

proposes a new framework for conceptualising and studying masculinity and sexuality in the Roman army and Roman provinces by emphasising how Roman soldierly masculinity and sexuality were not two sides of the same coin.

5 USES AND MISUSES OF QUEER THEORY IN FUNERARY ARCHAEOLOGY

Abstract author(s): Algrain, Isabelle (Université libre de Bruxelles) - Mary, Laura (Recherches et Prospections archéologiques)

Abstract format: Oral

The study of funerary contexts offers to archaeologists a privileged access to a specific individual and, through funeral offerings, to certain elements constituting his/her identity, as it was considered by the group that buried him/her. For ancient societies where gender was strictly binary, the presence of stereotypical objects such as jewelry or weapons in funerary material often prompted researchers to assign a gender to the deceased, without even resorting to osteological or DNA analyses. However, when these analyzes and the objects seem to mismatch - most of the time when a woman is buried with rich material and/or weapons - some archaeologists have preferred to use queer theory rather than revising their positions on the roles of women in these societies. On the other hand, some other cases have been overlooked by archaeologists but might shed some light on occurrences of non-binary, fluid or occupational genders, for example in Greek or Merovingian societies. Through a reflective and theoretical approach, and on the basis of a few case studies, this paper considers the question of non-binary genders, gender fluidity and transidentities in ancient societies that are a priori strictly binary and examines how archaeologists have misused and should use these gender diversities into the interpretation of funerary contexts.

6 HOW QUEER IS THAT? HOW IS THAT QUEER? WOMEN VIKING WARRIORS, ADNA AND MODERN UNEASE WITH PAST IDENTITIES

Abstract author(s): Jensen, Bo (Independent)

Abstract format: Oral

In this talk, I address bold claims that aDNA may finally resolve the old discussion of women warriors in the Viking Age. I suggest that whereas aDNA provides important new data, these are not qualitatively different from those already available from osteology. Moreover, I argue that epistemologically, this research forecloses any discussion of the social meaning of gender, reducing gender to mere biological sex. In effect, we can finally know if people "were" men or women, at the cost of giving up ever understanding what this meant in their time and society. We can know the fact of "woman" (sub specie aeternae) if we sacrifice all hope of understanding the meaning of "woman" (in the local, contemporary context).

Moreover, the status of aDNA evidence for women warriors hinges on a premature resolution of the vexed question of warrior identity. Again, we may know the fact a "warrior" by giving up all hope of ever understanding what this label meant.

I think not.

Here, I propose a different approach: let us unsettle, let us queer the debate and ask, why do modern researchers and readers engage so passionately with this? Why are women warriors so popular and controversial today? What is so queer about this sexed biology in combination with those grave-goods, and what does this tell us about the observer paradox? Why are our colleagues so eager to close discussions at existence, instead of proceeding with the important work of understanding where, when and why women warriors, and women ritual experts, may be visible in some communities, invisible in others? I suggest that the queerness of the past is much more widespread, much more profound and much more radical than simple transgressions of Victorian gender norms.

7 THE CARETAKER AND THE MILITARY: WOMEN WITH THEIR OWN AGENCY IN A MILITARY HOSPITAL ENVIRONMENT IN MODERN LISBON

Abstract author(s): de Carvalho, Liliانا (Research Center of Anthropology and Health, University of Coimbra) - Henriques, Susana (EON-Indústrias Criativas) - Amarante, Ana (Centre for Functional Ecology, University of Coimbra) - Wasterlain, Sofia (Research Center of Anthropology and Health, University of Coimbra; Centre for Functional Ecology, University of Coimbra)

Abstract format: Oral

When studying funerary contexts, it must be acknowledged that the history of death and social history are inseparable. The attitudes surrounding death consistently mirror the worldview and organization of a given society. When looking at osteological material from large contexts with a marked demographic bias, such as necropolises in monasteries or those related to military contexts, bioanthropologists have an interesting opportunity to surpass the female-male dichotomous analysis provided by the usual sexual diagnosis, that gives us no more than biological sex. Such approach looks at individuals whose biological sex was in the minority, generally neglecting elements outside the social norm. In this perspective, these minority individuals would be the helpers of the opposite sex, like the monastery's handmen, who would be tolerated out of necessity. An alternative approach requires looking not only at the biological sex per se, but also to the context, and this is where the possibility of thinking about gender identity arises.

