The 7th Season of Excavations at Wadi al Sail, Bahrain: Subadult Burials during Early Dilmun Period

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Keywords: Early Dilmun Period, Burial Mounds, Sub-adult Burials, Wadi al Sail, Bahrain

In Early Dilmun Period (from 2300 BC to 1700 BC), a total of 75,000 burial mounds were constructed in Bahrain. Wadi al Sail is one of the burial mound fields and is the oldest burial mound field of Early Dilmun Period. Wadi al Sail is a four kilometer long wadi running from southeast to northwest on the inland plateau of Bahrain. Along its upper stream, hundreds of burial mounds are scattered on both slopes of the wadi. We started Wadi asl Sail Archaeological project in 2014 and the 7th season of the excavations was undertaken in January and February in 2023. During the 7th season, we focused on excavations of subadult burials. The excavations revealed that subadult burials of Early Dilmun Period was much more complex than previously argued. This paper will provide preliminary results of the 7th season.

Qurh / al-Mabiyat: New Insights into a Hijazi City during the Early – Middle Islamic Periods

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Keywords: Qurh / al-Mabiyat, Archaeology of the Islamic period, Urbanism, Pottery production

The extensive ruins of the city of Qurh (modern al-Mabiyat), ca. 19 km southeast of modern al-Ula (Medina Province, Saudi Arabia), have become subject of a new multidisciplinary project involving conservation, survey and archaeological excavations. The project is carried out by the Orient Department of the German Archaeological Institute, funded and supported by the Royal Commission for AlUla (RCU). Whereas previous investigations by the Department of Antiquities (1984–1985) and the King Saud University (2004–2019) exposed large parts of residential areas, mainly dated to the 9th – 10th cent. CE (later occupation phase), the new project aims to develop a more detailed scenario of the Early to Middle Islamic settlement. While ground and geophysical surveys focus on the internal urban structure of this important Hijazi city, excavations of production, water management and household contexts provide new insights into socio-economy and daily life. Of particular interest is a pottery production area with a kiln, offering new data on both local material culture and foreign imports. Connections to Syria, Iraq, and Egypt, as identified in the pottery record, parallel similar information known from historical accounts. The paper discusses the preliminary results of the first two field seasons at Qurh (Autumn 2022 and Spring 2023).

'Islamic' Burials and the Ethical Treatment of Human Remains in AlUla

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Keywords: Islamic burials, CRM, policy, ethics, AlUla

The excavation and treatment of human remains is a key issue for archaeological research and cultural resource management. Global theoretical and pragmatic attention to related policy and ethics has primarily revolved around repatriation, descendant/public affairs, or post-conflict contexts. These emphases are important but constitute a lacuna for many archaeologists working in social, cultural, and religious milieux of the MENA region and/or based outside of North Atlantic institutions. Meanwhile, despite this region's vast diversity and substantial ongoing debates on the subject, development and religion—especially as facilitator and inhibitor, respectively—are typically viewed as determinative for heritage policy and praxis in weighing respect for the deceased with contemporary concerns. Recovering unidentifiable remains of over 30 individuals during 2022 field research in AlUla's Old Town, in NW Saudi Arabia, required developing new research procedures and institutional policies which carefully integrated national law, religious jurisprudence, public interest, and AlUlans' expectations. The project's approach included recentering rights of the deceased in their individual sanctity, rather than relationship to contemporary people or interests. Results offer a novel theoretical framework rooted in human dignity, as well as distinctive methodological implications, for the excavation and care of human remains within and beyond Islamic historical periods or sociopolitical geographies.

Epigraphy of Oman: A New discovery

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Keywords: Dhofar; Epigraphy of Oman; Semitic Alphabet; South Arabian; Thamudic.

For a long time, specialists in Semitic languages believed that the southeastern part of the Arabian Peninsula was considered devoid of writing. However, in the early 1990's, thousands of inscriptions were discovered in the Dhofar region, south of Oman, containing symbols unfamiliar to South Arabian and Thamudic inscriptions. The first documentary study of these inscriptions was written in (1991-1992). In 1993, The French-Italian archaeological mission at the Ras Al-Jinz site in Oman, discovered locally rock seals bearing symbols written in the same Dhofar alphabet, dating back to (2200 BCE). Recently, it was surprising to discover dozens of inscriptions in the valleys of northern Oman, which included symbols that were not familiar in the Dhofar inscriptions, nor in the Semitic alphabets. This paper aims to /compare between the alphabet and characteristics of inscriptions of southern and northern Oman / explore the characteristics and alphabets of Oman's epigraphy and my attempt to decipher the Dhofar inscriptions.

Archaeological Excavations at Umm an-Nar Island 1959-2022

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Keywords**:** umm an-nar, bronze age, excavation, trade, domestic

The Bronze Age tombs and settlement on Umm an-Nar Island were first excavated between 1959 and 1965 by a Danish archaeology team, at the personal invitation of Sheikh Shakhbut bin Sultan Al Nahyan, then ruler of Abu Dhabi. Further excavations and reconstruction of the houses and tombs on the site were carried out by an Iraqi team between 1970 and 1975. Since 2020 the Department of Culture and Tourism Abu Dhabi have undertaken three seasons of archaeological fieldwork at the site (now known as Sas al Nakhl), including excavation of the settlement and detailed recording at the site with a range of digital techniques. This paper will present the results of recent work undertaken at Umm an-Nar Island. New data will be presented alongside the results of previous excavations at the site to refine the chronology of the site, to better understand the local economy and everyday life on the island, and to discuss the role that long-distance exchange played at the site.

Interregional contacts of Bronze Age Failaka Island: A Perspective from the Bead Assemblage of the Danish 1958-1963 Excavations

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Keywords: Failaka, beads, personal ornaments, Dilmun, interregional contacts

During the 1958-1963 Danish excavations (Moesgaard Museum) of two Bronze Age Tells called Tell F3 and Tell F6 at Failaka Island (Kuwait) 629 beads were recovered and subsequent analysis of the beads has resulted in the publication of a monograph (Andersson 2022). Renewed Danish excavations of Tell F6 (2008-2012) and Tell F3 (2012-2017) has added 227 beads to this assemblage (Andersson 2016, 2021) and the total number now amount to 856 beads. The beads found during the Danish excavations are made from a variety of mineral (agate, jasper, carnelian, turquoise, rock crystal and lapis lazuli), organic (sea shell and ostrich eggshell) and artificial materials (faience, glass and paste) indicating a vast network of interregional contacts and trade passing through the island in the late third and 2nd millennium BC. Furthermore, stylistic parallels point to beads arriving at the island from several different regions, which include Mesopotamia, the Mediterranean region and the Indus region. The bead assemblage adds to the general impression of the Bronze Age occupation at Failaka island being an important node on the trade route between the southern Mesopotamian harbour cities and the Dilmun harbour cities in Bahrain.

The Quranic 'Abb', as a south Arabian magical formula

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Keywords – South Arabia, magical formula, Qur'an, Wadd, *spolia*.

This article proposes a new interpretation for the common magical formula in the Ancient South Arabian inscriptions "Wd-ʾb", which is usually translated as (Wadd is father). Instead, it suggests interpreting it as "Wadd blessing" based on the Semitic root "ʾb," which also appears as the problematic Qurʾānic term "*ʾabbā*" and in various Yemeni dialects (*ʾab*; *ʾabīb*) meaning (grass, fodder). The custom of engraving similar protection formulas on the building may have survived in Yemen and other regions, through engraving Islamic blessing formulas such as *mā šāʾ Allāh* (what God has willed) or *tabārak Allāh* (what God has blessed), which is quite common in modern Yemen.

Can Early Bronze age ditches be used to study local water resource and palaeoenvironment? First results from the excavation of three ditches in Al Khashbah (Northern Oman).

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In Northern Oman, circular ditches are regularly found near Early Bronze Age sites, especially around tower-like buildings. As a sedimentary trap, these ditches serve as a good taphonomic context for palaeoenvironmental analyses. However, their geoarchaeological/ palaeoenvironmental potential has not yet been properly assessed. In this paper, we present the first results of multiproxy analyses conducted at Al Khashbah within the frame of the UmWeltWandel project. Three ditch infillings and banks have been excavated and studied via sedimentological, anthracological, malacological, micromorphological and palynological approaches. Our results suggest that the infilling of these ditches provided little information about the surrounding environment, even in "use layers". That said, the ditches banks do archive some interesting data on previous humid periods. Regarding ditch function, we will show that the ditches in Al Khashbah were used to reach a shallow alluvial aquifer and subsequently were filled with sediment when disconnected from the aquifer by decreasing groundwater levels. We suggest that EBA ditches from Northern Oman can instead be used as an archive to observe, at a local scale, the depletion of surficial groundwater level and that the water table slowly dropped during the 3rd millennium.

The core of an Iron Age II settlement in the mountains of Northern Oman. Omani-Polish investigations of QA 20 site near Ayn Bani Saydah - 2022.

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Keywords: Oman, Iron Age, settlement, buildings, pottery

The Ayn Bani Saydah site is situated within the Qumayrah microregion. The site is composed of 3 sectors : QA 3, QA 20 and QA 21 and the remains of Iron Age II settlement were found on all of them. Each of the site's sectors had a different character. On QA 3 were uncovered a building complex of probably some special function while on QA 21 were noticed presence of over 30 scattered rural household units. Between them is located third sector – QA 20 - occupying top of a small rocky hill. It rise for over 7m over surrounding ground and its top is tightly occupied by remains of several structures. During the first season of excavations there the outlines of 33 rooms and a courtyard were uncovered. They belong to 13 houses standing on both sides of a lane. Stratigraphy and analysis of pottery show that there were two different stages of human occupation. Comparative studies of collected potsherds suggest that strata should be dated to earliest subphase of Iron II i.e. between 1000 – 800 BC. Results of the 2022 campaign on QA 20 suggest that we have to deal here with the core of a provincial centre.

