

# Archaeology at Cambridge

2019-2020







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# Introduction: The McDonald Institute and Archaeology at Cambridge

Cyprian Broodbank

This academic year has been bisected by the start of the UK's first Covid-19 lockdown in March 2020. A profound tribute is owed to everyone in our community who has worked so hard and with such good cheer and spirits to maintain the momentum of our teaching and research through exceptionally challenging times. Likewise, all of us at Cambridge extend heartfelt wishes for good health and safety to our globally dispersed community of friends, colleagues and alumni.

Despite all, this has been a busy year packed with achievements on all fronts. Barely under the wire before Covid struck, the combined Department and McDonald Institute underwent its first strategic research review by the University in living memory, emerging with flying colours and strong support — a crucial result at a time when Archaeology faces severe threats nationally. Our new MPhil degree in Heritage Studies was launched, with a vibrant first cohort of students that contributed to a record overall entry of 79 new Masters students. The year was also marked by determined initiatives to improve our equality, diversity and inclusivity, including new plans for a staff-student EDI committee, preparation for an Athena Swan Bronze application, and a powerful newly commissioned portrait by Sara Lavelle (2019 Sky Portrait Artist finalist) of Dorothy Garrod, Disney Professor and first female holder of a Chair at Cambridge (see front cover).

Our community continues to grow and to attract outstanding new generation talent. Three freshly arrived Lecturers affirm our commitment to building a resurgent world-class strength in Biological Anthropology: Rihlat Said Mohamed (Comparative Human Biology), Guy Jacobs (Human Evolutionary Genetics and Bioinformatics) and Kat Koops (Primatology). In addition, three further Lecturers were appointed (albeit, due to Covid-19 strictures, at greater distance than normal!), to join us next year: Amélie Beaudet (Human Origins), Andreas Pantazatos (Heritage Studies) and Jon Tenney (Assyriology). From within Cambridge, we were delighted to welcome Jianjun Mei, Director of the Needham Research Institute and expert in Chinese metallurgy, as a Director of Research. Supplementary or temporary replacement teaching was provided by several outstanding Teaching Associate appointments: Marie-Françoise Besnier (Assyriology), Christina Geisen (Egyptology), Nancy Highcock (Mesopotamian Archaeology), Joe Jeffery (Biological

Anthropology) and Peter Schauer (Quantitative Methods). Six additional postdoctoral researchers were recruited to the McDonald Institute: Carmen Ting as a Renfrew Fellow, Federica Sulas as a Leventis Fellow in African Archaeology, Nicolas Nikis and Néhémie Strupler funded by Weiner Anspach and the Swiss National Science Foundation respectively, while Sarah Fiddyment and Matthew Teasdale joined Matthew Collins's ERC project 'Beast to Craft'. MOLA's Virgil Yendell joined us briefly as Field Archaeologist in Residence until the pandemic closed our premises. Our professional staff were increased by the arrival of Giuseppe Castelli and Marta Muñoz Alegre to provide technical support in the Henry Wellcome Building laboratories, as well as Josh Giles, Louise Thompson and Mariko Yamamoto-Wilkins on the administration front. Last but not least, warmest congratulations to Enrico Crema and Dacia Viejo Rose for their wellearned promotions to Senior Lecturer.

Sadly, a multitude of arrivals is balanced by several departures. With the retirement of Rob Foley, Biological Anthropology at Cambridge loses one of its intellectual titans and a founder of human evolutionary studies at the University, a stature recognized by his recent award of a Fellowship at the Alan Turing Institute. Martin Worthington, another brilliant mind at the other end of our disciplinary spectrum, joins Trinity College Dublin as Associate Professor of Middle Eastern Studies. We likewise say goodbye to postdoctoral Fellows Rachel Ballantyne, Francesc Conesa, Arnau Garcia, Ruoyun Hui, Anna Judson, Emma Lightfoot, Laerke Recht and Toby Wilkinson, wishing them well on the next stage of their successful careers. Fifteen of our PhD students completed their doctorates successfully.

A little of the darkness of 2019–20 was illuminated by a bumper year for prizes. In 2019 Enrico Crema received a Philip Leverhulme Prize for outstanding early career research, while three of our community were honoured in China: Marcos Martinón-Torres and team by a Pineapple Science Prize for innovative identification of lacguer on the Terracotta Army statues, and Colin Renfrew with Michael Boyd by a Shanghai Archaeological Forum Field Discovery award for their fieldwork on Keros. Gilly Carr was awarded the 2020 European Heritage Prize for her heritage activism work on behalf of victims of Nazism in the Channel Islands. Mark Knight, Rachel Ballantyne, Iona Robinson Zeki and David Gibson won the 2020 Antiquity Prize for their article on the



CAU's Must Farm excavations. PhD student Sam Leggett won the 2020 Student Award for her paper at the EAA annual conference. Within Cambridge, John Robb was successfully nominated for a Pilkington Prize for Excellence in Teaching, and the McDonald's Custodian Steve Topper was identified as one of four Unsung Heroes by the University's Professional Services Recognition Scheme.

Several major new projects have also received generous funding. Notable among these are two large awards from the Arcadia Fund for the identification, documentation and analysis of the endangered heritage of archaeological sites in Africa and South Asia, led respectively by Paul Lane and Cameron Petrie. Guy Jacobs has received an ERC Starter grant to analyse networks and genetics among Island Southeast Asian hunter-gatherers.

Our usual busy programme of conferences and lectures was inevitably truncated by the advent of the pandemic, but one thought-provoking highlight of terminal pre-Covid times was the 31st McDonald Annual Lecture, delivered in inimitable style by Shadreck Chirikure on 'The political economy of precolonial African states – metals, trinkets, land, etc., etc.'.

We mourn the sudden passing of our long-term colleague Janice Stargardt, a champion of the archaeology of Myanmar, and the untimely death



Steve Topper, the indispensable and ever-smiling Custodian of the McDonald Institute, is recognized as one of the University's Unsung Heroes.

of Fred Baker, film-maker and pioneer of immersive digital experiences in archaeology. We mark the return, in a moving ceremony conducted by leading members of the Hawaiian community in the presence of the Vice-Chancellor and Registrary, of *Iwi Kupuna* from the Duckworth Collection to their island home.



Professor Shadreck Chirikure, British Academy Global Professor, delivers the 31st Annual McDonald Lecture.

# **Cambridge Heritage Research Centre**

Dacia Viejo Rose & Ben Davenport



The Cambridge Heritage Research Centre (CHRC) has continued to grow its activities and events, expanding the range of the

Centre's research themes and exploring new formats for engagement and collaboration.

In October 2019 the CHRC welcomed the first cohort of graduates to the newly launched MPhil in Heritage Studies. A partnership was established with the Ashdon Village Museum to explore its untapped potential, enabling a full scholarship to be awarded in 2019/20. The academic year was therefore off to an excellent start, as was on display at the Annual Heritage Fair, an opportunity to showcase the exciting and wide-reaching research topics of our established doctoral members and opportunities to network with representatives of key heritage organizations in Cambridge. The CHRC Seminar Series was another forum displaying the interdisciplinary breadth of the field, with 11 seminars taking place during term-time on subjects ranging from the Durham Miners Gala, Human Henge, the Mythic Mississippi, Making histories visible at the Smithsonian National Museum of African American History and Culture, and Restitution and Repair at the Museum of Black Civilisations. Despite having to postpone many visiting scholars from around the world, we were lucky to welcome Márcia Lika Hattori who spent time with us and delivered the 2020 Salvador Allende Memorial Lecture.

In recent years, societal challenges have emerged that present particular issues for industries involved in the management of heritage whose commercial operations intersect with heritage preservation and the communities who value it. In December, the CHRC partnered with the Judge Business School in running a two-day Knowledge Exchange workshop as a critical first step for the CHRC in finding innovative ways to respond to these challenges with funding from the AH & HSS Challenge-led Pump-Priming Scheme. Entitled 'Hidden Connections', it brought together academics with business professionals to explore how a greater understanding may create new opportunities for both sectors at the intersections between heritage and industry. In conjunction with this event, CHRC Affiliated Member Tanja Hoffmann set up a graduate seminar with indigenous business leaders from Canada.



Ciraj Rassool giving the third Annual Heritage Lecture.

In early 2020, the CHRC held its third annual public Heritage Lecture, which was given by Ciraj Rassool of the University of the Western Cape on 26 February with the title 'Restitution and the "missing body": South Africa and Austria in question'. Focusing on the restitution case for the remains of Klaas and Trooi Pienaar in 2012, Professor Rassool examined how the process was framed as a project of rehumanization.

Despite a disrupted year, CHRC members managed to continue with their research, as you will see in other pages of this report. You will have noticed that the summer of 2020 was far from quiet. The CHRC decided on a quick-response approach funded in record time by the McDonald Institute, Arts and Humanities Impact Fund and Vice-Chancellor's Discretionary Fund. The six-week data-gathering exercise recorded two dimensions of the ongoing debates on the removal of statues in the UK: i) the public debate and actions, and ii) how core institutions formulated their responses.

We are delighted that Gilly Carr was awarded the 2020 European Heritage Prize by the EAA for her research on the legacies of occupation on the Channel Islands and other sites of difficult heritage related to the Second World War further afield.

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# The Museum of Archaeology and Anthropology (MAA)

HELEN ALDERSON

Despite only being able to open to the public for 12 weeks this year owing to the COVID-19 pandemic, MAA still had over 30,000 visitors, and continued to facilitate research, teaching and outreach activities. One particular research highlight was the news that, in April 2020, Jody Joy was awarded a Headley Fellowship by the Art Fund to allow him the time to investigate the outstanding collections from Cambridgeshire at MAA, which include many wonderful artworks and artefacts from important archaeological sites. The collection has not been systematically studied since Cyril Fox published his landmark book on the Archaeology of the Cambridge Region nearly 100 years ago. Throughout the year of his fellowship, Jody will investigate the extent and significance of this collection in the light of recent discoveries and knowledge, generated in part by rapid development in the region, and the project will culminate in a major new exhibition at MAA in 2023.

In total, MAA received 85 research enquiries and 105 external researchers came to the museum during 44 study visits across both the Archaeology and Anthropology collections. There were several very popular and well-attended public events as well, including MAA's contribution to the University of



One of Cyril Fox's notebooks for his study of the Archaeology of the Cambridge Region, MAA archives.



# One of the MAA activities designed by Rob Law available online during lockdown.

Cambridge Museums' event *Twilight at the Museums*, which attracted 1274 visitors in February 2020. The Education and Outreach Team, led by Sarah-Jane Harknett, also welcomed 69 taught facilitated visits from schools and colleges (early years to Key Stage 5) and 28 self-directed visits, with a total of 2600 participants. Ten of these were Widening Participation sessions with Cambridge Colleges. The team also developed several digital sessions on archaeological topics so that they could continue teaching during the national lockdown, including a session on Roman lamps:

# https://www.museums.cam.ac.uk/school-sessions/winter-fun-design-roman-lamp

and another on Bronze Age pots

# https://www.museums.cam.ac.uk/school-sessions/explore-and-create-bronze-age-pottery

Both were designed by Education and Outreach Assistant Rob Law. The session on Bronze Age pots formed a part of a series of activities organized alongside the City Council's Children and Young People Participation Service. In addition, the team hosted adult learning and other health and wellbeing activities, including two Touch Tours of the Maya displays for visually impaired people.

Prior to the COVID-19 outbreak, Eleanor Wilkinson, Teaching and Collections Assistant for Archaeology, facilitated 28 taught practical sessions for the Department of Archaeology, with 210 student visits to the Keyser Workroom. Eleanor also enabled various public sessions over the year, including hosting the Potter's Group in December 2019. Sonia Lewis led the group and they inspected archaeological material including Samian and barbotine wares, as well as local medieval ceramics. Also in December, Eleanor welcomed a group from Ashendon, Bucks, who looked at Anglo-Saxon artefacts, including jewellery. In February 2020, Eleanor facilitated two practical handling taster-classes for 20 young adults. The sessions were part of an Egyptology and Assyriology Study Day for Christ's College, taught by Kate Spence. Eleanor also spent time gathering additional material from the reserve collections to add to the existing Teaching Collections held in the Keyser Workroom. It is hoped this will further benefit Cambridge University students by allowing them easy access to collections traditionally stored off-site. Eleanor's work has added an additional 250 objects to the Teaching Collections from a wide variety of sources, including American ceramics and jade artefacts, items of personal adornment from Europe dating to the Migration Period, medieval ecclesiastical and ivory figures and British Iron Age metalwork. With new photographs and improved documentation, these collections are also accessible to students through our online catalogue

#### https://collections.maa.cam.ac.uk

In September 2020, the long-planned Stores Move Project began to move material from our current off-site store, close to Madingley Road, to a refurbished building, complete with a large study space, located not far from Cambridge station. With the help and guidance of the Collections Manager for Archaeology Imogen Gunn, a team of nine Collections Assistants have been working to document, photograph and repack the collections ready for their

cm 1906.288

Anglo Saxon brooch with preserved textiles visible on one arm (orange area at the top of this image) and herringbone pattern textile impressions on the bow (MAA 1906.288).

move. The Anglo-Saxon collections have been the first to be processed and the updated records are available to be searched through our online collections portal (see link above). The process has already uncovered some hidden gems, such as a cruciform brooch with preserved textile, and exciting new research possibilities, with many more still to come.

This year has also been a busy one for archaeology exhibitions. In October 2019, the exhibition *Feast! In this life and the next* opened in the Spotlight Gallery at MAA. *Feast!* was curated by Eleanor Wilkinson and Jody Joy, and considered how people in East Anglia during the Iron Age may have enjoyed communal feasting and what they ate and drank. The MAA Education Team used the exhibition to support and enrich their teaching on the primary school curriculum's theme 'Stone Age to Iron Age', and the display corresponded with the University of Cambridge Museums' programme considering people's relationships with food.

The Andrews Gallery now houses a new temporary display entitled *Archaeology in the Torres Strait*, curated by Helen Alderson and Anita Herle. The display forms part of an international multi-sited and digital exhibition entitled *Uncovering Pacific Pasts: Histories of Archaeology in Oceania*, with over 30 contributing institutions. The exhibition celebrated the culmination of an Australian Research Council-funded project led by Matthew Spriggs (Australian National University) and colleagues.

Finally, the extremely popular exhibition *A Survival Story: Prehistoric Life at Star Carr* closed in March, with a total of 120,837 visitors since it opened in June 2018. This is by far the most successful exhibition at MAA since it reopened following the 2012 refurbishment, both in terms of total numbers and also visitors per month. A subsection of the exhibition is now on permanent display in the Andrews Gallery.



The new Star Carr display in the Andrews Gallery.

# **Cambridge Archaeological Unit**

CHRISTOPHER EVANS

With the impact of the COVID-19 crisis it has been a challenging year for the Unit. Yet, with construction held to be an essential service, aside from a month during the spring's lockdown, fieldwork has continued throughout. Apart from the Unit's involvement with the A428 investigations, most of this has been quarry related.

At the Mitchell Hill Quarry in Cottenham, last year's investigations focused on its Early to Middle Iron Age settlement. This year we recorded more of the area's Bronze Age landscape, including a roundhouse of that date (Fig. 1; overlain by Roman planting beds) and a number of



1.

watering-holes, with some having well-preserved worked wood elements. More of the extensive Romano-British ditch system, associated with the period's dense settlement known to lie under Mitchell Hill Farm, was also revealed.

Apart from the investigation of a Romano-British farmstead at Broom, Beds., there were also major-scale exposures at West Deeping's Cemex Quarry in South Lincs. This revealed a dense landscape with evidence of Neolithic through to Roman, Medieval and later activity. The Neolithic was evinced by over 40 Grooved Ware-attributed pits. Early Bronze Age activity comprised a Beaker barrow with associated burials and pits (Fig. 2). These were respected by a Middle Bronze Age radial droveway and enclosure system extending northwards for over a kilometre from a crossing point on the River Welland. Iron Age activity consisted of several settlement areas, the largest of



2.

which was defined by a substantial boundary over 100 m in length. The site's subsequent Roman settlement reused and augmented the same boundary, within which there was evidence of a multi-phase settlement. Most of the features were of agricultural or agri-industrial function (Fig.



3.

3) and included limestone-foundation barns, corn dryers, a kiln, ovens, granaries, stone-lined wells, watering-holes, enclosures and paddocks. Concentrations of pits and findsrich midden deposits attest to intense occupation amongst the agri-industrial components. Several animal burials were recovered, including four dogs and a horse; two human inhumations were also present.

One feature that stood out at West Deeping was primarily a watering-hole, wherein a series of precious objects were deposited in later Roman times. These included a bronze horse statuette, a votive dagger, an intaglio ring, a glass bead necklace, a twisted iron trident, coins, complete or near-complete beakers and plates, plus a large carved architectural stone.



4.

The vast-scale investigations within Hanson's Needingworth/ Over Quarry continued apace across the terraces bordering the eastern side of the River Great Ouse. The area is of particular interest as it was effectively drowned through flooding during the later Bronze Age and, thereafter, essentially abandoned to marsh until its Post-Medieval drainage. Intriguingly, surely relating to Willingham Mere's former lake beds just to the north, what appears to have been a docking facility at the end of a small Roman barge channel was recovered.

Generally, though, Over's findings were 'early'. These included still another earlier Neolithic round barrow, with a double primary interment (with another inhumation inserted directly above). There was also a separate Neolithic flat grave, whose occurrence with disarticulated human remains suggests that an previous burial had been pushed to one side. With extensive Neolithic to Middle Bronze Age settlement evidence occurring across the area, of particular significance were two Beaker-associated occupation clusters, with one having a large 2 m deep pit-well in which a large pottery assemblage was present.

Another Early Bronze Age barrow was also excavated (Fig. 4). The second such monument on that side of the river, its sequence proved to be relatively straightforward. It just involved a central cremation whose skeletal remains had been gathered in a bag and set within a small rise heaped atop the pyre's traces; burnt timbers had thereafter been arranged on top (Fig. 5). The barrow's ditch had been cut by Middle Bronze Age pit-wells and it became a nodal point for the field system of that date. There was also much evidence of contemporary settlement, with the area's many pit-wells producing a wealth of waterlogged wooden artefacts (e.g. a ladle, platter, bucket fragments and four log ladders). Roundhouses of the period occurred within a dense concentration of small pits and post-holes. With that swathe confined by a long fence-line along one side, there were also both Grooved Ware- and Collared Urn-associated structures within that settlement area.



5.

Apart from a series of small-scale Cambridge College 'interventions', the Unit otherwise has conducted housing-related excavations at Witchford and there was also a return to the Bearscroft Site in Godmanchester's southern hinterland. Aside from further Neolithic and Iron Age occupation traces, the later exposed more of the area's Anglo-Saxon settlement, including a sunken feature building from which a large Anglo-Scandinavian-style copper alloy hairpin was recovered. On Ely, the excavations at Manor Farm, Witchford, involved a substantial Late Iron Age enclosure and, relating to the village's origins, a series of Late Saxon enclosures with associated settlement features.

With much of the Unit's energies focused upon completing Must Farm's publication—an interim report of that site in Antiquity (by Knight et al.) won that journal's paper of the year award—it has been a prolific year for the Unit's publications. Not only has it seen Cambridge's Grand Arcade (Cessford & Dickens 2019) and Peterborough's Bradley Fen (Knight & Brudenell 2020), but also Evans and Lucas' Hinterlands and Inlands ... (2020). The latter covers a number of the Unit's early days West Cambridge sites, including that at the University's Vicar's Farm lands of some 20 years ago. There is some irony that, shortly after the book was issued, through expansion to the Whittle Laboratory the northwest corner of that complex Romano-British farmstead's ditched paddocks was exposed. Indeed, in the coming months we will be returning there once more when, anticipating housing, the site's eastern portions will finally be investigated on the far side of Clerk Maxwell Road. Things changesuch is the pace of Cambridge's development that, for the foreseeable future, there can be no ideal moment to stop and take authoritative stock of its archaeology.

#### The Material Culture Hub

SHEILA KOHRING

Despite the disruption of 2019–20, the Material Culture Hub did hold several events before March. In Michaelmas 2019, the Hub, as the face of Archaeology, hosted the Material Culture Forum's termly workshop group with a focus on Objectscapes. This forum brought together a range of participants from art history, history, English, museums and archaeology. In Lent term, the Hub, with the Later European Prehistory Group, hosted a lunchtime seminar with Marta Díaz-Guardamino (Durham University) to discuss globalization theory prior to presentation on stelae and rock art. Our Thinking About Things reading group combined with the post-doctoral community as well on the topic of Borders, integrating our selected readings with the upcoming speakers. Unfortunately, these were truncated due to the pandemic and the Hub put all events on hold.

However, our members were not all in stasis and we had several PhD completions—including Kevin Kay, Pippa Browne, Jess Thompson and Alessandro Ceccarelli—who have gone on to new places and projects over this year. We would also like to applaud the success of current PhD members Eleanor Maw and Thomas Matthews-Boehmer for their award from the Roman Research Trust to lead future excavations at the site of Harpham (East Riding, Yorkshire). We wish our departing members and our current members well and further success in 2021.

Directors: John Robb, Elizabeth DeMarrais, Marcos

Martinón-Torres Manager: Sheila Kohring



The Piasa Bird, an imagined past?

# **Faculty of Classics**

MARTIN MILLETT

As with the rest of the University, the Classical Archaeology group ('D Caucus') in the Faculty of Classics had a disrupted year, with events curtailed first by UCU industrial action, then by the Coronavirus pandemic.

Our seminar series ran for only part of the year and included papers from Dyfri Williams (Brussels), Dominik Maschek (Oxford), Alexander Marr (History of Art, Cambridge), John Robb (Cambridge), Shelley Hales (Bristol), Jess Hughes (Open University), Beatriz Marin-Aguilera (Cambridge), Georgios Koukovasilis (Cambridge), and Albert Bates (Cambridge)

Fieldwork was postponed with the exception of a limited fieldwork campaign at Aldborough, where it was possible to cut a series of trial trenches near the river in September and continue with extensive geophysical survey work through October. The latter produced key new evidence about the environs of the Roman town.



Machine trenching exploring riverside deposits at Aldborough.

# **Institute of Continuing Education (ICE)**

GILLY CARR

The Institute of Continuing Education (ICE) offers part-time University of Cambridge awards in Archaeology and Historic Environment at first, second and third-year undergraduate levels. During 2019-20, academic leadership in both Archaeology and Historic Environment was provided by Dr Gilly Carr, University Senior Lecturer in Archaeology.

University of Cambridge awards offered by the Institute include Certificate, Diploma and Advanced Diploma courses. ICE also offers non-accredited short weekly courses, weekends, and online courses at first year undergraduate level. After the arrival of the pandemic in the UK, all teaching moved to remote delivery from March 2020 onwards.