In the present study, the necropolis excavated in Rua do Recolhimento 7/9, in São Jorge Castle (Lisbon, Portugal), and the cemetery of the Military Hospital, located nearby (active between the 16th and 18th centuries) will be analysed. In the second and third excavation phases, 948 individuals were exhumed, and of the 642 that allowed sexual diagnosis, 96.6% were male. Although the remaining 22 individuals were diagnosed as females (from the point of view of the bioanthropology), apparently, they presented similar funerary rituals to the male ones, either in terms of deposition, type of funerary goods, and even location in the necropolis.

Two possible readings, one focused exclusively on biological sex and one integrating gender identity on the analytic framework to approach the presence of women, men, and others in between in a powerful masculine environment will be performed.

140 COMPENSATION IN ARCHITECTURE AND ARCHAEOLOGY - ON COMPENSATION AS A CONCEPT, METHOD, AND PROFESSIONAL PRACTICE

Theme: 3. The new normality of heritage management and museums in post-Covid times

Organisers: Rönn, Magnus (Kulturlandskapet, Chalmers University of Technology) - Teräsväinen, Helena (Aalto University) - Kalakoski, Iida (Tampere University) - Kouzelis, Athanasios (National Technical University)

Format: Session with precirculated papers

This session focuses on compensation as a concept, method, and professional practice in the transformation of cultural environments. Compensation represents a significant challenge reflected in a myriad of environmental laws and in local policies. The concept has many definitions and, from a planning perspective, can be defined as overall demands, specific measures, actions and changes of design taken in order to appease criticism.

The transformation of environments can be approached from two main perspectives. On the one hand, there is a risk of negative impacts on cultural heritage when exploitation interests are in power. Project developers, reinforced by political interests, can ignore the values and architectural qualities of cultural heritage in places subject to exploitation. A protected milieu, thus, can be perceived as an obstacle to development rather than a common resource of public interest. On the other hand, there have been calls for a rethinking of compensation as means to recreate and safeguard cultural and architectural values and qualities affected by developments. In such approaches, how can issues related respect for the history and protection of cultural heritage, be combined with a reconstruction of the values associated with and the adaptive re-use of buildings?

This session calls for a multidisciplinary approach to compensation. How should it be understood as a concept, method, and practice by architects, architectural conservators, and archaeologists. The session welcomes papers discussing compensation as (a) a part of the measures and functions aimed at restoring lost cultural values and architectural qualities, (b) conservation and protection through rules and regulations in city plans and urban planning, (c) requirements for design of new buildings, (d) tools and methods for balancing interests between exploitation and preservation and (e) problem solving approaches to modify proposals that impact cultural environments.

ABSTRACTS:

1 CULTURAL HERITAGE COMPENSATION

Abstract author(s): Rönn, Magnus (Kulturlandskapet) - Grahn Danielson, Benjamin (Picea)

Abstract format: Oral

"Cultural heritage compensation" is a proceeding from a research project in Sweden. The project investigating how compensation is expressed in designing detailed development plans in areas with heritage values and architectural qualities. The overall objective has been to produce new knowledge about heritage compensation as a concept, method, and tool in planning processes. The practical benefit lies in the development of empirical findings of how professionals handle cultural heritage and architectural qualities in the transformation of sites and environments.