Traditional villages in central Oman: New views on the emergence and decline of 17th-20th century sites

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Keywords: Traditional architecture, mudbrick settlements, Late Islamic ceramics, Sultanate of Oman

During the later Islamic period (*ca*. 1650-1950) in the Gulf region and across the Arabian interior, there was a remarkable increase in sites, structures, and assemblages, both on the coast and in the interior. In Oman various survey projects have detected dense and ubiquitous Late Islamic remains, indicating new agricultural settlements and an increase of pastoralism. Two causes are usually assigned to this peak in activity; an increase in profits from the pearl trade, and new investments in agriculture by the Ya'ariba Imamate. This paper focuses on the emergence and decline of these settlements in central Oman. Here, the archaeological landscape is dotted with over a thousand traditional villages and towns that were inhabited during *ca.* the 17th to 20th centuries. Five of these sites were studied through archaeological survey and excavation within the "Lost Cities Project". This paper presents new data on the regional material traditions of this area. The evidence of ceramic wares, coins, glass, radiocarbon dates, and other material, show that the conventional causes on the emergence and decline of these settlements should be reconsidered.

Iron Age settlement in the Rustaq area

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Keywords: Iron age, Oman, archaeological survey, settlements, Batinah coast

This paper will present the Iron Age settlements from the Wadi Far area around Rustaq on the Batinah coast. Fifteen previously unrecorded Iron Age villages, each around 2ha in size, were identified by the Rustaq-Batinah Archaeological Survey between 2013 and 2018 along a 13km stretch of the wadi. This density of substantial Iron Age settlements in such close proximity is completely unique to Southeast Arabia and thereby offers new perspectives and new interpretations of the nature of Iron Age occupation in the region. Each of the fifteen villages consists of numerous stone-built houses and other structures, with associated dense pottery scatters dating to the Iron II/III periods (c 1000-300 BC?). Although no excavation has taken place, in many cases full and detailed plans of the entire settlements is visible on the surface and has been recorded. A few examples will be presented and discussed in detail so as to outline some preliminary interpretations of the way in which these villages were structured. This paper will present the new Rustaq evidence and discuss it within the broader context of Iron Age settlement in Southeast Arabia.

Subsistence in the Land of the Two Seas

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Keywords: Bahrain archaeology, Arabian Gulf archaeology, stable isotopes, multi-tissue analysis, bustān

Understanding the subsistence strategies of people living in ancient Bahrain has been a goal of archaeological research on the islands for many decades. However, to date, one of the most direct archaeological approaches to analysing human diet, stable isotope analysis of collagen, has not been applied to pre-Islamic samples from Bahrain. In this paper, we evaluate the isotopic evidence of human diet in Bahrain by sampling collagen and/or enamel from 153 human and 168 faunal individuals. We present the results of carbon and nitrogen isotope analyses of collagen and carbon isotope analysis of enamel. These results indicate long-term continuity in human reliance on dates and other C_3 crops along with terrestrial protein from the Early Dilmun to the Islamic period. While there is some indication of minor differences at certain time periods (e.g., greater C_3 crop reliance in the Late Dilmun), it appears that the isotopic composition of foods consumed remained relatively consistent over time. Nevertheless, there is remarkable variation among individuals from both the Early Dilmun and Islamic periods, suggesting despite broad temporal continuity, differential access to certain foods, preferences, or the movement of people into Bahrain.

Behind the camera, photographic approaches through the archives fund of AlUla Old Town

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Keywords: Photography, archives, archaeology documentation, history of Hedjaz, silver photography,

The aim of this paper is to explore the photography practises in the documentation of AlUla Old Town. The early fund comes from Jaussen and Savignac, who explored the Old Town during their archaeological journey from Jerusalem to Medina. Since then, the archives fund increased in the AlUla Museum but remains overlooked. The travellers' photographs from 1904 to 1985 match with the early explorations of Hedjaz that was more accessible through the railway for Muslim Pilgrimage. Among these pictures are archaeological survey documentation (Moritz 1915 or Parr 1968) and photography reporting for wider exploration of the region (as Philby in 1931). The Museum's fund is also composed of several private donations (as ancient diplomat Sulaiman Albudair) and Aluli familial archives (Omar Al Alwan fund dated to 1980), that document the recent history of the Old Town. These photographic testimonies give a wide range of information which are spreading from archaeology to ethnography and vernacular uses. From archaeological documentation to personal photography, the study of this archive fund allows one to analyse the AlUla urban evolutions, to question the photographic intentions underlying its composition and bring out the documentary function of photography for heritage studies.

The ceramics of Yughbi (Qatar), one of the earliest Islamic sites of the Gulf

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Keywords: Qatar, Gulf Archaeology, early Islamic archaeology, archaeological ceramics, ceramic petrography

In this paper the results of the macroscopic and petrographic analysis of the ceramics of the site of Yughbi are presented. The site of Yughbi was excavated in 2018 in the final fieldwork campaign of The Crowded Desert Project. The combinations of excavations in the site and of the survey of the wider area showed that the site underwent a transition from a nomadic campsite to a sedentary or semisedentary site, with stone houses. The C14 dates of stratified levels of the excavation dated this process between the Rashidun period (632-661) and the Umayyad period (661-750). This makes this site the earliest Islamic site know of Qatar and one of the earliest ones of the Gulf. The ceramics of Yughbi have been studied macroscopically and with petrographic microscopy. Both studies indicate the presence of Turquoise Glazed and of Indian wares, as well as ceramics from Southern Iran and Southern Iraq. Some of these wares have been detected in previous analysed of ceramics from Murwab (Qatar) and Southern Iran (Bushehr and Siraf). However, some other wares seem to be unique and different to everything else seen before. This study will present a comparative analysis of these wares and its meaning for the study of the society that inhabited Yughbi.

Investigation of Two Early Islamic Period Sites in Qatar

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Keywords: Qatar, Early Islamic Period, Abbasid, Ain Muhammad, Mesaika

New excavations took place at two sites in northern Qatar, Ain Muhammad North, and Mesaika, in November-December 2022. Both revealed clusters of large well-constructed buildings provisionally dated to the late 8th and/or early 9th century BCE. Previous surveys show a high number of sites (>20) in Qatar broadly dated to the Early Islamic Period, with surface ceramics indicating a potential range between the 7th and the 9th centuries, while excavations at Murwab and Yughbi respectively yielded dates in the mid-late 9th century, and the 8th century (with earlier elements). Such sites have been described as "linear Abbasid sites", though not all are linear or necessarily Abbasid in date. Major questions remain concerning the reasons why there was such a concentration of sizeable sites of this date, and the strategies that allowed their populations to survive in the Qatari desert. The balance of sedentism and nomadism must be considered. Questions also arise concerning the faith identity of the inhabitants, given Qatar's known status as a centre for Christianity in the 7th century, and the survival of Christianity in other parts of the Gulf well into the 8th century. These and other sites will be subject to long-term research as part of Qatar Museums' *Landscapes of Faith Project*, potentially revealing evidence for the lives of Qatar's Christian inhabitants as well as its first Muslims.

Main results of the Bat/al-Arid archaeological mission after two news years of exploration (ad-Dakhiliyah governorate, Oman)

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With the help of students in archaeology from the Universities of Lyon 2, Montpellier 3, EPHE Paris, Walid AL GHAFRI, Ministry of Heritage and Tourism (Ibri), Mohammed ALMUR AL-KALBANI and Sulaiman AL-JABRI, MHT, UNESCO sites of Bat, Al-Khutm and Al-Ayn.

Keywords: Oman, Early Bronze Age, Hafit copper metallurgy, Late Islamic, canals/*aflaj*, towers, tombs

This lecture aims to present the results of the third and fourth archaeological field seasons carried out in 2022 and 2023 by the MBA mission. Two main phases of occupation, Early Bronze Age (Hafit and Umm an-Nar) and Late Islamic periods, are now well documented. During the last seasons, excavations has focused on Tower 3 (3.90 m high), two Early Bronze age tombs and an ancient open irrigation canal now recovered on a length of 151 m and predating a Late Islamic *falaj*. In addition, a circular artificial platform was discovered that housed a copper processing site from the Hafit period: a unique example documenting the birth of copper metallurgy. All these combined results enrich the debate on the settlement pattern and nature of the sites of the third millennium BCE in the southern foothills region of the Hajar Mountains. At the same time, in close relation with the Department of UNESCO sites at the Ministry of Heritage and Tourism, 15 km South-East of al-Arid, the actual hydraulic structures of the oasis of Bat were mapped with a geohistorical perspective. The field study of Bat consisted in a pedestrial survey of the area focused on the *aflaj*, supported by the use of satellite imagery and aerial photographs. They provide an interesting insight into a better understanding of ancient hydraulic structures and the close relationship between communities and their environment over the long term.

Chronological sequence and regional variants in Early 3rd mill. BCE (EBA1) tombs: the case study of Ras al-Hadd and Ras al-Jins (Eastern Sharqiyah, Sultanate of Oman)

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Keywords*:* Eastern Arabia; Coastal Oman; Early Bronze Age; Graveyard; funerary customs.

Among the thousands of cairns dating to the Early Bronze Age 1 recorded in the Sultanate of Oman, those excavated in eastern Sharqiyah as part of the Joint Hadd project and recently by the Italian Archaeological Mission of the University of Bologna can help in defining different architectural types and the chronological sequence of the various contexts. A recent investigation carried out in the cairns of HD-7, next to the Early Bronze Age settlement of HD-6, provided the opportunity to reflect on the characteristics of structures and funerary customs of the first half of third millennium BCE. The comparison with other regions might also suggest a regional variability based on the construction and the articulation of tombs. The use of an external row of white blocks in the basement seems one of the most symbolic elements specifically for this coastal region (Ras al Hadd, Ras al-Jins, Shiya). Complex funerary practices occurred both in the central chamber of the cairns and in the outer part of the structures. This evidence opens new questions on the treatment of human bones, often throughout ritual fire, as well as of grave goods. High percentage of charred/cremated bones was analysed to establish a preliminary sequence of burial manipulation.

