye teknologier revolutionerer
arkæologien", dr.dk
Søren M. Kristiansen and Søren M.
Sindbæk

14 June 2020 "5 teknologiske gennembrud, der har forandret arkæologien fuldstændigt", dr.dk Søren M. Sindbæk

16 June 2020 "Nye teknologier revolutionerer arkæologien", Go' Morgen Danmark TV2 Søren M. Kristiansen 18 June 2020
"Fra potteskår til historie", Cæsars
Forum-podcastserie (Videnslyd,
Aarhus University Research
Foundation)
Sine G. Saxkjær

30 June 2020
"Locked in with archaic Rome",
Institute of Classical Studies in
London
Nikoline Sauer

7 July 2020 "Romersk by 'udgravet' i 3D: Helt uden skovle", Ingeniøren Søren M. Kristiansen

9 July 2020
"Ny metode løser gammelt
mysterium: Hafniumisotoper fastslår
oprindelsen af eftertragtet klart
romersk glas", Danish National
Research Foundation
Gry H. Barfod and Rubina Raja

9 July 2020
"New method solves old mystery:
Hafnium isotopes provide the key",
MyScience
Gry H. Barfod and Rubina Raja

9 July 2020
"New method solves old mystery:
Hafnium isotopes clinch origin
of high-quality Roman glass",
Sarraceniapurpurea.org
Gry H. Barfod and Rubina Raja

9 July 2020
"New method solves old mystery:
Hafnium isotopes clinch origin of
high-quality Roman glass", Danish
National Research Foudation
Gry H. Barfod and Rubina Raja

9 July 2020 "New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", COVID-19 News Gry H. Barfod and Rubina Raja

9 July 2020
"New method solves old mystery:
Hafnium isotopes clinch origin
of high-quality Roman glass",
ENewsPlanet
Gry H. Barfod and Rubina Raja

9 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", EurekAlert! Gry H. Barfod and Rubina Raja

9 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", Archaeology News Network Gry H. Barfód and Rubina Raja

9 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", Free Republic Gry H. Barfod and Rubina Raja

9 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", ScienMag Gry H. Barfod and Rubina Raja

9 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", ScienceDaily Gry H. Barfod and Rubina Raja

9 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", Architexturez South Asia Gry H. Barfod and Rubina Raja

9 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", Phys.org Gry H. Barfod and Rubina Raja

9 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", NewsNow Gry H. Barfod and Rubina Raja

9 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", Bioengineer.org Gry H. Barfod and Rubina Raja

9 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", Archaeologica Gry H. Barfod and Rubina Raja

9 July 2020

"New method solves old mystery" Westfälische Wilhelms-Universität Münster Gry H. Barfod and Rubina Raja

9 July 2020

"Hafnium-Isotope als Schlüssel: Archäologen und Geochemiker weisen Glas-Herkunft aus römischer Kaiserzeit nach", Informationsdienst Wissenschaft Gry H. Barfod and Rubina Raja

9 July 2020

"Hafnium isotopes confirm origin of Roman glass", Laboratoryequipment.com Gry H. Barfod and Rubina Raja

9 July 2020

"Hafnium isotopes confirm origin of Roman glass", Heritagedaily Gry H. Barfod and Rubina Kaja

10 July 2020

"100 år fra ligestilling på universiteterne: Det er ikke kvindernes egen skyld, at de fravælger en forskerkarriere", Berlingske Tidende Rubina Raja

10 July 2020

"Scientists analyze composition of Rome's clear glass", Archaeology.org Gry H. Barfod and Rubina Raja

10 July 2020

"Reveal the secret of making the perfect "Alexandria" glass", Kxan36 - Local news and headlines Gry H. Barfod and Rubina Raja

10 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", Historynews.net Gry H. Barfod and Rubina Raja

10 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", News Break Gry H. Barfod and Rubina Raja

10 July 2020 "Hafnium isotopes clinch origin of high-quality Roman glass", Archaeology.wiki Gry H. Barfód and Rubina Raja

10 July 2020 "Der Fingerabdruck des Sandes': Neue Methode zur Herkunftsbestimmung von antikem Glas", Archäeologie online Gry H. Barfod and Rubina Raja

11 July 2020

"Scientists analyze composition of Rome's clear glass", ARCHAEOLOGY WORLD Gry H. Barfod and Rubina Raja

11 July 2020

"New technique solves previous thriller: Hafnium isotopes clinch origin of high-quality Roman glass", SunriseTechno Gry H. Barfod and Rubina Raja

12 July 2020

"Rare element solves mystery of Roman clear glass", The History Blog Gry H. Barfod and Rubina Raja

13 July 2020

"Where did Rome's famous 'Alexandrian' glass come from?", RealClearScience Gry H. Barfod and Rubina Raja