Ten scholars from Finland, Norway, Denmark, Sweden, United Kingdom, and Greece present findings in the proceeding on compensation in alterations that have impacts on heritage values and architectural qualities. Their contributions are developed from an international workshop – called "Architecture, cultural environment, and compensation in planning processes." The workshop took place at Gothenburg, 16-17 September 2019, and was organized as a joint venture between Kulturlandskapet and Chalmers University of Technology. The theme in the invitation to the workshop was summarized in the following way: On compensation as a concept, method, and professional practice by architects, architectural conservators, and archaeologists in planning processes.

Compensation comes from the Latin word *compensare* and is used in the environmental code in Sweden. The concept is used in the sense of indemnifying, balancing, settling, restoring, and reaching a balance, etc. One controversial issue is whether heritage values and qualities are unique and always fixed to a specific plot, or whether they are mobile and can be redesigned at another site. Architects, architectural conservators, archaeologists, and other heritage professionals work differently and have different approaches to this issue in the transformation of areas. In the Swedish context, there is a strong connection among professionals to introduce compensation as problem-solving actions in the planning and design of environments with cultural values and architectural qualities.

2 ARCHITECTURE AND COMPENSATION - RENEWAL AND EXPANSION OF THE CITY LIBRARY IN GOTHENBURG

Abstract author(s): Rönn, Magnus (Kulturlandskapet)

Abstract format: Oral

The paper deals with renewal and preservation in a combined architecture and detailed development plan-project, including cultural values and architectural qualities. The focus is on how compensation actions, cultural values, and architectural qualities are ex-

pressed in the expansion of the City Library in Gothenburg. In this case, the detailed development plan regulates both land-use and architectural design. The transformation of the City Library occurred in an area with heritage values of national interest.

The objective is to investigate, analyze, and discuss compensation in architecture and planning processes. The specific goal is to produce knowledge on how key players practice compensation and understand heritage values and architectural qualities. The research is based on a single case study. From a selection of 39 contemporary detailed development plans obtained from the City Planning Office in Gothenburg, one plan has been chosen for investigation in this paper. The motive behind this selection is that the expansion provides both an interesting background to quality issues and raises important questions concerning the renewal of a public building at a site of great value for citizens.

Key documents in the case study have been analyzed through close-reading. Knowledge has also been developed through analyses of drawings, illustrations, site visits, and discussions at seminars.

The detailed development plan can be understood both as a product and a process. Seen as a product, compensation measures are embedded in the plan as fixed regulations to support renewal as well as to safeguard values and architectural qualities. These regulations concern both land-use and architectural design. Compensation thinking as part of the planning process is expressed through changes based on comments from key-actors, starting with the design of the expansion of the library, and is continued in the transformation to make the renewal possible through the detailed development plan.

3 NARRATIVES OF FISH, TRADE AND COASTAL COMMUNITIES: USE AND RESOURCE MANAGEMENT AS A TOOL FOR HERITAGE AND ENVIRONMENT COMPENSATION

Abstract author(s): Davies, Tom - Smith Wergeland, Even (Oslo School of Architecture and Design) - Standal, Anja (Norwegian University of Life Sciences)

Abstract format: Oral

To be entered under: Compensation as a tool, method and measure for protection, restoration, reconstruction and relocation of cultural values and architectural qualities in areas of exploitation.

Building on the inherent reappraisal of priorities from tangible to intangible, this paper considers use and resource management, through the medium of Norwegian coastal communities, as a transdisciplinary tool for heritage and ecology. The preconditions of natural resources these coastal localities (islands, coastline and

fjords), essentially their limits of exploitation in sustaining communities are appraised as the basis for a transdisciplinary approach. It considers how relative permanence and impermanence of such environments and the opportunities afforded by ample cod-stocks and other fish and the maritime trade have defined these

communities over time. Arguably starting with the development of Norway's West and North Coast from the 1200s with the Hanseatic League to the present day, this has determined these cultural landscapes and the lives of their communities. This provides the basis for enquiry to consider what lessons communities determined by their environment and opportunities to such an extent can provide for today's challenges for both heritage and environment.