Functional, Ceremonial or Domestic? Neolithic Stone-Lined Structures on Ghagha Island, Abu Dhabi, United Arab Emirates

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Keywords: Neolithic, Settlement, Subsistence, Arabian Gulf

Survey at the northern extent of the island of Ghagha in November 2019 by the Department of Culture and Tourism: Abu Dhabi, identified several low mounds associated with extensive burning. Excavation work revealed multiple stone lined pits and smaller hearths within a large mound of ash and charcoal. This ash appears to have been emptied or cleaned out of the structures and dumped on an adjacent area. Finds include barbed and tanged arrowheads, beads and tile knives. However, faunal or human remains that might normally indicate a domestic or mortuary assemblage are almost entirely absent, and the structures on this site contrast sharply with the stone architecture seen at GHG0014, Marawah and elsewhere. Radiocarbon dates place the activities associated with these stone-lined pits within the latter half of the 7th millennium BCE. This is one or two hundred

years later than the earliest settlement on Ghagha (GHG0014), but immediately predates an event (8.2kya) that locally saw a dramatic change from increased precipitation to a hyperarid climate. This paper will explore the implications of the lithic and environmental assemblage, while considering what the original site functionality might have been.

Rice meals, suckling lambs and tuna steak in the medieval Islamic Oman: Archaeobiological analyses on the domestic building (B94) of the harbour city of Qalhât (Oman, 13th-16th c. CE)

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Keywords: medieval period, agro-pastoral practices, fishing techniques, culinary practices, long-distance trade

The rise of the kingdom of Hormuz during the 13th-15th c. CE has led to the development of harbour cities such as Qalhât (Sultanate of Oman) considered as the second capital of the kingdom. However, although some textual sources may be available, subsistence strategies set up for feeding such urban populations and culinary activities are still largely unknown since very little archaeobiological analyses have been undertaken. Therefore, multi-proxy analyses including botanical and zoological have been undertaken on a domestic building (B94) on the site of Qalhât. The cross-referencing of these data has allowed to identify several processing activities of food products and thus, their spatial distribution within the building and the culinary practices. These data give new insights about the fishing practices (intensively exploited pelagic zone), and the composition and management of agro-pastoral systems under the form of oasian date palm gardens where crops, weeds and livestock complete to each other for the perennial maintaining of such system able to supply urban population. Their food acquiring strategies relied also on the importation of plant products by the long-distance maritime trade networks of the western Indian Ocean. The study of this building has provided major data for the understanding of the way of life of the inhabitants of this region for this period, still too little studied.

Largescale prehistoric landscape modification in the Arabian Peninsula and Levant: stone clearance mounds of the *harrat*

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Keywords: Holocene, Human-Landscape Interactions, Hydrology, Pastoralism, Remote Sensing

From the deserts of southern Syria to the central west of the Arabian Peninsula, many thousands of clusters of stone clearance mounds are visible in satellite and aerial imagery. The vast majority are located upon Cenozoic lavafields (*harrat*). These widespread features have not previously been substantively investigated.Recent remote sensing and aerial surveys carried out in collaboration with the Royal Commission for AlUla by the Aerial Archaeology in the Kingdom of Saudi Arabia (AAKSA) projects, supported by brief ground investigations, have recorded over four thousand examples of these clearance mounds in an area of c. 40,000km^2 in north-west Saudi Arabia. These systematic surveys demonstrate the features are usually located in areas of increased surface water availability, particularly the fringes of playa lakes and seasonal streams, or within natural hollows. Significantly, most are located on older (Pliocene to Miocene), weathered lavaflows, the soils of which support higher plant growth following rainfall. Artefact sequencing and stratigraphic relationships with other features provisionally date them to as early as the Neolithic. This paper argues that these anthropogenic structures served an important hydrological function, most likely related to increasing plant growth to support domestic animal husbandry or the hunting of herbivorous prey. They therefore represent a hitherto unrecognised form of landscape modification that aided prehistoric subsistence in these marginal environments.

Dilmun-inspired seals from the Oman Peninsula: Hints of a local seal production driven by cross-cultural interaction?

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Keywords: South-eastern Arabia, Oman Peninsula, Dilmun, Ancient seals, Cross-cultural interaction.

Understanding how seals were made and for what purposes they were used in ancient South-eastern Arabia has always proved challenging. Indeed, no contexts with evidence of seal-based administration have ever been excavated in the region. However, since their introduction in the Early Bronze Age, cylinder and stamp seals from local sites have often shown stylistic and iconographic influences from overseas regions, likely stimulated by the thriving commercial and cultural interactions that marked the period. After outlining the earlier evidence for such a trend, this presentation will detail data supporting what currently appears to be the first large-scale local production of seals in the Oman Peninsula during the transition between the Bronze and Iron ages. In fact, several dome-shaped stamp seals decorated in a coherent artistic style have been found throughout the region in contexts spanning the second half of the 2nd millennium BCE. Although they show striking similarities to coeval Dilmun-type seals produced in the upper Gulf Region, consistent morphological and stylistic particularities suggest the establishment of a local production

rather than their importation from abroad. Interpreted in the framework of cross-cultural interaction between the two regions, these artefacts may shed light on the wider significance of seal use in South-eastern Arabia.

Unique megalithic grave in Nafūn (al-Wusṭā Governorate, south-central Oman) as a reflection of the collective identities in the Neolithic period

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Key words: Megalithic grave, Neolithic, ^{14}C dating, isotopes, central Oman

During the archaeological campaigns in the coastal alluvial plain of Wadi Nafūn a unique burial structure was excavated that contained evidence of long-term burial activities of a large local community. The human remains were deposited after initial decomposition outside the grave within the individual bone clusters containing always multiple individuals. The clusters were distinguished from each other by their personal ornaments, the only finds discovered within the grave. The construction of the grave is identical to the construction of megalithic structures; it is made up of vertical thin stone slabs that delimit the space of the burial chamber and also form internal divisions in which the bone clusters were placed. Radiocarbon dating places the period of collective burials between 5000 and 4600 cal. BCE with possible two phases recognised in the construction of the whole monument. During the Late Iron Age, the monument was disturbed by later burial activities of the Samad culture. The paper aims to present this unique structure in a complex manner discussing the succession of burial activities, dating and socio-economic and environmental settings based on radiocarbon and isotopic analysis. The discussion will also be aimed at the question of the area's Neolithic settlement and the local communities' subsistence economy.

The *marzēaḥ* of Qaryat al Faw: The Third-Century CE Frescoes and their Egyptian Connections

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Keywords: Pre-Islamic Arabia, marzēaḥ, funerary rites, painting, Qaryat Al Faw, Hellenism, Koptos, late antique art.

Newly accessed documentation from the 1970s-1980s excavations at Qaryat al Faw undertaken by Al-Ansary and his team reveals that what was originally known as the palace area of the city was actually a temple, most likely dedicated to the deities Sīn or Shams. What makes this discovery even more remarkable is the fact that the temple contains a *marzēaḥ*, an enigmatic space used for funerary rites, ornately decorated with figurative frescoes and Musnad inscriptions. This shocking discovery completely challenges our understanding of the religious landscape of pre-Islamic central Arabia. A proper stylistic analysis of the murals and a re-contextualisation within the cults of the

marzēaḥ in the late-antique world reveals that the motif and iconography heavily owe to Egyptian panel and mural painting of the so-called Karanis style. In this session, we will explore the movement of craftspeople, archaeological evidence of trading, and artistic connections between the two regions while taking a closer look at the recently photographed frescoes, their proposed reconstruction, and their inscriptions.

Displaying Arabia Felix: The Phillips and Foster Collections in Defining Arabian Archaeology and History in American Museums

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Keywords: museums, archaeology, Timna, Marib, Khor Rori

Two major collections of Arabian artifacts have dominated American museum exhibitions on ancient Arabia in the United States: the archaeological collection excavated by Wendell Phillips and his team in Timna and Khor Rori, now at the Smithsonian; and the collection Giraud Foster acquired in Taizz, now at the Walters in Baltimore. Beginning with how Phillips' notorious Marib dig shaped Foster's ability to acquire, I then examine how these collections have come to represent Arabian history through museum display. Drawing on exhibition catalogues, Phillips' 1955 memoir, and museum and archival records, I trace the formation of a canon of ancient Arabian artifacts in U.S. museums, including a 1955 Freer exhibition, a 1961 Honolulu Academy of Arts exhibition, the 1972 *Arabia Felix* exhibition at the Smithsonian, and more recent exhibitions at the Walters and the National Museum of Asian Art. Early exhibitions and texts about these collections couched these ancient sites in Biblical context to render them legible to an American public. Yet taking the histories of these collections together reveals a curated version of Arabian archaeology, one that highlights shifting American diplomatic and political priorities throughout the second half of the 20th century, and changing popular beliefs about religion.

Beyond the Oasis: Three Seasons of Landscape Archaeology at the UNESCO World Heritage Site of Bat, Oman

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The monumental remains from the Early Bronze Age/Umm an-Nar period at the site of Bat, Oman are among the best preserved archaeological resources in Southeastern Arabia. Pioneering long term research at the site, conducted by the Danish Expedition under Karen Frifelt, revealed to scholars the importance of Bat and its ancient towers, tombs, and oasis settlement. Since that time, German, American, and Omani teams and collaborators have further revealed the density and nature of Bat's 3rd Millennium BC occupation. This paper expands our understanding of the Umm an-Nar center of Bat and its wider settlement landscape by looking beyond the oasis focus of previous scholarship. Since 2019, the Bat Archaeological Project (BAP) has conducted fieldwork on Bat's less studied settlement areas: the Settlement Slope, the ancient alluvial depression Rakhat al Madrh, and the Khutm settlement. These results highlight the ingenuity and adaptation of Umm an-Nar people to a diverse array of natural environments and include new evidence for pastoralism, flood-based agriculture, and ritual activity related to tomb interment. Ultimately, we present these preliminary results of BAP's 2020-2023 fieldwork campaigns to better understand the Umm an-Nar period in central Oman through the lenses of resiliency and environmental innovation.