The Certificate in *The Archaeology of the Ancient World*, the Diploma in *Death and the Ancient World* and the Advanced Diploma in Research Methods were successfully offered, as were the Certificate in the *Study of Early Medieval England* and the Certificate in *The Making of the English Landscape*.

Non-accredited courses were offered in Archaeology and Historic Environment. The day school and weekend course programme ceased upon the onset of the pandemic, but student numbers in online courses, where Dr Carr offers courses in Conflict Archaeology and Dark Heritage, markedly increased.



Madingley Hall and grounds.



### **Members**

- Dr Helen Alderson (Museum of Archaeology & Anthropology) Archaeology of Oceania; Micronesia; colonialism
- Dr Oscar Aldred (Cambridge Archaeological Unit) North Atlantic; landscape archaeology; field archaeology; archaeological theory; past movement
- **Dr Martin Allen** (*Fitzwilliam Museum*) Later medieval English coins and tokens
- Dr James Barrett (McDonald Institute)
   Medieval archaeology and historical ecology;
   ecological globalization; comparative study of maritime societies
- Dr Katherine Boyle (McDonald Institute)
   Archaeozoology; environmental archaeology; palaeobiogeography; European prehistory
- Dr Marcus Brittain
   (Cambridge Archaeological Unit)
   Interaction of landscape, memory and identity
   within non-literate societies
- Prof. Cyprian Broodbank (McDonald Institute)
   Mediterranean archaeology and history; Aegean
   prehistory; island archaeology; landscape
   archaeology; comparative world archaeology
- **Dr Judith Bunbury** (*Department of Earth Sciences*)
  Geoarchaeology in Egypt
- Prof. Ulf Büntgen (Department of Geography)
   Environmental systems across space and time;
   dendrochronology
- Dr Gilly Carr (Institute of Continuing Education)
   Archaeology and heritage of WWII, specifically the German occupation of the Channel Islands
- Dr Nikhil Chaudhary (Department of Archaeology) Human evolutionary and behavioural ecology
- Dr Anastasia Christophilopoulou (Fitzwilliam Museum)
   Assistant Keeper/Cyprus Curator
- **Prof. Matthew Collins** (*McDonald Institute*) McDonald Professor in Palaeoproteomics
- Dr Enrico Crema (McDonald Anniversary Fellow)
   Modelling the emergence and evolution of cultural boundaries
- Dr Elizabeth DeMarrais
   (Department of Archaeology)
   Archaeological theory; Andean archaeology; settlement patterns
- Christopher Evans
   (Cambridge Archaeological Unit)
   British archaeology; Nepal; China; Cape Verde
- Dr Paola Filippucci (Murray Edwards College)
   Heritage; battlefields of the Western Front
- Prof. Rob Foley (Department of Archaeology)
   Human evolution
- Prof. Charles French (Department of Archaeology)
   Landscape interpretation; soil micromorphology; scientific rescue archaeology

- Dr Yannis Galanakis (Faculty of Classics)
  Greek prehistory
- David Gibson (Cambridge Archaeological Unit) Neolithic and Bronze Age
- Dr Caroline Goodson (Faculty of History)
   Early medieval Mediterranean; urbanism and built environment; environmental history
- Dr Susanne Hakenbeck
   (Department of Archaeology)
   Early medieval Europe; mortuary studies; archaeological theory; stable isotope analysis
- Dr Jane Humphris (British Institute in Eastern Africa) African archaeometallurgy
- Dr Guy Jacobs (Department of Archaeology)
   Human evolutionary genetics and
   bioinformatics
- **Dr Liliana Janik** (*Department of Archaeology*)

  Archaeological theory; visual cognition in rock art
- Dr Jody Joy (Museum of Archaeology & Anthropology) Senior Assistant Curator of Archaeology
- Dr Richard Kelleher (Fitzwilliam Museum)
   Assistant Keeper, Department of Coins and Medals
- **Dr Mark Knight** (*Cambridge Archaeological Unit*) Prehistoric and wetland field archaeology
- **Dr Kathelijne Koops** (Department of Archaeology) Primatology
- Prof. Christine Lane (Department of Geography)
  Geochronologist and Quaternary Geographer;
  mechanisms, timing and environmental impacts
  of past climatic change
- Prof. Paul Lane (Department of Archaeology)
   Later Holocene archaeology of sub-Saharan
   Africa
- Dr Alessandro Launaro (Faculty of Classics)
   Archaeology and history of Roman Italy;
   landscape archaeology; economic history
- Dr Sam Lucy (Newnham College)
   Anglo-Saxon archaeology
- Dr Augusta McMahon (Department of Archaeology) Mesopotamian archaeology and history; complex society; site biography
- Prof. Marcos Martinón-Torres (Department of Archaeology)
   Archaeological science
- Dr Francesca Mazzilli
   (Cambridge Archaeological Unit)
   Archaeological theory; Roman pottery; Roman religion; Roman Near East; Roman Britain
- **Prof. Jianjun Mei** (*Director, Needham Institute*) Historical metallurgy and materials
- Prof. Martin Millett FBA (Faculty of Classics)
   Social and economic archaeology of the Roman world

- Dr Preston Miracle (Department of Archaeology)
   Palaeolithic and Mesolithic Europe;
   zooarchaeology; ethnoarchaeology;
   palaeoanthropology
- Prof. Marta Mirazon Lahr (Department of Archaeology) Role of East Africa in the evolution of human diversity
- **Dr Philip Nigst** (*Department of Archaeology*)

  Palaeolithic archaeology
- Dr Tamsin O'Connell (Department of Archaeology)
   Diet and nutrition in past and present human populations; stable isotope techniques
- Prof. Clive Oppenheimer (Department of Geography)
   Volcanic & magmatic processes; geoarchaeology; palaeoenvironments
- Prof. Robin Osborne FBA (Faculty of Classics) Iconography of 'everyday life' scenes on Athenian pots; the Classical Body
- **Dr Hratch Papazian** (Department of Archaeology) Egyptology
- **Dr Cameron Petrie** (*Department of Archaeology*)
  South Asian and Iranian archaeology
- **Dr Emma Pomeroy** (*Department of Archaeology*) Bioarchaeology; modern and ancient health; palaeoanthropology; human variation
- Dr Adrian Popescu (Fitzwilliam Museum)
  Ancient coins and medals
- Dr Paola Ricciardi (Fitzwilliam Museum)
   Museum Analytical Lab; cultural heritage
- Prof. John Robb (Department of Archaeology)
   Neolithic Europe; archaeological theory;
   symbolism and agency
- Dr Rihlat Said Mohamed (Department of Archaeology) Comparative human biology
- Dr Marie Louise Stig Sørensen (Department of Archaeology)
   Bronze Age Europe; archaeological heritage studies; archaeological theory
- **Dr Kate Spence** (*Department of Archaeology*) Archaeology of ancient Egypt; urbanism and built environment; social history; art
- **Dr Nigel Spivey** (Faculty of Classics) Etruscan art and archaeology; Greco-Roman art; the anthropology of art
- Dr Jay Stock (Department of Archaeology)
  Bioarchaeology; human osteology; human
  growth and development
- Dr Simon Stoddart (Department of Archaeology) Later European prehistory; landscape archaeology; complex societies; island communities
- Dr Susanne Turner (Faculty of Classics)
   Curator, Museum of Classical Archaeology



# Members (cont.)

- Dr Marc Vander Linden (Department of Archaeology) Late prehistoric Europe
- Dr Dacia Viejo Rose (Department of Archaeology) War-time destruction of cultural heritage and its post-war reconstruction
- Dr Caroline Vout (Faculty of Classics)
- Prof. Eske Willerslev (Department of Zoology) Prince Philip Chair of Ecology and Evolution
- Dr Rob Wiseman (Cambridge Archaeological Unit) Bronze Age Britain; Anglo-Saxon England; archaeological theory; conceptual metaphor and cognitive linguistics; historical linguistics
- **Dr Martin Worthington** (Department of Archaeology) Akkadian language, literature and medicine

# **Senior McDonald Fellows**

- Dr Robert Attenborough (Retiredy) Anthropological and archaeological genetics; evolutionary anthropology; human population biology and health
- Prof. Graeme Barker FBA (Retired) Landscape archaeology (Mediterranean, arid zone, tropical); transitions to farming
- Dr Roger Bland (Retired) Portable antiquities and treasure
- Dr Janine Bourriau (Retired) Egyptology and ceramics
- Prof. Dilip Chakrabarti (Retired) Ancient India
- Dr Christopher Chippindale (Retired) Australian rock art
- Dr Harriet Crawford (Retired) Mesopotamia and Persian Gulf
- Dr Kevin Edwards (Retired) Emeritus Professor of Physical Geography and adjunct Chair in Archaeology, Aberdeen; adjunct Chair in Anthropology at the Graduate Center of the City University New York
- Dr Elizabeth French (Retired)
- Prof. Phil Gibbard (Retired) Pleistocene and Neogene geology
- Prof. Norman Hammond FBA (Retired) Origins, florescence and decline of Maya civilization in Mesoamerica
- Dr Catherine Hills (Retired) Anglo-Saxon England; Europe in migration and early medieval periods
- Prof. Martin Jones (Retired) Archaeobotany; environmental archaeology; early agriculture
- Prof. Barry Kemp FBA (Retired) Egyptology

- Prof. Geoffrey Martin (Retired) Egyptology
- Prof. Nick Mascie Taylor (Retired) Human population biology and health
- Prof. Sir Paul Mellars FBA (Retired) Palaeolithic and Mesolithic archaeology
- Dr Joan Oates FBA (Retired) Mesopotamia and Syria
- Prof Susan Oosthuizen (Retired) Medieval archaeology
- Prof. David Phillipson (Retired) African Archaeology
- Prof. Nicholas Postgate FBA (Retired) Assyriology; social and economic history of Mesopotamia
- Dr Kate Pretty (Retired)
- Prof. Lord Colin Renfrew FBA (Retired) Keros Project
- Dr Jane Renfrew (Retired) Uses of plants by prehistoric people; ancient agriculture
- Dr Colin Shell (Retired) 2D & 3D geophysical survey
- Prof. Anthony Snodgrass FBA (Retired) Boeotia Project
- Dr Janice Stargardt (Retired) Archaeology of South and Southeast Asia
- Prof. Ann Wintle (Retired) Luminescence dating

# **McDonald Research Fellows**

- Dr Andreas Angourakis (Research Associate) TwoRains: Winter rain, summer rain – adaptation, climate change, resilience and the Indus civilization
- Dr Tunde Babalola (Smuts Fellowship, Centre for African Studies) Craft production, specialization and complex societies in West Africa; archaeology of glass making in Ile-Ife, Nigeria; early trade and exchange
- Dr Rachel Ballantyne (Research Associate) Discovering the legacy of historic Atlantic cod exploitation using ancient DNA
- Dr Ema Baužytė (Research Associate) Fitzwilliam Museum
- Dr Trisha Biers (Duckworth Collection Curator) Human osteology; palaeopathology; death and display
- Dr Nick Blegen (Department of Geography) Ashes of our ancestors
- Dr Roger Blench (Kay Williamson Educational Foundation) Linguistics and anthropology in West-Central Africa, Southeast Asia and Peru

· Dr Michael Boyd

(Stavros S. Niarchos Research Fellow) Icon and centre in the Cycladic early Bronze Age

- Dr Philip Boyes (Faculty of Classics) Bronze and Iron Age Levant; Ugaritic writing system
- Dr Sandra Brunnegger (Junior Research Fellow, St Edmunds College) Latin America
- Craig Cessford (Research Associate) After the Plague; health and history in medieval Cambridge
- Dr Francesc Conesa (Research Associate) Long-term land use and water management strategies in arid margin landscapes
- Dr Jenna Dittmar (Research Associate) After the Plague: Health and history in medieval Cambridge; palaeopathology
- Dr Rose Ferraby (Faculty of Classics) Art and archaeology; Roman towns; geophysical
- Dr Sarah Fiddyment (Research Associate) B2C: Beasts to Craft; BioCodicology as a new approach to the study of parchment manuscripts
- Dr Elizabeth Fowden (Faculty of Classics) Impact of the ancient city
- Dr Arnau Garcia (Marie Curie Postdoctoral Researcher) Water management strategies and climate change in the Indus Civilization
- Dr Marc Gener Moret (Marie Curie Postdoctoral Researcher) IBERIRON: The rise of iron technology in pre-Roman Iberia: a large-scale and multidisciplinary approach
- Dr Erik Gjesfjeld (Renfrew Fellow) Modelling technological change with archaeological big data
- Dr Adam Green (Research Associate) TIGRESS: Transforming India's Green Revolution by Research and Empowerment for Sustainable food Supplies
- Dr Robert Harding (University College London) Early South Asia; archaeology of Buddhism
- Dr Nancy Highcock (Research Associate) Materiality and memory of ancient Near Eastern inscribed private objects
- Dr Jeremy Hill (British Museum) Head of Research, British Museum
- Dr Ruiyun Hul (Research Associate) Health and history in medieval Cambridge (genetics)
- Dr Harriet Hunt (Research Associate) Crops, Pollinators and People
- Dr Sarah Inskip (Research Associate) Health and history in medieval Cambridge (palaeopathology)



- Dr Anna Judson (Junior Research Fellow, Gonville & Caius College)
   Writing systems of the Bronze Age Aegean
- Dr Simon Kaner (Director, Centre for Japanese Studies, University of East Anglia)
   Japanese archaeology and cultural heritage; archaeology at the extremities of the Silk Road
- Dr Emma Lightfoot (Research Associate)
   TwoRains: Winter rain, summer rain adaptation, climate change, resilience and the Indus civilization
- Dr Diane Lister (Research Associate)
   Genetic analysis of historical barley landraces;
   spread of cereal cultivation across Europe
- Dr Emma Loftus (Leverhulme Early Career Fellow)
  Earliest human occupation of the shoreline
- Dr Alex Loktionov (Junior Research Fellow, Christ's College)
   Egyptology; Egyptian justice of the third and second millennia BCE
- Dr Beatriz Marín Aguilera (Renfrew Fellow)
   Bodies Matter: A comparative approach to colonial borderlands
- Dr Javier Martinez-Jiménez (Faculty of Classics) Impact of the ancient city
- Dr Piers Mitchell (Department of Archaeology & Consultant Orthopaedic Surgeon, Peterborough)
   Palaeopathology/ancient diseases in humans
- Dr Ioanna Moutafi (Marie Curie Postdoctoral Researcher) MYSOBIO: Deciphering the interplay of funerary treatment and social dynamic in the Mycenaean period
- Dr Nicolas Nikis (Weiner-Anspach Fellow)
   Archaeometallurgy; trade & exchange networks; socio-political organisation of Central Africa; manufacturing processes analyses
- Dr Rune Rasmus Olsen (Research Associate)
   Navigating new economic networks in ancient
   Egypt
- Dr Sam Ottewill-Soulsby (Faculty of Classics)
   Impact of the ancient city
- Dr Sara Owen (Faculty of Classics)
   Greek archaeology; culture contact and exchange; Greek'colonization'
- Dr Eóin Parkinson (CRASSH & British School at Rome) Social and economic change in the Copper Age central Mediterranean
- Dr Monica Ramsey (Marie Curie Postdoctoral Researcher) Increasingly anthropogenic landscapes and evolution of plant food production; humanenvironment interactions during the final

Pleistocene and early Holocene in the Levant

 Dr Jaap Saers (Research Associate)
 Effects of mobility and physical activity on human postcranial skeletal variation · Dr Ester Salgarella

(Junior Research Fellow, St John's College)
Bronze Age Aegean writing systems, especially
Linear A & B

- Dr Julia Shaw (University College London) South Asian archaeology
- Dr Laurence Smith (Independent Scholar)
   Suakin Project
- **Dr Pamela Jane Smith** (*Independent Scholar*) History of archaeology
- Dr Philippa Steele

(Research Associate, Faculty of Classics)
Contexts and relations between early writing systems

- Dr Néhémie Strupler (Swiss National Science Foundation Early Postdoc Mobility Fellowship) SCATTER: The Scaling Territories Project How Bronze Age inhabitants in Anatolia redefined their territories within expanding centralised power? On the traces of human occupation and territorial expansion (claims)
- Dr Federica Sulas (A.G. Leventis Foundation Post-Doctoral Research Associate in African Archaeology)
- Dr Jeremy Tanner (University College London) Greek and Roman art; early Chinese art; sociology of art; comparative art; art and archaeology
- **Dr Matthew Teasdale** (Research Associate) B2C: Beasts to Craft: BioCodicology as a new approach to the study of parchment manuscripts
- Dr Christina Tsouparopoulou (Senior Research Associate)
   Memories for life: Materiality and memory of Ancient Near Eastern inscribed private objects
- Dr Gemma Tully (Research Associate)

  Delivering sustainable heritage of rural Egypt: community and archaology at Tell el-Amarna
- Dr Toby Wilkinson (Junior Research Fellow, Churchill College)
   Near Eastern and Eurasian prehistory; GIS and computational modelling; trade routes and economy; landscape survey
- Dr Rowan Williams (Magdalene College) Master of Magdalene College

# Field Archaeologist in Residence

• Virgil Yendell (MoLA)
Geoarchaeology; modelling past Thames River levels

# **Honorary Research Affiliates**

Dr Ike Achebe (Nnamdi Azikiwe University)
 Theoretical intersections between language,
 material culture, and identity, especially in West
 Africa

- **Prof. Stanley Ambrose** (*University of Illinois*) Archaeological science and geochemistry
- Dr Fred Baker (Independent Scholar)
  Archaeologist and film maker
- Prof. Shadreck Chirikure (University of Cape Town)
  African archaeology
- Prof. Felipo Criado-Boado (Institute of Heritage Sciences; Spanish National Research Council)
   Director on the Spanish National Research Council
- Dr Tina Greenfield

(Cambridge Expedition to the Valley of the Kings and NKRF Mission to the Western Wadis) Egyptian archaeology

- **Prof. Colin Haselgrove** (University of Leicester) Late Iron Age archaeology
- Prof. Christine Hastorf (University of California Berkeley)
   Palaeoethnobotany and Andean archaeology
- Prof. Michael Herzfeld (Harvard University)
   Social theory; history of Anthropology; social poetics; politics of history; Europe (especially Greece & Italy); Thailand
- **Prof. Poul Holm** (*Trinity College, Dublin*) Environmental history
- Dr Evangelina Kiriatzi (Director, Fitch Laboratory, British School at Athens)
   Ceramic technology, petrography and chemical analysis; Bronze Age in the southern Aegean and Macedonia; Co-director, Kythera Island Project
- Piers Litherland (Director, Cambridge Expedition to the Valley of the Kings and NKRF Mission to the Western Wadis)
  Egyptian archaeology
- · Prof. Alessandro Naso

(Director, Institute for Ancient Mediterranean Studies, National Research Council of Italy) Italic cultures; material culture and models of trade

Dr Hector Orengo

(Catalan Institute of Classical Archaeology) Remote sensing applications in archaeology

Dr Anthony Pace

(Superintendance of Cultural Heritage, Malta) Maltese heritage

- Dr Ronika Power (Macquarie University) Biological anthropology
- Prof. Thilo Rehren

(Director of STARC, Cyprus Institute)
Science and technology in archaeology; Culture
Research Centre

· Prof. Robert G. Scaife

(*University of Southampton*)
Palaeoecologist, archaeobotanist; analysis of pollen, diatoms and charred plant remains

• Dr Christiana Schieb (*University* of *Tartu*) Head of Ancient DNA Laboratories



# **Honorary Research Affiliates** (cont.)

- · Prof. Ravindra Nath Singh (Banaras Hindu University) Co-director, Land, Water and Settlement and TwoRains projects
- Prof. Matthew Spriggs (Australian National University) Oceanic archaeology; archaeology and language; meshing of aDNA and archaeological data and theory
- Dr Anna Stevens (University of Melbourne) Deputy Director, Amarna Project
- · María Alicia Uribe Villegas (Director, Museo del Oro, Columbia) Pre-Hispanic goldwork
- Prof. Ezra Zubrow (University at Buffalo) Archaeological theory, with a specific interest on palaeodemography, spatial analysis and simulation

# **Visiting Scholars**

- Dr Miguel Carrero-Pazos (Universityof Santiago de Compostela) Spatial modelling; GIS; megaltihic monuments
- Dr Natalia Equez (University of a Laguna) Ethnoarchaeology of pastoralism; microtaphonomy and biomarkers of organic-rich soils and sediments
- Dr Per Ditlef Fredriksen (University of Oslo) African archaeology; contemporary archaeology; Critical Heritage studies; Iron Age archaeology
- Dr Robert L. Kelly (University of Wyoming) Archaeology, ethnology and ethnography of foraging peoples
- Dr Evita Kalogiropoulou (University of Crete) Geoarchaeology
- Dr Igor Kreimerman (Independent Scholar) Effects of warfare on conquered cities and noncombatant population in Mesopotamia 3rd-2nd centuries BC
- Dr Cynthia Larbey (Independent Scholar) Evolution of the human carbohydrate diet
- Dr Ana Belen Marin Arroyo (University of Cantabria) Subsistence and human resilience to sudden climatic events in Europe during MIS3 -SUBSILIENCE
- Prof. Sæbjørg Nordeide (University of Bergen) Medieval archaeology
- Dr Thomas O'Mahoney (Independent Scholar) Evolutionary anthropology
- Dr Leandro Ranieri (University of São Paulo) Assyrian palace reliefs; Mesopotamian history; Assyriology

- · Dr Marte Spangen
- (UIT, Arctic University of Norway) Isotope and archaeological studies of movements and landscape negotiations in medieval northern Fennoscandia
- Dr Eisuke Tanaka (Fukuoka Jo Gakuin University) Heritage studies; protecting heritage in the context of tourism development in Turkey
- Dr Derya Yilmaz (Ankara University) Anatolia during the Early Bronze Age

#### **Affiliated Scholars**

- Prof. lan Baxter (University of Suffolk) Heritage
- Dr Andrew Bednarski (Gonville & Caius College) Egyptology
- Dr Marie-Françoise Besnier (Independent Scholar) Assyriology
- Dr Letizia Ceccarelli (Independent Scholar) Sanctuaries in Latium vetus, especially the site of Ardea
- Dr Alan Clapham (Independent Scholar) Archaeobotany
- Dr Paola Di Giuseppantonio Di Franco (Marie Curie Postdoctoral Researcher) Digital artefacts: how people perceive tangible cultural heritage through different media
- Dr Jacob Dunn (Anglia Ruskin University) Evolution of communications systems and coat colour in primates
- Dr David Friesem (Independent Scholar) Tropical micro-archaeology, related to 'huntergatherer' use of space
- Barrie Fuller (Chair, Cambridge Archaeology Field Group) Landscape history and field archaeology in a volunteer group capacity
- Dr Jason Hawkes (British Museum) South Asian Archaeology
- Dr Caleb Howard (Tyndale House, St. Edmund's College) Onomastics project
- Dr Sabine Laemmel (Independent Scholar) Ancient Egyptian pottery
- Dr Bryan Lintott (Independent Scholar) Sites, structures and artefacts located in extreme environments beyond national boundaries; ascribed heritage significance
- Dr Ioanna Moutafi (Independent Scholar) MYSOBIO: Deciphering the interplay of funerary treatment and social dynamic in the Mycenaean period
- Dr Jacke Phillips (School of Oriental and African Studies) Suakin project
- Dr Carolyn Rando (University College London) Forensic archaeological science