Examples are drawn from literature review, ongoing teaching and professional work, looking at the Fjord Landscape of West Norway supported by other reference studies. The study considers changing land and sea use over time drawing on historic maps and written sources, early film and photography and a variety of current community and municipal projects looking to recover coastal communities from the decline they typically experienced in the late 20th Century. As part of which current challenges and opportunities for livelihoods and conservation are considered within the context of the overall narrative.

4 HOW TO COMPENSATE THE IRREPLACEABLE? A CASE STUDY OF TWO PROTECTED BUT ENDANGERED BUILDINGS

Abstract author(s): Teräväinen, Helena (Aalto University)

Abstract format: Oral

Old Paukku in Lapua, Finland is a former cartridge factory, which was transformed into a culture centre in 1990's (Teräväinen 2006, 2009, 2018, 2020). In the beginning the cultural heritage of the industrial buildings was not recognized, but later it was listed on national level heritage (RKY 2009).

2020 the town started again to revise the plan of Old Paukku to cancel the conservation regulations and then to demolish the only wooden building in the area, the Canteen. The planning documents show a suggestion, that another city-owned wooden building from school yard to be pulled down and then re-place the Canteen. Both buildings have been neglected and empty, and Lapua has several times tried to get exceptional permits to dismantle these protected buildings.

According the negotiation notes from planning meetings the provincial museum, representing The Finnish Heritage Agency, seemed to accept the Canteen to be demolished, in consequence of the poor condition it should be mostly re-built and accordingly the authenticity of the building would disappear. Removing the other building from its original place was not seen as crucial, and the museum sounds satisfied: "at least one of those endangered buildings could be saved". It is difficult to imagine who now would use and pay the re-placement (compensating) building, because the town's culture division haven't found any use for the Canteen in two decades.

The aim of this paper is to investigate the place, the authenticity and the compensation thinking (Grahn Danielson 2015, Rönn 2018, 2020) in the planning context. The cultural heritage in the environment has both tangible and intangible parts, and so it should be understood together with the place and the identity, not only counting the amount of new pieces in the renovation.

5 ADULIS ARCHAEOLOGICAL SITE: HERITAGE VALUES AND CONTEMPORARY CULTURAL LANDSCAPE IN ERITREAN COASTAL LOWLANDS

Abstract author(s): Bortolotto, Susanna - Cattaneo, Nelly (Politecnico di Milano) - Massa, Serena (Università Cattolica del Sacro Cuore di Milano)

Abstract format: Oral

Since 2011 an Eritrean-Italian research has been conducted on Adulis Archaeological site (Eritrea). Its position represented a key factor in the development of the main emporium town of the Horn of Africa between the III century B.C. and the VII A.D., when a natural catastrophic event destroyed it. The project is led by the Eritrean Ministry for Culture and Sport and by the Research Centre on the Eastern Desert, in collaboration with Italian Universities, and aims at enhancing the site also through the creation of an archaeological park.

Adulis is of great interest for researchers worldwide, nevertheless its current context is peripheral and marginal to the main Eritrean centres. The local inhabitants are committed to subsistence farming and goat breeding in a semiarid context. The unexcavated archaeological area itself has been a common grazing land. The balance between livelihood and local scarcity of resources represents an intangible heritage shaped in centuries, enhancing the diversification of activities and the community over the individual, thus ensuring a high level of resiliency.

What would happen to this local intangible heritage when the main trigger for economic development is an archaeological site of international interest? The socio-economic process promoted by tourism industry, as suggested by many cases worldwide, can endanger a heritage whose values have not been acknowledged or whose loss has been considered an acceptable side-effect of development. To prevent from this irreversible loss, the current project VITAE, started in 2020-21, has considered the understanding of local cultural values as part of the actions, promoting local economy and community ties. Beside addressing the wide literature dealing with compensation in the field of archaeological risk assessment, the contribution aims at reflecting on the concept of compensation and mitigation when applied to intangible heritage and to cultural values which rely on processes more than artifacts."