The Indian Origin of Ancient Ethiopians and Southern Arabs: Between Confusion and History

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Keywords: Ethiopians, Kush, Sabaeans, India, Meluḫḫa.

Several modern researchers have noted the proximity of the Ethiopians/Nubians to South Arabian tribes, such as the Sabaeans (Burrell 2020; Japp et al. 2011). This curious association begins in antiquity. For instance, in the biblical Table of Nations (Gen. 10:7), we notice the Sabaeans classified among the children of Kush. Greek sources present the same view (Herodotus, *Histories* 2.29.2-2.29.6, 7.69.2–7.70.2; Josephus, *Antiquities* 2.10.2). Things become even more strange when one observes that both the Ethiopians and tribes of southern Arabia, in many ancient sources, seem to be related to India. Philostratus (*Vita Apollonii*, 3.20) informs us that the Ethiopians lived in India before moving to Africa. Similarly, Philostorgius considers the Sabaeans to be a people of Indian origin (Philostorgius, *Church History* 2.6.). Most scholars so far have explained the problem through the famous "India-Ethiopia confusion" that is detected in several ancient sources (Schneider 2004). The present historical and philological study, through research in Akkadian, Sanskrit, biblical and classical sources, will attempt to show that the case is more complicated, that it is not satisfactorily explained by the theory of confusion and that ultimately we should not rule out that there might be a historical core to this possible connection of the Ethiopians and South Arabs with India.

The Islamic mining settlement of al-Ṣalaylī: results of the first excavation season

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Keywords: Sultanate of Oman, mining settlement, Islamic period

The archaeological site of al-Ṣalaylī is located in the northern al-Šarqiyya governorate of the Sultanate of Oman. 'More than 100 Iron Age hut tombs' and the copper mine are mentioned for the first time by Weisgerber in the '80s. From 2017 to 2022 the Heidelberg University team, led by Paul Yule, surveyed and mapped al-Ṣalaylī valley, recognizing different areas of use of the site and in different historical periods. Thanks to *Beatrice de Cardi award*, last Autumn 2022 a new team started the first excavation at the site. This paper will present the results achieved at the 'Settlement / Workshop' area in al-Ṣalaylī. The excavation confirms that part of al-Ṣalaylī, built under the copper vein and mostly hidden by tons of slags, was inhabited during the Islamic period. How the copper production worked during the Islamic era? How can we connect the different parts of the site? These and other research questions will be slowly resolve with the next interdisciplinary project.

The discovery of the Murwab site by the Danish Expedition 1959 - Update of results, material culture and architecture, end of 8th to end of 9th century, Qatar

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Keywords: Early Islamic period, architecture, material culture, village, Qatar.

On the occasion of the design of the archaeological galleries of the National Museum of Qatar, I studied objects coming from the first excavation at Murwab during the winter of 1959 and carried out by E. Knuth, Danish Mission. The results specifically oriented on the ceramics allow to complete the previous typologies (Hardy-Guilbert, 1988 and Guerin 2010) and to situate the Samarra horizon in two phases of occupation restricted to Murwab from the late 8th to the late 9th century. The ceramics come from two distinct areas and thus allow a comparison of the material culture in the fort and in the northern settlement area of the village (house, workshop, madbassa). The updating of the data was continued by a return to the field with the help of the Danish and French archives (excavation report, photogrammetry, aerial view, etc.). The houses in the northern sector were identified and described (inventory, drawings) and complete the architectural typology of the early Abbasid period. This complementary study on Murwab is part of a wider programme concerning the chronodatation and settlement patterns of the early Islamic occupations in the Gulf and the Arabian Peninsula.

Aden and Malabar: Trade and Religious Network Between A South Arabian Port and Malabar Coast

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Keywords: Aden, Malabar coast, Spices, maritime trade, religious network

Aden, located on the southwestern corner of the Arabian Peninsula, functioned as an entrepot for the shipment of spices such as cinnamon, pepper, nutmeg, and ginger from the Far East to Europe, and for the distribution of African goods, including ivory and slaves, to the Middle East and Asia. Spices from Malabar had a huge demand in the western world as well as the Arabian Peninsula. During the medieval period, the trade contact between the Arabs primarily through Aden with the Malabar coast reached its zenith. While analysing the Jewish Geniza documents and the writings of Arab travellers, merchants, and geographers, we can understand the role of Aden in the flow of spices from the Malabar Coast to the western world. Rasulid Stipends to the various mosques in Malabar during the 13th century highlight the religious aspect of trade between Malabar and Aden.

Furthermore, studies on Geniza document throw light on the Jewish religious network between them. This paper attempts to examine the trade relation between Aden and Malabar and the development of the religious network as part of this maritime trade. Additionally, this paper examines the role of the geographical feature in facilitating the trade relations between these remote regions as well as the gradual decline of this trade contact following the intervention of the Atlantic powers in the Indian Ocean.

Urban Change-Related Risks to Built Heritage in Muscat Governorate, Sultanate of Oman

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Cultural heritage sites in Oman encounter many natural and cultural risks. The land use-related changes since the 1970s have negatively affected some of the built heritage sites in different parts of the country. For instance, the rapid urban growth in Muscat, one of the most developed cities in Oman, is causing a major alteration to the built heritage context. The results of this study attempt to shed light on the ongoing urban change-related risks to cultural heritage settings in Muscat Governorate. It also endeavour to provide baseline data to help heritage managers to set a plan to protect the sites most vulnerable to risks. Satellite imagery, field survey and geographic information system environment were applied to gain a wider view of the change-related risks. Risk maps were produced for the built heritage sites under threat over different periods in Muscat Governorate.

Site Distribution and the Longue Durée in NEOM, Kingdom of Saudi Arabia, from the Paleolithic to the Late Islamic Period.

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Greg Williams, PaleoWest
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Keywords: NEOM, landscape, settlement, mobility, longue durée, archaeology

Extensive surveys of NEOM in northwestern Saudi Arabia (2018-2023) have begun to provide us with an insight into the archaeological richness and deep history of this area. Utilizing the wealth of data that has been gathered during these large-scale land and underwater surveys, this paper will examine settlement patterns and concepts of mobility over the longue durée in northwestern Saudi Arabia and how they were impacted by cultural, historical, and environmental processes. Moreover, this paper will elaborate on the 2022 survey results and the additional research that has been undertaken, which suggests that at key moments in the past this region was an important zone for cultural, technological, and socio-political exchange between the Syro-Levantine region and the Arabian Peninsula.

The Umm an-Nar period at Bisya from the regional to the settlement scale: results from 2022-2023 survey and excavations of the French archaeological mission in Central Oman (FAMCO)

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Keywords: Oman, Early Bronze Age, Umm an-Nar period, settlement, tower

Bisya is one of the most important archaeological areas in the Oman peninsula where the development of the first sedentary sites may be observed. The French Archaeological Mission in Central Oman investigates monumental architecture, organized settlements and funerary structures from the Early Bronze Age through survey and excavations. This paper presents the results of two seasons of fieldwork at Bisya (ad-Dakhiliyah, Oman) in 2022-2023. The regional survey evidences the extension and organisation of the EBA occupation in the area with 13 monumental towers, questioning both the location of these sites regarding the water supply, the chronology of their construction and their function(s). At the site scale, the excavations at al-Dhabi 2 reveal the organization of the site including the tower, the dwelling settlement and several Umm an-Nar-type tombs. Excavations focused on the tower's wall and the settlement area, highlighting the architectural development during the Umm an-Nar period. This all-in-one site, installed on a hill, presents a different layout and function than the Salut towers. The multiproxy approach intends to bring new information about the evolution of local societies in the Oman peninsula during the Early Bronze Age.

Recent research at the Early Islamic site of Jumeirah, Dubai

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Keywords: Jumeirah, Dubai, early Islamic, Abbasid, archaeology

Jumeirah is an important, yet under-researched, early Islamic sites in eastern Arabia. In 2016 a preliminary study of architectural decoration of its buildings was undertaken by Agnieszka Lic. In 2020 ArcheoConsultant company led by Karol Juchniewicz conducted a 4-months excavation season focusing on buildings JM-5 (residential building) and the JM-9 (a single-room house). Documentation of other standing structures, primarily a mosque, was also conducted by the ArcheoConsultant team. The main result of these activities is a re-evaluation of the function of JM-5, the so-called caravanserai, which seems to be a residential building rather than a structure related to trade. Preliminary results of the study of stucco material, which seems to be related to two phases of occupation, will also be discussed. Research on finds, archival documentation and standing structures is ongoing as a part of a cooperation between Archaeology Section, Dubai and the Institute of Mediterranean and Oriental Cultures, Polish Academy of Sciences. One of the questions that this research will aim to answer is the basis of the economy of the site, and thus working hypothesis on this subject will be also discussed.

Closing the gap: Survey and Excavation at Ibra, Sultanate of Oman

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Keywords: Early Bronze Age; Ibra; domestic settlement; copper production

Over the last decades, a multitude of domestic and monumental sites of the Early Bronze Age have been studied, covering large parts of the United Arab Emirates and Northern Oman. However, the area eastwards of Al-Khashbah and the Wadi Samad until the coast to the Indian Ocean is empty of such sites. Previously conducted research (Schreiber 2005) hints at an Umm an-Nar occupation of the area, although no definite settlements could be located. This study presents the results of a first campaign investigating a newly discovered Umm an-Nar settlement south of the modern city of Ibra, governorate of Ash-Sharqiyya. The outcomes of thorough surface surveying and small-scale excavations allow for an analysis of settlement functionality and settlement patterns in this prior neglected area during the Early Bronze Age. This includes the detection of different functional zones within the site, amongst others an area of copper processing, systems of water management, as well as the discovery of a potential public building.

