

Field report of the Alexander Sima, Heidelberg University Archaeology Mission to Oman, 9 September – 15 October 2021

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Our team consists of three archaeologists whose task was to gather information on the character and economy of the Early Iron Age (EIA) preparatory to a four-year fieldwork project proposed to this same topic. Given the usual Bronze Age agenda of most archaeologists results in a diversion of time, talent and funding. For this reason, the study of the Early and Late Iron Ages in Oman and the Emirates is underdeveloped, with notable exceptions, for example, the excavated settlement sites at Muwaylah and Salut.

Our future field project is intended to illuminate the EIA population, their climate, nutrition and metal production for the northern half of the Sultanate above the 51st parallel. While G. Goettler et al., A. Hauptmann, J. Lehner and others have studied EIA copper production in Oman, next to nothing is known about this period's iron production. We assume iron to be imported, perhaps from South Asia and South Arabia. It may be noted here that many EIA sites in Oman are being displaced in stages as a result of building expansion. Bulldozing and stone quarrying of the tombs as a source of building materials are expressions of this.

Our work centred on Oman's the best-preserved EIA burial sites. These begin with cemeteries at al-Salayli (245 tombs), al-Khawdh, Hor al-Dhab' (145 tombs) and Bilad al-Ma'din (118 tombs). The team numbered, described and photographed mostly hut tombs. These are dated by their architecture and find situation to the EIA. The main funerary structures encountered are hut tombs, niche graves and more recently, cylindrical tombs. At al-Salayli we documented the ancient mine, the copper smelting production and EIA settlement, much of the latter which lies just outside the main valley to the north-east. At al-Salayli the tombs lie scattered in four spatial groups. Tomb entrances tend to point wadi slope-downward. We tested the hypothesis that small EIA sites might be better preserved and show less disturbances than large ones. By far, the country's largest accumulation of hut tombs lies in the Batina foothills. For this archaeological category, least well known is the Dakhiliyya province owing to a lack of survey. A main goal with this visit was to identify subterranean EIA burials of the non-elite population. Yule (2001), Saunders et al. (2016) and Laurenza et al. (2020) have contributed studies of the EIA funerary architecture.

To overview the different kinds hut tombs, the team recorded various EIA burial sites in the northern half of the Sultanate. Tombs are overwhelmingly the major feature of the south-eastern Arabian archaeology. We compared the regionally different kinds of tomb entrances. In north-eastern Oman, rarely could we determine a clear hut tomb entrance. For such tombs the deposit of deceased was from above.

Muscat governorate

At the site of al-Khawdh, Hor al-Dhab' we continued our mapping which began in October 2018. Use of a Differential Global Positioning System receiver for the mapping, preparatory to our planned rescue excavation there enabled the mapping of hut tombs.



Fig. 1. Sangar no. 3, photographed in January 2020, al-Khawdh, Hor al-Dhab', Muscat governorate.



Fig. 2. Sangar no. 3, photographed in September 2021, showing that the uppermost stones recently were quarried, al-Khawdh, Hor al-Dhab', Muscat governorate.



Fig. 3. Bulldozing the east of the EIA archaeological site al-Khawdh, Hor al-Dhab', Muscat governorate 10.09.2021.

