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Archaeological study visit to the Šarqiyyah 28.03.–12.04.2019 Heidelberg University Initiative

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The purpose of this year's season of archaeological survey was to better understand and represent archaeological sites which were mentioned in the early archaeological literature on Oman, but hardly described or mapped. For example, for sites and excavations which appear in the literature of the 1980s and 1990s (e.g. Weisgerber et al. 1981), often it is unclear how large the site is, e.g. 1 grave or 50? Published aerial photos had neither a scale nor a north arrow and were published with north facing downward, at best unusual and confusing. Most came to light before the GPS came into common use in the mid-1990s and require considerable time to locate for study. The position of a given place-name may change, assuming that it was correctly understood in the first place. And they did. Maps less than 1:100000 in scale were rare. Rare indeed are archaeologists schooled in the Romanisation of Semitic place-names (instead of 'ad-Shewi', al-Sā' and instead of 'Salely', al-Salaylī). Moreover, while some 20 Late Iron Age sites of Samad type came to light from 1977 to 1995, the vast majority of the 79 known today came to light subsequently, as a result of casual survey without financial support. This same prospection success is evident for the sites of other periods as well during recent years in Oman. A minimal investment in time yielded unexpected results. Casual survey since 2014 has focussed on the Early and Samad Late Iron Age (respectively EIA and Samad LIA). This enables us to know the sites better in the time available and build on information already acquired. The archaeology of southeastern Arabia is characterised by a predominance of graves which explains the number of cemeteries in the 21 sites recorded below. As a result, notions about the size of the

population of a given period change unpredictably.

First among these survey sites are those located 1 km south of Wādī al-Misfah, in al-Ṣalaylī (2 km SE of the exotic, white Ğebel al-Ḥawrah) owing to their excellent preservation.¹ This relatively small archaeological zone owes its good preservation to its remote location. It is better preserved than large EIA sites such as al-Rākī, which consist literally of copper slag, used as a building material (Weisgerber 2007, 199). The al-Ṣalaylī valley may illuminate the history of Iron Age copper production and contrast it to that which

Fig. 1. Locator map for the archaeological survey of April 2019 of the Heidelberg initiative. We documented 21 sites.



¹ Literature relevant to this year's survey: P. Yule 2014; Kh. al-Rāsibī–P. Yule 2017; P. Yule–M. Gaudiello 2017, 50–4; P. Yule–M. Gaudiello–Kh. al-Rāsibī 2018; M. Gaudiello–P. Yule, 2018a; idem 2018b; Kh. al-Rāsibī 2018 (in Arabic). We thank Sulțān al-Bakrī and the Ministry of Heritage for their support during our campaign.

preceded and followed in SE Arabia. It has a mine, smelting area, a cemetery and an Early Iron Age (EIA) settlement. It is a history that shows how when oxidic copper ores became rare how the technology changed to cope with the more difficult sulfidic ones. This season we continued survey in order to valorise this important archaeological area. A study of the pottery that begun in October 2018 and April 2019 is to continue.

29 March, Friday: al-Ḫod/al-Madīnah

Al-Hod/al-Madīnah. Settlement and cemetery (Fig. 2), Samad LIA. Published: Mershen 2002, 103–5 fig. 6. The site lies where the Wādī al-Hod splits 2 air km NW of al-Hod. It is located just W of the fork on the W side of the wadi bank. The poorly preserved cemetery lies above the *sayl* wadi. It continues for some 200 m on the conglomerate terrace. To the west and above lie the remains of a settlement. No single grave is well-preserved or typical of one of Samad type. Likewise, the settlement is difficult to identify as a result of the poor state of preservation. The identification depends largely on the associated pottery sherds, more particularly their fabric (visited 29.03.2019). It is being actively encroached from the west along the entire length. The site actively is being covered by land-fill.



Fig. 2. Al-Hod/al-Madīnah, Samad Late Iron Age settlement and cemetery site (25.10.2018 Google Earth).

30 March, Saturday: Sarūr, al-Moyassar M34a, M34b, Wādī Ṣāʿ site

Sarūr is important since it lies in the centre of the Samad LIA find area, but rarely has been surveyed. Its W side is totally destroyed by 30 years of road building. On its E side large surfaces have been built and bull-dozed. We located two small concentrations of hut tombs. The search conditions are abysmal, the result of building expansion.