13 July 2020

"New method distinguishes between Egyptian and Palestinian glass during Roman times", Ancient pages Gry H. Barfod and Rubina Raja

13 July 2020

"Helder als Egyptisch glas", C2W Gry H. Barfod and Rubina Raja

13 July 2020

"Hafnium isotopes confirm origin of Roman glass", University College London Gry H. Barfod and Rubina Raja

14 July 2020

"New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", Geochemical News Gry H. Barfod and Rubina Raja

14 July 2020

"New approach solves previous thriller: Hafnium isotopės clinch starting place of top quality Roman glass", Icosmos.eu Gry H. Barfod and Rubina Raja

14 July 2020 "Стекло из Римской империи", Gry H. Barfod and Rubina Raja

15 July 2020

"Hafnium-Isotope als Schlüssel: Archäologen und Geochemiker weisen Glas-Herkunft aus römischer Kaiserzeit nach", GeoHorizon Gry H. Barfod and Rubina Raja

16 July 2020 "L'origine du "verre d'Alexandrie", vieux de deux millénaires, élucidée", Sciences et Avenir Gry H. Barfod and Rubina Raja

16 July 2020 "Hafnium-Isotope als Schlüssel", Archäologie in Deutchland Gry H. Barfod and Rubina Raja

16 July 2020 "Geochemische Analytik mit Hafnium-Isotopen", Ánalytik News Gry H. Barfod and Rubina Raja

17 July 2020 "New method solves old mystery: Hafnium isotopes clinch origin of high-quality Roman glass", Vwkly. com

Gry H. Barfod and Rubina Raja

18 July 2020 "Hafnium isotopes reveal origin of ancient Roman glass", c&en -Chemical and Engineering News Gry H. Barfod and Rubina Raja

22 July 2020 "L'origine du verre romain de haute qualité révélé par les isotopes d'hafnium", Les Découvertes Archéologiques Gry H. Barfod and Rubina Raja

30 July 2020 "Ny podcastserie tager dig med til de dansk-italienske udgravninger på Cæsars Forum", Videnskab.dk Mie E. Lind and Rubina Raja

31 July 2020 "Professor i arkæologi: 'Du er jo også en pæn pige', sagde en kollega, da jeg havde vundet en pris. Han vidste ikke, hvad han ellers skulle sige til mig", Politiken Rubina Raja

31 July 2020 "The Romans called it 'Alexandrian glass': Where was it actually from?", Washingtonsources Gry H. Barfod and Rubina Raja

31 July 2020 "The Romans called it 'Alexandrian glass': Where was it actually from?", Viknews.com Gry H. Barfod and Rubina Raja

31 July 2020 "The Romans called it 'Alexandrian glass': Where was it actually from?", Vaaju.com Gry H. Barfod and Rubina Raja

31 July 2020

"The Romans called it 'Alexandrian glass': Where was it actually from?",The New York Times Gry H. Barfod and Rubina Raja

31 July 2020 "The Romans called it 'Alexandrian glass': Where was it actually from?", **TheTodayNews** Gry H. Bárfod and Rubina Raja

31 July 2020 "The Romans called it 'Alexandrian glass': Where was it actually from?", TheDailyJamesOnline Gry H. Barfod and Rubina Raja

31 July 2020 "The Romans called it 'Alexandrian glass': Where was it actually from?", TechnoCodex Gry H. Barfod and Rubina Raja

31 July 2020 "The Romans called it 'Alexandrian glass': Where was it actually from?", NewsBeezer Gry H. Barfod and Rubina Raja

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31 July 2020 "The Romans called it 'Alexandrian glass': Where was it actually from?", Livenews24hrs.com Gry H. Barfod and Rubina Raja

31 July 2020 "Les Romains l'appelaient «verre alexandrin». D'où venait-il vraiment?", News 24 Gry H. Barfod and Rubina Raja

1 August 2020 "The Romans called it 'Alexandrian glass': Where was it actually from?", World News 24 Gry H. Barfod and Rubina Raja

1 August 2020 "COVID-19 og ligestilling på universiteterne", Politiken Rubina Raja

2 August 2020 "Scientists trace the roots of ancient Rome's clear glass to Egypt", Times of News Gry H. Barfod and Rubina Raja

2 August 2020 "Scientists trace the roots of ancient Rome's clear glass to Egypt", The Indian Express Gry H. Barfod and Rubina Raja

2 August 2020 "Scientists trace the roots of ancient Rome's clear glass to Egypt", SurfinTech Gry H. Barfod and Rubina Raja

2 August 2020 "Scientists trace the roots of ancient Rome's clear glass to Egypt", NewsTube Gry H. Barfod and Rubina Raja

2 August 2020 "Scientists trace the roots of ancient Rome's clear glass to Egypt", eDigitalTrade Gry H. Barfod and Rubina Raja