6 DESIGNING WITH DECAY

Abstract author(s): Kalakoski, Iida (Tampere university)

Abstract format: Oral

The subject of this study the former hospital area of "Kulkutausaistraala" (infectious disease hospital) in proximity of Tampere city center, Finland. The existing buildings were built in several phases from 1890's to 1950's. After their original use, the buildings have served for example as student apartments. Now, most of them are unused, in a very bad condition and waiting for planning decisions.

Taking into consideration the topicality of the site and the challenging state of the buildings, we decided to take the district for the project site of the Management of Built Heritage course in Tampere University in spring 2021. The students were encouraged to widen their perception of architectural conservation in order to preserve some qualities of the site and at least one of the buildings using creatively methods of transformation, preservation, renewal and infill building.

This study explores the spectrum of different practices suggested by 24 group works done by over 60 Finnish and international students. The investigated practices are juxtaposed with the concept of and definitions of compensation.

7 THE OPEN-AIR ARCHAEOLOGICAL MUSEUM AS A MODEL OF CULTURAL COMPENSATION

Abstract author(s): Kouzelis, Athanasios (N.T. Univ. of WA, Athens)

Abstract format: Oral

Our inquiries concerning the cultural design praxis are shifted by a flow of considerations in the field of its utility. There are some factors that affect us to think how a proper design method can draw a practical usability from the terms of compensating losses in architectural and cultural inheritance. Cultural heritage is not only just about the past – it also defines who we are and shapes the future. Archaeological evidence demonstrates that heritage assets serve as a catalyst, not only for conservation, historical cohesion, cultural development and education, but also for design job creation, infrastructure development, investment and economic development.

The design management of archaeological and cultural sites has become an important and major component of heritage discourse. It inspires and gives context to modern design and planning approaches as well as it constitutes a source of cultural compensation.

Given that archaeological heritage is a material record of past human activities, it constitutes an outstanding instrument for a better knowledge of the past and for introducing cultural novelty that emerges within a given territory's historical 'genius loci'. As such examples we can consider the use of the reconstructed ancient Panathenaic stadium in Athens, the theatre of Epidaurus and the initiatives for the reconstruction of Plato's Academy in the same place of its ancient location.

8 HERITAGE COMPENSATION IN CHANGING ENVIRONMENTS: THE CASE OF THE WEST LINK INFRASTRUCTURE PROJECT, GOTHENBURG

Abstract author(s): Dore, Mairi (Gothenburg University; Heriland research and training network)

Abstract format: Oral

Major urban infrastructure projects in old cities often encounter material historical features during planning or execution, presenting several challenges for local heritage management. Using the case of the West Link in Gothenburg, Sweden, this paper discusses compensation as an approach to integrating heritage conservation with new urban development.

Compensation, in this understanding, denotes a rethinking of heritage values and qualities, and fosters new development directions. While recognised as an important planning instrument (Grahn Danielson, et al, 2013; Rönn, et al, 2017), compensation more broadly, also includes thinking of heritage in terms of the heritage paradigm (Ashworth, 2011), as a vector in spatial planning (Janssen, et al, 2017), and more. The paper analyses how all these approaches reflect in practice in one specific case.

The West Link is a railway line currently under construction in Gothenburg. It burrows through the city's 17th century fortifications, ancient agricultural properties, and historical parks – all of which are 'national interests' with architectural historical value. Since the project is deemed to be a threat to the cultural heritage, the Swedish Transport Administration (STA) – responsible for the project – and the City of Gothenburg are in talks on how best to work with the heritage. Their proposals for adapting it reflect their ideas about its values and qualities. The STA seeks to minimise heritage damage, while the City additionally proposes to 'strengthen' its value through new urban design programmes and increased accessibility to hidden sites.

The paper situates their proposals and positions within the wider discourse on compensation. It further highlights the potential of cultural heritage to not only coexist with new development, but even become a decisive force in shaping future cities in moments of major transformation.