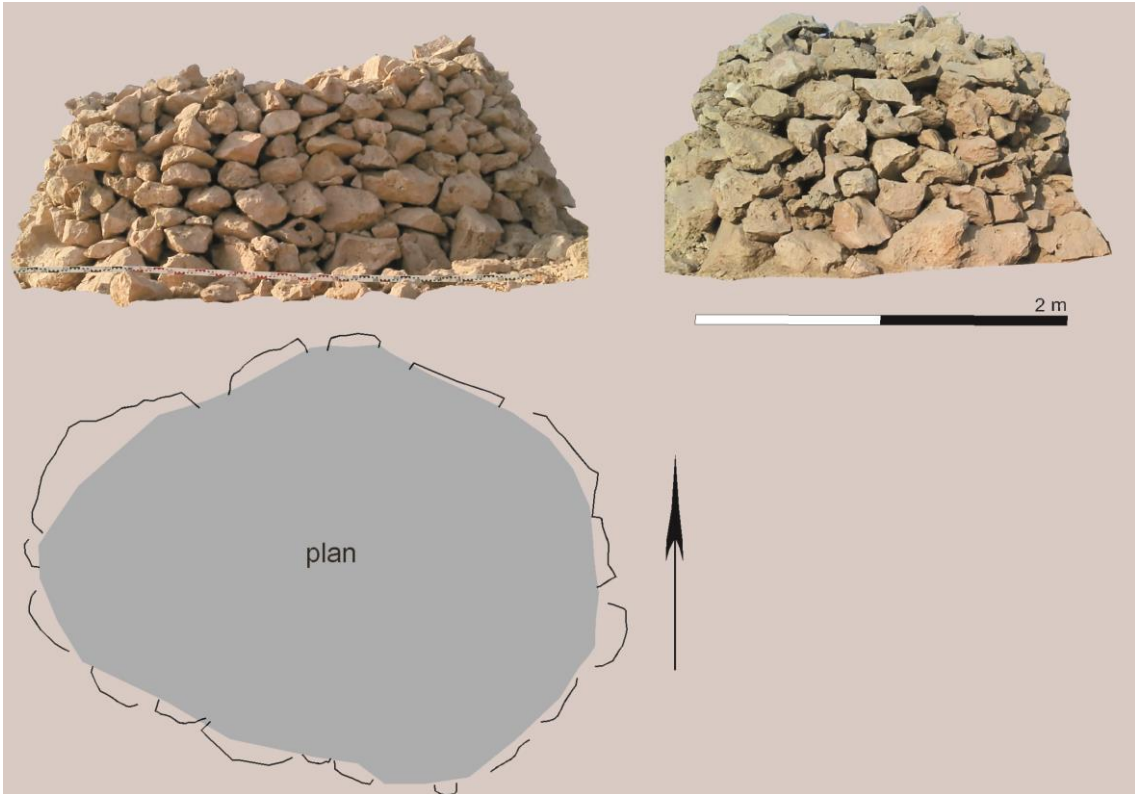


Fig. 4. Typical EIA hut tomb at al-Khawdh, Hor al-Dhab' with the entrance to the east.

The site is located on the property of the Ministry of Defence, which agreed February 2020 to sponsor the mapping and the excavation of 10 tombs in al-Khawdh, Hor al-Dhab', with the aim to realize in the future an archaeological and recreational park. The Covid-19 pandemic postponed our fieldwork there, but not the beginning of the construction activities. We immediately recognised that some structures photographed last January 2020, have been deprived of the uppermost courses of stones, as it happened for the sangar no. 3.

Al-Batina north governorate

We documented numerous EIA tombs which survived the recent extensive building of motorways in the greater Suhar area.

Magan cemeteries. The hills at this industrial complex contain numerous single and clustered EIA hut tombs with long plans. Tomb entrance structures were rarely ascertainable. Tops of hills are being bulldozed of their prehistoric remains for building purposes.



Fig. 5. Hut tomb in a good state of preservation, Wadi al-Arad site, al-Batina, selected for 3D rendering.

Wadi al-Arad cemeteries. Hundreds of hut tombs are extant despite the damage caused by the building of the expressway.

W. al-Hilti cemeteries. Several EIA tombs are extant on a mountain relatively remote from populations and building projects. We hoped to locate well-preserved tombs here. The site requires additional prospection in order to complete the mapping of the tombs which lay

on the western slope of the hill inspected during the one day of mapping. The tombs show different construction technique and mainly different shapes.



Fig. 6. Wadi Hilti, al-Batina, hut tomb. Such have an entrance construction above.



Fig. 7. Waterfall at the al-Salayli site, al-Sharqiya north September 2021.



Fig. 8. Collapsed Middle Islamic mine gallery, al-Salayli al-Sharqiya north.



Fig 9. Al-Salayli site 1, al-Sharqiya north. One of Oman's best EIA hut tomb sites.

Al-Salayli. Our main task this season was to document the 245 EIA hut tombs at this site. We described, inventoried and photographed these tombs. In addition, we attempted to document the copper slag and determine its volume and date. The dating of the slag at al-Salayli forms a matter for discussion (Fig. 10). Presumably it includes early, middle and late Islamic production. Early Islamic slag is clearly identifiable, but the main period of mining

possibly in the middle Islamic period. Late Islamic occupation is suggested by slag recycling, but no mining. EIA mining is suggested by copper slag found in the walls of 6 tombs in al-Salayli site 1. Water resources are greater than previously known. Two streams were flowing even during the summer heat. EIA settlement is best known north of the al-Salayli valley. Better preserved slag fragments show typical early Islamic form and size: A fragment of a furnace slag with the bottom smooth surface being the interface between the slag and matte or indeed copper metal which was separated and processed elsewhere on the site (pers. comm. J. Lehner). The projected diameter of the furnace slag gives a rough impression of the furnace size.