2 August 2020 "Scientists trace the roots of ancient Rome's clear glass to Egypt", Daily2dailynews.com Gry H. Barfod and Rubina Raja

2 August 2020 "Scientists trace the roots of ancient Rome's clear glass to Egypt", Binj.in Gry H. Barfod and Rubina Raja

2 August 2020 "Scientists trace the roots of ancient Rome's clear glass to Egypt", Allaboutnews24 Gry H. Barfod and Rubina Raja

3 August 2020 "Researchers from Aarhus University in Denmark traced the origins of Alexandrian glass", ShortPedia Gry H. Barfod and Rubina Raja

4 August 2020 "The Romans called it Alexandrian glass: Where does it actually come from", Ordo News Gry H. Barfod and Rubina Raja

5 August 2020 "Ancient Rome's finest glass was actually made in Egypt", Smithsonian Magazine Gry H. Barfod and Rubina Raja

6 August 2020 "Scientists prove Rome's ancient glass was not from Rome!", Ancient Origins Gry H. Barfod and Rubina Raja

9 August 2020 "New research shows Rome's finest glass was actually made in Egypt", Cairo Scene Gry H. Barfod and Rubina Raja

9 August 2020 "Valkyrie fra vikingetiden genskabt i 3D", Videnskab.dk Sarah Croix and Søren M. Sindbæk

13 August 2020 "Smykkevedhæng fra vikingetiden genskabt i 3D", Carlsberg Foundation Sarah Croix and Søren M. Sindbæk

2 September 2020 "Danish-German project seeks to shine light on ancient Jerash's pottery production", The Jorden Times Rubina Raja

16 September 2020 "DNA analysis of 442 Viking skeletons rewrites the story of Viking culture", Lundbeck Foundation Søren M. Sindbæk

16 September 2020 "'Viking' was a job description, not a matter of heredity, massive ancient DNA study shows", Science.org Søren M. Sindbæk

16 September 2020 "World's largest DNA sequencing of Viking skeletons reveals they weren't all Scandinavian", ScienceDaily Søren M. Sindbæk

24 September 2020 "Vikings weren't all Scandinavian, ancient DNA study shows", Sci-News.com Søren M. Sindbæk 8 October 2020 "De europæiske renæssancehumanister 'levede erindringen'", Carlsberg Foundation Trine A. Hass

12 October 2020 "Nye kapitler føjes til fortællingen om Gajus Julius Cæsar", Carlsberg Foundation Sine G. Saxkjær and Trine A. Hass

13 October 2020 "Interview i anledning af udgivelsen af 'Cæsar – manden og myten'", Kulturen på P1 Sine G. Saxkjær and Trine A. Hass

19 October 2020
"Hvem var Cæsar? Danske forskere
leverer svaret i vanvittigt flot værk
om Julius Cæsar", Berlingske
Tidende
Sine G. Saxkjær and Trine A. Hass

28 October 2020
"Evolving cities in permeable borderlands", Istituto Italiano di Cultura – BIRD award ceremony Emanuele E. Intagliata

30 October 2020 "Nye tal: Ligestillingen halter langt efter på universiteterne", Magisterbladet Rubina Raja

2 November 2020 "Fem hjerter: Smuk bog om Cæsar som kulturelt fænomen er oplagt som årets julegave", Politiken Sine G. Saxkjær and Trine A. Hass

5 November 2020 "Cæsars Forum-udgravningen: Dele af Alessandrino-kvarteret kortlagt", Carlsberg Foundation Jan K. Jacobsen, Rubina Raja and Sine G. Saxkjær

November 2020 "Cæsar – manden og myten", Bogsyn Sine G. Saxkjær and Trine A. Hass

16 November 2020 "Hass og Saxkjær: Cæsar – manden og myten", Radio Update Magasin Sine G. Saxkjær and Trine A. Hass 18 November 2020 "Cæsar – manden og myten", Historie Online Sine G. Saxkjær and Trine A. Hass

20 November 2020 "Carlsbergfondet – Rom: Den arkaiske periode", Carlsberg Foundation Nikoline Sauer

23 November 2020 "Historisk tilbageblik: Vandmøller satte skub i alle dele af samfundet", Kristeligt Dagblad Bjørn Poulsen

9 December 2020 "Julius Cæsar: Tyran eller frelser?", Politiken Sine G. Saxkjær and Trine A. Hass

15 December 2020 "Nyt værk om 7 års dansk-tyske feltstudier i oldtidsbyen Gerasa", Carlsberg Foundation Rubina Raja



Augustus' Forum and Temple of Mars Ultor in lego, from an exhibition in Rome, March 2020 (Photo: Rubina Raja).