- Dr Rebecca Roberts (Administrator, ADAPT Project, University of Cambridge) Late Bronze Age to Iron Age land use and subsistence strategies in the Semirech'ye region
- Dr Calum Robertson (Independent Scholar) Heritage and identity in contemporary Scottish society
- Dr Nigel Strudwick (Independent Scholar) Egyptology
- Dr Shadia Taha (Wolfson College) Cultural heritage; ethnography; qualitative research; community engagement; outreach projects
- Simon Timberlake (Independent Scholar) Field archaeology and geology; early metal mining
- Dr Gemma Tully (Independent Scholar) Delivering sustainable heritage of rural Egypt; community and archaology at Tell el-Amarna
- Dr Ann de Vareilles (Independent Scholar) Archaeobotany
- Dr Lucy Walker (Independent Scholar) Archaeolink
- · Dr Jean Wilson (Vice-President, Church Monuments Society) Material culture and imagery of the Early Modern period; funerary monuments in Britain

## **Postgraduate Students**

PhD Students (2019-2020)

- Ethan Aines (Department of Archaeology) The Memory of a Forgotten Landscape. A Sociotopographical Inquiry into the Metal Detected Remains of Later Prehistoric Norfolk
- Camila Concepcion Alday (Department of Archaeology) The Dance of Making Fibres: A Study of the Earliest Plant-Fibre Technology by Marine Hunter-Gatherers on the Pacific Coast of South America
- Helen Alderson (Department of Archaeology) An Archaeology of Artisan Identities and Global Relationships: Case Studies of 19th and Early 20th Century Weavers and Carvers from Pohnpei and Kosrae, Micronesia
- Pablo Alonso Gonzalez (Department of Archaeology) Nation-Building and Cultural Heritage in Post-Colonial Cuba (1898-2014)
- Oliver Antczak (Department of Archaeology) Interrupted Histories, Continuous Feeling: Indigenous Identity Formation and Notions of Heritage in the Southern Caribbean
- Monique Arntz (Department of Archaeology) Beyond Meaning: An Artefact Approach to the Neolithic Figurines from Tell Sabi Abyad (Syria) and Çatalhöyük (Turkey)
- Alex Reina Barker (Department of Archaeology) Humour in Akkadian Literature: A Contextual Analysis



- Flaminia Bartolini (Department of Archaeology) Rome's Divided Memory: Nazi-Fascist Heritage and Post-War Memory Construction in Italy
- Tristan Begg (Biological Anthropology) The Beethoven Genome Project
- **Jeremy Bennett** (Department of Archaeology) Managing the Agrarian Environment in Prehistoric Malta and Gozo
- Hari Blackmore (Department of Archaeology) Worlds of Authority, Communities of Practice, and State Formation in Early 1st Millennium AD Central Korea
- Rachel Kate Blevis (Department of Archaeology) Noise into Signal: Identification Challenges and the Medieval Fishing Revolution
- Alette Anne Blom (Department of Archaeology) A Multidisciplinary Approach to Reconstructing the Lived-experience of Medieval Hansen's Disease (Leprosy) Sufferers
- Kathryn Boulden (Department of Archaeology) A Bioarchaeological Reassessment of Livestock Management Practices between the Neolithic and the Roman Period in Wessex
- · Leah Marion Brainerd (Department of Archaeology) Move On Up: Evaluating the Spread of Agriculture During the Jomon-Yayoi Transition in Japan Through Ideal Distribution and Agricultural Suitability Models
- · Ella Jane Macleod Brown (Department of Archaeology) Functional Adaptation of Trabecular Bone in the Mandibular Condyle of Human and Non-Human **Primate Populations**
- Pippa Browne (Department of Archaeology) An Investigation into the Agency and Operation of Food offerings in Old Kingdom Private Mortuary Cults at Saggara
- Emma Brownlee (Department of Archaeology) Change and Continuity of Burial Practice: A Study of Cultural and Religious Cohesion in Early Medieval Europe
- · Alessandro Ceccarelli (Department of Archaeology) Ceramic Traditions and Ceramic Landscapes of the Indus Civilisation: Investigating the Technologies and Socio-economic Complexity of Rural Pottery Production in Bronze Age Northwest India
- · Petros Chatzimpaloglou (Department of Archaeology) Geological Reconnaissance and Provenancing of Potential Neolithic Lithic Sources in the Maltese Islands
- Margaret Comer (Department of Archaeology) The Heritage of Repression: Memory, Commemoration, and Politics in Post-Soviet Russia'
- Malcolm Connolly (Department of Archaeology) Building a Picture of Desert Abandonment during Extreme Climate Phases. Settlement Patterns and Site Formation Processes in the Desert Uplands 'Refuge', Australia

- **Keziah Conroy** (Department of Archaeology) From Provinciality to Trans-continentality: The **Evolving Scale of Hominin Species Ranges**
- · Laura Elizabeth Courto (Department of Archaeology) Scrimshaw: Unlocking the Cultural and Biological Archive of Sea Mammal Ar
- Thomas Crowley (Department of Archaeology) To Change Is To Be: The Kalasha of Pakistan's Afghan Frontier and the Age of Heritage
- Leah Damman (Department of Archaeology) Buried Together: An Advanced Taphonomic Approach to Human and Animal Co-mingled Fragmentary Interments in Neolithic Britain
- · Sarah Louise Decrausaz (Biological Anthropology) Bringing to Bear: A Biocultural Examination of the Developmental Origins of the Obstetric Dilemma
- Elifgül Dogal (Department of Archaeology) Politics, Identity and Ethics in Heritage Preservation: Managing Archaeological Human Remains in Turkey
- Ningning Dong (Department of Archaeology) Animal Classifications in Prehistory - Case Studies in North China during the Neolithic
- Silvia Ferreri (Department of Archaeology) Symbols as Active Conveyors of Meaning: Kudurrus of Southern Mesopotamia in the Second and First Millennium BC
- Lewis Ferrero (Department of Archaeology) Invisible Craft, Visible Tools: An Investigation of Textile Tools in Iron Age Southern Britain
- Lindsey Jo Fine (Department of Archaeology) Paths to Social Complexity: A Multiscalar Examination of Land Passes in Central Greece
- · Laura Elizabeth Foster (Department of Archaeology) Exploring Transit in Post-Roman Britain: A Theoretical and Methodological Assessment in
- · Dylan Andrew Charles Gaffney (Department of Archaeology) Taking the Northern Route: Research into the Initial Colonisation of Insular Rainforests by Archaic and Modern Humans
- · Devlin Alexander Gandy (Department of Archaeology) Since Time Immemorial: Utilizing Ancient eDNA to Reevaluate Human Presence in the Americas during the Late Pleistocene
- Jason Gellis (Biological Anthropology) Root Problems in Human Variation
- Jonathan R Goodman (Biological Anthropology) **Evolutionary Explanations of Non-semantic** Signals in Human Language
- Peter Griffith (Department of Archaeology) Late Quaternary Habitats of the Nakuru Basin, Kenya: Phytolith Evidence from the Middle and Late Stone Age Site of Prospect Farm

- Rebecca Haboucha (Department of Archaeology) Envisioning Sustainable Heritage in the Face of Climate Change: A Call to Align National Heritage Management Policies across Borders
- Emily Hallinan (Department of Archaeology) Variation and modernity in Stone Age landscape use in the Western and Northern Cape, South Africa
- Mark Haughton (Department of Archaeology) Social Identities and Power in Early Bronze Age Society: A Comparative Analysis of the Construction and Negotiation of Age and Gender Ideologies in the Burials of Ireland and Scotland
- George Robert Heath-Whyte (Department of Archaeology) Bēl and Marduk in the First and Late-Second Millennium BC
- Raphael Henkes (Department of Archaeology) Towards a More Holistic Approach to the Management of Space and Buffer Zones at Difficult Heritage Sites
- Yi-Ting Hsu (Department of Archaeology) Fire Assay, Cupellation and the Dissemination of Technical Knowledge in Post-Medieval Europe
- Katrien Janin (Department of Archaeology) The Evolutionary Role(s) of Integration and Modularity on the Morphology of the Primate Pelvic Girdle
- Friederike Katharina Jürcke (Department of Archaeology) On the Road to Urbanism: Modelling Movement across the Iranian Plateau in the Fourth and Third Millennia BC
- Kyra Elise Kaercher Department of Archaeology) Production and Consumption of Middle Islamic Ceramics (1000-1500 cE) in Western Asia: A View from the Countryside
- Sarah Kaewert (Biological Anthropology) Immune-driven Positive and Balancing Selection in Human Populations
- David Kay (Department of Archaeology) The Changing Rhythms of Settlement and Domestic Space in Marakwet, Northwest Kenya
- Kevin Kay (Department of Archaeology) The Material Politics of Houses at Çatalhöyük, 7000-6300 BCE
- Andrea Kocsis (Department of Archaeology) The Role of WWI Commemorations in National Mythmaking
- Marta Krzyzanska (Department of Archaeology) The Dispersal of Common Buckwheat (Fagopyrum esculentum) across Eurasia, after its Domestication in the 6th Millennium BP in China
- Rafael Laoutari (Department of Archaeology) Social Dynamics in Non-urban Societies: A Multiscalar Analysis of Social Interaction in Prehistoric Bronze Age Cyprus
- Cynthia Larbey (Department of Archaeology) In the Human Past is the Perennial Consumption of Starch a Shallow or a Deep Phenomenon?



# Postgraduate Students (cont.)

- **Joanna Lawrence** (Department of Archaeology) Human Conceptualizations of Non-human Animals in the Scandinavian Bronze Age: Perspectives from Swedish Rock Carvings
- Marissa Ledger (Biological Anthropology) Intestinal Parasites in the Roman Empire, Their Regional Distribution and Ecosocial Determinants
- Samantha Leggett (Department of Archaeology) 'Tell me what you eat, and I will tell you who you are': A Multi-Tissue and Multi-Scalar Isotopic Study of Diet and Mobility in Early Medieval England and its European Neighbours
- Rennan Lemos (Department of Archaeology) Foreign Objects in Local Contexts: Mortuary Objectscapes in Late Colonial Nubia (16th–11th Centuries BC)
- Michael Lewis (Department of Archaeology) Social Transformations and Modes of Ceramic Production during the Fourth-Early Third Millennium BCE in the Shahrizor Plain and Bazyan Valley, Iraqi Kurdistan: A Petrographic and Geochemical Study
- Huiru Lian (Department of Archaeology) Water and City Development in Southeast China: Geoarchaeology Case Study of the Construction, Occupation and Abandonment of the Ancient Liangzhu City
- Alex Loktionov (Department of Archaeology) The Development of the Justice System in Ancient Egypt from the Old to the Middle Kingdom
- Thomas Jacob Matthews Boehmer (Department of Archaeology) Tracking Identity Change and Societal Shift in the Late Iron Age and Early Roman Southern North Sea Basin. Can New and Alternative Narratives Be Constructed to Describe the Archaeological Developments of the Period?
- **Eleanor Maw** (Department of Archaeology) The Yorkshire Wolds: Assessing Continuity and Change in the Rural Iron Age and Romano-British Landscape
- Glynnis Caitlin Maynard (Department of Archaeology) The Yorkshire Wolds: Assessing Continuity and Change in the Rural Iron Age and Romano-British Landscape
- Joanie Meharry (Department of Archaeology) US Archaeology and Cultural Diplomacy in Afghanistan, Iran and Iraq
- Julia Montes Landa (Department of Archaeology) Evolution, Co-existence and Adaptation of Bronze-making Recipes in Prehistory: Northeastern Iberia as Study Region
- **Sara Morrisset** (Department of Archaeology) Art and Collective Identity: Production Processes and Trade in the Ica Valley on the Peruvian South Coast

- Bram Mulder (Department of Archaeology) Functional Adaptation in Cortical and Trabecular Bone. Differential Effects of Mechanical Loading and the Implications for Reconstructions of Past
- **Leanne Joy Munroe** (*Department of Archaeology*) Narratives of Transatlantic Slavery in British Museums
- Herman Muwonge (Department of Archaeology) An Investigation into the Late Quarternary Prehistory of the Albertine Rift Valley, Uganda
- Lucia Nadal Urias (Biological Anthropology) Factors of Craniomandibular Morphological Variation in the Robust Australopithecines
- Chioma Ngonadi (Department of Archaeology) Early Agricultural Communities in Lejja, South-eastern Nigeria: An Archaeobotanical Investigation
- · Bongumenzi Nxumalo (Department of Archaeology) The Role of Hydrological Changes in the Demise of Iron Age State Societies in Southern Africa: An Integrative Study of Mapungubwe, South Africa
- Janine Ochoa (Department of Archaeology) Island Biodiversity and Human Palaeoecology in the Philippines: A Zooarchaeological Study of Late Quaternary Faunas
- Ian Ostericher (Department of Archaeology) Human-Environmental Interaction, Holocene Landscape Development & Sustainable Pastoralism in the Forest-Steppe, Tarvagatai River Valley, Bulgan Aimag, Mongolia
- Peerapat Ouysook (Department of Archaeology) 'I Write Therefore I Am': Reading the Ideologies of Nebuchadnezzar Through His Inscriptions
- Sarah Paris (Department of Archaeology) The Use of Ochre and Taphonomic Processes in **Prehistoric Burial Practices**
- **Eóin Parkinson** (*Department of Archaeology*) Body Size, Skeletal Biomechanics and Habitual Behaviour: A Bioarchaeological Approach to Exploring Social and Economic Change in the Copper Age Central Mediterranean
- Stephanie Payne (Biological Anthropology) Phenotypic Variation and Thermoregulation of the Human Hand
- Georgina Peters (Department of Archaeology) Fantastic Hillforts and Where to Find Them: A Region-based Landscape Analysis of the Iron Age in Britain, and the Methods We Use to Assess the Past
- · Mariana Pinto Leitão Pereira (Department of Archaeology) The Significance of Heritage in Dispersed Communities: Portuguese and Macanese as a Case Study
- Elizabeth Pratt (Department of Archaeology) The Living Stones: Knowing Prehistoric Archaeological Heritage in 21st Century West Cornwall

- Claire Ratican (Department of Archaeology) The Other Body: Persons in Multiple Burials across the Viking World
- Wannaporn Rienjang (Department of Archaeology) Honouring the Body: Relic Cult Practice in Eastern Afghanistan with Comparison to Dharmarajika Pakistan
- Michael Rivera (Biological Anthropology) Exploring Diachronic Changes in Human Activity, Diet and Health on the Prehistoric Baltic Coast
- **Kirk Roberts** (Department of Archaeology) Decoding the Language of the City: An Agentbased Approach to Mesopotamian Urbanism
- Alice Rose (Department of Archaeology) The Black Death in Cambridge: An Isotopic Analysis of Diet and Mobility
- Kim Eileen Ruf (Department of Archaeology) (Re)Use and Valuation of Historic Buildings - A Comparison Between the AHD and Private Individuals
- Sergio Giuseppe Russo (Department of Archaeology) Cultural Variation and Spatial Structures in the Northern Lands: A Geostatistical Application for the Bronze Age Ancient Near East (c. 2350–1550 BCF)
- Jaap Saers (Department of Archaeology) Ontogeny and Functional Adaptation of Human Pedal Trabecular Bone
- Alisa Santikarn (Department of Archaeology) Locating Conflicts in Conservation Values: The Heritage of Elephants in Thailand
- Elena Scarsella (Department of Archaeology) Mediterranean Highlanders: Connectivity and Identity in Late Prehistoric Central Italy
- Christoph Schmidhuber (Department of Archaeology) Childhood in Ancient Iraq: Perspectives from Babylonia in the Second Millennium BC
- Elisa Scholz (Department of Archaeology) A Communications Revolution in the Central Mediterranean?
- Susan Shay (Department of Archaeology) The Right to Control the Land: Heritage and Selfdetermination by Native Hawaiians
- Charles Brendan Simmons (Department of Archaeology) The Evolution of Leadership and Inequality: An Analysis of the Jomon and Yayoi Settlements in Kohoku New Town
- Frances St George-Hyslop (Biological Anthropology) The Role of CNTNAP2 Gene in Human Neocortex Evolution and Development
- Alicia Victoria Stevens (Department of Archaeology) Cultural Heritage, Remembrance and the Peace Process in Post-Junta Myanmar



- Meghan Strong (Department of Archaeology)
   Illuminating the Path of Darkness: Social and
   Sacred Power of Artificial Lighting in Pharaonic Period Egypt
- Akshyeta Suryanarayan
   (Department of Archaeology)
   What's Cooking in the Indus Civilisation? Integrating
   Ceramic Residue Analysis and Bioarchaeology to
   Approach Ancient Indus Food
- Jess Thompson (Department of Archaeology)
   Heads, Shoulders, Knees and Toes: Exploring
   Bodies, Body Parts and Personhood in Late
   Neolithic Malta Through Funerary Taphonomy
- Emily Margaret Carole Tilby (Department of Archaeology) Neanderthal and Modern Human Adaptations to Climate Change in Southwest Asia: Climate Reconstruction of Marine Isotope Stage 5-3 (130–29 ka) Based on Small Mammal Records from Shanidar Cave (Iraqi Kurdistan)
- Thomas Løth Torp-Hansen (Department of Archaeology) Archaeology in the British Mandate of Palestine between WWI and WWI
- Benjamin Joon Utting (Department of Archaeology)
   Exploring Prehistoric Technology at the Tràng An Landscape Complex, Ninh Bình Province, Vietnam
- Laura Van Holstein (Biological Anthropology)
   Correlated Asymmetry in Divergence
- Jasmine Miria Karoliina Vieri (Department of Archaeology)
   Regional and Temporal Patterns in the Composition of Pre-Columbian Gold and Copper Alloys
- Leonora Visoka Weller (Department of Archaeology) Conflict and Contestation of Cultural Heritage in Post-war Kosovo
- Joanna Walker (Department of Archaeology)
   Human-Environment Interactions in the Indus Civilisation: Reassessing the Role of Rivers, Rain and Climate Change in Northwest India
- Kimberley Watt (Department of Archaeology)
   A Sign of the Times: Administration of Monumental Construction During Eighteenth Dynasty Egypt
- Simon M. Weppel (Department of Archaeology) Heritage Temporalities in the Context of Cultural Change: A Russian Case Study
- Emily Wright (Department of Archaeology)
  Dead Bodies, Lived Fictions: Understanding
  Changing Funerary Practices Through
  a Re-examination of the Relationship
  Between Cremation and Inhumation in the
  Mediterranean, 1500–500 BC
- Keaghan Yaxley (Biological Anthropology)
   Investigating Adaptive Zone Shifts With Combined-Evidence Phylogenies

• Camilla Zeviani (Department of Archaeology) Invisible Etruscans: A Study on Etruscan Rural Settlements between the 7th and 6th Century

#### MPhil Students (2019-20)

- Irem Alpaslan Basık (Department of Archaeology)
  The Implementation of the Convention for the
  Safeguarding of the Intangible Heritage: An
  Analysis on Its Spirit and Practice
- Cecilia Daisy Ashton (Department of Archaeology) Divided or united by our past(s)? Uses of Heritage in the Brexit Debate
- Daniele Andrew Borkowski
   (Department of Archaeology)
   The Descent of Innana/Ishtar: A Comparative Study of the Sumerian and Akkadian Poems
- Anna Caltabiano (Biological Anthropology)
   Home Alone: The Critical Role of Snapchat in Maintaining Gen Z Social Relationships Despite Physical Isolation
- Peyton D'Anne Carroll (Department of Archaeology)
   Lithic Technological Change and Behavioural Responses to the Last Glacial Maximum Across Southern Europe
- May Pwint Thair Chu
   (Department of Archaeology)
   O Great Hedjwer, may you reveal the origins
   of the Ancient Egyptian state and kingship!
   Investigating the Relationship between Religion
   and State on the Basis of Baboon Votives from
   Temple Deposits
- James Clark (Biological Anthropology)
   A 2D Geometric Morphometric Comparison of Acheulean Handaxe Shape and Structure Between Africa, the Levant, and Europe
- Rodrigo Eduardo Lope Córdova Rosado (Department of Archaeology)
   New Approaches to the Archaeoastronomy of Chaco Canyon
- Mark Edward Davis (Department of Archaeology)
   A Chemical Study of the Benin Bronzes at the
   Museum of Archaeology and Anthropology in
   Cambridge
- Liam Terence Devlin (Department of Archaeology)
   Antiquity Market Trends in Cycladic Figurines:
   1989–2020
- Miguel José Alexandre Duarte (Biological Anthropology)
   On the Ecological Determinants of Howler Monkey Social Organisation
- Elliot Elliott (Department of Archaeology)
   Necessity or Ritual: Investigating Increased
   Incidence Rates of Multiple Burials in England,
   400–800 CE
- Evdokia Andreevna Findlay (Department of Archaeology) Economic Transactions in Old Babylonian UR: What Are We Missing?