At al-Moyassar the mountain upon which the Samad LIA hillfort M34a (Figs. 3 & 4) is higher in altitude than the adjacent site M34b (559 m and 552 m). The position of both hill fortlets

was confirmed (correcting Yule 2016, 55 tab. 9) and circumferentially measured with the GPS. Both appear to be fashioned of dry stone masonry (literature: P. Yule 2016). We used the time to verify the mapping of elusive Umm an-Nar sites at al-Moyassar, i.e. M18 and M19.



Fig. 3. Left: Samad LIA hillfort al-Moyassar M34a and M34b to its south (Google Earth).

Fig. 4. Right: Plan of M34a and M34b (after J. Heckes).

At the Wādī Ṣāʿ site we found no Samad LIA graves and no preserved EIA tombs mentioned by a previous surveyor (cf. Weisgerber 2007, 195). At Wādī Ṣāʿ what appears to be mine detritus on the mountain slope more likely has a natural origin. At the foot, the remains of two possible stone roasting stalls seemed possible, but by no means proven. The near absence of copper slag is difficult to explain. The springs there would have been a boon for the mining and smelting.

31 March, Sunday: al-'Amqāt

We mapped at al-ʿAmqāt with regard to the proposed building of Saʿīd al-Muharbi. We observed some 20 ruined hut tombs. We observed no Late Iron Age graves at the W end of the area proposed for building:

coord.	easting	northing	alt. m
1	614764	2593614	213
2	614844	2593649	232

3	614858	2593566	206
4	614817	2593581	210
5	614781	2593580	206

1 April, Monday: al-Ṣalaylī, al-Moyassar, al-Baṭīn

We visited al-Ṣalaylī to confirm position the tourist sign to be posted. We proceeded to al-Moyassar and planned with Ǧabbar al-Širianī the positions of planned ministry warning signs.

Afterwards we continued to al-Bațīn for a brief visit. To the SW and W of the village core we located numerous Wādī Sūq graves (Fig. 5) which G. Weisgerber mentioned (cited in Yule 2001a, 368). They are dated by their form. No EIA remains were noted. We also noted a large suspected honeycomb cemetery presumably of Wādī Sūq date (site 3). We searched for sites where in 1981 the German Mining Museum excavated two Samad LIA graves and found one to the south-east and another to the west of the centre of the village. Fig. 5 shows two loose groups of graves. We noted in the area to the north a few Samad LIA graves, but located no trace of the excavation of 1981. During a brief visit SE of the village core we located 18 Samad LIA graves (al-Bațīn 2, cf. Yule 2001 I, 368, II Pl. 580a,b).



Fig. 5. Al-Bațīn, prehistoric cemeteries 1 & 3. Blue flags are of Wādī Sūq date or are not datable. The green flags are Samad LIA. The light blue line shows the track of the search. The grave group 1 is to the northernmost.



Fig. 6. Al-Bațīn, cemetery 2, Samad LIA. The light blue line shows the track of our search.

2 April, Tuesday

Day for coordinating the work in the capital area.

3. April, Wednesday: Yițī



Fig. 7. Plan of the Yiṭī prehistoric cemetery, non-Samad LIA. Each blue flag represents a grave. Our tracks appear in light blue.

We drove toward Yițī in the Wādī al-Mayḥ and checked various mapped with the GPS 10 Wādī Sūq graves loosely scattered next to a small Islamic cemetery (666458 m E, 2600752 m N, alt. 54 m).

Continuing toward Yiṭī encountered a pre-Islamic cemetery fenced in by the MHC on the SE side of the road (Fig. 7). On the east-north-east lies an electric transformer facility. The paved road destroyed c. 30% of the graves. On the opposite side the graves were most bulldozed. Some 25% of the fence was destroyed by a vehicle and by flooding. The cemetery was most badly damaged nearer the road. Two ministry signs were still standing. A third (1 x 2 m) one had been run over and lay on the other side of the road.

The cemetery contained some 55 tombs mostly of one kind: low (20 cm high) subterranean cist tombs which large flat roof stones. Three stood higher and are of a different type. The roof is covered with a dense layer of schist. The ministry excavated one of the graves. The chamber measured at the floor some $1.90 \times 0.90 \times 0.90$ m. Flat roof stones were large and often proportionately thin, just as at neighbouring 'Abāya, c. 39 km to the SE. Perhaps three tombs were intact. The tombs most closely resemble those from this site and are of LIA date. They bear no close resemblance to those from Samad, nor are they of the 3^{rd} millennium BCE as posted on the ministry sign. The orientation of the long-axis of the chambers amount to:

SE-NW	26
S-N	12
SSE-NNW	9
E-W	7
?	4
SW-NE	1
NNE-SSW	1
total	60

No surface finds were extant. Owing to the architecture, the group is classified as non-Samad Late Iron Age (Yule 2001 I, 363; idem 2014, 89). It is indistinguishable from the graves at 'Abāya. However, here the preservation is far better. More than one grave type is preserved. This cemetery contains an altar-like stone setting (Fig. 8). There is no functional way to explain the standing stone construction.