## Visitors and Virtual Lecture Participants

8–9 January 2020 Christopher Hallett (University of California, Berkeley)

15–16 January 2020 Stefan Larsson (Kulturen, Lund)

16 January 2020 Adam Rogers (University of Leicester)

16 January 2020 Lacey Wallace (University of Lincoln)

16 January 2020 Louise Revell (University of Southampton)

16 January 2020 Penelope Goodman (University of Leeds)

16 January 2020 Richard Hingley (Durham University)

16 January 2020 Simon Edmond Cleary (University of Birmingham)

17–19 January 2020 Annie Sartre-Fauriat (Université de Tours)

17–19 January 2020 Eivind Heldaas Seland (University of Bergen)

17–19 January 2020 Grzegorz Majcherek (University of Warsaw)

17–19 January 20202 Jean-Baptiste Yon (Laboratoire HiSoMa)

17–19 January 2020 Kenneth Lapatin (J. Paul Getty Museum)

17–19 January 2020 Maura Heyn (University of North Carolina – Greensboro)

17–19 January 2020 Maurice Sartre (Université de Tours) 17–19 January 2020 Ted Kaizer (Durham University)

3–7 February 2020 Alain Schnapp (Univeristé Paris 1, Panthéon-Sorbonne)

24–25 February 2020 Alfredo González-Ruibal (Consejo Superior de Investigaciones Científicas)

1 September–31 December 2020 Elizabeth Murphy (Florida State University)

29 September–31 December 2020 Christopher Hallett (University of California, Berkeley)

27 October 2020 Adéla Sobotkova (Aarhus University)

27 October 2020 Akshyeta Suryanarayan (CNRS Université Nice)

27 October 2020 Alain Queffelec (University of Bordeaux)

27 October 2020 Alejandra Galmés (Universitat de les Illes Balears)

27 October 2020 Amalia Levi (HeritEdge Connection)

27 October 2020 Ana Catarina Basilio (University of Lisbon)

27 October 2020 Andreu Monforte-Barberan (Universitat Autònoma de Barcelona)

27 October 2020 Antonio Rivero Ostoic (Aarhus University)

27 October 2020 Birte Poulsen (Aarhus University)

27 October 2020 Bjarke Paarup (Aarhus University) 27 October 2020 Chris P. Dickenson (Aarhus University)

27 October 2020 Christos Tsirogiannis (Aarhus Institute of Advanced Studies)

27 October 2020 Dalibor Papousek (Masyryk University)

27 October 2020 Damien Pesesse (IMéRA)

27 October 2020 David Laguna Palma (Universidad de Granada)

27 October 2020 Dries Daems (Sagalassos Archaeological Research Project)

27 October 2020 Evert van Emde Boas (Aarhus University)

27 October 2020 George Hinge (Aarhus University)

27 October 2020 Hale Güney (Arhus University of Advanced Studies)

27 October 2020 Helen Van Noorden (Aarhus Institute of Advanced Studies)

27 October 2020 Helle Strandgaard Jensen (Aarhus University)

27 October 2020 Jajwalya Karajgi (George Mason University)

27 October 2020 Jana Mokrisova (University of Cambridge)

27 October 2020 Joana Valdez-Tullett (Historic Environment Scotland)

27 October 2020 Joseph Lewis (University of Cambridge)

- 27 October 2020 Kamil Kopij (Jagiellonian University)
- 27 October 2020 Katherine Crawford (Arizona State University)
- 27 October 2020 Magdalena Naum (Aarhus University)
- 27 October 2020 Mary Hilson (Aarhus University)
- 27 October 2020 Maxime Poulain (Ghent University)
- 27 October 2020 Nazarij Buławka (Univeristy of Warsaw)
- 27 October 2020 Niels Bargfeldt (University of Southern Denmark)
- 27 October 2020 Niels Nørkjær Johannsen (Aarhus University)
- 27 October 2020 Nina Kofoed (Aarhus University)
- 27 October 2020 Petra Hermankova (Aarhus University)
- 27 October 2020 Rainer Atzbach (Aarhus University)
- 27 October 2020 Sara Ann Knutson (University of California, Berkeley)
- 27 October 2020 Shumon T. Hussain (Aarhus University)
- 27 October 2020 Signe A. E. Larsen (Aarhus University)
- 27 October 2020 Tom Birch (Moesgaard Museum)
- 27 October 2020 Tom Leppard (Aarhus Institute of Advanced Studies)
- 27 October 2020 Tomás Hampejls (Masaryk University)

