Student and Early Careers Conference Abstract Booklet

CONFERENCE SCHEDULE: Amplifying the Voices of Student and Early Career Archaeologists

Following the success of previous year's conference, the CIfA Early Careers Special Interest Group and the Council for British Archaeology are hosting another digital Early Careers Conference as part of the Council for British Archaeology's Festival of Archaeology (19th July- 3rd August 2025).

This digital conference aims to platform students and early career archaeologists and give them the opportunity to gain presentation experience.

The event will run from 3-7.15pm on 30 July 2025, as per the following schedule. Sign up to attend here.

Conference Welcome		
15:00	CBA	**Conference Introduction**
Session 1: Digital Approaches to Interpretation and Outreach in Archaeology		
15:05	Jenny Carey Mikkelsen	**Chair's Introduction**
15:10	Louise Bedford	No Stone Left Unturned: Archaeogaming, Archives, Audiences
15:25	Riley Finnigan	Signs, Simulation, and Cyborgs: Digital Spaces as Archaeology
15:40	Salma Amanda Latifa	History in the Digital Age: How Gen Z's Creative Role is Bringing History to Life Through Instagram and TikTok
15:55	Speakers and Chair	**Panel Q&A**
16:05	**Break**	

Session 2: Public Engagement with Heritage: the public contribution

16:15	Arin Edwards	**Chair's Introduction**
16:20	Qian Wang (Iffy)	From UK to China: Creative Encounters in Heritage Engagement
16:30	Esmé Haigh and Amy Vaughan	The Redevelopment of the Young Archaeologists' Club Website: a co-creation approach
16:45	Speakers and Chair	**Panel Q&A**
16:55	**Break**	

Session 3: Fresh Perspectives and Approaches to Interpreting the Archaeological Record

17:05	Ihini Aambreen	**Chair's Introduction**
17:10	Jenny Carey Mikkelsen	Critical peat/bog studies in bog body research - anthropo(de)centrism, multivocality and multispecies perspectives, for our more-than-human pasts, presents and futures.
17:25	Arin Edwards	The Politics of Clay: Historical and Postcolonial interpretations of Protocorinthian Earthenware.
17:40	S. K. Marley	Our Transcapes: a queer exploration of British prehistory.
17:55	Speakers and Chair	**Panel Q&A**
18.05	**Break**	

Session 4: Archaeology and Sustainability

18:15	Amy Vaughan	**Chair's Introduction**
18:20	Ilma Nafees	Heritage-based placemaking as a tool for urban sustainability
18:35	Lucie Collett	How can developer-led archaeology in the UK inform present day sustainable development?

18:50	Speakers and Chair	**Panel Q&A**

Conference Close

19.00	EC-SIG Committee	**Overview of Pre-recorded Talks**
19:05	EC-SIG Committee	**Conference Thanks**
19.10		**END**

SESSION 1: Digital Approaches to Interpretation and Outreach in Archaeology

CHAIR: Jenny Carey Mikkelsen

SESSION ABSTRACTS

15:10-15:25 (15 MINUTES) | LOUISE BEDFORD | UNIVERSITY OF YORK

NO STONE LEFT UNTURNED: ARCHAEOGAMING, ARCHIVES, AUDIENCES

Traditionally, archaeology has attracted an older demographic. Video games and social media provide an opportunity to communicate archaeology to new audiences. This project aimed to create a game set at Avebury Henge, inspired by the archive currently being digitised by the UKRI-AHRC Funded Avebury Papers project, and to document the process on social media.

The game development process, which was structured by a Game Design Document, focused on creating a cosy 2D top-down pixel art imitation of Avebury Henge, devised with a scaling system to ensure recognisability. Interactive elements were added to the world; all derived from archival inspiration, such as signs, photographs and artefact spots. The game features a cosy reconstruction of Avebury Henge during the 1938-39 excavations, where the player is an archaeological illustrator and has to collect archive materials to get employed on the excavation. The process of game development allowed for reflection on archaeological concepts, such as stone selection and issues with archives, for example, the outdated views they may contain.