- Joy Taylor Geerkens (Biological Anthropology)
   A Study on the Differing Effects of Acute
   Noise Exposure to Rural and Urban Sounds on Cognitive Performance
- Harry Gillis (Biological Anthropology)
   Born in the Fast Lane? Examining the Association
   Between Birthweight and Physiological and
   Behavioural Traits Related to Life-history Scheduling
   in a Large Monozygotic Twin Cohort
- Ali Giritlioglu (Biological Anthropology)
   The Effects of Humour on Male Dominance,
   Prestige, and Attractiveness and their
   Implications on Intersexual Selection and
   Intrasexual Competition
- Anna Graff (Biological Anthropology)
   Analysis of a Latrine from Late Medieval Brussels for Intestinal Parasites
- Mohammad Raza Haider
   (Department of Archaeology)

   The 'Babylonian Bisitun': Exploring
   Mesopotamian Influences on the Babylonian
   Version of Darius' Bisitun Inscription'
- Laura Elizabeth Hampikian (Biological Anthropology)
   The Makings of Love: The Evolution of Polyamory
- Qiong Han (Department of Archaeology)
   International Textile Trade in the Ancient Near East
- Polly Alice Harlow (Department of Archaeology)
   Language as Intangible Heritage?: The Role of the Archive in the Revitalisation of Jèrriais in Jersey
- Elisa Alice Emily Harrold (Department of Archaeology) The Susa Foundation Charters and the 'Two Faces' of Darius the Great'
- Paul Graham Hasler (Department of Archaeology) Examining the Methodological Approaches Used to Investigate Metalworking Across the Late Roman World
- Casey Ann Haughin (Department of Archaeology) Ancient Material and Contemporary Social Justice Movements: An Assessment of Practices of Display, Engagement, and Interpretation in the 2019–20 Exhibition Troy: Myth and Reality at the British Museum, London, UK
- Megan Healy (Department of Archaeology)
   Guaman Poma and the Narrative Female Body:
   The Subversion of Colonial Power in 'El primer nuevo coronica y buen gobierno'
- Martha Heemskerk (Department of Archaeology)
   User Experience in 3D Digital Models of Cultural Heritage
- Steven James Henry (Department of Archaeology) Indigenous Heritage: Traditional Practice at the Heart of Culture and Nature on World Heritage Sites
- Rachel Sophia Hooper (Department of Archaeology) Identifying the Uniqueness and Potentials of Local History Micromuseums



# Postgraduate Students (cont.)

- Mitch Hubner (Department of Archaeology) 'Sex first, ask questions later'? Interrogating Archaeological Approaches to Sex
- · Kirsten Kennedy Huffer (Department of Archaeology) Community Responses to National Commemorative Gestures
- Ariadin Kiran Jones (Biological Anthropology) Intestinal Parasites in 15th-17th century Flanders: An Analysis of a Cesspit from Kartuizerstraat, Brussels
- Wendy Nicholle Jordan (Department of Archaeology) Metal Connectors: Exploring Sami Trade, Networks, and Relationships Through Metal
- **Hyunjae Kim** (Department of Archaeology) An Analysis of the Transformation of a Traumatic Place into Heritage by the Post-memory Generation
- Hannah Victoria Kirby (Department of Archaeology) Art as an Ideological Tool: Continuity and Change in the Symbolism of Kinship in Ancient Mespotamia from a Postcolonial perspective
- · Athina Konstantara-Kyprianou (Department of Archaeology) Obsidian Provenance Studies in the Eastern Mediterranean and the Near East: Recent Methodology Advances
- Teodora Alexandra Lazar (Department of Archaeology) nhabiting the Space: The Role of Wooden Churches as Commonplaces for the Romanian Diaspora in Turin and Paris
- Shiting Lin (Department of Archaeology) Mighty or Vulnerable? Responses to Evolving Perceptions of Risk at the Great Wall
- Philip Luetgerath (Biological Anthropology) Age at Menarche as Predictor of Adverse Psychological Outcomes in Young Adulthood Within a Life History Theoretical Perspective
- Marc F. Lütolf (Department of Archaeology) Analysis of the Verbal Prefix mu in the Gudea Cylinders
- Aditi Majoe (Department of Archaeology) Lower Palaeolithic Technological Traditions in Kadapa, India
- Alison Elisabeth Manley (Department of Archaeology) Lapis Lazuli Cylinder Seals: Social Identity in Southern Mesopotamia
- Eli Eugene McClain (Department of Archaeology) Implicit Heritage Values in Twenty-First Century Art Museum Databases: Assessing the Presentation of the Chauncey Murch Collections of Egyptian Artefacts in US and UK Online Collections

· Flannery Elisabeth McIntyre (Department of Archaeology)

Materiality and Music: A Making-Based Approach to the Early Medieval Lyre

- Victoria Mitchell (Department of Archaeology) Stately Homes and Colonialism: A New Discourse?
- Emily Rose Moon (Department of Archaeology) Decommissioned Prisons in the UK: The History that Heritage Forgets
- Marianna Emilia Sofia Negro (Department of Archaeology) Museum Collections of Italic Bronze Figurines: An Evaluation of the Relationship Between Object Collection and Colonial Identity
- Matthew John Parkes (Department of Archaeology) Understanding Early Mesopotamian Private Chapels: Family, Economy and Politics
- Aidan Pierce (Biological Anthropology) Modelling Gene Expression Microevolution Within Island and Village Level Populations in Rural Indonesia
- Philippa Lucy Prior (Department of Archaeology) The Heritage of Churches: An Examination of Abandoned, Repurposed, and Newly Built Churches in the United Kingdom
- · Marja Ronnholm-Howland (Department of Archaeology) Developments in Saami Research from 1990 to 2020
- Penelope Lucy Ryan (Department of Archaeology) What Can Archaeological Approaches to Magic, Ritual, and the Practices Associated with Religion Tell Us about Belief in the Byzantine Empire in the Sixth and Seventh century?
- Caroline Elisabeth Schwarting (Department of Archaeology) A Technological Assessment of Figurative Mobiliary Art: Insights into Cultural Exchange in the Palaeolithic of the North-Western Alps
- James Henry Scott (Biological Anthropology) Rock, Paper, Cleavers: A Novel Experimental Protocol for Investigating the Cognition of Lithic Manufacture
- Sophie Scott (Department of Archaeology) 'The Gifts of our Ancestors': Katzie First Nation Eco-Cultural Restoration as Challenging Nature/ Culture Dualism in Heritage Discourse
- Molly May Sheldrake (Department of Archaeology) Micromorphology in Archaeology: Reconstructing Built Space Through the Analysis of Floors and Occupation Debris - A Case Study from Etruscan Tarquinia'
- Kavya Shrikanth (Biological Anthropology) Colour Coded: A Contextual Analysis of the Uses of Pigments in the Upper Pleistocene
- · Robert Kenneth Sinclair (Department of Archaeology) Reconsidering Post-industrial Heritage as a Tool of Political Protest: The Trade Union Banners at the 'With Banners Held High' Festival

- · Margaret Grace Sullivan (Department of Archaeology) Too Many Rats, Not Enough Cats: A Historiography of Archaeological Thought about the Black Death
- Yiqiu Sun (Department of Archaeology) The Role of Ancestral Halls in Heritage Contestation in Communist and Contemporary China
- · Kirsten Audrey Sutherland (Biological Anthropology) Secondary Sexual Development in Howler Monkeys: The Relationship Between Testosterone, Coat Colour, Hyoid Volume and Canine Strength
- Lauryn Maya Thomas (Department of Archaeology) Curatorial Intent in the Use of Immersive Technologies: An Analysis of Museum and Heritage Visitor Engagement
- Alison Tyler (Department of Archaeology) (Re)Claiming the Past: Unpacking the Dynamics Behind Italy's Repatriation Efforts
- · Matthew George Alain Van Schalkwyk (Biological Anthropology) Southern and Eastern African Corridors, Refugia, and Dead-ends During the Plio-Pleistocene: Implications for the Dispersals of Australopithecus and Paranthropus
- Benton Louis Walters (Biological Anthropology) Understanding Oldowan Lithic Production and Site Formation Behaviour: An East African Comparative Perspective
- Isabel Wessel (Department of Archaeology) Unity or Diversity? How Heritage Institutions Have Responded to the 2016 EU Referendum
- · Harrison Clarke Weston (Department of Archaeology) Predicting the Impact of Permafrost Thaw on Archaeological Heritage Preservation in the Darkhad Valley, Mongolia
- · Emma Patricia Mary Williams (Department of Archaeology) The Reuse of Sculptural Representations of Isis as Images of the Virgin Mary in Late Antique Egypt
- Mila Simone Wolpert (Department of Archaeology) Navigating Identity in Project Yugoslavia: Recollections on Yugoslav Heritage
- · Ella McCafferty Wright (Department of Archaeology) Talatat Temples in Nubia: Evidence for Revolution and Reform on the Periphery of Empire
- Yishan Xie (Department of Archaeology) Reconstructing the Identity of Hana, From the **Emic Perspective**
- Abaan Nawab Zaidi (Department of Archaeology) Whose Art Is It Anyway? Function, Meaning, and the Role of Biopolitics in Achaemenid Imperial Iconography"
- Fang Zhai (Department of Archaeology) 'Chinese' In Making: Identity-making Through The First Six UNESCO World Heritage Sites in China During 1980s



# **Archaeological Science Laboratories**

MARCOS MARTINÓN-TORRES

The Laboratories for Archaeological Science and Biological Anthropology at the University of Cambridge offer stateof-the-art resources for the integrated analytical study of inorganic and organic materials to reconstruct landscapes, technology, mobility, domestication, diet, human evolution and cultural transmission, and the use of computational methods to model and analyse data at all scales. We run facilities for preparation and analysis of archaeological, anthropological and environmental materials for macroand microstructural examination (2D and 3D), chemical and isotopic composition, ancient DNA and protein extraction, as well as high-performance computing. Our vision is the integrated use of relevant scientific methods to enrich archaeological, bioanthropological and palaeoanthropological research, crossing divides between organic and inorganic specializations and upholding the highest standards of scientific practice. Distributed across the department, the laboratory facilities we run span almost 700 square metres, but of course it is the people working in them, and their research, that matters the most.

#### **New blood**

We feel very privileged that our community is constantly enriched by brilliant individuals who come to work with us and share their multiple talents. The Director's Introduction to this Annual Report lists new appointments, but we are compelled to make our own highlights here. Several new staff members are connected to archaeological and bioanthropological sciences, including Guy Jacobs (Lecturer in Human Evolutionary Genetics and Bioinformatics), Rihlat Said Mohamed (Lecturer in Comparative Human Biology), Marta Muñoz-Alegre (Technician in Biomolecular Lab) and Giuseppe Castelli (Technician in Palaeoanthropology Lab).

Among the postdoctoral research fellows joining us this year, Carmen Ting took up her Renfrew Fellowship to start



Repatriation ceremony at the Duckworth Collection, with visitors from the Office of Hawaiian Affairs and the University.

work on her project *The making of Islamic glazes: From the Silk Road to al-Andalus.* Nicolas Nikis has been working on copper trade routes in Central Africa as a Wiener Anspach Fellow. Ema Baužytė is analysing prehistoric metalwork from Cyprus, Sardinia and Crete as part of the *Being an Islander* project, which will conclude with an exhibition at the Fitzwilliam Museum. Federica Sulas joined us as an A.G. Leventis Fellow to research water and urbanizing landscapes in sub-Saharan Africa. In addition, two research associates joined the ERC-funded *B2C* project team, which is developing 'biocodicology' as a new approach to parchment manuscripts: Matthew Teasdale is exploring aDNA survival and recovery, while Sarah Fiddyment works on palaeoproteomics.

There is also a good number of new PhD students in our labs. Among them, as part of the the SeaChanges Innovative Training Network funded through the Marie Skłodowska-Curie actions, Rachel Blevis is focusing on the osteometric and quantitative image analysis of archaeological fish bones and Laura Courto is examining the Scrimshaw Collection at the Scott Polar Research Institute. Leah Brainerd is working on computational models of rice and millet productivity during the Jomon to Yayoi transition in Japan as part of the ERC-funded *ENCOUNTER* project. Alette Blom is taking a multidisciplinary approach to reconstruct the lived experience of medieval Hansen's Disease and leprosy sufferers. Lucia Nadal-Urias is working on craniomandibular variation in the robust australopithecines.

#### Expanding the range of our research

Last year we reported on the major refurbishment and expansion of our laboratories. We are very pleased to see the new opportunities and synergies that have emerged, while we keep refining and developing our facilities.

At the Glyn Daniel Laboratory, our Keyence super resolution 3D microscope is proving increasingly popular among researchers working with metals, ceramics and microfauna, among other materials. On p. 34 we highlight Marc Gener-Moret's high-magnification maps of the complex metallographic sections of Iron Age swords. We have also upgraded our Hitachi scanning electron microscope with a new Oxford Instruments energy dispersive spectrometer that allows us to carry out elemental analyses and compositional mapping on microscopic samples and small objects.

The Pitt-Rivers Laboratory continues to host a multidisciplinary user base of materials scientists and archaeobotanists, among others. Here, Catherine Kneale has been busy with our Olympus Vanta portable XRF, which she has calibrated for the analysis of metals and obsidian using international sets of reference materials (CHARM for copper alloys and PYRO for obsidian). She has also carried out a major campaign of analysis of obsidian from Tell Brak. In parallel, Ema Baužytė calibrated the Artax XRF system at the

Fitzwilliam Museum using the same set of standards, to make sure results from both laboratories are compatible.

At the Charles McBurney Laboratory for Geoarchaeology, Tonko Rajkovaca broke his own record and produced 420 thin-section slides, mostly of soils and sediments but also spanning from rocks to pig bones. Our capability to produce archaeological thin sections has been further expanded thanks to Carmen Ting's expertise, and our PetroThin machine is in full use with Kyra Kaercher, Mike Lewis and others joining Carmen in preparing thin sections of ceramics from Iraq to Central Asia.

The Henry Wellcome Laboratory for Biomolecular Archaeology has also seen very significant developments. Working for the B2C project, but providing broader opportunities for all, Sarah Fiddyment and Matthew Collins implemented the eZooMS protocol at Cambridge, setting up a new collaboration with the Department of Chemistry for the use of MALDI-TOF/TOF. Sarah and Matthew Teasdale collaborated with the University Library and Clare College to develop new research into their parchment holdings.

The Computational and Digital Archaeology Laboratory continues to develop creative solutions to archaeological problems, and Enrico Crema's ENCOUNTER project is innovating in modelling demographic changes and the spread of rice and millet in East Asia. A particular highlight this year is the collaboration between Hector Orengo, Francesc Conesa, Arnau Garcia and Cameron Petrie to develop new methods for detecting archaeological sites using machine learning and big data sets, leading to an important publication.

The **Duckworth Laboratory** has seen considerable increase in access requests to research the collections from both local and international scholars. Curator Trish Biers is joined by new administrator Josh Giles and new technician Giuseppe Castelli to facilitate collections work. In February delegates from the Office of Hawaiian Affairs visited the Duckworth for a ceremony of transfer of ancestral remains.

The Dorothy Garrod Laboratory for Isotopic Analysis has continued with a range of isotopic analyses of organic materials. Beyond our standard palette, Alice Rose and Tamsin O'Connell have been working with Sasha Turchyn and her group in Earth Sciences on strontium and heavy metal analyses of teeth as part of the 'After the Plague' project.

We also reach out to colleagues in other Departments for additional expertise and facilities. These include, among others, Materials Science and Metallurgy (for SEM-EDS and microhardness testing), Chemistry (for ZooMS, as noted above) and Earth Sciences (through our long-standing mass spectrometry collaborative agreement with the Godwin Laboratory, and where Yi-Ting Hsu is carrying out ICP analyses of post-medieval assaying remains and Carmen Ting is piloting Qemscan as an automated mineral identification system on ceramics).



Marissa Ledger using the microscope in the Ancient Parasites Laboratory.

Next year we will report in more detail our collaborations with collections, museums and other institutions in Cambridge and beyond, which are becoming more numerous and stronger.

#### Grants and projects: some highlights

From multi-million projects to small bursaries and informal collaborations, we believe every one of our projects brings something valuable to research, training and dissemination. Some have reached their end this year, whereas others are only beginning. Hopefully the following selection gives a flavour of what we have been up to, and of some of the things to come:

- Charles French and collaborators completed major publications for the FRAGSUS project for Malta and Gozo, in addition to over 20 micromorphology reports on sites such as Aldborough, Avebury, Col di Marzo, Lakenheath, Jersey, Skrivarhellen and Tarquinia.
- In collaboration with colleagues at the Max Planck Institute for the Science of Human History, Piers Mitchell and his team have been the first in the world to determine the intestinal microbiome of past populations from mixed faecal material preserved in latrines, using microscopy, ELISA and aDNA to identify parasites, bacteria, viruses, fungi and archaea.
- With funding from the NERC Environmental Isotope Facility, Danny Buss and Tamsin O'Connell conducted sulphur isotope analysis of bone collagen and baleen to look at niche partitioning of baleen whales in the polar South Atlantic during the commercial whaling period.
- As part of her AHRC-funded doctoral project, Jasmine Vieri travelled to the Gold Museum in Bogota to advance her meta-analysis of thousands of analyses of Pre-Columbian goldwork recovered in the region.





Diane Lister and collaborators from Yunnan Agricultural University and Kyoto University, collecting buckwheat samples in the field in Yunnan, October 2019.

- Harriet Hunt and Diane Lister, together with colleagues from Yunnan Agricultural University and Kyoto University, collected buckwheat samples in Yunnan for DNA analysis as part of the 'Buckbee' project.
- Funded as an Erasmus+ project, the HERISTEM project (STEM in Heritage Science), led by Charles French, Tonko Rajkovaca and Marcos Martinón-Torres in collaboration with S. Babic (Institute of Archaeology, Belgrade), has begun to bring archaeological science to heritage students and professionals.
- With multiple collaborators, Charles French and Tonko Rajkovaca have developed additional funded projects in eastern Europe to investigate, among others, the geoarchaeology record of Neolithic Drenovac in Serbia, and human–environment interactions in northern Bosnia.

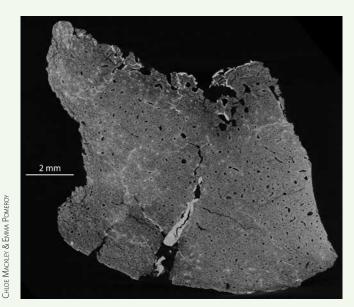


Image of the bone histology of the Shanidar 6 Neanderthal, generated using micro-CT scanning.

- Emma Loftus was awarded a British Institute of East Africa Thematic Grant and a British Academy Small Grant to pursue fieldwork in KwaZulu-Natal, exploring the lifeways of southern Africa's earliest agriculturalists.
- With funding from the British Association of Biological Anthropology and Osteoarchaeology, Sam Leggett started collaborative isotopic analyses of human remains to understand first-millennium AD mobility in Spain.
- Building on earlier research by the Land, Water and Settlement and TwoRains projects, Cameron Petrie and Hector Orengo (ICAC, Tarragona) have started their major project Mapping Archaeological Heritage in South Asia, with generous support from the Arcadia Foundation.
- Marc Gener-Moret established multiple partnerships with Spanish museums, most notably the Prehistory Museum of Valencia, to study protohistoric iron artefacts from non-funerary contexts.
- Rebecca Roberts and Marcos Martinón-Torres established a collaboration with the Fitzwilliam Museum and the Government of East Kazakhstan to conduct scientific research on artefacts for the forthcoming exhibition 'Gold of the Great Steppe', which will present newly excavated Iron Age Saka-Scythian assemblages.
- Emma Pomeroy and Graeme Barker were awarded new funding from the John Templeton Foundation to continue research at Shanidar Cave, Iraqi Kurdistan, in particular to continue excavations and work on the conservation, reconstruction and analyses of the new Neanderthal remains recovered by the team since 2015.

#### **Awards**

Sam Legget was the winner of the 2020 Student Award of the European Association of Archaeologists with her paper 'Tackling Early Medieval Transitions Using a Hierarchical and Multi-isotope Approach'. The Chair of the award committee commended her pioneering use of unsupervised machine learning to analyse biomolecular data, as well as her ability to 'embrace the complexity of her data and allow it to feed into equally complex, and entirely social, conclusions'.

We were delighted but not surprised that Enrico Crema was recognized with a 2019 Philip Leverhulme Prize in Archaeology – an award for early career researchers whose work has had international impact and whose future career is exceptionally promising.

On behalf of a large collaborative team working on the reverse engineering of the Chinese Terracotta Army, Marcos Martinón-Torres collected the 2019 Pineapple Science Award in Chemistry, given by the Zhejiang Association for Science and Technology in China to 'imaginative, unexpected and far-reaching scientific achievements'.

#### Conferences, workshops and networks

The worldwide pandemic made this a challenging year for academic conferences, and many of the largest events we attend regularly had to be cancelled. However, we still managed to organize and contribute to a range of events.

Yi-Ting Hsu, Jasmine Vieri and Julia Montes-Landa organized and hosted at the McDonald Institute a very successful Research in Progress Meeting of the Historical Metallurgy Society, where Jane Humphris gave the introductory lecture outlining her team's work on iron in Meroe, and Marcos Martinón-Torres gave the closing remarks.

Also at Cambridge, Francesc Conesa, Arnau Garcia, Hector Orengo and Cameron Petrie organized a workshop on 'Computational approaches to archaeological site detection and monitoring' which showcased talks ranging from the conceptual basis behind site detection technologies through data validation and groundtruthing, to future horizons.

Another notable achievement on the conference front was the publication of New Frontiers in Archaeology: Proceedings of the Cambridge Annual Student Archaeology Conference 2019, edited by PhD students Kyra Kaercher and Monique Arntz.

We also offered presentations at established conferences such as the Annual Meeting of the European Association of Archaeologists (Carmen Ting), the Association for Environmental Archaeology (Monica Ramsey), the World Marine Mammal Conference (Danny L. Buss) and the International Congress Society of South Asian Archaeology (Cameron Petrie), in addition to seminars at other institutions and events, including Bournemouth University (Carmen Ting), Washington State University (Monica Ramsey), Utrecht University (Marcos Martinón-Torres), the British Academy's 'Microscopic Records' (Marc Gener-Moret) and the Spanish National Institute for Cultural Heritage (Marc Gener-Moret).

Several visiting researchers spent some time in our laboratories, conducting research, being trained, or interacting with us in various other ways. We are grateful for their visit and hope to see them again soon. As a longterm visiting scholar, Ana B. Marín-Arroyo collaborated with Tamsin O'Connell on the isotopic analysis of animal remains consumed by Neandertals and modern humans, as part of the ERC-funded 'Subsilience' project. We were very pleased to welcome David Killick (University of Arizona), who tirelessly responded to our numerous



Delegates at the Historical Metallurgy Society Research in Progress Meeting.

requests for advice on research and lab developments. We also hosted Vangelio Kiriatzi, Director of the Fitch Laboratory of the British School at Athens, who worked with Cyprian Broodbank on joint projects and shared her expertise in ceramics more generally, and Marte Spangen from the Arctic University of Norway, who worked with James Barrett and the members of the Dorothy Garrod Lab. PhD students Haruka Yamaguchi (University of Tokyo) and Lisa Strand (University of Trondheim) came to work at the Dorothy Garrod Lab on isotopic analyses, under the guidance of Tamsin O'Connell and James Barrett, respectively.

As new people joined us, inevitably others moved on as they completed their theses or postdoctoral projects. Among the PhD students, we celebrated the graduation of Alessandro Ceccarelli (who researched Indus ceramics), Jeremy Bennett (terracing in the Mediterranean), Matthew Dalton (Nubian settlements), Bongumenzi Nxumalo (agriculture in Mapungubwe), Marissa Ledger (Roman intestinal parasites) and Akshyeta Suryanarayan (Indus pottery residues). Some of the postdocs who moved on include Arnau Garcia, Francesc Conesa, Miguel Carrero (all engaging in various forms of remote sensing and computational archaeology), Pau Sureda (archaeometallurgy), Emma Lighfoot (stable isotopes) and Rachel Ballantyne (archaeobotany). All of them were great elements of our critical mass who will no doubt enrich their next teams. We ought to thank Rachel in particular for her selflessness and enormous contribution across the board.