- 27 October 2020 Torben Juul Classen (Aarhus University)
- 27 October 2020 Trine A. Hass (Aarhus University)
- 27 October 2020 Troels Myrup Kristensen (Aarhus University)
- 27 October 2020 Vincent Delvigne (University of Bordeaux)
- 27 October 2020 Vinnie Nørskov (Aarhus University)
- 27 October 2020 Vojtech Kase (Aarhus University)
- 27 October 2020 Welmoud Out (Moesgaard Museum)
- 27 October 2020 Zoran Čučković (Landscape Archaeology)
- 10 November 2020 Riley Snyder (University of Edinburgh)
- 10 November 2020 Catharine Hof (Technische Universität, Berlin)
- 10 November 2020 Simon Barker (Universität Heidelberg)
- 10 November 2020 Alessandro Carabia (University of Birmingham)
- 10 November 2020 Elizabeth Zanghi (Université Paris 1, Panthéon-Sorbonne)
- 10 November 2020 Mahmoud Ahmed Amer Mohamed (Ministry of Antiquities, Egypt)
- 10 November 2020 Nicolai Broen Thorning (Aarhus University)
- 10 November 2020 Felix Eder (Leiden University)
- 10 November 2020 Brahim M'Barek (Independent scholar)

- 10 November 2020 Eugenio Tamburrino (University of Padova)
- 10 November 2020 Daniele Bursich (University of Salerno)
- 10 November 2020 Jajwalya Karajgikar (George Mason University)
- 10 November 2020 Devi Taelman (Ghent University)
- 10 November 2020 Didem Uygun (Boğaziçi University)
- 10 November 2020 Susan Abugraga (Libyan Department of Antiquities, Libya)
- 10 November 2020 Thomas Larsen Høisæter (University of Bergen)
- 10 November 2020 Eleni Kopanaki (Aarhus University)
- 10 November 2020 Konogan Beaufay (British School at Rome)
- 17 November 2020 Gianfranco Agosti (La Sapienza University of Rome)
- 17 November 2020 Shelly Arlen (University of Florida)
- 17 November 2020 Marlis Arnhold (Rheinische Friedrich-Wilhelms-Universität Bonn)
- 17 November 2020 Elizabeth Bartman (Archaeological Institute of America)
- 17 November 2020 Konogan Beaufay (University of Oxford)
- 17 November 2020 Lluis Jerez Bertolin (University of Birmingham)
- 17 November 2020 Kay Boers (Utrecht University)
- 17 November 2020 Erika Cappelletto (University of Heidelberg)

- 17 November 2020 Ahmet Cinici (Independent scholar)
- 17 November 2020 Michael Coombes (Cardiff University)
- 17 November 2020 Ellis Cuffe (University of London)
- 17 November 2020 Grazia A. Di Pietro (Ashmolean Museum)
- 17 November 2020 Emlyn Dodd (Macquarie University)
- 17 November 2020 Müge Durusu-Tanriöver (Bilkent University)
- 17 November 2020 John Fabiano (University of Toronto)
- 17 November 2020 Joseph Frankl (University of Michigan)
- 17 November 2020 Luise Marion Frenkel (University of Cambridge)
- 17 November 2020 Stefano Frullini (University of Cambridge)
- 17 November 2020 Daniel Fuks (Bar-Ilan University)
- 17 November 2020 Alexis Gorby (University of Oxford)
- 17 November 2020 Sofia Greaves (University of Cambridge)
- 17 November 2020 Karen Gregory (University of Exeter)
- 17 November 2020 Allison Grenda (University of California, Davis)
- 17 November 2020 Lucy Grig (University of Edinburgh)
- 17 November 2020 Hale Güney (Aarhus Institute of Advanced Studies)

- 17 November 2020 Mette Marie Hald (Natural History Museum of Denmark)
- 17 November 2020 Richard Henry (Historic England)
- 17 November 2020 Petra Hermankova (Aarhus University)
- 17 November 2020 Zachary Herz (University of Colorado, Boulder)
- 17 November 2020 Dora Ivansievic (Institute of Philosophy, Zagreb)
- 17 November 2020 Tyler Johnson (University of Michigan)
- 17 November 2020 Duncan Keenan-Jones (University of Queensland)
- 17 November 2020 Allison Kidd (University of Edinburgh)
- 17 November 2020 Hava B. Korzakova (Bar-Ilan University)
- 17 November 2020 Troels Myrup Kristensen (Aarhus University)
- 17 November 2020 Adam Krysén (University of Warsaw)
- 17 November 2020 Kevin S. Lee (University of Texas)
- 17 November 2020 Thomas Andreas Leibundgut (Stanford University)
- 17 November 2020 Drew Longacre (University of Groningen)
- 17 November 2020 Emilia Maitaix (University of Helsinki)
- 17 November 2020 Paolo Maranzana (University of Michigan)
- 17 November 2020 Iren Soto Marín (University of Michigan)