A multi-platform content strategy was implemented with the key aims of attracting new audiences and generating engagement. Long-form and short-form videos were created featuring educational, vlog and game development content. Time was a limitation of this approach. However, a total of 33 videos were created and shared across TikTok, Instagram, and YouTube, amassing 145,139 views, 5,856 likes and 279 comments. Demographic data revealed a predominantly female audience aged 18-34, a demographic underrepresented in heritage but engaged with gaming. The engagement metrics reflect success in attracting new audiences and generating engagement, despite the campaign being short and niche.

This research demonstrates how archives can be reexplored through creative projects and how video games and social media have the potential to communicate archaeology to new audiences.

KEYWORDS: ARCHAEOGAMING, AUDIENCES, ARCHIVES, DIGITAL HERITAGE, SOCIAL MEDIA

15:25 -15:40 (15 MINUTES) | RILEY FINNIGAN | QUEEN'S UNIVERSITY, BELFAST

SIGNS, SIMULATION, AND CYBORGS: DIGITAL SPACES AS ARCHAEOLOGY

Archaeology as a field, in recent decades, has entered a digital paradigm. The increasing use of practices such as 3D modelling, data sharing, and volumetric recording coupled with the utilisation of modern technological advancements such as drones, computers, and quality cameras has been the primary motivator behind this paradigmatic shift. Thus, modern archaeology finds itself investigating the physical through the digital; the material and immaterial are becoming ever more inexorably linked. This shift is not merely limited to the adoption of technological advancements and techniques in the field; it is also linked to the burgeoning field of cyberarchaeology.

Cyberarchaeology is the postmodern evolution of virtual archaeology, it fully embraces the notion of the hyperreal, and it is a domain where information, simulations, and interactivity are central to its function. Cyberarchaeology is used in a utilitarian manner and as such much of the focus is on what we, as archaeologists, can do to exploit technologies both in terms of physical hardware and digital software to perform physical archaeology. Much of the discourse surrounds the practical applications of cyberarchaeological techniques to real world sites, and how the datasets extracted from the various technologies can be used to reveal different things about a site. Cyberarchaeological approaches allow the different ontological aspects of a site to be examined, for example, the datasets generated via LiDAR, laser scanning, and GiS drone capture might overlap in the real physical space but when placed and processed virtually through computing software, they will reveal fundamentally different things about a site. Whilst the utilitarianism found within cyberarchaeology is highly valuable, it is somewhat limiting in its approach.

The utilitarian attitude towards cyberarchaeology has shut off the exploration of digital spaces and their communities as places of heritage value. Whilst the subdiscipline embraces the medium of digital spaces as tools to be used by archaeologists, it ignores the possibility that these digital spaces themselves are archaeological in nature and can be investigated as such. This creates a 'blind spot' within the research and literature surrounding cyberarchaeology, holding back the subdiscipline from engaging entirely within its unique medium.

KEYWORDS: DIGITAL ARCHAEOLOGY; CYBERARCHAEOLOGY; ARCHAEOGAMING; CONTEMPORARY ARCHAEOLOGY; HYPERREAL; CYBORG ONTOLOGY

15:40-15:55 (15 MINUTES) | SALMA AMANDA LATIFA | LAMBUNG MANGKURAT UNIVERSITY

HISTORY IN THE DIGITAL AGE: HOW GEN Z'S CREATIVE ROLE IS BRINGING HISTORY TO LIFE THROUGH INSTAGRAM AND TIKTOK

In the current era of social media development, the younger generation, Gen Z, has played a significant and unique role in disseminating historical knowledge in engaging, creative, and easily accessible ways. Different from traditional academic approaches, history is now packaged in the form of memes, short videos, viral audio, and even relatable and entertaining theatrical scenarios. This phenomenon not only attracts a wider audience but also opens up new discussions about how history can be taught, understood, and disseminated in today's digital age.

This presentation will explore how historical content spread on Instagram and TikTok can reflect a new form of public participation in understanding cultural heritage. By analysing examples of popular historical accounts and their content strategies, such as the use of humour, audio trends, and dramatic narratives, this research demonstrates that Gen Z is not just a consumer of information but also a producer of alternative historical narratives.

The main questions to be discussed in this presentation are: can Gen Z's methods of sharing history enrich public understanding, or do they simplify the complexities of the past? How can a balance between entertainment and historical accuracy be maintained? And what role can cultural heritage professionals play in responding to these dynamics?