This work forms part of a PhD on heritage planning in changing environments resulting from infrastructure projects.

9 COMPENSATORY MEASURES IN ARCHAEOLOGICAL HERITAGE MANAGEMENT - OVERCOMING THE NATURE-CULTURE CULTURE DIVIDES

Abstract author(s): Hueglin, Sophie (Newcastle University; University of Basel; University of Tübingen)

Abstract format: Oral

To reduce, avoid or offset the potential adverse environmental consequences of development the EU Environmental Impact Assessment (EIA) Directive mentions three mitigation measures: preventative, corrective, and compensatory measures. The third and last resort in case of unavoidable impact – compensatory measures – so far have not been demanded by archaeologists as it seems to contradict their conventional conservation concept. They think archaeological heritage should be protected and if that is not possible excavated or possibly relocated, but how could it be compensated?

To understand this, heritage policies must be thought through to their extreme ends. Here two policies will be contrasted: the site-centered vs. the landscape concept. The site-centered concept would identify a site, classify it, put a fence around, restore and try to upkeep it. The landscape concept would describe a historic environment, characterize its elements, but involve the stakeholders of a specific planning process to evaluate it. In this latter concept heritage potentially is everywhere and could possibly even be (re-)created during development through compensatory measures.

Using examples from Germany and all over Europe, the weaknesses of current practices of heritage protection will be demonstrated. Alternatives – including compensatory measures – will be proposed. Archaeologists would profit from adopting strategies from nature preservation. To be successful, they must seek constructive co-operation in planning and conservation processes with the public as well as other major nature and culture conservation organisations.

10 SAVE WHAT CAN BE SAVED AND TELL THE STORY – BALANCING DAMAGE ON INDUSTRIAL HERITAGE BY ARCHITECTURAL INTERPRETATION

Abstract author(s): Nilsson, Urban (Nyréns Arkitektkontor)

Abstract format: Oral

It takes more than preservation of buildings to convey the history of a site to residents, visitors and users of a new district. To clarify the narrative of the heritage its matter has to be shaped by architectural means thus interpreting it.

When the pervasive conversion of the industrial site Lövholmen is completed many years have passed. This long process holds many participants – from property owners over experts in different fields to citizens. The latter as practitioners of their democratic rights. Through this large teamwork it is possible to take care of physical remains that are carriers of cultural significance and to convey the history of the site through architectural interpretation.

Lövholmen in central Stockholm is an ongoing planning process and it will be used as a case study. One of the conditions for this development is hash exploitation figures which will lead to the demolition of several buildings. However a critical mass of the physical heritage will be reused and the loss will be compensated for by the telling of the history of the site.

The study focuses on different ways of interpretation by architectural means using the existing bedrock, landscape, structures and buildings as basis for the design. Through landscape architecture the remaining rock of the archipelago can be highlighted. Squares

can be paved with designed patterns, maps of the cement distribution network for instance. The concrete industry Cementas plant used the key for transhipment distributing cement to building sites around Stockholm. To reuse parts from the silos in new contexts or to use the forceful architecture of the silos as inspiration for the design of new housing blocks are other examples.

Tomorrow, when the conversion is carried through, Lövholmen will still reflect significant cultural values and tell stories about the people who lived and worked there.

141 BETWEEN BONES AND BELIEFS: HUMAN-BIRD RELATIONS IN CENTRAL AND NORTHERN EUROPE IN THE 1ST MILLENNIUM AD

Theme: 1. Widening horizons through human-environment interconnections

Organisers: Karpinska, Klaudia (Museum of Cultural History, University of Oslo) - Smallman, Rebecca (HumAnE Bioarchaeology, University of Exeter) - Oehrl, Sigmund (Department of Archaeology and Classical Studies, Stockholm University)

Format: Regular session

Human-avian relationships developed in many ways throughout the Iron Age, particularly in the 1st millennium AD in Central and Northern Europe. These airborne animals foraged and scavenged close to settlements, inviting interactions – wild birds were hunted, and domesticated poultry were bred for meat, feathers and eggs; other birds were kept for entertainment or sport, with raptors trained for falconry. Aves also played significant roles in pre-Christian beliefs and rituals of Iron Age societies: they were sacrificed as votive offerings, included in funerary rites, used for divination, and feature as symbols in both pre-Christian and early Christian iconographies.