- 17 November 2020 Roni Marguerite (Centre National de la Recherche Scientifique)
- 17 November 2020 Caspar Meyer (Bard Graduate Center)
- 17 November 2020 Mary Jean E. McNamara (The Graduate Center)
- 17 November 2020 Hallie Merdith (University of Oxford)
- 17 November 2020 Beth Munro (University of London)
- 17 November 2020 Michael Neiss (University of Uppsala)
- 17 November 2020 Rebecca Newman (University of Aberden)
- 17 November 2020 Frederik Søren Nielsen (Aarhus University)
- 17 November 2020 Welmoud Out (Moesgaard Museum)
- 17 November 2020 Arietta Papaconstantinou (University of Oxford)
- 17 November 2020 Christie Pavey (Royal Holloway, University of London)
- 17 November 2020 Amy Place (University of Leicester)
- 17 November 2020 Pernille Ploug (University of Copenhagen)
- 17 November 2020 Jeremy Punt (Stellenbosch University)
- 17 November 2020 Anya Sharma (Independent scholar)
- 17 November 2020 Adéla Sobotkova (Aarhus University)
- 17 November 2020 Anna Soifer (Brown University)

17 November 2020 Ray Starr (Wellesley College)

17 November 2020 Michael Thomas (Washington State University)

17 November 2020 Dimitri Van Limbergen (University of Ghent) 17 November 2020 Sandra Völkel (The German Archaeological Institute in Istanbul)

17 November 2020 Fan Wang (Northeast Normal University)

17 November 2020 Kevin Woram (University of Virginia) 17 November 2020 Luca Zavagno (Bilken University)

17 November 2020 Zhengyu Wang (Norheast Normal University)

17 November 2020 Fanqi Zeng (University of Bristol)

## **Collaborators**

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Andrea Denker (Helmholtz-Zentrum Berlin)

Andreas Springer (Freie Universität Berlin)

Andres Dobat (Aarhus University)

Andrew Wilson (University of Oxford)

Anna-Katharina Rieger (Karl-Franzens-Universität Graz)

Anna Wessman (University of Helsinki)

Anne Nissen Jaubert (Université Paris 1, Panthéon-Sorbonne)

Anne Pedersen (National Museum of Denmark) Annette Haug (Christian-Albrechts-Universität zu Kiel)

Arthur Gramacki (University of Zielona Gora)

Ashot Margaryan (University of Copenhagen)

Barbara Mills (University of Arizona)

Barbora Wouters (Vrije Universiteit Brussel)

Bernhard Weisser (Münzkabinett: Staatliche Museen zu Berlin)

Bert Smith (University of Oxford)

Birgitta Hårdh (Lund University)

Carmen Ting (University of Cambridge)

Christopher Hallett (University of California, Berkeley)

Christopher Smith (University of St. Andrews)

Claudio Parisi Presicce (Sovrintendenza Capitolina ai Beni Culturali)

Claus Feveile (Museum of Southwest Jutland) Claus von Carnap-Bornheim (Stiftung Schleswig-Holsteinische Landesmuseen Schloss Gottorf)

Cristina Boschetti (Centre National De La Recherche Scientifique)

Dagfinn Skre (Museum of Cultural History, University of Oslo)

Danuta Michalska (Adam Mickiewicz University)

David Saunders (J. Paul Getty Museum)

Davit Naskidashvili (Tbilisi State University)

Dirk Steuernagel (University of Regensburg)

Dries Tys (Vrije Universiteit Brussel)

Emilia Oddo (Tulane University)

Eske Willerslev (University of Cambridge)

Ewelina Miśta-Jakubowska (National Centre for Nuclear Research)

Flemming Just (Museum of Southwest Jutland)

Fleur Kemmers (Goethe-Universität Frankfurt am Main) Fred Albertson (University of Memphis)

Gabriel Zuchtriegel (Parco Archeologico di Paestum)

Gerard Barrett (Queen's University Belfast)

Graham A. Hagen-Peter (Geological Survey of Norway)

Grzegorz Żabiński (Jan Długosz University)

Hans-Michael Seitz (Goethe-Universität Frankfurt am Main)

Heidi E. Höfer (Goethe-Universität Frankfurt am Main)

Heiko Stukenbrok (Freie Universität Berlin)

Helle Horsnæs (The National Museum of Denmark)

lan Paul Wilkinson (British Geological Survey)

Ingrid Schulze (Independent scholar)

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Jens Ulriksen (Museum Southeast Denmark)

Jeremy M. Hutton (University of Wisconsin-Madison)

Jessica Munson (Lycoming College)

John Healey (University of Manchester)

Judith Barr (J. Paul Getty Museum)

Julie Lund (University of Oslo)

Julio M. del Hoyo-Melendez (National Museum in Krakow)

Karin Margarita Frei (National Museum of Denmark) Katherine Crawford (Arizona State University)

Katrin Westner (Deutsches Bergbau-Museum Bochum)

Letty Ten Harkel (University of Oxford)

Li Liu (Stanford University)

Lisa Brody (Yale University Art Gallery)

Lotte Hedeager (University of Oslo)

Manuel Fernández-Götz (University of Edinburgh)

Marcos Martinón-Torres (University of Cambridge)

Mark Williams (University of Leicester)