State formation, the transfer of writing, and trans-Arabian trade in the early Iron Age

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Keywords: Alphabet; camel trade; statecraft; Iron Age; irrigation

The late eleventh- and early tenth centuries BC saw dramatic changes throughout the peninsula. Domesticated camels appear in art from Tell Halaf and in archaeological excavations at the mining sites of Feynan and Timna. Relatedly, carbon dating of inscribed palm sticks has established that alphabetic writing arrived in Yemen by the tenth century BC, as surmised already by Taylor (1883). These camels opened the trade route from the highlands of Yemen to the Levant, and brought with them not only writing but the idea of the state. Statehood has been said to be "more contagious than the flu," but to extend the medical metaphor, some societies have stronger resistance than others: the Levant resisted writing and statecraft throughout the Early Bronze Age. The interaction of writing and statecraft, and the transfer of both from the Levant to Yemen, were the subjects of an important paper by Knauf (1989) in PSAS. In light of developments in our knowledge of the history of writing and of the theory of states, these questions can now be revisited, even as Knauf's core insights remain valid. Even states with writing do not necessarily have monarchs, and Graeber & Wengrow argued that early Mesopotamia was a state with bureaucracy but not monarchy. While by the seventh century there is a *mukarrib*, it is not clear that this was true in the tenth century. While in Mesopotamia the society participated in corvée labor, the crucial element in Yemen was irrigation on a societal (rather than individual) scale; in this way, ancient Yemen may provide another example of a society where writing begat a state, but the autocracy emerged only later to co-opt the power structures already present. In the process of exploring this, the dynamics of the Iron Age trans-Arabian trade will also be revisited in light of archaeological and epigraphical data. These point to the oasis of Tayma as an important center for both economic activity and the transfer of ideas.

Mortuary archaeological landscapes and their background at the canyon of Al-Hajar mountains: Results of surveys in the Tanūf District 2022-2023.

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Keywords: Mortuary archaeological landscape, locations for tombs, tomb structure, land use, transportation

The mortuary landscape highly connects with local terrains, ideological concepts, and lifestyles. Although floodplains and ridges are usually used for cemeteries in Southeast Arabia, the diachronic transformation of mortuary landscapes in rugged terrains still needs to be clarified. Thus, we surveyed Wādī Tanūf to identify the transformation of landscapes in a deep canyon. As a result, we identified more than 200 graves from the Ḥafīt to the Islamic period. In the Ḥafīt period, the tombs were built on the ridges near the wādī basin as well as on the extraordinarily high cliff edge. In the Wādī Sūq period, tombs were widely distributed on the second wādī terrace. The Iron Age population built free-standing tombs with reused stones from the Ḥafīt cairns, but there are also some improvised tombs using natural rock shelters with accompanied artefacts. In the Islamic period, numerous tombs were densely clustered on the first wādī terrace. These results in mortuary

practices probably suggest the transformations of underlying lifestyles from mobility-oriented in the prehistoric to more sedentary-oriented in the historic period. The canyon has probably been used as the final resting place for thousands of years by inhabitants with different ways of life.

New data on the Necropolis of Thaj: Evolution of the Funerary Architecture

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Keywords: Northeastern Arabia ; Pre-Islamic period ; Tumulus ; Funerary Practices

Located in Northeastern Arabia, Thaj is the largest known pre-Islamic site in the region where urban and sub-urban areas are associated with a vast necropolis of more than 1000 *tumuli*. As part of the Franco-Saudi mission of Thaj (CNRS/*Saudi Arabia Ministry of Culture*), research conducted on the necropolis since 2017 was the subject of a PhD thesis. The objectives were to characterize the funerary practices and to understand the conditions of development of the necropolis from the Iron Age to Late Antiquity. This paper presents some of the results of the study carried out through a multidisciplinary approach, based on aerial and ground surveys, the excavation of several tombs and the anthropological analysis of the human remains. The field data allowed the observation of different *tumuli* construction techniques and the establishment of the first typology of the Thaj tombs. Inside the tombs, one to several dozen burials were discovered whose architectural diversity is partly dependent on the age at death. The differences in the treatment of the deceased also seem to highlight the existence of a social stratification of the population. Combined with radiocarbon dating, it was possible to distinguish several chronological phases in the Thaj necropolis in relation to the evolution of the funerary architecture.

New research on the Darb Zubayda: topography and water-management systems

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Keywords: Archaeology, Abbasid period, hajj, drone imagery, water management

The ḥajj (pilgrimage) route from Kūfa (Iraq) to Makkah (Saudi Arabia), better known as Darb Zubayda, extends for about 1400 km. The road was surveyed as early as 1972 and then, from 1976 to 1981, a systematic prospection was carried out between Makkah and the Iraqi border. Eighty-six sites were documented, and the results were published in the Saudi archaeological journal *Atlal*. In the course of 2022, an archaeological team commissioned by the Heritage Commission carried out a centimeter-level survey using a drone calibrated by a topographical survey of twenty

archaeological sites in Saudi Arabia. Beside mapping the sites, the drone imagery allowed us to precise their topography and to apprehend their close environment. A multidisciplinary study of the Darb Zubayda, bringing together historians, field archaeologists, remote sensing specialists and geographers, offers new perspectives on our understanding of the history, occupation, and relationship of this road to its environment. Based on the study of four stations, this presentation aims to shed a new light on the archaeology of the Darb Zubayda through the understanding of water management on this route crossing desert regions.

The Dhofar Coastal Culture (DCC): A New Player in the Historical Scenario of Iron Age Dhofar

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Keywords: Dhofar Coastal Culture, Inqitat, Sumhuram, Dhofar, Iron Age

The aim of this paper is to present in detail the archaeological features defining the so-called Dhofar Coastal Culture, a historical reality whose definition has been taking shape in recent years through the investigation of the Iron Age settlement HAS1, on the Inqitat promontory, and the surrounding territory in the Khor Rori area (Dhofar, southern Oman).
The existence of a distinct cultural facies in the area had been postulated in previous studies. However, these failed to provide clear and concrete archaeological evidence due to the lack of analytical data resulting from the discontinuous nature of the field investigations. Therefore, the area was generally considered, if not completely unpopulated, only occasionally visited by nomadic tribes lacking a complex social structure. The systematic exploration of HAS1 and the surrounding area has not only disproved this theory but has also led to archaeologically defining the cultural and social-economic organisation of the DCC. An attempt is also being made to place this culture within the complex historical dynamics that characterised the area during the Iron Age, reconstructing its settlement dynamics and intercultural relations with neighbouring Ancient South Arabians settled in Sumhuram.

The urban sanctuary of Dhū Ghābat at Dadan

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Keywords: Dadan, Religious architecture, Northwest Arabia, Incense Road, Maḥlab al-Nāqah

In 2020, the interdisciplinary Dadan Archaeological Project (CNRS, Paris) relaunched the excavation of the urban sanctuary dedicated to Dhū Ghābat - the main god of the ancient oasis - as part of a broader investigation of the ancient city of Dadan (modern AlUla, Northwest Arabia). First described at the beginning of the 20th century by western travellers, the sanctuary has been extensively excavated by the King Saudi University (Riyadh) from 2003 to 2018, revealing a dense, multi-phase fabric of masonry buildings around the famous monolithic basin locally known as Maḥlab al-Nāqah. Monumental artefacts and inscriptions suggested an occupation spanning the late second millennium BCE to the early first millennium CE, but the layout, phasing, and chronology of the architectural remains remained tentative. This contribution offers a reassessment of the religious complex after the first three fieldwork seasons of the Dadan Archaeological Project. The renewed excavations, the pottery and epigraphic studies, and the first broad series of radiocarbon dates suggest a longer and more complex history of occupation than previously assumed.

Dūmat al-Jandal, a north Arabian oasis from the Assyrian period to the advent of Islam. Results and perspectives after field and remote seasons 2019-2022

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Keywords: Saudi Arabia, Dūmat al-Jandal, oasis, Assyrian, Nabataean

This paper introduces main achievements of the joint Saudi-Italian archaeological project in al-Jawf region (Saudi Arabia), with a particular focus on Dūmat al-Jandal, ancient Assyrian *Adummatu* and Nabataean *Dumah*. Since 2009 the project (Heritage Commission, Italian Ministry of Foreign Affairs and International Cooperation, University of Napoli L'Orientale, The Barakat Trust) is investigating the ancient oasis and its pivotal role in al-Jawf and northern Arabia trade routes, dealing with a prehistoric (Holocene) panorama and revealing the VIII-VII cent. BCE Assyrian occupational phase as well as the Nabataean, Roman and Byzantine periods up to the coming of Islam. Seasons 2019 to 2022 were particularly fruitful both for the definition of the geoarchaeological map of al-Jawf (mainly prehistoric features); and for the study of the settlement strategies of this huge oasis during its long history as well as for the rediscovery of its ancient necropolis and historical market.
Thus, this paper shall presents the state of the art regarding the definition of the prehistoric panorama of al-Jawf region and the remote sensing geoarchaeological methodology applied and specifically addressed to the most recent results related to the Assyrian phase (material culture), the pre-Islamic funerary landscape, and the transitional period between the Byzantine phase and the advent of Islam.

The Early to Mid-Holocene geoarchaeological landscape of Shaqat and Urq Jadailah (Southern Rub al Khali, Sultanate of Oman)

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Keywords: Rub al Khali, Neolithic, Holocene, open-air site, lithic workshop

During the Early and Middle Holocene, the currently hyperarid region of Southern Rub al Khali experienced phases of favourable climate with increased rainfall that resulted in playa lakes and the proliferation of vegetation. From the first phases of the Holocene, human groups occupied the area close to the village of Maitan (not far from the border junction between Oman, Yemen and Saudi Arabia) with temporary and long-lasting encampments. This paper presents the results of the geoarchaeological survey and geomorphological investigations carried out in the interdunal area and open-air sites of Shaqat Jadailah (SQJ) and Urq Jadailah (UQJ). The project "Exploring the Omani Rub' al-Khali" focused its research on the environmental and technological changes that stimulated cultural variability and innovation in Southeastern Arabia in the Early and Middle Holocene. The identification of Final Palaeolithic and Neolithic sites at SQJ and UQJ yields new insights into the ancient landscapes and human mobility patterns across the region. The presence of abundant lithic artefacts, grinding stones, fossilised animal bones and ornaments (some from far-off marine environments) speaks for the recurrent occupation of the area during prehistoric times. The first results from SQJ and UQJ reveal new aspects of the Early and Middle Holocene peopling of Southern Arabia, in intimate connection with the palaeoenvironmental record. The rich and various lithic corpus indicates intense population movements, exchanges, and connections linking the fringes of the southern Rub' al Khali, and the desert with the coast. Investigating such a crucial area will stimulate the development of a new picture of Southern Arabian neolithisation and significantly enlarge our knowledge of cultural development and occupational strategies during the Holocene Humid Period.