Using a descriptive qualitative approach and a literature study of social media content, this presentation aims to spark discussion about the future of history in the hands of the digital generation. By the end of the session, participants are expected to gain insight into the potential for collaboration between historical institutions and digital creators to create an inclusive, dynamic, and sustainable dissemination of history.

KEYWORDS: HISTORY; DIGITAL; GEN Z; TIKTOK; INSTAGRAM; CULTURAL HERITAGE; CREATIVE STORYTELLING

SESSION 2: Public Engagement with Heritage: The Public Contribution

CHAIR: Arin Edwards

SESSION ABSTRACTS

16:20-16:30 (10 MINUTES) QIAN WANG (IFFY) | UNIVERSITY OF YORK

FROM UK TO CHINA: CREATIVE ENCOUNTERS IN HERITAGE ENGAGEMENT

Heritage engagement is a multidisciplinary field that incorporates theoretical frameworks and practical approaches from cultural studies, museology, audience research, and digital innovation. My study explores how diverse audiences interact with national heritage institutions and arts festivals in both the UK and China. It focuses on public engagement strategies, creative programming, and cross-cultural participation in the aftermath of the Covid-19 pandemic. By examining case studies such as The British Museum, The Palace Museum, the Edinburgh International and Fringe Festivals, and the Wuzhen Theatre Festival, this research analyses how institutions design outreach initiatives and how these are received by both Chinese-speaking and English-speaking visitors.

By adopting a mixed-methods approach—including fieldwork, interviews, and audience surveys—the study analyses how public engagement initiatives differ across cultural contexts, and what lessons can be drawn for improving accessibility, digital innovation, and commercial sustainability. The research is structured around four key questions that investigate perceptions and behaviours of Chinese-speaking audiences in both China and the UK, compare them with English-speaking audiences in the UK, and examine how UK organisations tailor their strategies to meet the needs of culturally diverse visitors.

This talk will highlight emerging trends in global heritage engagement, including digital participation, cultural interpretation, and evolving visitor motivations after the pandemic. It offers practical insights for improving cross-cultural public programming and strategic planning in heritage and arts sectors.

As a Chinese student researcher who has presented at events such as the 2024 Archaeology PGR Symposium and as a finalist in the Three Minute Thesis (3MT) competition, I am committed to amplifying underrepresented voices and bringing international perspectives to discussions on inclusive heritage practices. I believe a short talk format will allow for meaningful interaction and discussion and will be especially relevant to attendees interested in cultural engagement, heritage management, and global audience development.

KEYWORDS: PUBLIC ENGAGEMENT, CROSS-CULTURAL AUDIENCES, UK–CHINA HERITAGE, CREATIVE ECONOMY, DIGITAL INNOVATION

THE REDEVELOPMENT OF THE YOUNG ARCHAEOLOGISTS' CLUB WEBSITE: A CO-CREATION APPROACH

In order to convey its importance within society and education, archaeology must engage with the general public. Co-creation is one method that can be used to do this. Co-creation has a unique ability to draw people from a wide spectrum, and within archaeology, this is vital. The majority of the population has interacted with archaeology in one way or another but may not actively think that they have engaged with it.

By using co-creation in the redevelopment of the Young Archaeologists' Club (YAC) website, this enabled us to demonstrate the effect that various stakeholders can have on archaeological developments. The co-creation meetings all took place online, with them running fortnightly. The company Progress Today was used to facilitate the meetings. The various stakeholders came from a wide range of backgrounds, but all with a basic understanding of archaeology as they had a connection to YAC. The differing opinions and experiences about archaeology, and thereby YAC, were of great importance, and provided huge insight into what the different stakeholders wanted out of the website. There were some issues, as there were clashes in ideas, particularly where the website should focus. However, co-creation allows for these difficulties, although the ability to deal with these problems is linked to who the facilitator(s) are. Nevertheless, the sessions that have taken place have been deemed a success by all those involved. The process of the redesign of the website is not yet complete.

We will attempt to demonstrate that using co-creation within public engagement for archaeology greatly enhances the feedback received and how it is actioned upon. This will allow an understanding of how to suitably carry out projects that require public involvement, particularly with the benefits of co-creation. Therefore, co-creation can play a vital role in engaging with the public about archaeology.