Martin Philip Ansell (University of Bath)

Massimo Osanna (Parco Archeologico di Pompei; University of Naples Federico II)

Matthew Collins (University of Cambridge)

Matthew Peeples (Arizona State University)

Maura K. Heyn (University of North Carolina, Greensboro)

Michael E. Smith (Arizona State University)

Michael Lewis (British Museum)

Morten Søvsø (Museum of Southwest Jutland)

Nadine Moeller (Yale University)

Nadine Schibille (Le Centre National De La Recherche Scientifique)

Nathanael Andrade (Binghamton University)

Nicole Budrovich (J. Paul Getty Museum)

Patrick Michel (University of Lausanne)

Paulina Komar (Cardinal Stefan Wyszyński University)

Per Kristian Madsen (National Museum of Denmark)

Peter Pentz (National Museum of Denmark)

Peter Scherrer (Karl-Franzens-Universität Graz)

Revaz Papuashvili (Georgian National Museum)

Richard J. Ball (University of Bath)

Roland Fletcher (University of Sydney)

Roos van Oosten (Universiteit Leiden)

Sabine Klein (Deutsches Bergbau-Museum Bochum)

Scott McAvoy (University of California)

Shadreck Chirikure (University of Cape Town)

Silvia Polla (Freie Universität Berlin)

Stefan Röhrs (Staatliche Museen zu Berlin)

Stefani Crabtree (Santa Fe Institute)

Steve Ashby (University of York)

Stijn Heeren (University of Amsterdam)

Suzie Thomas (University of Helsinki)

Unn Pedersen (Oslo University)

Vana Orfanou (University College Dublin)

Wolfgang Schulze (Independent scholar)

William T. Wootton (King's College London)

Åse Ringbom (Åbo Akademi)

### **UrbNet Publications 2020**

Albarede, F., Blichert-Toft, J., Genteli, L., Milot, J., Vaxevanopoulos, M., Klein, S., Westner, K., Birch, T., Davis, G. & de Callataÿ, F. (2020). "A Miner's Perspective on Pb Isotope Provenances in the Western and Central Mediterranean", Journal of Archaeological Science 121, 105194.

Barfod, G. H., Freestone, I., Lesher, C. E., Lichtenberger, A. & Raja, R. (2020). "'Alexandrian' Glass Confirmed by Hafnium Isotopes", Nature Scientific Reports 10, 11322.

Bes, P., Brughmans, T., Lichtenberger, A., Raja, R. & Romanowska, I. (2020). "Ceramics in Cities in Context: An Overview of Published Roman Imperial to Umayyad Pottery in the Southern Levant", in: Lichtenberger, A. & Raja, R. (eds.), Hellenistic and Roman Gerasa: The Archaeology and History of a Decapolis City, Jerash Papers 5, Turnhout, 55–118.

Birch, T., Kemmers, F., Klein, S., Seitz, H.-M. & Höfer, H. E. (2020). "Silver for the Greek Colonies: Issues, Analysis and Preliminary Results from a Large-Scale Coin Sampling Project", in: Sheedy, K. A. & Davis, G. (eds.), Mines, Metals, and Money Ancient World Studies in Science, Archaeology and History, Metallurgy in Numismatics 6, 101–148.

Blömer, M. (2020). "Observations on Cities and their Biographies in Hellenistic North Syria", Journal of Urban Archaeology 2, 139–150.

Bobou, O. (2020). "Lysippos", in: Erskine, A., Hollander, D. B. & Papaconstantinou, A. (eds.), The Encyclopedia of Ancient History. DOI: https://doi.org/10.1002/9781444338386.wbeah09163.pub2

Bobou, O. (2020). "Mothers as Dedicators", in: Sharrock, A. & Keith, A. (eds.), Maternal Conceptions in Classical Literature and Philosophy, University of Toronto Press, 296–320.

Bobou, O. (2020). "Review of: Romero, M. S. & López, R. M. C., Motherhood and Infancies in the Mediterranean and Antiquity (Oxbow Books, 2018)", The Journal of the History of Childhood and Youth 13.3, 449–451.

Bobou, O., Kristensen, N.B., McAvoy, S. & Raja, R. (2020). "Archive Archaeology in Palmyra, Syria: A New 3D Reconstruction of the Tomb of Ḥairan". Digital Applications in Archaeology and Cultural Heritage 19, e00164.

Brughmans, T. (2020). "Evaluating the potential of computational modelling for informing debates on Roman economic integration", in: Verboven, K. (ed.), Complexity Economics: Building a New Approach to Ancient Economic History, Palgrave Studies in Ancient Economies, 105–123.

Brughmans, T. & Peeples, M. A. (2020). "Spatial Networks", in: Gillings, M., Hacıgüzeller, P. & Lock, G. (eds.), Archaeological Spatial Analysis: A Methodological Guide, Abingdon, 273–295.