#### **DM McDonald Grants and Awards**

The Institute supports field projects and other research initiatives of the University of Cambridge archaeologists through its annual grants from the DM McDonald Grants and Awards Fund. Grants totalling over £39,000 (£37,754 for fieldwork and £1900 for conferences) were awarded during this period. Two £10,000 Conference Competition awards were also made: one to Beatriz Marín-Aguilera for Frontiers and Borderlands in Archaeology: Material Culture, Imperialism, and Decolonial Approaches and one to Christopher Evans for 'Two Worlds: Research Innovation and Commercial Success in Archaeology. Celebrating and Reflecting on 30 years of the Cambridge Archaeological Unit.' As a result of Covid-19 restrictions some award money was returned and several extensions were granted.

#### **Projects**

- Babatunde Abidemi
   Community archaeology and site
   conservation in southern Nigeria
- Graeme Barker
   Neanderthal life and death at Shanidar
   Cave (Iraqi Kurdistan)
- Jenna Dittmar

  Exploring tuberculosis in Bronze Age
  Chinai
- Charles French
  Deciphering the origins of the sediment
  complex at the Neolithic settlement site
  of Drenovac in the Morava valley, Serbia
- Harriet Hunt
   Beyond domestication centres:
   establishing the chronology of
   buckwheat in China
- Paul Lane
   An archaeological investigation of multiple human burials, Baawa Cairnfield, Kenya

- Augusta McMahon
   Lagash Archaeological Project (LAP),
   2020 excavation
- Martin Millett
   Aldborough Roman Town excavation
   2020
- Hratch Papazian
   Magnetometric and photogrammetric survey of the Sinki Pyramid in Abydos
- Marie Louise Sørensen & Christopher Evans
   Early Portuguese-Luso African relations
- at Alcatrazes, Cape Verde, Phase II
- Simon Stoddart Comparing powerful Etruscan places: Perugia and Tarquinia
- Selena Wisnom 'Firing holes' in cuneiform tablets: materiality, form, and function

#### Conferences

Alexandre Loktionov
 3rd Lady Wallis Budge Egyptology
 Symposium: Compulsion and Control in Ancient Egypt

#### Simon Stoddart

Italy Before History: new research and new perspectives on Iron Age Italy

#### 10.000 Conferences

Beatriz Marín-Aguilera
 Frontiers and Borderlands in
 Archaeology: Material Culture,
 Imperialism, and Decolonial Approaches

### **Christopher Evans**

Two Worlds: Research Innovation and Commercial Success in Archaeology. Celebrating and Reflecting on 30 years of the Cambridge Archaeological Unit



# **Research Grants**

#### • Dr James H. Barrett

Catching the past: Discovering the legacy of historic Atlantic cod exploitation using ancient DNA (University of Oslo - FB Research Council of Norway)

#### • Dr James H. Barrett

SeaChanges: Thresholds in human exploitation of marine vertebrates (EC H2020 MSC ITN)

#### • Dr James H. Barrett

Foodimpact: the impact of food culture in medieval (University of Oslo – FB Research Council of Norway)

#### · Dr Michael J. Boyd

Keros-Naxos Seaway project (Packard Humanities Institute)

#### · Dr Michael J. Boyd

The Keros–Naxos seaways and the origins of cult at the Kavos Sanctuary (British Academy)

#### • Prof. Cyprian Broodbank

Cyprus in the Eastern Mediterranean project (Pouroulis Foundation)

#### Prof. Cyprian Broodbank

Promoting archaeological material science in the eastern Mediterranean (EC H2020 Spread Excellence & Widen Participation SEP, Twinning)

#### • Dr Gilly Carr

Sites at risk: Guidelines for best practice (IHRA)

#### • Prof. Matthew Collins

Beasts to craft: BioCodicology as a new approach to the study of parchment manuscripts (EC H2020 ERC Advanced)

#### • Dr Francesc Conesa

Long-term land use and water management strategies in arid margin landscapes (EC H2020 Marie Skłodowska-Curie)

#### • Dr Enrico Crema

Encounter: Demography, cultural change, and the diffusion of rice and millets during the Jomon-Yayoi transition in prehistoric Japan (EC H2020 ERC Starting)

#### • Dr Enrico Crema

Philip Leverhulme Prize (Leverhulme Trust)

#### Prof. Charles French

STEM in Heritage Sciences (ERASMUS)

#### Dr Arnau Garcia

Water management strategies and climate change in the Indus Civilisation (EC H2020 Marie Skłodowska-Curie)

#### • Dr Marc Gener-Moret

The rise of iron technology In pre-Roman Iberia: A large-scale and multidisciplinary approach (EC H2020 Marie Skłodowska-Curie)

#### • Prof. Martin Jones

Crops, pollinators and people: The long-term dynamics of a critical symbiosis (Leverhulme Trust)

#### · Prof. Marta Lahr

Wisdom Teeth (University of York - FB NERC)

#### · Prof. Paul Lane

Rising from the depths: Utilising marine cultural heritage in East Africa to help develop sustainable social, economic and cultural benefits (University of Nottingham – FB AHRC)

#### • Prof. Paul Lane

Indigenous wells as pastoralist biocultural heritage: Community archaeology for sustainable development in northern Kenya and southern Ethiopia (British Institute in Eastern Africa - FB British Academy. Sustainable Development Programme 2018)

#### · Prof. Paul Lane

The Freedom Villages of Senegal: Examining the intersections of heritage, arts, and contemporary antislavery campaigning (Alborada Foundation)

#### • Prof. Paul Lane

Human origins in southern Africa project (Pouroulis Foundation)

#### • Prof. Paul Lane

African Archaeology post-doc (A. G. Leventis Foundation)

#### · Prof. Paul Lane

Community heritage and education for sustainable development in Tanzania (Research England)

#### • Dr Emma Loftus

Coastal origins: Earliest human occupation of the shoreline (Isaac Newton Trust and Leverhulme Trust)



#### • Dr Emma Loftus

Farmers at the shoreline: Exploring the lifeways of southern Africa's earliest agriculturalists (British Academy)

#### • Dr John Macginnis

Ziyaret Tepe archaeological project (Ziyaret Tepe Archaeological Trust)

#### • Prof. Marcos Martinón-Torres

Archaeological science and globalisation: A case study of crucibles and metallurgical artefacts from Great Zimbabwe World Heritage site (Royal Society)

#### • Dr Ioanna Moutafi

MYSOBIO: Deciphering the interplay of funerary treatment and social dynamics in the Mycenaean

(EC H2020 Marie Skłodowska-Curie)

#### • Dr Cameron Petrie

Winter rain, summer rain: adaptation, climate change, resilience, and the Indus Civilisation (EC H2020 ERC Consolidator)

#### • Dr Cameron Petrie

Transforming India's Green Revolution by research and empowerment for sustainable food supplies (BBSRC)

#### • Dr Cameron Petrie

Enhancing Bridget Allchin's 1951 photographic collection of the collections of the National Museum of Afahanistan (British Academy)

#### · Dr Cameron Petrie

Environmental adaptation and resilience to climate change: Investigating the sustainability of the Indus Civilisation

(British Council India – UKIERI)

#### • Dr Emma Pomeroy

A reassessment of Neanderthal mortuary behaviour at Shanidar Cave, Iraqi Kurdistan (British Academy)

#### Dr Monica Ramsey

H-E Interactions: Increasingly anthropogenic landscapes and the evolution of plant-food production: human-environment interactions during the final Pleistocene and early Holocene in the Levant (EC H2020 MSC Fellowship)

#### Prof. Lord Colin Renfrew

Keros, antecedents of urbanism at the world's earliest maritime sanctuary (A. G. Leventis Foundation)

#### • Dr John Robb

After the plague: Health and history in medieval Cambridge (Wellcome Trust Collaborative Award)

#### Dr John Robb

Health, history and human lives in medieval Cambridge (Wellcome Trust)

#### • Prof. Marie Louise Stig Sørensen

Yangshao culture: 100 year research history and heritage impact (Shanghai Academy of Guyewang Studies)

#### Dr Jay Stock

ADAPT: Adaptation, dispersals and phenotype: understanding the roles of climate, natural selection and placticity in shaping global hunter-gatherer adaptability (EC FP7 ERC Consolidator)

#### • Dr Jay Stock

SBE-RCUK: Collaborative Research: The effects of mobility and physical activity on human postcranial skeletal variation (BBSRC)

#### • Dr Christina Tsouparopoulou

Memories for life: Materiality and memory of ancient Near Eastern inscribed private objects (Uppsala University – FB Swedish Research Council)

#### Dr Christina Tsouparopoulou

Plotting the material flows of commonplace Late Bronze Age seals in Western Eurasia (EC H2020 Marie Skłodowska-Curie)



#### B2C - Beasts to Craft

MATTHEW COLLINS

Though affected by the Covid-19 pandemic, 2019/20 has still been an exciting and productive year for the B2C project. It started with the third B2C workshop held at the National Museum of Natural History in Paris, France (October 2019), which brought together geneticists, archaeologists, conservators and parchment scholars to discuss how parchment documents can be used as a biobank of genetic information. The following month, the B2C team at Cambridge participated in the kick-off meeting of their sister project ArcHives, which hopes to explore the biomolecular information contained within wax seals attached to parchment documents.

Much of the early part of 2020 was then spent communicating remotely due to the Covid-19 lockdowns; however, the reduction of restrictions allowed B2C member Jiří Vnouček in collaboration with the University of Namur to hold a parchment-making workshop:

#### https://youtu.be/\_TmyEiVUTlg

This week-long event allowed conservators and archaeologists to collaborate with physicists and manuscript historians to produce a sheep and a goat parchment each. This practical craft experience enabled the participants to appreciate how the various traces left during the parchment production process can be used to understand historic documents more fully. Jiří has also, during summer and autumn 2020, prepared a collection of 30 parchments, which are now available for various biomolecular analyses by the B2C project. Having a modern reference collection of parchments of known liming conditions, made from animals of known breed, age, size, sex will allow the B2C project to understand in more detail the molecular changes that occur during the parchment production process.

This project has received funding from the European Union's EU Framework Programme for Research and Innovation Horizon 2020 under Grant Agreement no. 787282.



**Participants** of the B2C and University of Namur parchmentmaking workshop and their parchments.

**Finished** parchments ready to join the **B2C** Parchment collection.



# **HERISTEM: STEM in Heritage Sciences**

CHARLES FRENCH

The HERISTEM project is a strategic framework for developing the application of STEM sciences in heritage disciplines at HE levels and in working environments. Today, there are no single HEs in Europe at the level of individual faculties and departments which can effectively educate students in all domains of knowledge and methods needed in contemporary heritage research, protection and management. By creating a strategic partnership between a number of institutions, the project aims to provide effective transfer of knowledge, skills and good practices, primarily for students of heritage sciences, but also for other professionals who collaborate with HEs. One of the principal goals is to increase heritage students' capacities in job markets, equipping them with STEM knowledge, capacity and skills.

The activites of *HERISTEM* will revolve around four major groups of topics:

- Remote and geophysical sensing in archaeology
- Digital recording, digital presentations and communication, including 'Big data', 3D scanning and virtual reality
- Object analyses and restoration (chemical and petrological analyses of materials; biological analyses of plant, animal and human remains; dating; provenance analyses)
- Entrepreneurship in preventive strategies in heritage practice

The idea is that students from all nine partner institutions may take part in the courses that are regularly taught at those universities. To date, there have been workshops for: E-learning for teachers at the University of Zagreb, Croatia (30 January–1 February 2019); remote sensing techniques, also at Zagreb (3–10 February 2019); and a one-day online introductory course in Bioarchaeology at the Universities of Belgrade and Ljubljana (7 November 2020). More courses and exchanges are planned, both online and in the field, such as for geoarchaeology and landscape archaeology, artefact analytical procedures and conservation, and museum data management, with a final museum exhibition and conference in Belgrade.

Funded by the Erasmus+, Grant Agreement 2019-1-RS01-KA203-000901.



The E-learning workshop in Zagreb in January, 2020, with group teaching design projects under discussion.

# Port Stanley, Falkland Islands

Marcus Brittain (*Cambridge Archaeological Unit*) & Timothy Clack (*St Peter's College, Oxford*)

Owing to proposed groundworks for new residential housing on the western outskirts of the port town of Stanley, the Islands' first archaeological excavations took place on the site where remains survive of the last one-third of Britain's most southerly military camp of the Second World War. This was established in 1942 as Force 122 and was occupied by a battalion of 1800 troops of the West Yorkshire Regiment until 1944. The camp was disbanded by 1946 with many of the buildings (Nissen huts) gradually transferring into private ownership across the islands, several of which are still in use today. These emergency investigations were conducted in partnership with the Falkland Islands Museum and National Trust, with the aid of the Public Works Department, the South Atlantic Environment Research Institute, SafeLane Global ordinance disposal experts and members of the local community.

Over 10 days the team documented the layout of the camp and through excavation characterized selected buildings and their contents. Unexpected was the revelation that the footings of the buildings had been reused by Argentine artillery during the 1982 invasion, and a system of trenches and foxholes was evident as earthworks. The material culture encountered from both conflicts was comparable, including wash kits, personal and improvised items of comfort or necessity, and culinary materials, with live and dummy ordinance for use in training or conflict. Henceforth, the project aims to highlight attention further to the Islands' diverse heritage.

The fieldwork was funded by the McDonald Institute for Archaeological Research, St Peter's College, Oxford, the Falkland Islands Museum and National Trust and the Public Works Department of the Falkland Islands Government.





(Above) Aerial view of Stanley with the site and camp remains in foreground; (right) 1980s Argentine mess tin and (left) 1940s dummy rounds found within the footprint of a WW2 building.



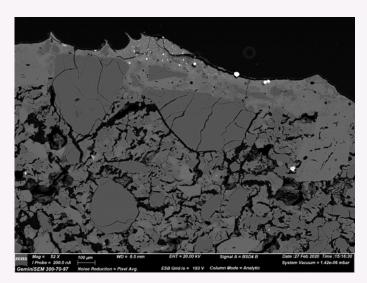
# **Gold Processing in Great Zimbabwe**

Jasmine Vieri, Shadreck Chirikure & Marcos Martinón-Torres

For over 300 years before European colonization, Great Zimbabwe (AD 1250–1600) was widely networked, directly and indirectly, with the Indian Ocean Rim regions of Africa and Asia. We know Great Zimbabwe supplied gold, iron, ivory and other commodities, while it received tin bronzes and brasses, glass beads and imported ceramics. In the process, technologies and materials were exchanged and recontextualized to suit local purposes, thereby transforming the global into the local, and the local into the global.

Funded by a Newton Mobility Grant from the Royal Society, we are investigating how gold was manipulated both socially and technically at Great Zimbabwe, as a starting point to explore nuances in the exchange of ideas and values. Our analytical results show that both purposemade crucibles and repurposed sherds of domestic pottery were used for the melting of local gold dust. For example, the image shown illustrates a cross-section of a sherd of domestic pottery, as seen under the scanning electron microscope. The inner surface (top) is more fused as a result of the high temperatures, and it has trapped many minuscule drops of gold (bright).

This peculiar mixture of specialized and non-specialized tools raises questions about craft organization and the interplay between tradition and innovation, which we plan to discuss in a workshop involving African and European researchers.



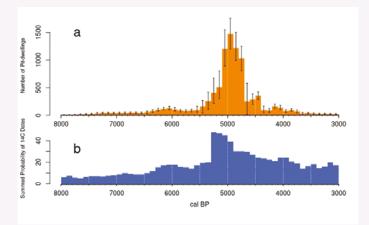
Scanning electron microscope image of domestic ceramic used for metallurgical reactions at Great Zimbabwe. The bright particles in the inner surface (top) are gold.

# **ENCOUNTER** Project

ENRICO CREMA

ENCOUNTER (https://www.encounterproject.info/) is an ERC-funded project (PI: Dr Enrico Crema) investigating the mode, tempo and impact of the dispersal of rice- and millet-farming in prehistoric Japan. The five-year project, which started in April 2019, will synthesize one of the richest archaeological records available in the world by introducing new computational and biomolecular techniques to reconstruct demographic and subsistence patterns. ENCOUNTER will particularly seek to shed light on how and why the adoption of the cultural 'package' brought into the Japanese islands by migrant communities from mainland Asia at the dawn of the first millennium BC was regionally diverse. Archaeological evidence seems to suggest that in some areas this new cultural 'package' was almost immediately adopted by incumbent communities, while in others we see instances of short or prolonged resistance, episodes of hybridization, selective adoption of only specific traits, and even cases of reversions where key traits, such as wet-rice farming, were taken up for just a few centuries, only to be followed by a return to a predominantly hunting and gathering economy.

The first year of the project has been dedicated to the collection of new data for organic residue analysis (to be carried out at the project partner BioArCh facilities at the University of York), the modelling of regional variation in the suitability and productivity of rice-farming and the development of new range of computational techniques to infer prehistoric population dynamics. A successful (online) two-day international workshop was also organized in October 2020 to discuss these and other achievements of the project.



Proxies of population change in central Japan prior to the adoption of rice- and millet-farming: (a) number of residential units, n=9612; (b) summed probability of calibrated radiocarbon dates, n=2544. (Modified from Crema & Kobayashi 2020, DOI: 10.1016/j.jas.2020.105136)

# Scientific Analysis of Bronze Bells of the **Western Zhou Period**

JIANJUN MEI, YONGBIN YU (Jingdezhen Ceramic University) & Kunlong Chen (University of Science and Technology, Beijing)

In 2012, 11 bronze bells were found at the Wanfunao site in Yichang, Hubei Province, China, dated to the Western Zhou period (eleventh-eighth centuries BC). It was the first time that bronze bells of such an early date had been found in the region, which was believed to be the centre of the Chu culture.

At the invitation of the Yichang Museum, we carried out scientific analysis of these 11 bronze bells, which can be divided typologically into three groups. The analysis has revealed some unexpected results, especially that four bells of Type III contain significant arsenic content. It is very unusual for Western Zhou bronze bells to be made of Cu-Sn-As or Cu-Sn-As-Sb alloys, showing a stark contrast with normal bronze bells, which are mostly made of Cu-Sn-Pb alloys. One bronze bell has been revealed to contain high radiogenic lead, a feature of many bronze objects of the late Shang period (thirteenth–eleventh centuries BC), suggesting the possibility that Shang bronze objects may have been melted down in order to cast the bronze bell concerned.

These discoveries are significant for our understanding of how bronze production and consumption were organized and controlled in China during the late Western Zhou period (ninth-eighth centuries BC). It seems that a new metal resource could have become available locally in Yichang at the time. It is also important to realize that the emergence of diverse alloys in the region could imply the decline of the monopoly of bronze production by the central workshop controlled by the Zhou kings.



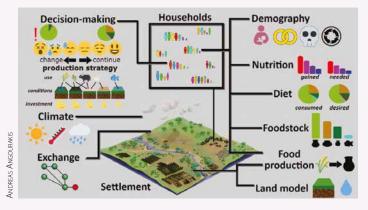
Research team members and bells at the Yichang Museum, 9 November 2012.



#### **TwoRains** in 2019/20

CAMERON A. PETRIE & R.N. SINGH

Late 2019/early 2020 saw a lot of change for the TwoRains project as several team members finished their PhD research (Jean-Philippe Baudouin/ Geography, Alessandro Ceccarelli/Archaeology and Alena Giesche/Earth Sciences) and the size of the team was reduced by farewells to M. Cemre Üstünkaya and Emma Lightfoot, though everyone continues to be connected to the project. Postexcavation work in India that was planned for March-April 2020 was impacted by the pandemic and related lockdowns, so the project fully shifted over into publication mode for much of 2020. Our outputs this year spanned almost the full range of themes covered by the project, including publications on precipitation and validation of datasets (Baudouin et al. 2020a; 2020b), the use of machine learning and remote sensing to identify archaeological sites (Orengo et al. 2020), reassessing settlement distribution data statistically (Petrie et al.2020), stable isotope analysis of animal diet and the impact of watering on cereals (Lightfoot et al. 2020a; 2020b) and agent-based modelling to conceptualize the lives of villagers in the face of climatic stress (Angourakis et al. 2020; see image). Further research on buried landscapes, the seasonality of crops and animal mobility will be published in the coming year. The project is continuing until August 2021, and we plan to hold an international conference online in the spring of 2021



Graphic overview of the Indus Village model.

# FP4: TIGR<sup>2</sup>ESS Project

ADAM S. GREEN & CAMERON A. PETRIE

The archaeology component of the TIGR<sup>2</sup>ESS project made a strong start this year. India and UK members of FP4 were invited to attend a stakeholder consultation with farmers and policy-makers in Ludhiana (Punjab, India) to discuss the potential of restoring village ponds to use in agriculture. Pond-use has a deep history in the region and this water-management strategy has the potential to contribute to the alleviation of current stresses on ground water. We also joined a project-wide general assembly in Hyderabad that made it possible to plot out our research agenda for the remainder of the project. However, our subsequent plans for the year were impacted by the pandemic. Although fieldwork was not possible for the remainder of 2020, the team conducted GIS-based investigations of the deep history of surface water use that complement the policy-engagement initiatives, and an outline of the structure of our cross-disciplinary approach was published in Environmental Research Letters. The TIGR<sup>2</sup>ESS team found itself in a unique position to communicate with farmers as they adapted to the profound challenges brought about by India's lockdown, which was designed to limit movement in the face of the coronavirus and directly affected the availability of seasonal labour. The team prepared and conducted a telephonic survey with farmers, which helped establish that smallholders were hit particularly hard by the crisis, and made it possible to identify policies for building resilience in the face of crisis.



Ponds visible on a historic map, and a satellite image showing the loss of these water bodies.

## The Mirrors of Aranmula, Kerala

Jody Joy (MAA) & Marcus Brittain (Cambridge *Archaeological Unit)* 

In January 2020, a week of fieldwork was conducted in the village of Aranmula, Kerala, India, to investigate the manufacture of polished 'high-tin' bronze mirrors (kannadi) and the social context of their usage. It is envisaged that studies of Aranmula kannadi may provide alternative entry to an understanding of polished 'high-tin' bronze mirrors from prehistoric and Roman Britain. The origins of Aranmula kannadi are thought to be linked to expert travelling artisans involved in the establishment of the local Parthasarathy Hindu temple. The practice of mirror making is traditionally linked to a single family of specialist metalworkers, shrouded by mystery and involving ritualized preparation and procedure with a secret mix of alloys and associated materials. The competitiveness of today's mirror market to meet demand from pilgrims and tourists has resulted in opposing claims to authenticity and ownership of the manufacturing tradition.

The fieldwork entailed observation and discourse in the workshop of a traditional master craftsman and within a more recently established workshop, tracing in each context the stages of manufacture through to sale of the mirrors. There was opportunity for preliminary documentation of kannadi use in private domestic ceremonies and in public events, particularly in connection to the Parthasarathy temple, with a view to expanding on this and the influence of mirror making as an expression of local identity as an element in future work.

The fieldwork was funded by the D.M. McDonald Grants and Awards Fund and the Crowther- Beynon Fund.





A master craftsman and assistant prepare to cast the mirrors in clay moulds.