KEYWORDS: CO-CREATION, PLACEMENT, WEB DESIGN, PUBLIC ENGAGEMENT

SESSION 3: Fresh Perspectives and Approaches to Interpreting the Archaeological Record

CHAIR: Ihini Aambreen

SESSION ABSTRACTS

17:10-17:25 (15 MINUTES) JENNY CAREY MIKKELSEN | LUND UNIVERSITY

CRITICAL PEAT/BOG STUDIES IN BOG BODY RESEARCH - ANTHROPO(DE)CENTRISM, MULTIVOCALITY AND MULTISPECIES PERSPECTIVES, FOR OUR MORE-THAN-HUMAN PASTS, PRESENTS AND FUTURES

Bog body research in archaeology examines human remains found in the bogs, fens and peatlands of (mostly) north-western Europe. Current narratives in this 'phenomenon' have been shaped, and continue to be perpetuated, through the largely anthropocentric lens that archaeology as a discipline is characterised by. Where the phenomenon has had a distinct focus on the human and on the body in general, the bog has, conversely, often been discussed as a largely passive and backgrounded entity, upon which human life and death has unfurled. And yet, peatlands are rich, diverse and vital ecosystems, covering just 3% of the world's surface, but holding twice as much carbon as all of the world's forests. When some of the latest research in the European context shows that 25% of Europe's peatlands are degraded, rising to 50% within the boundaries of the EU proper, it is clear that the anthropocentric way we have enacted our human/bog relations has proven to be deeply problematic in myriad ways.

Exploring the 'bog body phenomenon' at the intersections of archaeology, environmental humanities, critical plant studies, vegetal ontology and more-than-human/posthumanism, the talk will engage with the possibility of a more-than-human bog body research, and will expand on research influences from human-soil relations, environmental humanities, indigenous archaeologies, soil and peat relations, and a decentering of Euro-western perspectives. I will discuss the research area I am calling critical peat/bog studies, which advocates for thinking with peat and moss, embracing multivalence and ambiguity, along with a multivocality of both human and nonhuman voices.

KEYWORDS: BOG BODIES, PEAT BOGS, HUMAN/BOG RELATIONS, ARCHAEOLOGY, ENVIRONMENTAL HUMANITIES, ANTHROPO(DE)CENTRISM, CRITICAL PEAT/BOG STUDIES, POSTHUMANISM, MORE-THAN-HUMANISM, MULTISPECIES, MULTIVALENCE, MULTIVOCALITY, VEGETAL ONTOLOGY, CRITICAL PLANT STUDIES

THE POLITICS OF CLAY: HISTORICAL AND POSTCOLONIAL INTERPRETATIONS OF PROTOCORINTHIAN EARTHENWARE

The British Museum houses over 350 Protocorinthian pots. They are recognised by their miniature size to contain amenities (including oils and jewellery) and represent hybridising artistic cultures. The most famous example is the Macmillan Aryballos. A small-scale perfume flask with a carved feline cap (reflecting North African and Near Eastern influence), and a body painted with the scene of Greek hoplite battle. Between the function and composition of this flask, Macmillan – amongst other thematically related Archaic Greek fine ware – is contextualised within an intimate network of cultural contact. One that connected Corinth and Greece, with the greater Mediterranean.

Malcolm Macmillan introduced this aryballos in 1889 when a variety of vases were sequestered from Greece. From primary sources like Cecil Smith's, a Victorian visitor would have interpreted the North African and Levantine motifs of Protocorinthian pots within a particular political lens. Here, classical reception is understood as intersecting withOrientalism to characterise the imperial aspect of British archaeology in the nineteenth century. 'Orientalising' is a generalising term that describe the depiction of the 'Eastern' world by the 'West'. In this prominent, historical discourse, the early analysis of the Protocorinthian style has been influenced by narratives of exoticism and cultural hegemony between Greece and its connections beyond the Mediterranean.

Post-colonial revision has reconstructed anachronistic perceptions of 'orientalising' art and archaeology. In the wake of this deconstruction, we can more accurately understand the cultural relations that artefacts like Protocorinthian pottery emerge from. This presentation seeks to re-analyse Protocorinthian pottery without the 'orientalising' lens. In addition, it will expound on the political theory of orientalising and classical reception originally applied to this artefact analysis. This allows us to understand precisely how this period in British archaeology has been defined by these cultural attitudes and persists through contemporary conceptions of Archaic history.