Bird remains are frequently recovered from a range of everyday and ritual contexts (e.g. settlements, pits, wells, graves). Avian iconography features on many objects (e.g. jewellery, weaponry, carved stones) in different manners (e.g. Germanic animal styles). Written sources – such as Roman (e.g. Pliny the Elder's The Natural History) and Medieval accounts (e.g. Old Norse literature) – tell of the roles birds played in these cultures.

The main aim of the session is to discuss interdisciplinary research on human-bird relations in the 1st millennium AD in Northern and Central Europe. During the session, we will examine the roles of birds in daily life and their symbolic meanings in pre-Christian and early Christian belief systems of Iron Age cultures, including Roman influences. Papers regarding Eastern and Mediterranean parallels are also welcome. We would like to invite researchers who study such themes not only in the scope of archaeology, anthropology, and zooarchaeology, but also history, art history, history of religions, and philology.

ABSTRACTS:

1 FROM SPECIAL ANIMALS TO CHICKEN DINNER: EXPLORING THE CHANGING ROLE OF CHICKENS

Abstract author(s): Best, Julia (Cardiff University) - Doherty, Sean (University of Exeter) - Foster, Alison (Freelance)

Abstract format: Oral

Chickens are the world's most widespread and abundant domestic animals. They number more than 23 billion and provide much of the world's primary meat and egg resources. However, the timing and circumstances of their spread across the globe, and their transition into a food resource have been poorly understood. During the 1st millennium AD chickens underwent something of a revolution. This paper combines c14 dating, proteomics, and zooarchaeology to discuss the chicken's shift from a rare, exotic, special bird to a common food source. We present new evidence for the timing of the spread of chickens across Europe, and their use on arrival. We use tarsometatarsal spur fusion and metrics to reconstruct age profiles and sex demographics of domestic fowl in Britain during this period, uncovering the advanced age that cockerels often lived to. Using proteomics and medullary bone studies we also explore the creation of repeated egg laying and its impact on the chicken's role in food production. Combined these approaches investigate the changing dynamics of human-chicken relationships.

2 FEATHERS FOR THE AFTERLIFE. INVESTIGATING SPECIES COMPOSITIONS OF FEATHERS FROM SCANDINAVIAN IRON AGE BURIALS REVEAL NEW PERSPECTIVES ON HUMAN-AVIAN INTERACTIONS

Abstract author(s): Berglund, Birgitta (Norwegian University of Science and Technology - NTNU, University Museum, Department of Archaeology and Cultural History) - Rosvold, Jørgen (The Norwegian Institute for Nature Research)

Abstract format: Oral

Several Late Iron Age high-status burial sites where the buried individuals were lying in beds stuffed with feathers are known in Northern Europe, a.o. Sutton Hoo in England, Jellinge in Denmark, Birka in Sweden and Oseberg in Norway. According to written sources, feathers were harvested in Northern Europe in the Faroe Islands and at the coast of Northern Norway at least from the 15th century. The North-Norwegian chieftain and seafarer Othere told king Alfred in England in the 9th century that the Saami payed him feathers as taxes. At the coast of Helgeland in North-Norway, people have for centuries built nesting houses for Common Eiders to obtain feathers, thus building a close relationship between man and birds.

The species composition of the ancient feathers in six burial sites in Norway, from Oseberg in the south to Øksnes in the north, were investigated microscopically and the results are presented here. While *Anseriformes* (duck, goose and swan) are most common, the