## **H-E Interactions**

Monica Nicolaides Ramsey

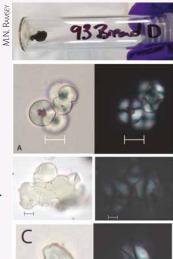
The H-E Interactions project aimed to employ a range of archaeobotanical techniques (phytoliths, starches and microcharcoals) to investigate the development and intensification of humanenvironment interactions through the Final Pleistocene and into the Early Holocene (c. 23,000–8000 cal. BP) in the Levant. Two years of data collection and research by Ramsey has resulted in the preparation, mounting, imaging and measuring, of a robust starch and phytolith comparative collection for the Levant. This material is facilitating multidisciplinary analysis of ancient bread 'crumbs' (charred food remains), food-processing residues on ground stone and the analysis of on-site sediments from seven archaeological sites ranging from the Early Epipaleolithic through to the final stages of the Pre-Pottery Neolithic. The data being collected constitutes a unique archaeobotanical database and is a major contribution to archaeological understandings of the transition to agriculture in the Levant as there is currently very limited direct botanical evidence in the region, particularly during the Epipaleolithic period.

The project achieved most of its major research objectives: determine how plant resource collection and processing strategies changed from the Early Epipaleolithic to the PPNB/PPNC; and reassess the transition to agriculture in the Levant in light of Human Niche Construction perspectives and the latest archaeological and archaeobotanical evidence. Ramsey has several articles in preparation. The results of the project will continue to provide new multidisciplinary insights into Levantine plant-use from the Epipaleolithic through to the end of the Pre-Pottery Neolithic.

This project was funded by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 743544.



(Above) Monica Nicolaides Ramsey sampling ground stone. (Right) 'Bread' sample from Shubayga 1, Jordan (top to bottom): archaeological starch, cf. Cyperaceae tubers (left, transmitted light, right, polarized); archaeological starch, cf. root-type; archaeological starch, cf. Avena sp. Scale: 10 microns.

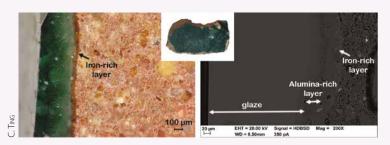


# The Making of Islamic Glazes: From the Silk Road to al-Andalus

CARMEN TING

The first phase of my project is dedicated to exploring the emergence and development of glazed ware technologies and production in Central Asia during the ninth to thirteenth centuries CE, when the region was brought under Islamic control. However, I was unable to travel to sample the materials from various ongoing excavations in Central Asia owing to COVID-related overseas travel restrictions. In view of this, I reorganized my work plan swiftly, leading to a new collaboration with the Fitzwilliam Museum to test the suitability of different non-destructive, non-invasive analytical techniques to examine the Islamic glazed wares of the Ades Collection. I have also initiated a long-term partnership with the Metropolitan Museum of Art in the USA to revisit its Islamic glazed ware collections and other artefacts from Central and Western Asia. I further broadened the geographic extent of my investigation by including early Islamic glazed ware materials from the Caucasus, which represents the first major effort to study the medieval ceramics from a technological perspective in the region. In addition, I made a presentation at the annual meeting of the Ceramic Petrology Group at the Fitch Laboratory, British School at Athens, where I succeeded in bidding for the next annual meeting to be held at the McDonald Institute for Archaeological Research.

This research is funded by the Renfrew Fellowship and Homerton College.



A fragment of Islamic glazed tableware from Barda, Azerbaijan. The cross-section of the fragment (left) taken by the Keyence digital microscope shows the order of application of a green glaze over a whitish layer and a thin red layer. The backscatter electron image of the fragment (right) taken by the scanning electron microscope shows the variation in the composition of these layers.

# Reconstructing Past Intestinal Microbiomes from Latrines

PIERS MITCHELL

The sum total of all the organisms living in the human gut is known as our intestinal microbiome. Many people living today have unhealthy microbiomes due to our use of antibiotics and processed foods, and this can lead to a range of diseases. If we could determine the microbiomes of our ancestors, we would be in a much better position to return modern people to a healthy balance of gut microbes.

This project is the first in the world to study the mixed faeces of past populations using their latrines to determine their intestinal microbiomes successfully. The study focused on the medieval populations of Jerusalem and of Riga in Latvia. We analysed the parasites using microscopy and ELISA in the Ancient Parasites Laboratory at Cambridge, while the ancient DNA of bacteria, fungi, viruses and archaea were studied by our collaborators at the Max Planck Institute for the Science of Human History in Germany.

We found that the balance of microbes in medieval microbiomes differed from modern microbiomes in industrialized regions, and also shared some characteristics with modern hunter-gatherer microbiomes. This study may well be a key step in our understanding of how we can repopulate unbalanced modern microbiomes with those missing organisms with which we have evolved for hundreds and thousands of years.

https://www.arch.cam.ac.uk/research/laboratories/ancient-parasites-laboratory



Wooden fourteenth-century latrine from Riga, Latvia, from which decomposed faeces were obtained for this study.

# Safeguarding Holocaust Sites

GILLY CARR (Project chair and PI)

The second year of the project, which seeks to write a best practice heritage charter to safeguard Holocaust sites in Europe on behalf of the International Holocaust Remembrance Alliance, began well. Papers presenting the project were delivered in Vienna and Luxembourg, and funding was secured for visits to eight different Holocaust sites in 2020. Then the pandemic struck.

Fieldwork was suspended for the rest of the academic year and beyond, and the project instead took a digital turn as we considered how it could achieve its aims in the digital realm. Drawing upon past experience of digital heritage, which has proved to be successful in places where physical heritage to mark a dark past has proved locally unacceptable, additional funding was secured to find a digital solution for our first case study in the Channel Island of Alderney. This has come from the UK Holocaust Memorial Foundation and the University's Public Engagement Starter Fund.

The University's Impact Fund paid for research which collected data on good practice in digital commemorations of the Holocaust, gathering together the creative solutions seen during the period of lockdown in Europe this year. We will draw upon this as we move forward with the project.

Funding: International Holocaust Remembrance Alliance, UK Holocaust Memorial Foundation, University of Cambridge Public Engagement Starter Fund and Impact Fund.



Gilly Carr (left) standing with members of the UK delegation of the International Holocaust Remembrance Alliance, Luxembourg.

### Keros, Greece

COLIN RENFREW & MICHAEL BOYD (McDonald Institute)

The Cambridge Keros Project has been investigating the Early Bronze Age (2750–2250 BCE) sanctuary and settlement of Dhaskalio and Kavos at the western end of the island of Keros in the central Cyclades, Greece, since 2006. The most recent field season was in 2018 and the project is currently in a phase of study and publication. Although the worldwide pandemic slowed much of our work this year, we did manage to complete a major conservation project on the site in October and November 2019. Some study of materials took place in Naxos in January and February 2020, and some laboratory work has continued where possible.

Two documentaries about the work of the project premiered this year. The first, made by Greek National Television, was shown (online) at the Thessaloniki Documentary Film Festival in May, and on television in July (and is now available here: https://www.youtube.com/watch?v=ZdQpvPnnFqo). The second, by National Geographic and Cosmote TV, was first screened in London in March and premiered on television in October. An exhibition about the project and its finds was due to have been held in Athens, but had to be cancelled, and so will hopefully now be held in 2021.

Once conditions allow, we aim to complete all museum and laboratory study in 2021, leading us fully into the publication phase. A description of our all-digital field and laboratory methodology is in press with Journal of Field Archaeology, and other journal articles and volumes in the Keros publications series are in preparation.

The project is supported by the Institute for Aegean Prehistory, the Cyprus Institute, the A.G. Leventis Foundation, Packard Humanities Institute, the Stavros Niarchos Foundation, Gerda Henkel Stiftung, AIGEAS-AMKE, the British Academy, the McDonald Institute for Archaeological Research, the British School at Athens, Cosmote, Blue Star Ferries, EZ-dot and private donors.



Invitation to the premiere screening of the National Geographic Keros documentary on 4 March 2020 in London.



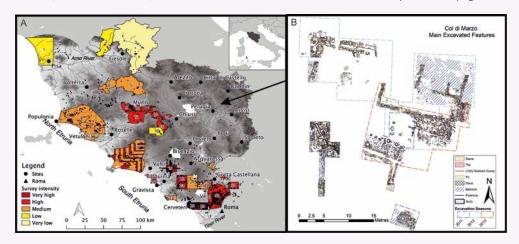
### **Etruscan Rural Settlement in Context**

Letizia Ceccarelli, Jeremy Bennett, Alessio Palmisano & Simon Stoddart

Tyrrhenian Central Italy is one of the most surveyed areas of the Mediterranean, but relatively few rural settlements have been excavated. Research over the last year has brought these two dimensions together by setting the results of the excavation of Col di Marzo within the context of all the known rural survey data of Etruria. Letizia Ceccarelli and Jeremy Bennett have finalized the study of the fifth–fourth-century Bc rural settlement above Montelabate near Perugia. Simon Stoddart, Alessio Palmisano, David Redhouse,

Graeme Barker and colleagues have analysed the hierarchical and spatial dynamics of the archive of rural settlement across the whole of Etruria. These two dimensions placed together provide an enhanced understanding of the lived landscapes of this formative civilization, which is traditionally known only from the Great Tradition of Art, Ritual and Cemeteries.

Support has been gratefully received from the McDonald Institute, the British Academy, the Gaslini estate and local government for the study of Col di Marzo. Alessio Palmisano is based in LMU Munich with which Cambridge has a strategic exchange partnership. Further details of the results can be found in Ceccarelli et al. 2020, Stoddart 2020 and Stoddart et al. 2020, listed in the publications pages of this annual report.



(A) The distribution of major published or accessible surveys and all pre-Hellenistic first-millennium BC rural settlement in Tyrrhenian Central Italy. (B) Plan of the main excavated areas of fifth–fourth-century BC Col di Marzo.

# The Rise of Iron Technology in Pre-Roman Iberia: A Large-scale and Multi-disciplinary approach

MARC GENER-MORET & MARCOS MARTINÓN-TORRES

*IBERIRON* seeks to develop our understanding of the emergence and spread of iron technology in Iberia. In spite of logistical difficulties, work proceeded with the analysis of pre-Roman weapons, tools and structural elements from the sites of La Osera (Ávila), La Bastida de les Alcusses (Valencia), Mianes (Tarragona) and Montemayor (Córdoba), with chronologies ranging from the fifth to the third centuries BCE. These will form the basis for a comparative approach incorporating chronology, typology and context together with technological information. Despite the challenges posed by the widespread funerary

practice of incineration with grave goods, the metallographic study revealed a skilful application of forging and welding techniques, clearly aimed at balancing the optimization of valuable resources and the maximization of the mechanical properties of each of the materials involved (iron and steel). We have now started characterization of the slag inclusions trapped inside the metal via SEM-EDS. This information will help identify compositional and source groups, as a starting point to address patterns in the sourcing and manipulation of different ferrous metals. Altogether, *IBERIRON* is providing new insights into the thus far only sketchily known *chaîne opératoire* and craft organization of iron in prehistoric Iberia, which has implications for wider issues of the inception and transmission of technological knowledge in the western Mediterranean.

Σ 500μm

Metallography of the edge of a falcata sword from the Vetton necropolis of La Osera (Avila, Spain), revealing the composite construction of the blade, with different layers welded longitudinally; the lower, darker layer is mediumcarbon steel, the middle area is pure iron and hte upper layer is low-carbon steel. (Sample etched with 4% picral and 2% nital.)

# After the Plague

Bram Mulder

This year marked the fourth year of the *After the Plague* project. With most of the results in and the majority of the data in their final form, the focus was on integration and interpretation of our findings. We had a series of (virtual) review sessions in the spring where we read and discussed each other's work. This helped in finding common ground between disciplines and working towards the integration of our data and the shaping of a monograph. This year was meant to culminate in a closing conference, attracting leading scholars in medieval history and archaeology—which unfortunately could not take place, for obvious reasons.

A major aspect of the project was and is the formation of osteobiographies, in which anonymous skeletal remains are given back their identity by pulling together data from the various components on the same individual and moulding these into a hypothetical biography of how their life may have been. This has led to inspiring discussions about life in medieval Cambridge and how social class determined place of burial. We continue to find that the Hospital of St John's must have been an amalgamation of people from various backgrounds, as the group is not nearly as homogenous as the other groups we have been studying. We are currently trying to find distinct clusters within the sample, hoping to be able to distinguish between subgroups such as the chronically ill, the scholars and the donors of the hospital. We are looking forward to 2021, when our results can be presented to the public. Several publications are forthcoming in journals such as the European Journal of Archaeology, the American Journal of Physical Anthropology and the International Journal of Palaeopathology.

Mark Gridley has been tirelessly working on drawings to accompany the various biographies, constantly adapting to our requests for historical and archaeological accuracy. His hard work is really paying off, as shown in his image of a lady with severe physical impairment after a hip fracture.

The After the Plague project is funded by a Wellcome Trust Biomedical Humanities Collaborative Grant, award no. 2000368/Z/15/Z.



Drawing based on one of the individuals from St John's Hospital.



Alice Rose sampling teeth for isotope analysis.

# **Home Away: Celebrating Syrian Heritage** in Manchester

DACIA VIEJO ROSE, TOM CROWLEY & BEN DAVENPORT

Long before the current war in Syria, Manchester was home to an important Syrian community in the UK. In 2019 we worked with Dr Alachkar, director of the Celebrating Syria festival in Manchester, to assess the value of heritage for fostering community and a sense of home when these have been affected by displacement.

That heritage is of value to displaced communities and individuals has been documented. With this project we explored how it is important and how it is used: for creating a sense of home and belonging, for shaping and reinforcing identity, for creating common ground or bridges with host communities.

Our primary means of data gathering were participant observation at festival events and interviews with organizers, performers and attendees. In-depth interviews were recorded with participants ranging from 22 to 70 years of age, and while many were relatively recent arrivals to the UK, some were born in the UK of Syrian parents.

Our research demonstrated the significant role of the heritage festival for the well-being of diaspora members. For the Festival organizers, it helped to fulfil the desire to be doing something positive in response to the ongoing trauma experienced in Syria. Almost everyone we spoke to stressed the importance of projecting a view of Syria which was not overshadowed by the conflict. We also observed the importance for many Syrians of sharing their culture with Manchester. Several interviewees hoped that their presence in Manchester would actively contribute to the multicultural dynamic of the city. The interest in home-making through synchronicity and 'bridge building if investigated further will offer a valuable contribution to the scholarly discussion around minority identity in the UK, a debate which often dwells only on diaspora communities' struggle to preserve identity in the face of assimilation and/or appropriation.





Tom Crowley doing participant observation research at a Syrian food class run by Celebrating Syria at Rethink Rebuild in Manchester; and some of the results of the collective class efforts.

#### **McDonald Annual Lecture**

**● 13 November** Shadreck Chirikure (University of Cape Town; University of Oxford)) - Political Economy of Precolonial African States - Metals, Trinkets, Land, etc., etc.

#### **Distinguished Visitor Lecture**

**26 November** Joanne Pillsbury (Metropolitan Museum of Art, New York) -The Golden Road: Materials, Value and Exchange in the Ancient Americas

#### **Garrod Research Seminars**

- **23 January** RACHEL KING (*University College London*) Disciplining boundaries: Southern African perspectives on rule-makers, rule-breakers and punishment
- 30 January Oula Seitsonen (University of Oulu) Barriers, territories & fences in Sapmi: Changing lifeways of the indigenous reindeer herding Sami in northern Finnish Lapland
- ●13 February CAMERON PETRIE (University of Cambridge) Resistance at the edge of empires: The archaeology and history of the Banni Basin from 1000 BC to AD 1200

#### **Conferences and Workshops**

**@29 February** Computational approaches to archaeological site detection and monitoring

## **Discussion Groups**

The **African Archaeology Group** (AAG) was set up in 2008 to revive the African Seminar previously established by Dr John Alexander. Its aims are to discuss current research programs and results of Cambridge archaeologists working in Africa, to hold seminars by Africanist speakers, to bridge University departments and research bodies interested in Africa's past, and to maintain the tradition of Cambridge's long-standing involvement in African archaeology.

Organizer: Nicolas Nikis

The **Americas Archaeology Group** is open to anyone interested in archaeological and anthropological research projects throughout the Americas. Presentations are given by research students, postdocs, visiting scholars and lecturers from the UK and overseas institutions. Meetings are usually held Monday afternoons in the McDonald Seminar Room. A trip to the pub tends to follow for lively, informal discussions. All are welcome!

Organizer: Oliver Antczak

The **Ancient Near Eastern Seminar Series** attracts speakers from the UK and overseas institutions and offers a focus for the wide range of Assyriological and Ancient Near Eastern archaeological projects across the University, builds links with other research centres and offers a chance for all to see the work that is being carried out in this large and important field of research.

Organizer: Kyra Kaercher

The Asian Archaeology Group (AsAG) aims to provide a forum for new research and discussion for those working in the field of Asian archaeology. We have talks every other week that cover the Asian continent in all its diversity – from megaliths in Borneo and minarets in Turkmenistan to phytoliths in India and starch grains in China!

Organizer: Dylan Gaffney

**Biological Anthropology** 

Organizers: Emma Pomeroy, Rihlat Said-Mohamed

The Computational and Digital Archaeology Lab (CDAL) is a hub for doctoral, post-doctoral and faculty levels that are committed to advancing the application of digital, computational, and quantitative methods in archaeology. The workshop series brings together experts of the field from around the world showcasing their latest research.

Organizers: Andreas Angourakis

The Egyptian World Seminar Series, supported by the Mulvey Fund, continues to present recent research and discussions regarding Egyptology. It attracts speakers from around Britain and the EU who cover all aspects of Egyptology as anthropology, archaeology, philology and museum studies.

Organizer: Alexandre Loktionov

East Anglia is a very active region in commercial archaeology. Field **Archaeology: Methods and Mayhem (FAMM)** is a forum where the concerned parties across the spectrum: Archaeological Units, Development Control, Outreach groups and the University can discuss the ongoing advancements, discoveries and the problems within this region and beyond.

Organizer: Donald Horne

The Garrod Research Seminars represent the Department of Archaeology's main series of invited scholarly lectures. Each year they relate to a specific theme.

Organizer: Erik Gjesfjeld

The Pitt-Rivers Archaeological Science Seminars are generally given by Cambridge researchers and visitors. They are primarily aimed at researchers working in the archaeomaterials, geoarchaeology, archaeobotany, genetics and isotope laboratories in the McDonald Institute, but cover a wide range of topics.

Organizer: Jasmine Vieri

The **Heritage Research Group** is made up of graduate students, academics, heritage practitioners and other interested parties. In addition to helping organize the annual Cambridge Heritage Seminar (a successful international conference), the main focus of the Heritage Research Group is its seminar series. The seminars aim to bring together researchers from diverse disciplinary backgrounds, whose projects cover a wide range of topics within the broad field of heritage.

Organizer: Gilly Carr

The Later European Prehistory Group welcomes everyone interested in the European Neolithic, Bronze and Iron Ages.

The group provides an informal and friendly setting for the exchange of ideas, dissemination of research results and the discussion of current topics of interest. Professionals, students and academics are invited to contribute.

Organizer: Thomas Matthias Boehmer

**TAT (Thinking About Things)** is an informal fortnightly meeting which takes place in the Material Culture Laboratory. TAT hopes to capture a spirit of enquiry and to create a community of like-minded individuals, postgraduate students and postdocs, who are trying to come up with ways to make social sense of the material worlds they are studying.

Organizer: Sheila Kohring

The **Medieval Archaeology Group** meets to discuss recent research on historical archaeology from the fifth to fifteenth centuries AD.

Organizer: Samantha Leggett

The **PalMeso Discussion Group** for all things Palaeolithic–Mesolithic has continued to attract guest speakers from all around Britain, as well as providing a forum for Cambridge

MPhil and PhD students to present the results of their own research in a relaxed atmosphere.

Organizer: Emily Hallinan



# Festival of Ideas and Prehistory & Archaeology Day

The University's Festival of Ideas was held 14-27 October 2019 and the Department of Archaeology joined in this large-scale public engagement festival with a number of events and public lectures. Kate Spence spoke to a packed McDonald seminar room on 'Communicating and Interpreting Change: the Archaeology of Radical Religious Reform in the Ancient Egyptian Amarna Period'; Emma Pomeroy and Graeme Barker treated a



Kate Spence speaks to a packed house for the Festival of Ideas.



Graeme Barker and Emma Pomeroy present on 'The Fate of the Neanderthals'.

similarly packed HWB seminar room on 'The Fate of the Neanderthals', including a few tantalising details about the recent discoveries at Shanidar; and Simon Schaffer (HPS) and Christopher Evans (CAU) gave a compelling talk on 'Eddington, Newall, and the Archaeology of Cambridge's Early Modern Science'.

Our seminal, family-friendly 'Prehistory and Archaeology Day' held in the wood-fringed grounds of the Cambridge Archaeological Unit was another busy day on the first Saturday of October half-term. 550+ people attended and were treated to



evolution stall.

Getting hands-on with prehistory at the human

activities including archery, cave painting, spear throwing, den building, textile dying, bread making, metal smelting, pottery construction, brooch making and learning about human evolution, local excavations and finds, and ancient languages. Whew!

Thanks to the many volunteer staff and students who help to make this a successful event year after year.



Cave painting at Prehistory and Archaeology Day always proves popular..



Things are getting a bit messy at the pottery stall!



Visiting the finds room at the CAU.



## Masterclasses

The Cambridge Admissions Office organize a number of subjectspecific Masterclasses every year and two in-person Archaeology masterclasses were held in 2019/20 before the nationwide lockdown. Prospective undergraduates heard from Emma Pomeroy and Matthew Collins in November on 'Rethinking Neanderthals' and 'Catastrophe!' respectively, and in February students learned about the 'Logic of a Babylonian Hymn' from Martin Worthington and about 'How do archaeologists learn about people in the past from skeletal remains?' from Susanne Hakenbeck.



Susanne Hakenbeck gives an archaeology masterclass to prospective undergraduates.

# **Department Open Day**

This year, the Department flung open its doors on (a very snowy) 27 February to welcome prospective undergraduates to our annual Open Day. The c. 50 attendees heard sample lectures, had a tour of the Haddon Library and a few of the archaeological science laboratories and visited nearby St Catharine's College before returning to hear from current students and staff about the undergraduate course in archaeology.

# **Studying Ancient Egypt and Mesopotamia at University: A Conference for Sixth-Formers**

The fifth annual 'Studying Ancient Egypt and Mesopotamia' sixth-formers' conference was held on Saturday 7 March at the Royal Asiatic Society and British Museum in London. Organized by Nancy Highcock, the students heard presentations by researchers representing Cambridge, Oxford, SOAS, Reading, Swansea, Cardiff, UW-TSD, Liverpool and Leicester. Participants also enjoyed tours of the Egyptian and Mesopotamian galleries at the British Museum and took part in a 'treasure hunt'. There were opportunities to hear from current undergraduate students from many of the UK institutions teaching these subjects and a panel on careers.