KEYWORDS: ARCHAIC CORINTH; BRITISH ARCHAEOLOGY; CLASSICAL RECEPTION; IMPERIALISM; LEVANTINE; NEAR EAST; ORIENTALISING; ORIENTALISM; POTTERY; PROTOCORINTHIAN; VICTORIAN ENGLAND

OUR TRANSCAPES: A QUEER EXPLORATION OF BRITISH PREHISTORY

Discovered in East Yorkshire, a set of Iron Age wooden figurines of ambiguous sex were once thrown into a bog. Multiple such figurines and human burials from prehistoric Britain and North Europe suggest correlations between non-duality and spiritual practices, while blurring our current-day binary lenses of 'nature'/'culture', 'man'/'woman', 'spiritual'/'ecological' and 'human'/'nonhuman' beings.

In contrast, sociopolitical narratives today purport that gender nonconformity is new and 'unnatural'. Consequently, transgender people in the UK experience poorer mental health than their cisgender peers. While the field of ecotherapy demonstrates the benefits of being outdoors, trans people reportedly feel less safe in communal spaces. By queering our current day interpretations of British and North European archaeology, and making use of narrative theory and creative exploration, can trans people in Britain feel a greater sense of belonging and validity in our 'natural' and social landscapes?

Our Transcapes is a social impact research project created with Dr Ina Linge (University of Exeter) that explores this question. Trans participants are invited on guided walks around their local landscapes, during which stories of locally found 'queer' objects from prehistory are shared. Following this, they're invited to a creative exploration of what they've heard and encouraged to create a response. We hope these activities can help us understand whether experiencing these stories and landscapes, in a group setting, can be healing. By combining psychogeography, queer ecology, ecotherapy and queer archaeology with creative practice, this project takes an innovative approach to addressing trans people's mental health.

In queering the field of archaeology, we attempt to avoid interpreting past contexts and beings through our present-day 'queer'/'heteronormative' lens. However, adopting this binary can be socially and politically beneficial today, as it allows us to offer alternative narratives about trans people by 'proving' their belonging and 'naturalness' through a queer prehistory.

KEYWORDS: PREHISTORY, TRANSCAPES, SOCIAL IMPACT RESEARCH PROJECT, FRESH APPROACHES/METHODOLOGY, MENTAL HEALTH

SESSION 4: Archaeology and Sustainability
CHAIR: Amy Vaughan

SESSION ABSTRACTS

18:20-18:35 (15 MINUTES) ILMA NAFEES | UNIVERSITY OF YORK

HERITAGE-BASED PLACEMAKING AS A TOOL FOR URBAN SUSTAINABILITY

Great places have heritage at their core, and it is of vital importance that a sustainable heritage-led urban regeneration be taken into account, and this paper will look into that approach. The heritage values also decline with the decline of the city, losing its essence into oblivion, which in turn depletes the character and identity of the place creating a socially excluded space. Placemaking is a multifaceted concept that involves the collaborative process of designing and shaping public spaces to create vibrant, inclusive, and culturally significant environments that reflect the needs and aspirations of the community. The investigations are made based on a qualitative research approach to understand three different variables - heritage, place-making, and sustainability under the umbrella of an urban system. The case studies offer diverse examples of heritage-based placemaking initiatives from different geographical contexts, providing valuable insights into the strategies, challenges, and outcomes associated with using heritage as a tool for promoting urban sustainability. The study's findings are intended to assist policymakers in incorporating heritage-based urban regeneration strategies into local planning practices and public policies.

KEYWORDS: PLACE-MAKING, URBAN REGENERATION, CULTURAL SIGNIFICANCE, COMMUNITY USING HERITAGE AS A TOOL FOR PROMOTING URBAN SUSTAINABILITY

18:35-18:50 (15 MINUTES) LUCIE COLLETT | UNIVERSITY OF READING

HOW CAN DEVELOPER-LED ARCHAEOLOGY IN THE UK INFORM PRESENT DAY SUSTAINABLE DEVELOPMENT?

Sustainability as a concept has huge significance in present day development, given its necessity in both mitigating and adapting to climate change. Archaeological, deep-time perspectives have been much argued to have a role in these development spaces. Many scholars have devised various frameworks and theoretical approaches for understanding sustainability in the past with the aim of applying findings to the present and future. However, many of these frameworks, despite some adopting popular transdiciplinary concepts such as systems thinking and human ecodynamics, have not been widely applied to archaeological sites or adopted in sustainable development around the globe.