Fig. 10. The al-Salayli slag fields seem mostly of early and also perhaps middle Islamic date and in places measure more than 1.3 m in depth. The scale in the photo is 3m in length.

We excavated two surface anomalies (28.09.2021), which we first registered as EIA graves, to judge from their east-west long axis. 150 m west of the Salayli site 1, no. 197 stands 50 cm in height. Length and width: 1.7 x 1.2 m, east-west orientation. We trenched the southern half. The profile revealed surface and subsurface effects of deflation. This locus showed no grave architecture, only natural sedimentation. Deeper the stones were up to 50 cm in diameter. The ground was full of decomposed stone. No anthropogenic structure. Cenotaphs or just nature?

Grave 12, 50 m north-west of the Salayli site 1 was initially suspected to be an EIA child grave (c. 1.2 x 1.2 x 0.2m, no main lateral axis). It contained no grave structure. The surface was first cleaned of gravel and the stones. A few small blue glass vessel sherds were recovered in and around this context.



Fig 11. Al-Salayli, al-Sharqiyya north, suspected grave / feature 197.



Fig 12a, b. Al-Salayli, al-Sharqiyya north, suspected grave / feature 12.

Bilad al-Ma'din. Survey at Bilad al-Ma'din (6 km east of al-Salayli) revealed a large number of hut and cylinder tombs. EIA copper slag could be dated by pottery, but the majority appears to be of Islamic date.



Fig. 13. Cylinder tomb A1 at Bilad al-Ma'din, al-Sharqiyya north.

Wadi Sa'. This site has been recorded as consisting of 3 copper-producing areas with ancient tombs. Sites I and II contained few or no anthropogenic structures except for a copper mine. Only site "III", extending over several hundred m² revealed Islamic copper slag and buildings.

Al-Shuwayi'. This site evidenced EIA hut tombs with an entrance at one of the short sizes. A second type is composed of a stone cylinder, mostly located on slopes, higher than the hut tombs.

Majazah mine was confirmed to show the undated mining of Cu, Co and Fe.

Al-Dakhiliya governorate

Halban site cemeteries. Reported to me by Roman Garba. 10 km south-west of this town lies a largely bulldozed area in which some 28 damaged EIA graves survived. No tomb entrance structure was identifiable in these damaged tombs. Mostly preserved on the western side of the road. Some are built in a Hafit topographic situation on a hill or crest and the chamber may be sub-circular. Some cluster in twos and threes. Sandwich, no beehive construction. At this site the distinction between Hafit and EIA is a problem.

Al-Multaqa. In Dakhiliyya close to the border with Muscat governorate, al-Multaqa some 36 EIA so-called "honeycomb graves" were tallied. One preserved 1 m in height appeared to be

cylindrical in shape. This extended, mostly EIA hut tomb site is much damaged. Its agglutinated tombs are scattered on the western mountain slope and 300 m, to the north in the plain. None of the hut tomb entrances evident in the Sharqiyya tombs can be proven here. 100 m further north, Late Iron graves also came to light which reportedly were robbed in 1996.

Bulldozing has completely destroyed graves in the plain just west of the mountain. In the site to the north small finds were recovered and turned over to the MHT: painted EIA fine ware, other potsherds, 10 beads in total of different material (DA 52662), shells, one copper clamps (DA 52661), fragments of glass with different colours, a fragment of a soft-stone vessel and finally an intact seal in steatite (DA 52660).



Fig. 14. Cylinder tomb at al-Multaqa, al-Dakhiliyya.



Fig. 15. Soft stone seal DA 52660, collected from EIA disturbed graves, northern al-Multaqa, al-Dakhiliyya.



Fig. 16. EIA potsherds, collected in the area of the graves, northern al-Multaqa, al-Dakhiliyya.