Brughmans, T. & Pecci, A. (2020). "An Inconvenient Truth: Evaluating the Impact of Amphora Reuse through Computational Simulation Modelling", in: Duckworth, C. & Wilson, A. (eds.), Recycling and Reuse in the Roman Economy: Oxford Studies on the Roman Economy, Oxford, 191–234.

Carrignon, S., Brughmans, T. & Romanowska, I. (2020). "Tableware Trade in the Roman East: Exploring Cultural and Economic Transmission with Agent-Based Modelling and Approximate Bayesian Computation", PLOS ONE 15.11, e0240414.

Croix, S. (2020). "Identifying 'Occasions' of the Self in Viking-Age Scandinavia: Textile Production as Gendered Performance and its Social and Spatial Settings", in: Eriksen, S., Holmqvist, K. L. & Bandlien, B. (eds.), Approaches to the Medieval Self: Representations and Conceptualizations of the Self in the Textual and Material Culture of Western Scandinavia, c. 800–1500, Berlin, 235–254.

Croix, S. (2020). "Objects, Contexts, and Use of Space: The 'Biography' of a Workshop in Eighth-Century Ribe", Journal of Urban Archaeology 2, 15–30.

Croix, S. (2020). "Ribe's Pre-Christian Cemetery: The Burial Customs of an Early Urban Community", in: Pedersen, A. & Sindbæk, S. M. (eds.), Viking Encounters: Proceedings of the 18th Viking Congress, Aarhus, 465–480.

Croix, S. (2020). "The Dead of the Viking-Age Towns in Scandinavia", in: Aannestad, H. L., Pedersen, U., Moen, M., Neuman, E. & Berg, H. L. (eds.), Vikings Across Boundaries: Viking-Age Transformations 2, Abingdon, 236–257.

Croix, S. (2020). "Urban Way-of-Life as Identity? A Case Study from Ribe's Market-Place", in: Aannestad, H. L., Pedersen, U., Moen, M., Neumann, E. & Berg, H. L. (eds.), Vikings Across Boundaries: Viking-Age Transformations 2, Abingdon, 115–128.

Croix, S., Deckers, P. & Sindbæk, S. M. (2020). "Recasting a Viking Warrior Woman from Ribe: 3D Digital Image Reconstruction Compared", Journal of Archaeological Science: Reports 32, 102455.

Croix, S., Frei, K. M., Sindbæk, S. M. & Søvsø, M. (2020). "Individual Geographic Mobility in a Viking-Age Emporium: Burial Practices and Strontium Isotope Analyses of Ribe's Earliest Inhabitants", PLOS ONE 15.8, e0237850.

Croix, S., Sindbæk, S.M. & Søvsø, M. (2020). "An 8th–Century Mayen Ware Pitcher found in Ribe, Denmark", Archäologisches Korrespondenzblatt 50.4, 601–612.

Dahlström, H., Poulsen, B. & Olsen, J. (2020). "A Port on the Øresund: Initiatives and Dynamics in the Early Life History of Copenhagen", Journal of Urban Archaeology 2, 51–68. Dahlström, H. & Olsen, J. (2020). "Chronology in Urban Archaeology: Bayesian Modelling of Radiocarbon Dates from Medieval Copenhagen as a High Definition Approach", META: Historiskarkeologisk Tidskrift 2020, 111–137.

Daugbjerg, T. S., Lindroos, A., Heinemeier, J., Ringbom, Å., Barrett, G., Michalska, D., Haidas, I., Raja, R., Olsen, J. (2020). "A Field Guide to Mortar Sampling for Radiocarbon Dating", Archaeometry. DOI: https://doi.org/10.1111/arcm.12648.

Deckers, P. (2020). "Archaeology's Awkward Allies", Antiquity 94, 1068–1070.

Dickenson, C. (2020). "Antique Statuary and Urban Identity in Roman Greece" in Flohr, M. (ed.), Urban Space and Urban History in the Roman World, Abingdon, 111–139.

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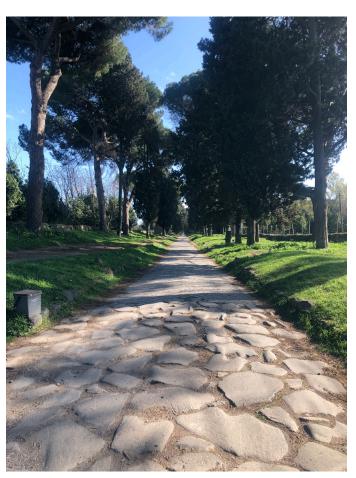
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A view of a stretch of the ancient Via Appia in Rome (Photo: Rubina Raja).





























# **UrbNet in the Year of Pandemia**

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**Cover**: The remains at Tsikhisdziri in Georgia (Photo: Davit Naskidashvili)

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