Pearls, Spices and Trade: the Underwater Cultural Heritage Potential of the United Arab Emirates as told by the Archives and Maritime Archaeological Research

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Keywords: Nautical Archaeology, Persian Gulf, Gulf of Oman, Underwater Cultural Heritage, Arabian Maritime Landscape

Between 2018 and 2021 and under the STELLAR initiative (Sharjah underwaTEr cuLturaL heritAge pRoject), a conjoint task force of both Emirati and Portuguese land and nautical archaeologists conducted survey works on the waters of the Gulf of Oman (Khor Kalba, Sirat al Khawr, Khorfakkan, Dibba Al-Hisn) and the Persian Gulf (Sir Bu Na'air), all coastal and archipelagic areas of the Sharjah Emirate (UAE). In order to better understand the rich and old history of human interaction in this region, which left an imprint on the landscape, both above and under water, these archaeological surveys, done via divers and Autonomous Underwater Vehicles, aimed at assessing, identifying, inventorying and interpreting the remains of human activity found beyond the waterfront of Sharjah. Compounded with an historical research conducted on Iberian archives, regarding the 150 years that the Portuguese Empire had *de jure* control over the area, that produced a documented historical shipwreck database, STELLAR is a unique research tool, an instrument that intends to contribute to the study of the human past in the Eastern Arabian Peninsula and the intrinsic relationships established between its bordering seas, invading powers and coastal communities.

The 'al-ʿUqla texts' revisited

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Keywords: Ancient South Arabian, Hadramitic, al-ʿUqla-texts, royal ceremonies, monograms

In the late 1930s, a group of closely related Hadramitic rock inscriptions written around the 3rd century CE on a small boulder near the Jabal al-ʿUqla on the eastern fringe of the Ramlat as-Sabʿatayn desert were published. Though obviously related to some kind of royal ceremony, the exact meaning of these texts remained enigmatic, especially since most key expressions are unparalleled in other text corpora. In consequence, the typology of this group of inscriptions is commonly labelled, e.g. in the DASI database, as 'al-ʿUqla texts', leaving aside all speculation on their eventual content. The reevaluation of etymological parallels from Sabaic in the framework of the ongoing Sabaic Online Dictionary project of Friedrich Schiller University Jena (sabaweb.uni-jena.de) has yielded additional clues for a better understanding of the Hadramitic material. The paper will argue that these texts deal with the authentication of documents by means of monograms, probably through the application of seals, performed by the entourage of the kings of Ḥaḍramawt on certain, but unspecified, occasions.

Evolution of the funerary landscape and mortuary practices in the Hajar foothills during the Early Bronze Age: the case of the Bisya region (Sultanate of Oman)

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Keywords: Hafit; Umm an-Nar; SE Arabia; tombs; bioanthropology

The Arabiancairns project, funded by the French National Research Agency, aims to better understand the funerary phenomenon of tower tombs and cairns in protohistoric Arabia through an integrated and multidisciplinary approach. We present here the results of the first field campaign carried out in collaboration with the French Archaeological Mission in Central Oman (FAMCO) and the Ministry of Heritage and Tourism of the Sultanate of Oman on Bronze Age necropolises in the Bisya area (Oman).Two tombs were excavated and several dozen recorded during pedestrian surveys, which complement satellite surveys. Tomb 24488, located on a rocky ridge 1 km southeast of the site of al-Dhabi AD-2, delivered some beads and well-preserved internal architecture, attributable to the Hafit period. The excavation of tomb F4169/21635, located in height near a tower (AD-2) and a settlement, had begun in 2022. Its location and appearance before the excavation suggested that it was a Hafit-type tomb. However, the excavation revealed architecture and furniture (ceramics and beads) attributable to the Umm an-Nar period, which provides a new understanding of the organization of the necropolis and burial practices during the Early Bronze Age.The data collected are presented and put into perspective in the broader context of the Bronze Age in the region and in the Oman Peninsula.

Social relations and lived experience at small mountain villages in Iron Age Oman

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Comprehensive understanding of Iron Age social relations requires documentation of architecture at a range small and large sites in different environmental zones. Differences in architecture suggest differences in lived experience, with domestic architecture structuring mundane and fundamental aspects of daily lives. This paper contributes to the discussion of Iron Age domestic settlement by reporting the results of architectural mapping, intensive surface collection, and small test trenches at multiple Iron Age sites in the mountainous areas of Oman's Adh-Dhahirah Governorate. In conjunction with ongoing research of the ArWHO project, these results allow us to better describe the human behaviors and social relations enacted at Iron Age settlements.

Five thousand years of human occupation in the Al-Ula valley: study of the pottery collected by the Al-Ula Cultural Oasis Project

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Keywords: Al-Ula, oasis, archaeological survey, pottery, diachronic study

Within the framework of the Al-Ula Cultural Oasis Project (UCOP) led by Archaïos, funded and steered by the French Agency for AlUla Development (AFALULA) on behalf of the Royal Commission for AlUla (RCU), the archaeological remains in the Al-Ula valley (Saudi Arabia), from Hegra to Al-Mabiyat, were systematically recorded during a systematic pedestrian survey (2019-2022). Beyond identifying and dating both local and imported pottery productions, this contribution focuses on the continuities and changes in the pottery assemblage (fabrics and morphology). Concurrently, a diachronic analysis of the various wares' spatial distribution enables to reconstruct the human occupation in the valley, from the Bronze Age to the present day. Within a broader historical framework, this case study eventually contributes to better understanding variations in the regional standing of this oasis, balancing between major station on trade and pilgrimage routes and small town of lesser economic importance.

Excavations at a Late Antique to early Islamic Pearling Town and Monastery on Sīnīya Island, Umm al-Quwain

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Keywords: Late Antiquity; Gulf monasticism; urbanisation; pearl fishing; UAE.

Previous work on Sīnīya Island by the Tourism and Archaeology Department of Umm al-Quwain, in collaboration with its local and international research partners, revealed the existence of a Christian monastery dating broadly to the seventh and eighth centuries CE. The second field season continued work at the monastery and opened a new area of excavation in an associated settlement. Excavations in the vicinity of the monastery revealed the existence of a large courtyard building tentatively identified as the abbot's house, the final occupation of which produced a mid-sixth to mid-seventh-century CE radiocarbon date together with late Sasanian ceramic type fossils. This suggests that occupation at the site began slightly earlier than was previously thought. The demolished building was built over by a small double-roomed building interpreted as a monk's cell, and cut by a cemetery that appears to have been used by the coenobitic community. The focus of the second season, however, was to commence excavation of the settlement to the south of the monastery. This constitutes an area of dense mounding, 600 m x 200 m, covered with building materials, pottery, glass and shells. The ceramic assemblage and buildings typology indicates that the settlement is contemporary with the monastery. Excavations revealed a smaller number of large courtyard buildings surrounded by densely packed small double-roomed buildings, which we might interpret as the houses of merchants and fishermen. Evidence that pearling contributed to the economy was provided by oyster shell middens, three pearls, and a pearl diver's weight: the earliest

well-dated example yet found in the Emirates. A picture is now emerging of a pearling town and nearby monastery that flourished between Late Antique and early Islam.

The Ubaid in the Gulf: Interaction over land and sea (6th-5th millennium BCE)

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Keywords: Gulf coast, Mesopotamia, Iran, ceramics, Neolithic

Maritime trade in the Persian Gulf has been a pivotal feature of world trading systems from the Bronze Age. Understanding its origins is essential for broader interpretation of early social and economic developments between the Indian Ocean and the Mediterranean. The key period, in this respect, is the mid-sixth millennium BCE, when material culture of Mesopotamian origin is first documented in the Gulf. These remains are in the form of pot-sherds from the southern Mesopotamian black-on-buff tradition, Ubaid-ware, which have been found as far as the Straits of Hormuz. These Ubaid-ware sherds, alongside a locally made coarse-ware, are the earliest ceramic material found in Arabia. However, after the Ubaid period came to an end in the late 5th millennium BCE, ceramic artefacts are not seen again in Arabia for nearly a millennium. Therefore, this early appearance of ceramics in the Gulf region takes on a central role in approaching the wider questions of cross-cultural interaction. My research includes the study of material from the Arabian coast, southern Iraq and western Iran, through ICP-AES and petrographic analysis, in order to further our understanding of the exchange relationship within the Gulf and put the Ubaid in context of the Arabian Neolithic.