Al-Zahira governorate

Wadi Magniyat, Bulaydha, Moqenyat? 43 hut tombs spread along the northern wadi edge in a E-W direction. There is no ministry sign. Tomb preservation is heterogeneous. Tombs clustered up to 8 or even 15 together. Entrances are difficult to determine and heterogeneous in orientation. Preserved up to 1.70 m in height. No tomb roofs pres. Oval-circular plans – not horseshoe. The best-preserved ones identify other poorly preserved ones. Most of the tombs have been bulldozed. No clear, unified tomb orientations. Best preserved tomb plan is oval, entrance possibly in the north-east. All EIA. Well-preserved examples date the others.



Fig. 17. Hut tomb in Bulaydah, Wadi Magniyat, al-Zahira.

W. Ajran. At this site EIA hut tombs were mistakenly reported. This settlement and burial site appears to date to the Umm an-Nar period. Stone alignment lies in an Umm an-Nar context.

‘Ibri, J. Subaykhi and J. Kawas. Despite an early report of 1975 that EIA tombs were sighted on the two jebels, only ruined tombs of Hafit type occur.

Conclusions

Our survey collected information to support a planned archaeological project in Oman on the character and economy of the EIA. It illuminates the burial custom and architecture in eastern Oman compared to other parts of the country. By far the most populated part of the

country with EIA tombs is the Batina. EIA tombs with preserved entrance constructions and roofs suggest the placing of the deceased person into the front but mostly top of the tomb. These without an entrance construction are best documented in the Batina, but such tombs also occur as far south as possibly at the Halban and al-Multaqa sites. Numerous instances occur of a hut tomb standing next to a flat stone accumulation which are taken to be cannibalised previous tombs.

The kinds of EIA tombs increased: hut tombs, type 2 cell tombs, honeycomb tombs, cylinder tombs and niche graves. The variety of tomb styles shows regional and possibly social differences. The study of these standing EIA tombs complements excavated destroyed ones.

The diachronic study of copper production at Bilad al-Ma'din promises to show prehistoric smelting developments between the Umm an-Nar, EIA and Islamic periods. GPS mapping provided good evidence for the project in number and lay of different kinds of EIA tombs – sites often not or only cursorily described. Al-Khawdh and al-Salayli show very similar EIA tomb architecture. Curiously, at al-Salayli the large funerary 'cylinder tombs' are absent.



Fig. 18. Sites surveyed 10 September – 15 October 2021 by the Heidelberg team. Governorate borders are obsolete.

site	موقع	governorate	dating	easting	northing	source 1	source 2
Hor al-Dhab'	حور الضبع	Muscat	EIA	620346	2609514	Gaudiello_Yule 2018	Yule et al. in press
Wadi al-Arad	وادي العرد	al-Batina north	EIA	462422	2685840	Laurenza et al. 2020 346	-
Magan	ممجن	al-Batina north	EIA	457337	2701028	Frifelt 1975	Yule 2001
Wadi al-Hilti 3	وادي الحاتي	al-Batina north	EIA	462937	2677955	-	-
Halban	حلبان	al-Dakhiliyya	EIA	597198	2603926	pers. comm. Garba	Yule 2001
al-Multaqa	الملتقى	al-Dakhiliyya	EIA	612596	2585729	pers. comm. al-Rasibi	-
al-Salayli	الصليلي	al-Sharqiyya north	EIA	632200	2536348	Goettler et al 1976 44	Gaudiello_Yule 2018
Wadi Sa' iii	وادي صاع	al-Sharqiyya north	EIA	607470	2518918	Yule et al. in press	-
Bilad al-Ma'din	ببلاد المعين	al-Sharqiyya north	EIA	628570	2542193	Yule 2001	Yule et al. in press
al-Shuwayfi'	الشويويا	al-Sharqiyya north	EIA	609541	2518278	Yule_Mauro 2019	Yule et al. in press
Majazeh mine	مجزة	al-Sharqiyya north	EIA	602463	2517242	Goettler et al. 1976 44	Hauptmann 1985 fig 6
Bulaydah	بوايدة و مقبية	al-Zahira	EIA	486655	2586076	Frifelt 1975	-
'Ibri, Kawas	عبري كوس	al-Zahira	Hafit	451182	2570105	Frifelt 1975	-
'Ibri, Subaykhi	عبري صيلخيا	al-Zahira	Hafit	434298	2577433	Frifelt 1975	-

Table of funerary archaeological sites visited in September-October 2021. The coordinates are UTM zone 40.

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