Unfortunately, the first ever 'Egypt and Mesopotamia North' conference due to be held in Durham on 14 March had to be cancelled due to the coronavirus pandemic.

# Egypt and Mesopotamia Study Day at **Christ's College**

One of the distinctive features of the Cambridge archaeology tripos is that it includes Egyptology and Assyriology, allowing undergraduates the unique opportunity to combine the study of the languages of ancient Egypt and Mesopotamia with the archaeology, history, culture, art and religions of these civilizations. With this in mind, the Department held an Egypt and Mesopotamia Study Day at Christ's College in January. The day featured a sample Egyptology lecture and workshops on Egyptian and Babylonian languages, as well as a hands-on artefact session in the MAA.



A brief introduction to Akkadian grammar from Martin Worthington at the Egypt and Mesopotamia Day.

# University Archaeology Day at the British Museum

The third annual University Archaeology Day, organized by UAUK, took place at the British Museum on 12 October 2019. More than 25 universities and archaeology organizations were in attendance to help participants explore the possibilities for a future in the past'.

The annual event is designed for prospective students, teachers and parents to learn about the many degree programmes on offer across the UK, to discover the range of career opportunities that an archaeology degree can lead to and to hear from researchers.

The Department was represented by Martin Worthington, who gave a presentation on his research, and Laure Bonner, who hosted a display stand. The event attracted c. 300 participants and is a regular feature of our outreach calendar.



# **LGBT+ History Month**

February is LGBT+ History month in the UK. This annual celebration aims to promote equality and diversity by increasing the visibility of LGBT+ people, their histories, lives and experiences. In 2020, the Department of Archaeology held its second annual LGBT+ History Month 'Queer(y)ing the Past' lecture on 18 February. In his talk 'Bridging Binaries: Thinking Beyond Borders', guest speaker Dan Vo of the V&A spoke about the Bridging Binaries museum tours which explore the spectrum of identities that exist across time, place and culture. 9

Dan Vo was the guest speaker at the 2020 LGBT+ History Month event.

# Sutton Trust Archaeology and Biological Anthropology Summer School

The Cambridge Sutton Trust summer schools are highly competitive, week-long, subject-specific courses open to students studying in Year 12 (or equivalent) at a UK state school. Normally, these summer schools are residential, giving participants a real feel for what it's like to live and study as a Cambridge student, but, as with most events in 2020, the summer school became a totally virtual event.

Our 10 participants had online presentations and practical sessions on Egyptian hieroglyphs, computational archaeology, Neanderthals, human osteology, palaeoproteomics, behavioural ecology and zooarchaeology. Students were given projects and further reading and resources to underpin their learning outside the summer school.

Holding a virtual summer school for the first time is an incredible challenge and it is only thanks to the time, energy and support of student and staff volunteers that this year's effort was such a success, with many of the participants considering applications to study archaeology and biological anthropology at highly selective universities. Photo

Introduction to Zooarchaeology

This year the Sutton Trust summer school went virtual with a host of online sessions!

# Cambridge Archaeological Journal

JOHN ROBB (Editor)

2019–20 was a challenging year for the Cambridge Archaeological Journal, as for so many undertakings. We were in the midst of a complex reorganization involving replacing our Reviews Editor, adding occasional special thematic issues and modernizing several other aspects of the journal's operation when the pandemic struck. Some of these (recruiting staff, for instance) have been put on hold; others are continuing. Meanwhile, it has been interesting to observe how the pandemic has affected scholarly publishing. CAJ has continued to operate smoothly—in no small part due to the efforts of our Production Editor Anne Chippindale publishing our usual great range of articles (see contents, right). Submissions have continued at more or less a normal annual pace. Reviews, however, have been more than usually challenging, with unusual difficulty in convincing reviewers to evaluate manuscripts for us, indicating the stress that many academics have been under during the past year. We remain grateful not only to the McDonald Institute for its support and to Cambridge University Press for their collaboration, but to our authors and publishers for their dedicated work.







#### Vol. 29, No. 4, November 2019

- Environmental and Social Change in Northeast Thailand during the Iron Age By C.F.W. Hisham, B.F.J. Manly, R. Thosarat, H.R. Buokley, N. Chans, S.E. Halcrow, S. Ward, D.J.W. O'Relly, L.G. Shewan & K. Domett
- Rice Ecology and Ecological Relations: An Ontological Analysis of the Jiangjunya Masks and Crop Images from China's East Coast BY FENG QU
- Animals as Social Actors: Cases of Equid Resistance in the Ancient Near East by LAERKE RECHT
- The Natural Inspiration for Naturian Art: Cases from Wadi Hammeh 27, Jordan By PHILLIP C. EDWARDS, JANNE MAJOR, KENNETH J. McNAMARA & ROSIE ROBERTISON
- Digital Sensoriality: The Neolithic Figurines from Koutroulou Magoula, Greece By Costas Papadopoulos, Yannis Hamilans, Nina Kypariss-Apostouka & Marta Díaz-Guardamino
- Memories into Images: Aegean and Aegean-like Objects in New Kingdom Egyptian Theban Tombs by Uroš Matić
- Tracking Proto-Porcelain Production and Consumption in the Dongjiang Valley of Bronze Age Lingnan BY MichELE H.S. DEMANDT

Review Symposium: Archaeological Perspectives on Scott's *Against the Grain*: A Deep History of the Earliest States By Thomas P. Lepparo: Scott, Domestication and the End of History By Roo Campbell: An Archaeobotanical Perspective on the Relationship between Grain Crops, Non-Grain Crops and States By Jade D'Alfold Gledes: An Americanist's Take on *Against the Grain* By Terbuce N. D'Alfroy: Pathways from Farmers to States around the Globe By Robert D. Drennan, Against the Grain By Thomhy R. Palaktar: The Fragile State By Susan Polloc: Still Waiting for the Barbarians By Adam T. Smith: Going Against Whose Grain? Archaeological Theory and Southeast Asia's Premodern States By Miram Stark Against the Mane: How Barbaric Was the 'The Golden Age of Barbarians'? By Joshua Wiksht: On Inclusions and Exclusions By Stephane Wynne-Jones: Response By James C. Scott

### Vol. 30, No. 1, February 2020

- Toward a Study of the Poor and Poverty in Ancient Egypt: Preliminary Thoughts by Delphine Driaux
- Mortuary Pottery and Sacred Landscapes in Complex Hunter-gatherers in the Paraná Basin, South America by Daniel Loronte, Flavia Ottalagano, Maricel Pérez, Laura Malec, Cinthia Rawos, Patricia Bozzano, Manuel Iribarren, Rodouro Pérez, Graciela Leiva, Silvia Dominsuez, Shelia Ali & Aleiandro Acosta
- Sometimes Defence is Just an Excuse: Fortification Walls of the Southern Levantine Early Bronze Age by HA ASHRIVAZ
- Late Prehistoric Stelae, Persistent Places and Connected Worlds: A Multi-disciplinary Review of the Evidence
  at Almargen (Lands of Antequera, Spain) By Marta Díaz-Guardavino, Leonardo García-Sanuán, David Wheatley,
  José Antonio Lozano-Rodrícuez, Micuel. Áncel. Rogero-Candelera & Manolo Casado-Ariza
- Trypillia Megasites in Context: Independent Urban Development in Chalcolithic Eastern Europe By BSSERKA GAYDARSKA, MARCO NEBBIA & JOHN CHAPMAN
- The Materiality of Shabtis: Figurines over Four Millennia by KATHRYN E. HOWLEY

Special Section: Are All Things Created Equal? The Incidental in Archaeology by Susan Pollock, Reinhard Bernbeck,
Lena Appel, Anna K. Loy & Stefan Schreber Insignificance: On the Unobtrusiveness of Material Things by Julian
Thomas, Incidental Things in Historiography by Jutta Wimmler Talking Trash and the Politics of Disregard by
Shannon Lee Dawdy: Interpreting Archaeological Evidence in the Anthropocene. Incidentality and Meaning
by Laurent Olmer In Passing: Beiläufigkeit at the Verge of Anthropocene by Pora Petursdotte, How Close Are
Things To Us? On the Relation Between the Incidental and the Valuable by Hans Peter Hahn: Final Thoughts
on Beiläufigkeit by Susan Pollock, Reinhard Bernbeck, Stefan Schreber, Lena Appel & Anna Loy

## Vol. 30, No. 2, May 2020

- Gulf Coast Influence at Moxviquil, Chiapas, Mexico by Elizabeth Paris & Roberto López Bravo
- Thinking Gender Differently: New Approaches to Identity Difference in the Central European Neolithic BY PENNY BICKE
- Community Resilience and Urban Planning during the Ninth-Century Maya Collapse: A Case Study from Actuncan, Belize By DAVID W. MIXTER
- Nurturing and Balancing the World: A Relational Approach to Rock Art and Technology from North Central Chile (Southern Andes) by ANDRES TRONCOSO, FELPE ARMSTRONG, FRANCISCO VERGARA, FRANCISCA MANOW.
- The Symbolism, Use, and Archaeological Context of Masks in Formative Period Coastal Oaxaca, Mexico by Guy David Hepp, Sarah B. Barber, Jeffrey S. Brzeznski, Arthur A. Joyce & Rachael L. Wedenever
- Birds of Summer Solstice: World-Renewal Rituality on the Northern Gulf Coast of Florida by Joshua M. Goodwin, Kenneth E. Sassanan, Meggan E. Blessing & David W. Steadman
- $\bullet \quad \text{Rock-cut Chamber Tombs and the Reproduction of Locality in Later Sicilian Prehistory} \ \text{BY ROBERT LEIGHTON} \\$
- Divining Value: Cowries, the Ancestral Realm and the Global in Southern Africa BY ABISAL JOY MOTTETT & SIMON HALL
- Making Space for Past Futures: Rural Landscape Temporalities in Roman Britain by Andrew Gardner & Lacey Wallace
- Geometry and Architectural Planning at Göbekli Tepe, Turkey by Gil. Haklay & Avi Gopher

## Vol. 30, No. 3, August 2020

- Gender and Age in Funerary Practices in the Ceramic Period in Central Chile By LORENA SANHUEZA R.
- Theatres of Closure: Process and Performance in Inhumation Burial Rites in Early Medieval Britain by Sue Harrington, Stuart Brookes, Sarah Semple & Andrew Millard
- The Northwest Essex Anglo-Saxon Ring/Falconry and Pagan—Christian Discursive Space by Robert J. Walls
- Miniatures as Ritual Objects: Exploring the Role of Small-Sized Vessels among the Complex Late Holocene Hunter-Gatherers from the Paraná River Lowlands in South America By FLANA OTTALAGANO
- Dynamic Houses and Communities at Çatalhöyük: A Building Biography Approach to Prehistoric Social Structure BY KEVIN KAY
- Communality and Discord in an Early Neolithic Settlement Agglomeration: The LBK Site of Vráble, Southwest Slovakia by Martin Furrott, Nis Müller-Schesse, Mark Winderlich, Nan Cheben & Johannes Müller
- Survival, Social Cohesion and Rock Art: The Painted Hands of Western Amhem Land, Australia by Sally K. May, Luke Textor, Catherine Freman, Paul. S.C. Tacon, Dark, Wesley, Trotten Jones, Jowin Goldhahn & Charle Mungulda
- An Alternative to 'Celtic from the East' and 'Celtic from the West' BY PATRICK SIMS-WILLIAMS



## McDonald Institute Publications

JAMES BARRETT (Series Editor) & EMMA JARMAN (Administrator)

The COVID-19 pandemic has had a profound effect on how the Institute operates, from on-site events not being allowed to take place to travel and fieldwork being severely restricted, but one area that has continued to flourish is our publications.

Four Monograph editions and two Conversations editions came out during this period, including three Cambridge Archaeological Unit volumes looking at regional archaeology: Medieval to modern suburban material culture and sequence at Grand Arcade, Cambridge; Hinterlands and Inlands: The Archaeology of West Cambridge and Roman Cambridge Revisited; and Pattern and Process: Landscape prehistories from Whittlesey Brick Pits: the King's Dyke & Bradley Fen excavations 1998–2004. Our most recent publication is The Isola Sacra Survey: Ostia, Portus and the port system of Imperial Rome. The Conversations volumes Fuel and Fire in the Ancient Roman World: Towards an integrated economic understanding and Towards a Broader View of Hunter-Gatherer Sharing were based on conferences held at the McDonald Institute. Further details of these volumes, with links to the Apollo online repository where they are freely available, are provided below.

As ever, we are indebted to the dedication of our typesetters, Ben Plumridge and Anne Chippindale, and to our printers, Short Run Press and E & E Plumridge Ltd, who we are delighted have also reported that they are thriving – another upside of the current upsurge in demand for books.

Monographs Series: Medieval to modern suburban material culture and sequence at Grand Arcade, Cambridge (Cambridge Archaeological Unit Urban Archaeology Series: The Archaeology of Cambridge Volume 1) by Craig Cessford and Alison Dickens Hardback | ISBN 978-1-902937-78-6 | xxi + 474 pp. | 260 figs | 56 tables | 2019 | eBook | ISBN 978-1-902937-95-3 | xxi + 474 pp. | 260 figs | 56 tables | 2019 | https://www.repository.cam.ac.uk/handle/1810/305114

This is the first volume describing the results of the CAU's excavations in Cambridge and it is also the first monograph ever published on the archaeology of the town. At 1.5 hectares the Grand Arcade investigations represent the largest archaeological excavation ever undertaken in Cambridge, significantly enhanced by detailed standing building recording and documentary research. It includes one of the most comprehensive studies of the suburb of a British town, with 14 investigated plots of the mid/late eleventh to twentieth centuries, and the most detailed investigation of a British town ditch ever undertaken, spanning the early/mid twelfth to eighteenth centuries. Major artefactual assemblages of many material types were recovered, with extensive waterlogged preservation of wood



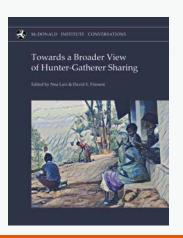
and leather plus environmental sampling, including pollen and insects. The volume treats the copious eighteenth-twentieth-century material culture in a manner unparalleled in a British context, including a considerable number of college-related items that attest to the town's distinctive role as a university centre.

This is an important book, and the scale of the investigations and the richness of the archaeology make it a major contribution to studies of British town suburbs and boundaries in particular and urban archaeology more generally. The ground-breaking commitment to the archaeology of the eighteenth-twentieth-centuries is particularly important, as Cambridge was one of the key intellectual hubs of the foremost global power for much of the period.

Conversations Series: Towards a Broader View of Hunter-Gatherer Sharing edited by Noa Lavi & David E. Friesem

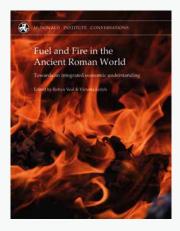
eBook | ISBN 978-1-902937-92-2 | xiii + 245 pp. | 42 figs | 25 tables | 2019 | https://www.repository.cam.ac.uk/handle/1810/300107

The practice of sharing food among hunting and gathering societies has attracted significant scholarly attention from anthropological, evolutionary and archaeological perspectives. This edited monograph offers to broaden the view of the practice of sharing to include sharing of space, actions, land, knowledge, time, self and identity. The chapters in this book present ethnographic, archaeological and theoretical cases from different periods of time, diverse communities and environments across the world to demonstrate how perceptions, values and mechanics previously assigned to food sharing are applied to other tangible and intangible forms of sharing. The cross-disciplinary integration between archaeologists and biological and social anthropologists expands the understanding of what is socially required for sharing, how it is practised and experienced, what it allows and what are





its social and evolutionary implications. The new concepts and understandings of sharing that emerge from this book provide a multilayered framework which can be applied in various contexts aiding in unravelling new intangible aspects of this core social practice. This monograph raises an insightful and timely discussion about the evolution and social complexity of non-agrarian societies in general and provides new tools and ideas to explore the complexity and diversity in the social world of past and contemporary societies.

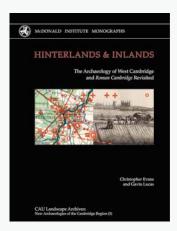


Conversations Series: Fuel and Fire in the Ancient Roman World: Towards an integrated economic understanding edited by Robyn Veal & Victoria Leitch eBook | ISBN 978-1-902937-91-5 | xi + 137 pp. | 47 figs | 20 tables | 2020 | https://www.repository.cam.ac.uk/handle/1810/299160

The study of fuel economics in the Roman, or indeed in any ancient world, is at a pivotal point. New research in archaeological science, the ancient economy, the ancient environment, and especially the increasing collection of bio-archaeological datasets, are together providing a greatly enriched resource for scholars. This volume makes a first attempt to bridge the gap between 'top-down' generalized models about Roman energy consumption with the 'case study' detail of archaeological data in the Mediterranean. The papers here are the work of scholars from a variety of disciplines: from archaeologists and historians to archaeologists specializing in social, technical and economic fields.

A more nuanced view of the organization of the social and industrial structures that underpinned the fuel economy arises. Although focused on the Roman period, some papers extend beyond this era,

providing contextual relevance from the proto-historic period onwards. Much exciting interdisciplinary work is ahead of us, if we are to situate fuel economics more clearly and prominently within our understanding of Roman economics, and indeed the ancient Mediterranean economy.



Monographs Series: Hinterlands & Inlands: The Archaeology of West Cambridge and Roman Cambridge Revisited (CAU Landscape Archives: New Archaeologies of the Cambridge Region 3) by Christopher Evans and Gavin Lucas and Carlo

Hardback | ISBN-978-1-902937-89-2 | xix + 528 pp. | 286 figs | 104 tables | 2020 | e-book not available at time of printing

Thinking Hinterlands – spanning 25 years of fieldwork across a 3 sq. km swathe on the west side of Cambridge, this and its companion volume present the results of 15 sites, including seven cemeteries. The main focus is on the area's prehistoric inland colonization (particularly its Middle Bronze Age horizon) and the dynamics of its Roman hinterland settlements. The latter involves a variety of farmsteads, a major roadside centre and a villa-estate complex, and the excavation programme represents one of the most comprehensive studies of the Roman countryside anywhere within the lands of its former empire. Appropriately, this book also includes a review of Roman Cambridge, appraising its status as a town.

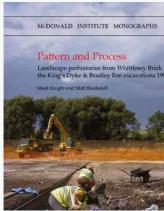
With such a body of amassed data to draw upon, comparative statistical analyses are employed throughout, alongside an array of scientific studies that include ancient DNA. Both books also have a historiographic dimension relating to the landscape's specific suburban situation and its latter-day colonization by the University. Earlier excavations by Jenkinson at Girton College and Marr's Traveller's Rest Pit investigations are reviewed, with the 'archaeology' of the Darwin Family Estate and the Newall Telescope also featured.

The collective results are ground-breaking. This was a densely packed landscape, and the scale and coherence of the cumulative excavation programme provide significant insights concerning prehistoric and Roman-period settlement densities. What their proximity implies for economic and social practices, and the area's long-term land-use succession – the comings and goings of communities and 'history' – are explored in depth.

Monographs Series: Pattern and Process: Landscape prehistories from Whittlesey Brick Pits: The King's Dyke & Bradley Fen excavations 1998–2004 (CAU Must Farm/Flag Fen Basin Depth & Time Series – Volume 1) by Mark Knight and Matt Brudenell

Hardback | ISBN 978-1-902937-93-9 | xxi + 418 pp. | 217 figs | 110 tables | 2020 | eBook | ISBN 978-1-902937-97-7 | xxi + 418 pp. | 217 figs | 110 tables | 2020 | https://www.repository.cam.ac.uk/handle/1810/308367

The King's Dyke and Bradley Fen excavations occurred within the brick pits of the Fenland town of Whittlesey, Cambridgeshire. The investigations straddled the southeastern contours of the Flag Fen Basin, a small peat-filled embayment located between Peterborough and the western limits of Whittlesey'island'. Renowned principally for its Bronze Age discoveries at sites such as Fengate and Flag Fen, the Flag Fen Basin also marked the point where the prehistoric River Nene debouched into the greater Fenland Basin.



A henge, two round barrows, an early field system, metalwork deposition and patterns of sustained settlement along with metalworking evidence helped produce a plan similar in its configuration to that revealed at Fengate. In addition, unambiguous evidence of earlier second-millennium BC settlement was identified together with large watering holes and the first burnt stone mounds to be found along Fenland's western edge.

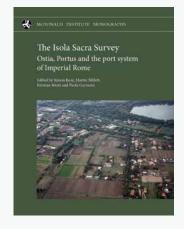
Genuine settlement structures included three of Early Bronze Age date, one Late Bronze Age, ten Early Iron Age and three Middle Iron Age. Later Bronze Age metalwork, including single spears and a weapon hoard, was deposited in indirect association with the earlier land divisions and consistently within ground that was becoming increasingly wet.

The large-scale exposure of the base of the Flag Fen Basin at Bradley Fen revealed a beneath-the-peat or pre-basin landscape related to the buried floodplain of an early River Nene. Above all, the revelation of sub-fen occupation means we can now situate the Flag Fen Basin in time as well as space.

Monographs Series: The Isola Sacra Survey: Ostia, Portus and the port system of Imperial Rome edited by Simon Keay, Martin Millett, Kristian Strutt and Paola Germoni

Hardback | ISBN 978-1-902937-90-8 | xxi + 200 pp. | 120 figs | 7 tables | 2020 | eBook | ISBN 978-1-902937-94-6 | xxi + 200 pp. | 120 figs | 7 tables | 2020 | https://www.repository.cam.ac.uk/handle/1810/308076

The Isola Sacra occupies the land between Ostia and Portus at the mouth of the Tiber, and thus lies at the centre of the massive port complex that served Imperial Rome. The area has been the focus of archaeological research since the sixteenth century, but has never before been the subject of an integrated survey. This volume focuses on the results of a survey completed between 2002 and 2012 as part of the Portus Project. It complements our previous survey of Portus (2005) and the forthcoming publication of the German Archaeological Institute's survey of Ostia. It included a fluxgate gradiometer survey of all the available open ground on the island (c. 98 ha), as well as selective Ground-Penetrating Radar survey and an analysis of satellite and aerial photographic images. A presentation of these results is set against an analysis of the geomorphology of the delta and integrated with information from past excavations in the area. It is complemented by a programme of geoarchaeological coring and a short account of the ships excavated on the Isola Sacra in 2011.



The results make an important contribution to the understanding of a landscape that is key to the understanding of both Portus and Ostia. They provide new information about the development of the delta and the changing use of Isola Sacra, which was artificially created when a canal was dug during the construction of the harbour at Portus in the middle of the first century AD. It provides additional evidence for the buildings along its northern shore and the cemeteries that flank this settlement and line the Via Flavia (which runs between Portus and Ostia across the centre of the island). Most significantly however, the survey revealed completely new evidence of three new sets of features. First, it has mapped a major canal that ran north-south across the island, linking the canal system of the harbour at Portus with Ostia. Second, it has provided extensive evidence of systematic land divisions, which created blocks of fields across the centre of the island. Finally, it has revealed details of a suburb of Ostia on the southern flank of the island, opposite the extensively excavated remains of Ostia Antica. This area was defined by a massive, but hitherto unknown, town wall within which is an extensive series of warehouses. These results are key for understanding the development of Portus-Ostia complex, and hence the economy of the city of Rome itself.