Late Pre- and Early Islamic Urbanism, Security and Land Use on the Batinah Coast of Oman

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The long arcing stretch of the Batinah coastal plain of Oman, backed by the Hajar Mountains, forms the major centre of agricultural production and population in Oman fed by a mixture of underground afalaj, tapping the shallow water table at the base of the mountains, and animal powered zajarah wells servicing irrigated agriculture in a fertile strip along the coast. The Batinah is rich both in agricultural and mineral resources and strategically placed facing the Arabian Sea and the Indian Ocean immediately beyond the mouth of the Gulf. Traditionally under-researched, three zones continue to be targeted as part of an interconnected research strategy investigating transformations in land use, projections of political power, and the new phenomenon of urbanism on the Batinah during the late pre-Islamic, early Islamic and subsequent Islamic history of area. Four seasons of excavation at the Sasanian to early Islamic period fort of Fulayj conclude out investigation of this so far unique military structure in Oman. Shifting the focus of operations, we are currently laying the foundations for a new and wide-ranging programme of archaeological, historical and environmental research focusing on the long-term development of the port of Sohar. And towards the southern margins of the Batinah, newly begun fieldwork continues the exploration of the extensive and long-term occupation of Seeb in the northern outskirts of Muscat from the early Islamic period to the present day. Different parts of the investigation demand alternative methodologies. A core consideration of our activity is a focus on capacity development, the decentralisation of knowledge, and imbedded public engagement as key constituents in the delivery of high-impact research. The project represents a scientific partnership between Sultan Qaboos

University, Durham University and the Ministry of Heritage and Tourism. It involves the work and long-term investment of an international multidisciplinary team.

Hafit Period fuelwood preferences associated with early copper production at Building V, Al-Khashbah, Oman

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Keywords: Charcoal; Environment; Metalworking; Bronze Age; Economy

Analyses of archaeological fuel remains can provide insight into pyrotechnologies, resource management, and the local environment. In this paper, we examine archaeological charcoals from Hafit Period (3300–2700 BCE) levels in Building V at Al-Khashbah, Oman to examine fuel harvesting and burning preferences associated with early copper production. Building V is currently thought to be the earliest identified copper production site in Oman, based on abundant pyrotechnological artifacts, slag, and stratified radiocarbon results. Previous work by Deckers, Döpper, and Schmidt (2019) taxonomically identified wood charcoal from Buildings I and V at Al-Khashbah and found no significant differences in vegetation composition compared to today. However, anthracologists are increasingly recognizing that fuelwood collection is often based on social or functional grounds rather than species. Here, we build on this previous work by combining a dendro-anthracological study of charcoals from the structure with a spatial analysis of charcoal, slag, and associated artifacts to identify what, if any, fuel use preferences the Hafit inhabitants of Al-Khashbah had for copper production. Dendrological reconstruction of wood caliber and condition at burning combined with spatial patterning of remains provides a more nuanced view of these preferences than can be achieved through taxonomic analysis alone.

Preliminary results of the first investigation campaign of a palatial complex in the World Heritage Site of At-Turaif District in Diriyah (Riyadh, KSA)

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Keywords: Defensive Architecture – Residential Palaces – Najd Architecture – Building Archaeology – Arabian Archaeology

The preliminary results of Diriyah Gate Development Authority's first campaign of investigations in the World Heritage Site of At-Turaif District in Diriyah is shedding light on the nature of several buildings in the unrestored area of the settlement, located on a plateau along a small affluent of Wadi Hanifah. At-Turaif is located north-west of Riyadh and was founded in the 15th century, to become the center of the administrative power of the House of Al-Saud and the capital of the First Saudi State between 1727 and 1818, when it was destroyed by the Ottomans. It includes houses, defensive structures, barracks, mosques, and palatial complexes built in Najd architectural style. Our study focuses on the interpretation of the chronological sequence and architectural features of a previously unstudied complex, called Complex B, which is interpreted in the literature as an unnamed palace. This Complex has been compared to other palaces in At-Turaif and shows how its architecture reuses old defensive elements reflecting different political and socio-economic dynamics in the late phases of occupation of the settlement. Through an integrated archaeology-conservation approach, building archaeology and ^{14}C analyses, our study covers the analysis of the building techniques, materials and construction sequence of the palatial complex and defensive structures, as well as their relationship with the surrounding environment and topography.

Transoceanic Connections of Early Historic Tamilakam and the Arabian Peninsula

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Keywords: Tamilakam, Arabian Peninsula, ceramics, maritime trade, early-historic period

The Early Historic period (500 BCE- 500 CE) saw the Indian Ocean become a major hub of ancient maritime trade. Earlier research had made Indo-Roman trade its focal point. Following the recent divergent trend, the purpose of this study is to examine the Indo-Arab interactions between ancient Tamilakam and the Arabian Peninsula during this time period. Excavations at Pattanam uncovered South Arabian Ovoid Jars and Khor Rori-Pattanam Ware, the latter of which is exclusively found in these two sites. Additionally, evidence of frankincense at Pattanam suggests a lively trade between Tamilakam and South Arabia. South Arabian Ovoid Jars and Torpedo Jars were first discovered on the eastern coast of India during recent Alagankulam excavations. This study will analyze archaeological data from Pattanam, Alagankulam, Khor Rori, Qana, and Al Hamr al Sharqiya, along with textual sources, archaeo-botanical remains, and Tamil-Brahmi inscriptions from Khor Rori. This will provide fresh perspectives on the early-historic trade between Tamilakam and the Arabian Peninsula, addressing major questions about the significance of sites in this trade, types of ceramics exchanged, changes in interactions and development of inter-regional relationships. Additionally, it will explore the importance of ceramics of Indian and Arabian origin found in each other's regions.

The qanats of al-Mabiyat (Kingdom of Saudi Arabia): mapping and investigating an abandoned waterscape around the Abbasid city of al-Qurh

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Keywords: hydraulic system, qanat, remote sensing, Saudi Arabia, al-Qurh

The Al-Ula Cultural Oasis Project (UCOP) led by Archaïos, steered by the French Agency for AlUla Development (AFALULA) on behalf of the Royal Commission for AlUla (RCU), is investigating since 2021 a hitherto unknown network of qanats surrounding the well-known city of al-Qurh, today known as al-Mabiyat, in the Al-Ula Valley (Northwestern Saudi Arabia). Well documented in medieval sources, al-Qurh was situated on the pilgrimages routes and described as a main power center in the region until the end of the 12 th c. CE/6 th c. AH. As a first step, remote sensing and photo-interpretation survey were combined with a systematic pedestrian survey to identify the qanats. As a second step, chronological evidence were obtained using spatial analysis of the hydraulic systems and studies of the ceramic and glass assemblages collected during the survey. Our preliminary results thus suggest that these qanats supplied with water the hinterland of al-Qurh and probably abandoned at the same time than the city. This ongoing study will thus highlight the role played by water management in urban development and growth of trade in the northern Hijaz during the Abbasid period.

A Review of the Rock Art in Qatar

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Keywords: Rock Art, Petroglyph, Cup Mark, Public Archaeology, Qatar

Rock Art in Qatar has been subject to several studies and publications since the discovery of petroglyph sites in 1957 by the Danish Archaeological Expedition to the Arabian Gulf. Holger and Hans Kapel provided a detailed and exemplary documentation of Al Jassasiya rock art site with photographs and illustrations as early as in 1974. Their methodology has not been followed during the documentation of similar sites in later years. Therefore, studies concerning the typology, function, dating and touristic potential of rock art in Qatar have focused on Al Jassasiya as main site of interest. For the last few years, and inspired through the public archaeology program of Qatar Museums, members of the public have started to report findings which have led to the discovery of few previously unknown rock art sites in Qatar. These new discoveries do not answer the questions concerning meaning, purpose of production and dating of the rock art but add new questions concerning the distribution patterns of the rock art sites. This study considers all currently known rock art sites of Qatar and gives an update about their current state of documentation, preservation, conservation, and management while reassessing the questions concerning the typology, distribution, and function.

Aflaj Discoveries in al-ʿAyn – exploring and documenting the network of shafts and tunnels recently revealed below the streets of the modern city

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Keywords: *Aflāj* – oases – al-'Ayn - archaeological monitoring – Iron Age agriculture

Over the past three years the Historic Environment Department of DCT Abu Dhabi has recorded around 60 separate ancient *aflāj* or underground water channels in more than 150 different locations within the city of al-'Ayn. These *aflāj* discoveries have been made in three main areas of the city – around Hīlī Oasis in the north, to the east of Qaṭṭāra and Jīmī Oases, and in the Central District of the downtown area to the east of al-'Ayn Oasis. This paper will give a brief introduction to the context of these *aflāj* discoveries, most of which have taken place during archaeological monitoring of infrastructure and construction projects, and to the archaeological methodologies employed to investigate and record them. The *aflāj* present several distinct typologies and range in depth and mode of construction, from plastered brick surface channels to deep subterranean tunnels up to 15m below modern street level. The paper will review these typologies and examine the various techniques used to excavate, construct and cover the shafts, channels and tunnels. It will review the available dating evidence and propose an outline chronology of the different *aflāj* typologies, concluding with a brief discussion of the relationship of each type to the wider hydrological context, their interface with changing agricultural practices and locations over time, and the role they have played in the development of the cultural landscape of al-'Ayn.

Behind the loom: An ethnographic study of the reconstitution of al-Sadu in Qatar

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Keywords: al-Sadu, Qatar, Intangible cultural heritage, Handicrafts, nomadic women

The desert, inhospitable to many, was home to various nomadic tribes. In the Arabian Gulf, nomadic women were responsible for the textile architecture of their homes in harsh environments. From animal husbandry to construction, women played an active role in providing shelter for their tribe.

There is little evidence of the techniques, skills and processes used by the Qatari tribal women to construct their Bayt al-Sha'ar (house of hair). As intangible heritage is only preserved if it is taught and passed on to the next generation, economic development in the region has meant the daughters of these weavers have gone on to prosper academically and live a comfortable modern way of life, leaving this intangible cultural heritage at risk of being lost forever.

This research aims to identify and document the form of al-Sadu weaving practice specific to Qatar. It will also assess how al-Sadu is used to recount the socio-cultural histories of the Qatari community, identify the pictographic designs found in the textile, collate the different terminology used by different tribes linked to the craft and, finally, find out the conservation practices of

safeguarding al-Sadu for posterity. This research is based on ethnographic records, the author's observations, and interviews of the nomadic women weavers from the south of Qatar.