There is thus much space within which to improve sustainability work in archaeology, specifically in identifying how and where archaeological data can be made useful for localised sustainable development. Developer-led archaeology in the UK presents itself as a useful system within which to conduct widespread sustainability assessments of past communities through its production of high quantities of archaeological data and its embedded position within the National Planning Policy Framework (NPPF).

This paper therefore aims to explore how sustainability can be measured in the past using developer-led data, and how this information can be made translatable to those outside archaeology. Through exploration of a case study area in a wetland and riverine environment, the viability of this approach in enabling widespread sustainable assessments of archaeological sites within the planning system and the usability of this data in informing localised sustainable development will be evaluated. Archaeology has much potential, and it is through bringing theory into practice that will help realise this.

Pre-Recorded Videos

These will be available to view on the CBA's YouTube Channel.

GRACE HELLER | UNIVERSITY OF GLASGOW

GOING AROUND IN CIRCLES: METHODS OF RECORDING, ANALYSIS, AND STUDYING QUERNSTONE QUARRIES IN CENTRAL SCOTLAND. LOOKING TO THE RECENT EXCAVATION OF BROUGHMORE WOOD, BALFRON, STIRLINGSHIRE

Following a recent excavation of a multiphase rock carving site in Balfron, Stirlingshire, Broughmore Wood has produced evidence of extensive quernstone and millstone quarrying, as well as holding host to a wide variety of earlier rock carving features. Due to the circumstances of the excavation, severely limited datable contexts, and lack of scholarship in assessing sites of this nature in the UK, this research presents methods for recording quernstone quarries in Central Scotland, and looks towards potential methods of analysis to elucidate upon sociocultural and technological connectors providing linkages to 'fuzzy' multivariate datasets.

Throughout the course of this work, terminology for assessing features and tool markings related to quernstone quarrying activity will be discussed. Methods and approaches to recording will be explained through the example of those used at Broughmore Wood, including metrical analysis, field observation, and digital recording. And finally, Correspondence Analysis using R will be posed as an optimal statistical method for analysing large multivariate datasets with 'fuzzy' variables, as such, providing insights towards sociocultural and technological phenomena prudent to research of sites of this nature.

Having worked with a wide base of community volunteers, Stirling Council, and the National Museum of Scotland, the author will explain the quarrying research in relation to the upcoming wider publication stemming from the excavation of the site, and propose methods for tracking vital thematic discussion arising from datasets of highly variable quernstone quarrying remains, what is often a forgotten industry in British archaeology. These methods allow a mathematical basis for understanding quernstone roughout reduction sequences and have the potential to be applied to analyse the numerous other recorded quernstone roughout features across Scotland, including those that have been mislabeled as 'rock art'.

KEYWORDS: QUERNSTONE QUARRY, ROUGHOUTS, DIGITAL RECORDING, STATISTICAL ANALYSIS, CORRESPONDENCE ANALYSIS, FUZZY VARIABLES, MULTIVARIATE DATASETS

LEON CORNEILLE-COWELL | UNIVERSITY OF YORK

A WINTER IS COMING: CLIMATE CHANGE AND MAXILLARY SINUSITIS IN BRITAIN IN THE LATE ANTIQUITY LITTLE ICE AGE

Clinical studies have found that climate change can majorly affect population health. During the late Roman and early medieval periods, Europe transitioned from the Roman Warm Period (RWP) (300BCE-400CE) to the Late Antiquity Little Ice Age (LALIA) (500CE-900CE) and became much colder. This poster aims to use Maxillary Sinusitis (MS) as a proxy for climatic shifts in Britain and to determine whether paleopathology can be used as a climate proxy. This was a data-based literature review using data on MS from published and grey literature from the 1960s until 2024. A total of 229 sites containing 12,829 human remains, 9,042 adults were found across both periods, with a relatively even split (RWP n=6049, LILIA n=6780). Overall, there were statistically significantly higher rates in the LALIA (3.64%) compared to the RWP (2.29%), with even higher rates when only adults are considered (RWP=3.04%, LALIA=5.25%). RWP urban (67/139) and rural (72/139) populations show a relatively even split, while LALIA shows higher rates in urban populations (189/247) than in rural (58/247). In both periods, males show higher infection rates than females (RWP:M=73, F=53, LILIA:M=136, F=101). Chronologically and geographically, the 5th-6th centuries CE in the northeast displayed higher rates, suggesting this was a colder time and area. This study has demonstrated the link between climate and sinusitis using novel methods of displaying palaeopathological data and shown that paleopathology can be used to measure climate change.