# Archaeological Review from Cambridge

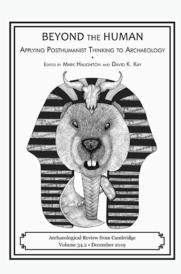
General Editor 2020–21: MICHAEL LEWIS

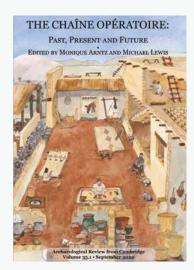
It has been a tumultuous year, with industrial strikes and the global pandemic having delayed *ARC* publications, but our work has not stopped. The *ARC* committee has grown considerably with the new academic year. New *ARC* members have brought a variety of new interests, expertise and energy to the committee and we all eagerly anticipate the coming 2020–21 year with three(!) volumes currently in production.

Edited by Mark Haughton and David K. Kay, Volume 34(2) 'Beyond the Human: Applying Posthumanist Thinking to Archaeology' was launched in February 2020. The volume brought together a wide array of papers dealing with posthumanism within archaeology ranging from the Indian Neolithic through to possession of people by ancient ruins. The launch was well attended and featured a fascinating presentation by Dr Rachel Crellin (University of Leicester).

The most recent publication, Volume 35(1) 'The Chaîne Opératoire: Past, Present and Future', edited by Monique Arntz and Michael Lewis, features contributions from authors across the world and at various stages in their academic careers. In total, 15 contributions were published, covering a wealth of chronological periods and regions of the world. The online launch in September 2020 meant that we were able to celebrate the volume launch with many of our contributors. We welcomed both Professor Nathan Schlanger (École nationale des chartes, Paris), an ARC and University of Cambridge alumnus, and Dr Maikel Kuijpers (University of Leiden), another University of Cambridge alumnus, to talk about the history and future trajectories of the chaîne opératoire to an international audience of over 80 attendees.

The ARC committee thanks the contributing authors and anonymous peer reviewers. We are also hugely grateful for the considerable ongoing support from the McDonald Institute for Archaeological Research and the Cambridge Department of Archaeology.





## Members'/Fellows' Publications

## OSCAR ALDRED

- 2019 The aerial imagination, in *Archaeology and Photography*, eds D. Hicks & L. McFadgen. Oxford: Bloomsbury, 193–208.
- 2019 (with M. Given, K. Grant, P. McNiven & T. Poller). Interdisciplinary approaches to a connected landscape: upland survey in the Northern Ochils. *Proceedings of the* Society of Antiquaries of Scotland 148, 83–111.
- 2020 Book review: *Making One's Way in the World: The footprints and trackways of prehistoric people*, by M. Bell. Oxford/Havertown: Oxbow, 2020. *Landscapes* 19(2), 171–3.
- 2020 Book review: Conquering the Claylands: Excavations at Love's Farm, St Neots, Cambridgeshire, by M. Hinman & J. Zant. EAA 165, 2018. Landscape History 41(1), 130–31.

## MARTIN ALLEN

- 2019 Pembroke: a new mint of the Empress Matilda in the reign of Stephen? *Numismatic Chronicle* 179, 295–7.
- 2019 (with C. Savage). A coin of David I of Scotland from Nottinghamshire. *British Numismatic Journal* 89, 212–13.
- 2019 (with P. Thompson). The Fornham hoard of Cross and Crosslets pennies of Henry II. British Numismatic Journal 89, 213–15.
- 2019 (with D. Hook). A piece of gold with impressions from dies of Short Cross class 5b1. *British Numismatic Journal* 89, 216–17
- 2019 (ed. with A. Brown & J. Naylor). Coin Register 2019. British Numismatic Journal 89, 269–85.
- 2019 Coins and jettons', in Medieval to Modern Suburban Material Culture and Sequence at Grand Arcade, Cambridge: Archaeological investigations of an eleventh- to twentiethcentury suburb and town ditch, eds C. Cessford & A. Dickens. Cambridge: McDonald Institute for Archaeological Research, Vol. 1, 156, 332–3.
- 2020 Debasement in the ancient and medieval worlds: explanations and theories, in *Debasement: Manipulation* of Coin Standards in Pre-Modern Monetary Systems, ed. K. Butcher. Oxford: Oxbow, 43–51.

## ROBERT ATTENBOROUGH

2010 (with D.N.E. Stibbard-Hawkes, I.A. Mabulla & F.W. Marlowe). To the hunter go the spoils? No evidence of nutritional benefit to being or marrying a well-reputed Hadza hunter. American Journal of Physical Anthropology. https://doi.org/10.1002/ajpa.24027

## GRAEME BARKER

- 2019 Libyan landscapes in in history and prehistory. *Libyan Studies* 50, 1–20.
- 2020 (with E. Pomeroy, P. Bennett, C.O. Hunt, et al.). New Neanderthal remains associated with the 'flower burial' at Shanidar Cave, Iraqi Kurdistan. Antiquity 94, 11–26.
- 2020 (with E. Pomeroy, C.O. Hunt, T. Reynolds, et al.). Issues of theory and method in the analysis of Palaeolithic mortuary behavior: a view from Shanidar Cave. Evolutionary Anthropology 29(5), 263–79.
- 2020 (with S. Stoddart, A. Palmisano, D. Redhouse, et al.). Patterns of Etruscan urbanism, in 'Where do cities come from and where are they going to? Modelling past and present agglomerations to understand urban ways of life frontiers', eds F. Fulminante, J.W. Hanson, S.G. Ortman & L.M.A. Bettencourt. Frontiers in Digital Humanities (Digital Archaeology) 7(1). DOI: 10.3389/fdigh.2020.00001

2020 (with Y. Wang & J. Peters). Morphological and metric criteria for identifying postcranial skeletal 1 remains of modern and archaeological Caprinae and Antilopinae in the northeast Tibetan Plateau and adjacent areas. International Journal of Archaezoology. DOI: 10.1002/oa.2877

#### JAMES BARRETT

- 2020 (with I. Pilø & E. Finstad). Crossing the ice: an Iron Ageto medieval mountain pass at Lendbreen, Norway. Antiquity 94, 437-54.
- 2020 (with S. Boessenkool, C.J. Kneale, T.C. O'Connell & B. Star). Ecological globalisation, serial depletion and the medieval trade of walrus rostra. Quaternary Science Reviews 229, 106122.

## AMÉLIE BEAUDET

- 2019 (with E. de Jager, A.N. Van Schoor, J.W. Hoffman, A.C. Oettlé, C. Fonta, M. Mescam & L. Risser). Sulcal pattern variation in extant human endocasts. Journal of Anatomy 235,
- 2019 (with A. Du & B.A. Wood). Evolution of the modern human brain, in Evolution of the Human Brain: From matter to mind, ed. M.A. Hofman. (Progress in Brain Research vol. 250). Cambridge (MA): Academic Press, 219-50.
- DOI: 10.1016/bs.pbr.2019.01.004 2020 (with R.J. Clarke, J.L. Heaton, T.R. Pickering, et al.). The atlas of StW 573 and the late emergence of human-like head mobility and brain metabolism. Scientific Reports 10, 4285.
- 2020 (with J. Dumoncel, G. Subsol, S. Durrleman, et al.). Are endocasts reliable proxies for brains? A 3D quantitative comparison of the extant human brain and endocast. Journal of Anatomy. doi. org/10.1111/joa.13318
- 2020 (with A. Urciuoli, C. Zanolli, J. Dumoncel, S. Moyà-Solà & D. Alba). The evolution of the vestibular apparatus in apes and humans. eLife 9, e51261.

## DAVID BERESFORD-JONES

- 2019 (with R. Rabett, A. Pryor, D. Simpson, et al.). A multi-proxy reconstruction of environmental change in the vicinity of the North Bay outlet of pro-glacial Lake Algonquin. Open Quaternary 5:12.
- 2020 (with J. Rodríguez, K.J. Lane, O. Huamán, G. Chauca, L. Coll & C. French). Grupos domésticos de élite en Viejo Sangayaico: un asentamiento Del Horizonte Tardío y la Colonia Temprana en Huancavelica, Perú. Chungara Revista de Antropología Chilena 52, 3-22.
- 2020 (with N Nakatsuka, I. Lazaridis, C. Barbieri, et al.). A paleogenomic reconstruction of the deep population history of the Andes. Cell 181, 1131-45.
- 2020 (with A.J.E. Pryor, A.E. Dudin, E.M. Ikonnikova, J.F. Hoffecker & C.S. Gamble).

Chronology and function of a new circular mammoth bone structure from Kostenki 11. Antiquity 94, 323–41.

## MICHAEL BOYD

- 2019 The Late Roman building and settlement structures in the Rositsa Valley: the geophysical results, in The Transition to Late Antiquity on the Lower Danube: Excavations and survey at Dichin, a Late Roman to early Byzantine fort and a Roman aqueduct, ed. A.G. Poulter. Oxford: Oxbow, 779-836.
- 2019 (with M. Marthari & C. Renfrew). Beyond the Cyclades: Early Cycladic sculpture in context from mainland Greece, the north and east Aegean. Oxford: Oxbow.
- 2019 (with I. Legaki, C. Renfrew & E. Orfanidou). Sculptures from the Papaoikonomou property on Ano Kouphonisi, in Beyond the Cyclades: Early Cycladic sculpture in context from mainland Greece, the north and east Aegean, eds M. Marthari, C. Renfrew & M.J. Boyd. Oxford: Oxbow, 266-78.
- 2019 (with M. Marthari & C. Renfrew). Early Cycladic sculpture beyond the Cyclades: the Aegean context, in Beyond the Cyclades: Early Cycladic sculpture in context from mainland Greece, the north and east Aegean, eds M. Marthari, C. Renfrew & M.J. Boyd. Oxford: Oxbow, 280-95.
- 2019 (with C. Renfrew). Kykladen: Komplexe Architektur und hochentwickelte Metallurgie im frühesten maritimen Heiligtum der Welt. Antike Welt 2019(4), 4.

## MARCUS BRITTAIN

2019 (with J. Salazar & T. Clack). Vasos cerámicos, mercados y la construcción de periferias en el curso bajo del río Omo (Etiopía). Treballs d'Arqueologia 23, 155-80.

## EMMA BROWNLEE

2020 The dead and their possessions: the declining agency of the cadaver in Early Medieval Europe. European Journal of *Archaeology* 23(3), 406–27.

## JUDITH BUNBURY

2020 (with S. Ikram & C. Roughley). Holocene large lake development and desiccation: changing habitats in the Kharga Basin of the Egyptian Sahara. Geoarchaeology 35, 467–86.

## KATIF CAMPRELL

- 2019 (with D. Naskidashvili & V. Licheli). Excavations at Grakliani Gora, Shida Kartli: 2019 field season. Tbilisi: National Agency for Cultural Heritage Protection, Georgia.
- 2020 The City of Otrar, Kazakhstan: using archaeology to better understand the impact of the Mongol conquest of Central Asia, in Proceedings of the 11th International Congress on the Ancient Near East (ICAANE), Ludwig Maximilians Universität, Munich 2018, Vol. 2, eds O. Adelheid, M. Herles, K. Kaniuth, L. Korn & A. Heidenreich. Leipzig: Harrassowitz, 597-606.

#### GILLY CARR

- 2019 The Jew and the Jerrybag: the lives of Hedwig Bercu and Dorothea Le Brocq. Journal of Holocaust and Genocide Studies 33(3), 373-94.
- 2020 Nazi Prisons in Britain: Political Prisoners in the Channel Islands during the German Occupation. Barnsley/Havertown: Pen and Sword Books.
- 2020 Double vision and the politics of visibility: the landscapes of forced and slave labour, in Archaeologies of Totalitarianism, Authoritarianism and Repression: Dark modernities, eds J. Symonds & P. Vareka. Cham: Palgrave Macmillan, 63–81.

## CRAIG CESSFORD

- 2019 (with A. Dickens). Medieval to Modern Suburban Material Culture and Sequence at Grand Arcade, Cambridge: Archaeological investigations of an eleventh- to twentiethcentury suburb and town ditch. Cambridge: McDonald Institute for Archaeological
- 2019 (with M.A. Spyrou, M. Keller, R.I. Tukhbatova, et al.). Phylogeography of the second plague pandemic revealed through analysis of historical Yersinia pestis genomes. Nature Communications 10, article 4470.
- 2019 'A Tale of Two Sibleys': ceramic counter narratives, globalisation, individuality and the short span, the last century of the Ely pottery industry c. 1770–1870. Post-Medieval Archaeology 53, 266-83.
- 2020 Middle Anglo-Saxon Downham Road, Ely: extending the West Fen Road site. Archaeological Journal 177, 31-62.
- 2020 (with E. Middleton). Excavations at Main Street, Little Thetford: investigating a medieval berewick. Proceedings of the Cambridge Antiquarian Society 109, 184-94.
- 2020 (with B. Mulder, J.T. Stock, J.P.P. Saers, S.A. Inskip & J.E. Robb). Intrapopulation variation in lower limb trabecular architecture. American Journal of Physical Anthropology 173(1), 112-29.

## PETROS CHATZIMPALOGLOU

- 2020 A geoarchaeological method for sourcing chert artefacts in the Mediterranean region: a case study from Neolithic Skorba on Malta. Geoarchaeology. DOI: 10.1002/gea.218130
- 2020 (with C. French, M. Pedley & S. Stoddart). Connecting chert sources of Sicily with Neolithic chert artefacts of Malta. Journal of Archaeological Science. Reports 29. DOI: 10.1016/j.jasrep.2019.102111

## Anastasia Christophilopoulou

2019 The Fitzwilliam Salamis Terracotta group, in Salamis-Toumba: An Iron Age sanctuary in Cyprus rediscovered (Excavations of the Cyprus Exploration Fund, 1890), eds T. Kiely & V. Karageorghis. Nicosia: The Cyprus Institute, 25-32.



# Members'/Fellows' Publications (cont.)

## Anastasia Christophilopoulou (cont.)

2020 (ed.). Material Cultures in Public Engagement: Re-inventing public archaeology within museum collections. Oxford: Oxbow.

#### MATTHEW COLLINS

- 2019 (with T.Z.T. Jensen, J. Niemann, K.H. Iversen, et al.). A 5700 year-old human genome and oral microbiome from chewed birch pitch. Nature Communications 10(1), 5520.
- 2019 (with F. Welker, J. Ramos-Madrigal, M. Kuhlwilm, et al.). Enamel proteome shows that *Gigantopithecus* was an early diverging pongine. *Nature* 576(7786), 262–5.
- 2020 (with A.M.H. Eriksen, H. Matthiesen, I. Kontopoulos, D. Gregory, C. Snoeck, G. Zhang & M.T.P. Gilbert). Rapid loss of endogenous DNA in pig bone buried in five different environments. Archaeometry 62(4), 827–46.
- 2020 (with A.M.H. Eriksen, T.K. Nielsen, H. Matthiesen, et al.). Bone biodeterioration the effect of marine and terrestrial depositional environments on early diagenesis and bone bacterial community. PloS One 15(10), e0240512.
- 2020 (with J. Hendy & N. van Doorn). Proteomics, in *Archaeological Science: An introduction*, eds M.P. Richards & K. Britton. Cambridge: Cambridge University Press, 35–69.
- 2020 (with S. Hickinbotham, S. Fiddyment & T.L. Stinson). How to get your goat: automated identification of species from MALDI-ToF spectra. Bioinformatics 36(12), 3719–25.
- 2020 (with I. Kontopoulos, K. Penkman, V.E. Mullin, et al.). Screening archaeological bone for palaeogenetic and palaeoproteomic studies. PloS One 15(6), e0235146.
- 2020 (with K. Korzow Richter, K. McGrath, E. Masson-MacLean, et al.). What's the catch? Archaeological application of rapid collagenbased species identification for Pacific Salmon. Journal of Archaeological Science 116, 105116.
- 2020 (with L.T. Lanigan, M. Mackie, S. Feine, et al.). Multi-protease analysis of Pleistocene bone proteomes. *Journal of Proteomics* 228, 103889.
- 2020 (with R. Macleod, M.-H.S. Sinding, M.T. Olsen & S.J. Rowland). DNA preserved in jetsam whale ambergris. *Biology Letters* 16(2), 20190819.
- 2020 (with A.L. Morton-Hayward, T. Thompson, J.E. Thomas-Oates, S. Buckley, A. Petzold, A. Ramsøe & S. O'Connor). A conscious rethink: Why is brain tissue commonly preserved in the archaeological record? Commentary on: Petrone P, Pucci P, Niola M, et al. Heat-induced brain vitrification from the Vesuvius eruption in CE 79. N Engl J Med 2020; 382: 383-4. DOI: 10.1056/NEJMc1909867. STAR: Science & Technology of Archaeological Research 6(1), 1–9.

- 2020 (with S. Presslee, K. Penkman, R. Fischer, E. Richards-Slidel, J. Southon, C.A. Hospitaleche & R. MacPhee). Assessment of different screening methods for selecting palaeontological bone samples for peptide sequencing. Journal of Proteomics 230, 103986.
- 2020 (with A. Ramsøe, V. van Heekeren, P. Ponce, R. Fischer, I. Barnes & C. Speller). DeamiDATE 1.0: Site-specific deamidation as a tool to assess authenticity of members of ancient proteomes. Journal of Archaeological Science 115, 105080.
- 2020 (with A.B. Scott, A.J. Taurozzi, N. Hughes, D.D. Pedersen, I. Kontopoulos & M. Mackie). Comparing biological and pathological factors affecting osteocalcin concentrations in archaeological skeletal remains. Journal of Archaeological Science: Reports 34, 102573.
- 2020 (with T.Z. Trolle Jensen, M. Mackie, A.J. Taurozzi, et al.). The biomolecular characterization of a finger ring contextually dated to the emergence of the Early Neolithic from Syltholm, Denmark. Royal Society Open Science 7(1), 191172.

## PALOMA DE LA PEÑA

- 2020 Howiesons Poort, in *Oxford Research Encyclopedia of Anthropology*,
  ed. S. Chirikure. doi.org/10.1093/
  acrefore/9780190854584.013.34
- 2020 (with D.M. Witelson). 'Project Piedemonte': between the Maloti-Drakensberg and the Great Escarpment in the Eastern Cape Province, South Africa. Antiquity 94, E20. DOI: 10.15184/aqy.2020.101
- 2020 (with I. Esteban & J.M. Fitchett).

  Plant taphonomy, flora exploitation and palaeoenvironments at the Middle Stone Age site of Mwulu's Cave (Limpopo, South Africa): an archaeobotanical and mineralogical approach. Archaeological and Anthropological Sciences 12(9), 1–18.
- 2020 (with L. Wadley, I. Esteban, M. Wojcieszak, et al.). Fire and grass-bedding construction 200 thousand years ago at Border Cave, South Africa. Science 369(6505), 863–6.
- 2020 (with J.K. Feathers, M. Evans & D.J. Stratford). Exploring complexity in luminescence dating of quartz and feldspars at the Middle Stone Age site of Mwulu's cave (Limpopo, South Africa). Quaternary Geochronology 59. DOI: 10.1016/j.quageo.2020.101092
- 2020 (with H.G. Nami, C.A. Vasquez & L. Wadley). Detailed palaeomagnetic record at Rose Cottage Cave, South Africa: implications for the Holocene geomagnetic field behaviour and chronostratigraphy. South African Journal of Science 116(1/2), Art. #6550. doi.org/10.17159/sajs.2020/6550

## JENNA DITTMAR

2019 (with E. Berger, X. Zhan, R. Mao, H. Wang & H.Y. Yeh). Skeletal evidence of violent trauma from the Bronze Age Qijia Culture (2,300–1,500 BCE), Gansu Province, China. International Journal of Paleopathology 27, 66–79.

#### **CHRISTOPHER EVANS**

- 2020 (with G. Lucas). Hinterlands & Inlands: The archaeology of West Cambridge. Cambridge (CAU Landscape Archives: New Archaeologies of the Cambridge Region 3.) Cambridge: McDonald Institute for Archaeological Research.
- 2020 Soldiering archaeology: Pitt Rivers and collecting 'Primitive Warfare', in *Dividing the Spoils: Perspectives on military collections and the British Empire*, eds H. Lidchi & S. Allan. Manchester: Manchester University Press, 85–105.

#### PETER FORSTER

- 2020 (with L. Forster). Errors in tracing Coronavirus SARS-CoV-2 transmission using a maximum likelihood tree. Comment on 'A Snapshot of SARS-CoV-2 Genome Availability up to April 2020 and its Implications: Data Analysis'. JMIR Public Health and Surveillance 6(4): e23542. DOI: 10.2196/23542. PMID: 33174859.
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## DACIA VIEJO ROSE

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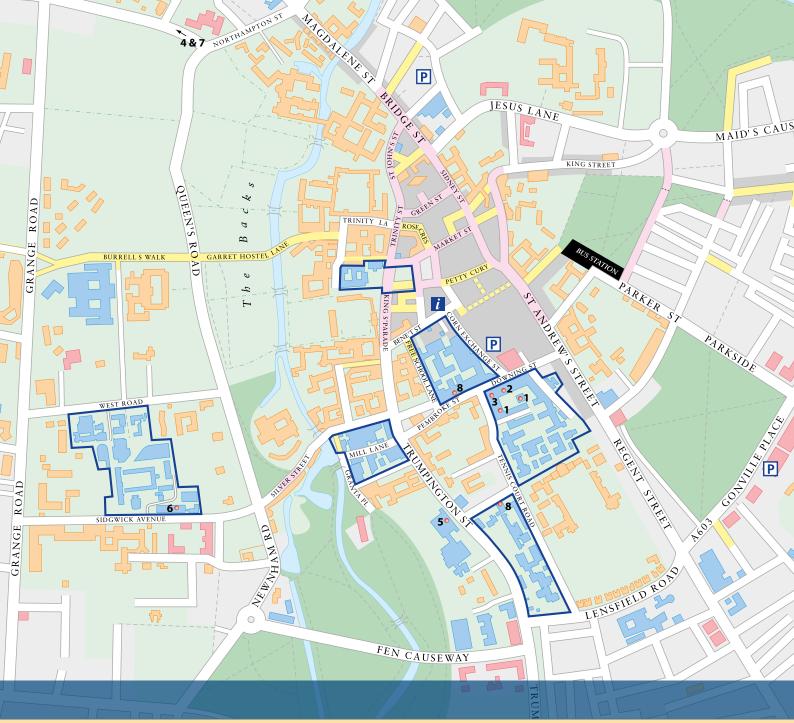
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