Zayed National Museum Bronze Age Ship Project

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Keywords: Abu Dhabi, experimental archaeology, Bronze Age, Zayed National Museum, maritime heritage

The Zayed National Museum Bronze Age Ship Project, is a joint Zayed National Museum-Zayed University-NYUAD experimental archaeological initiative to reconstruct a hypothetical 120-gur trading vessel from the Umm an-Nar period of the late third millennium BCE. The project uses historical evidence, archaeological boat remains, iconography and cuneiform texts from the Bronze Age to inform the design decisions and material selections for each element. A composite Bronze Age ship reconstruction of this size has never been built before. The 17.6m boat was constructed by hand of natural, authentic materials that were available in the region at the time. It has internal wooden framing, an outer hull composed of reed bundles coated in bitumen, and a 14m sail made from goat hair. This project provides a unique opportunity to deepen our understanding of the strengths and limitations of the ships that sailed the Arabian Gulf 4,500 years ago, playing such a vital role in the ancient history of the United Arab Emirates and the region. This paper presents an outline of the methodology, data and contributions to the field of archaeological research in the region, a field that owes its legacy to Moesgaard Museum, Aarhus University and the leadership of Abu Dhabi.

South Arabian documentation on wooden sticks: A résumé fifty years after discovery

Author: Peter Stein

Keywords: Ancient South Arabian, documentary texts, correspondence, zabur or minuscule script, inscribed wooden sticks

It is half a century ago that the first examples of daily life documentation from Ancient Yemen came to light. While it took almost twenty years until the first examples of these texts written on wooden sticks in a specific cursive script could be deciphered, research in this field has made immense progress during the past decades. Up to now, almost 900 texts in Sabaic and Minaic languages have been published, among them many legal documents, correspondence, and writing exercises, but also oracular records and other texts from religious practice. The eventual completion of the edition of the 400 documents housed by the Bavarian State Library in Munich gives us reason to reflect the

past years of research and to present some of the most recent discoveries in this particular field of written documentation from pre-Islamic Arabia.

Meat, milk and 'invisible' organic products in pottery: results of ceramic lipid residue analysis of vessels from Bronze Age sites in SE Arabia

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Keywords: lipid residues, Umm an-Nar, vessel-use, subsistence, organic products

Populations in the Bronze Age in SE Arabia had intimate knowledge of their environments and engaged in complex knowledge-, technological and production systems. They also maintained exchange networks involving both organic and material culture across long distances. This study presents the results of lipid residue analysis from locally-produced pottery such as Fine Red Omani and Sandy Ware, as well as some imported types such as Mesopotamian pottery and Indus Black-Slipped Jars from the sites of Hili 8, Salut ST1, Bat (Settlement Slope), Mukhtru and Kalba 4 to explore what kinds of organic products were used and/or consumed in daily subsistence activities, as well as what products may have been moved from afar. Lipids were extracted from pottery and analysed via Gas Chromatography-Mass Spectrometry (GC-MS), of which a subset were analysed via Gas Chromatography-combustion-Isotopic Ratio Mass Spectrometry (GC-c-IRMS) to distinguish between terrestrial/marine sources and dairy/ruminant carcass fats. The results highlight the importance of pastoral products, such as meat and milk, but also suggest the presence of plant oils in different vessels, indicative of diverse culinary and vessel-use practices. The direct identification of foodstuffs and characterisation of archaeologically 'invisible' products (cf. Crawford 1973) that were contained in ceramic vessels using sensitive chemical techniques provide a new means to interrogate the relationship between people and their environment in ancient SE Arabia.

Reflections on the representation 'Africans' in Bahrain in drawing collections of C. D. Belgrave

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Keywords: African diaspora, Bahrain, archives, historical period

C. D. Belgrave, advisor to the Sheikh of Bahrain between 1926-1957, is mostly known for his diaries about his life and work in Bahrain. In his diaries, C. D. Belgrave often mentioned that he made sketch of places, events, individuals, etc that included people of African descent. During recent research in archives held at Special Collections, University of Exeter, I have identified a collection of Belgrave's pencil sketches and watercolour drawings that depict 'Africans'. The drawings show pearl diving, religious ceremonies, servitude, civil service, labour and so forth. They help to visually contextualise lifeways of the African diaspora in Bahrain that we only know from written descriptions in the diaries of Belgrave and other 19th/20th century sources (e.g., Arabian Mission records and Lorimer). Besides Belgrave's description, visual clues such as employment and clothing that are historically associated with Africans help to establish that these images represent people of African origin. This paper will discuss my reflections on these drawings. Moreover, I will discuss why they are significant for research about African diaspora in Bahrain and the Gulf; and also outline some of the challenges they pose in their nature as (colonial) archives.

New Life to Structures of Death: The Reuse of Monumental Bronze Age Tombs in Northwest Saudi Arabia

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Keywords: Saudi Arabia; Bronze Age; Burials; Tombs; Reuse

The landscape of northwest Saudi Arabia is dotted with tens of thousands of monumental tombs. These structures vary considerably in size and complexity, with some positioned in isolated locations, whilst others belong to long chains of burials known as 'funerary avenues'. Radiocarbon analysis from over 120 tombs in the AlUla and Khaybar regions suggest an initial construction period between ca. 2800-1800 BCE. Evidence suggests that these tombs were originally constructed for a single, or small group of individuals, with these grand monuments not only memorialising the dead but also serving as markers of territoriality. However, within only a few generations, these tombs show evidence of episodic reuse, with this horizon apparently reaching its zenith in the 1st millennium BCE. Preliminary excavations have revealed a wealth of artefactual evidence related to these later interments, with high status objects such as Egyptian or Egyptianising calcite vessels, scarabs, and metal adornments. This paper summarises the ongoing work of the Prehistoric AlUla and Khaybar Excavation Project (PAKEP) and focuses on the reuse of Bronze Age burial structures, as well as the changing burial practices of northwest Arabia across the 3rd through to 1st millennia BCE.

The significance of *the shāsha* on the Batinah Coast, Oman

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Keywords: *shāsha*, Batinah Coast, significance, ecology, economy

Our *shāsha* project aims to comprehensively describe this raft made from parts of the date palm, in terms of its physical characteristics, construction and historical and contemporary use. This work is important because the *shāsha* is threatened with extinction. One aspect of this work is the significance of this raft to the people of the Batinah Coast in Oman. After a brief introduction of our project the paper describes the *shāsha* as the link between date palm cultivation and fisheries, the main sources of food on the Batinah Coast. It will present both the ecological sustainability of the *shāsha* and its economic value. Based on literature and own surveys it gives an outline of the number of these rafts on the Batinah Coast from the late 19th century until today. The presentation shows the historical and recent use of the *shāsha* by using literature and our own ethnographic studies, also the limitations of this raft by our examination of its physical properties.

The Al-Hajar Mts as a prehistoric refugium? On the significance of karst for the habitability of mountain places in the Central Al-Hajar Mts (Oman)

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Keywords: Mountain archaeology; Karst; Prehistoric refugium; Oman; Al-Hajar Mountains; Aridization

Since 2018 the Czech project SIPO (Oman) has located prehistoric lithics of at least two occupation phases at several sediment-filled depressions at ca. 1000 m a.s.l. in the Jebel Kawr (Sint).
With the monsoon influence shifting south by about 6000 BCA, the Al-Hajar Mountains of Northern Oman have traditionally not been considered as an area of prehistoric retreat, viz. “refugium”.
We argue that the specific drainage behavior of fractured karstic rock in the Central Al-Hajar Mts was able to counteract temporal/spatial randomness of rainfall and to support life forms in the mountains *across* arid phases. Likewise, we consider the countless, small karst depressions in the area “plugged” with aeolian silt (*ḥuyul,* sg. *hayl*) as strategic footholds for foraging-pastoral groups *en route* to places with dependable water features higher up in the mountains.
To prove the assertion and to allow a discussion of the emerging mountain archaeology in Oman, observations from the prehistoric site Hayl Aja (1012 m a.s.l.) will be presented, together the most important facts of hydrogeology, botany and zoology concerning the Central Al-Hajar Mts.

Encountering Wendell Phillips in the archives: observations on the American Foundation for the Study of Man's place in the history of Arabian archaeology

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Keywords: history of archaeology, 20th century CE, Yemen, Dhofar, Wendell Phillips

In his 1955 bestseller *Qataban and Sheba*, American explorer-turned-oil magnate Wendell Phillips relates an account of his archaeological campaigns between 1950 and 1952. These projects encompassed the Kingdom of Yemen, the Aden Protectorate, and Dhofar Province of Oman, and according to Phillips' own telling, were made possible by his singular talent for capitalizing on his commercial, political, and intellectual networks. However, a more complex picture emerges after moving beyond Phillips' own writings and popular media coverage to explore the contemporary reception of Phillips and his American Foundation for the Study of Man (AFSM) by those within academe. Through an examination of archival material from the expedition's chief archaeologist, William Foxwell Albright, those who encountered him within the US government and British colonial administration, and others in the field, we gain insightful glimpses into how Phillips was viewed as both asset and impediment to individuals hoping to access the archaeological record of southern Arabia. A reexamination of Phillips highlights his impact on the arc of US archaeological research, but also invites discussion of professional legitimacy and the construction of scholarly identity in Arabian archaeology, from its origins to the present, toward a more robust understanding of the history of the discipline.

Socio-political factors in the outset of large-scale copper production in Early Islamic Oman

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The Early Islamic period in Oman sees the renewal of large-scale copper production in southeast Arabia. For more than a millennium from the early first millennium BCE to the mid-first millennium CE, evidence for copper production is absent. A variety of factors, external and internal, have been cited for this renewal, including a boom in Indian Ocean Trade and environmental constraints. Yet the socio-economic factors which form the framework for industrial growth during this transformative period are rarely considered. The purpose of this paper is to delve deeper into the socio-political backdrop of the Early Islamic Period which fostered and enabled the social organization necessary for specialized and industrial scale copper production. We present our arguments alongside some of the new data from copper production sites in Wadī al-Rakī, including targeted survey and excavation of production sites that provide crucial information to understand the beginning of large-scale copper production in Early Islamic Oman.