AKSHANSH MATHUR | DECCAN COLLEGE OF POST GRADUATE AND RESEARCH INSTITUTE, PUNE, INDIA

STABLE ISOTOPE ANALYSIS IN RECONSTRUCTION OF PALEODIET AND PALEOENVIRONMENT: IMPORTANCE, METHODS AND CHALLENGES

Stable isotope analysis is now become a significant analytical tool which is used in archaeology to reconstruct the ancient diets and environmental condition. Under this method, researcher examines the stable isotopes of some elements whose sample is found in organic and inorganic tissue usually inorganic tissue tooth enamel is widely used to drive sample of stable isotopes. Isotopic composition of elements like Carbon ($\delta 13 C$), nitrogen ($\delta 15N$), oxygen ($\delta 18 O$) and strontium ($87 Sr 86 Sr$). Sr migratory pattern of human beings. These isotopes are used to reconstruct which type plant and animals consumed by humans in ancient time. Distinguish the importance of marine and terrestrial food resources in their diet. If the researcher gets the amount of $\delta 13C$ is more in sample than standard value it means people consumed C4 plants diet more than C3 plants and terrestrial resources has contained less amount of $\delta 13C$ than marine resources. Usually, carbon and nitrogen

isotopes are used to reconstruct paleodiet and oxygen and strontium isotopes are used to reconstruct paleoenvironment, migratory pattern.

This approach gives quantified and scientific data to understand human – animal, human – climate interaction and provide scientific insight to archaeological studies. As we know it is significant tool for interpretation but it contains some challenges also such as diagenesis (process of chemical, biological changes occur in bones, teeth, hairs after burial over time) , sample preservation, regional variation in baseline of isotope values in present time compare to standard value which sometimes gives misleading result, poor preservation of samples, contamination of sample due to transformational and cultural process. To overcome these challenges advanced techniques should be used in this study such as compound specific isotope analysis.

KEYWORDS: STABLE ISOTOPES, C3 AND C4 PLANTS, DIAGENESIS

POSTER

JESSICA NUTT | UNIVERSITY OF EDINBURGH

TRACING VIKING CONFLICT AND MILITARY MOVEMENT IN EARLY MEDIEVAL WALES: A PREDICTIVE MODEL

This poster presents some of the findings of recent PhD work conducted at the University of Edinburgh, addressing a significant gap within the discipline of Viking Studies. This research evaluates the available archaeological and historical evidence that originates from the presence of Scandinavian and Hiberno-Norse 'Vikings' in the early medieval kingdoms of Wales. The exploration of this under-researched topic of 'Vikings in Wales', allows for a greater understanding as to the extent in which raiding Viking parties influenced and interacted with the Welsh landscape and its early medieval population.

Using interdisciplinary methods of study, including methodologies from within the field of Conflict Archaeology, and a close study of medieval historical literature, this research presents an overview of available evidence relating to selected battle case studies; The Battle of Great Orme 856 CE, The Battle of Buttington 893 CE and the The Battle of Ros Meilon 903 CE. These conflicts were between raiding Danish, Norse, Hiberno-Norse, Manx, Welsh or Anglo-Saxon forces, fighting within the early medieval Welsh landscape.

Despite the involvement of well-known historical figures in many of the conflicts, including Welsh kings and Viking rulers, little is currently known about these battles. However, this research now provides an overview as to the newly identified locations of these battles, as well as a study of the material culture associated with these conflicts. This poster will also present the predictive model that was created in order to identify Viking conflicts and their associated battlefields within Wales, utilising a multiscale and interdisciplinary approach in the analysis of archaeological and historical data. The predictive model resulted in the successful identification of the three battle locations, and these results will be outlined within this poster.

KEYWORDS: VIKING, CONFLICT ARCHAEOLOGY, EARLY MEDIEVAL, BATTLE, WALES, MILITARY, MOVEMENT

END