Fig. 8. Suspected altar in the Yițī prehistoric cemetery, view to SE.



4 April, Thursday

Day for coordinating the work in the capital area.

5 April, Friday: Fulayğ al-Rašāšdah, Faġr, al-Gubayrat/ʿAyn Umm al-Bakr, Ṭawī ʿAyša With Ḫalīfah Ḫamis al-Rāsibī visited the Umm an-Nar tomb site, Fulayğ al-Rašāšdah, which B. de Cardi et al. mistakenly called Ṭ. Silaym (1977, 18–28). Numerous Umm an-Nar tombs. Much vandalism of all kinds, partly as a result of the nearby quarrying.

Fig. 9. Trilith at Faġr viewed toward the SSW.

At Faġr, c. 4 km SW of Fulayǧ al-Rašāšdah a trilith with no roasting pits (Fig. 9) came to light. Its different stretches are oriented in a uniform way (NNE–SSW), and are some 70 m in length.



Fig 10. Plan of the prehistoric cemetery at al-Ġubayrat near al-Kamil & al-Wāfī, recorded 21.07.2017 and 5.04.2019.



Fig. 11. Al-Ġubayrat, area surrounding the excavation of Ḫalīfah Ḫamis al-Rāsibī of 2018 (Google Earth).

At al-Ġubayrat/ʿAyn Umm al-Bakr tallied this year 33 tombs of the northern part of the same cemetery as recorded on 21.06.2017 (waypoints 545–636). We called this cemetery in our report of that time 'al-Kamil/al-Wāfī' (Yule–al-Rāsibī 2017). In the two visits we plotted 139 graves. On 24.–26.04.2018 Halīfah Hamis al-Rāsibī excavated one of the graves.

The farm is located in al-Ġubayrat district to the east of al-Wāfī town in the Wilāyat of al-Kamil and al-Wāfī. The owner of the farm above is the mother of the citizen Sulṭan bin Rašid bin Ḥamad al-Rāsibī. At its SE end the cemetery was disturbed by the fencing in of the farm. This was the reason for the archaeological excavation (coordinates: 732422 m E, 2452481 m N, alt. 141 m).

At Ṭawī ʿAyša we sighted a group of c. 20 ruined Umm an-Nar tombs.



Fig. 12. Ruined Umm an-Nar tomb at Ṭawī ʿAyša, view toward the SW.



6.04.2019, Saturday: al-Ṣalayli

Fig. 13. The al-Ṣalaylī sites (black square) lie 2 km SE of the Ğebel al-Ḥawrah, the mountain to the upper left in the map (source: NSA sheet, Qifayfah, nf4007c2, 1:50.000).



Fig. 14. Sites at al-Ṣalaylī sites (Google Earth).

Verified the place-name around the mine and smelting area. A local informant designated the W and S of the archaeological find zone as al-Wuqayb. We mapped structures at al-Ṣalaylī in the E end of the wadi (Figs. 13–14) which appear to be dwellings from about the 15th century, to judge from the pottery. They contained most notably glazed Persian pottery, especially in the north of the village of some 90 dwellings.

This site is slowly being encroached from the west: Surfaces are being bulldozed preparatory to the building of houses.

In the E end of the al-Ṣalaylī archaeological zone (Figs. 14 & 15) the best preserved houses lie to the north, and the worst preserved ones to the south. To the W of site 2 surfaces are being bulldozed for farms and dwellings. For a selection of glazed pottery and celadon stone ware cf. Gaudiello–Yule, 2018b, Fig. 7. An architecture made of larger stone is attributable to the EIA period. However, this dating can rely on only few pottery sherds. In the complex history of the site the smelting of sulphidic copper ores centres in two irregular areas (632056 m E, 2536283 m N, alt. c. 710 m). Far more numerous are glazed Persian pottery sherds, but few Omani ones.

Fig. 15 shows that a wadi divides the eastern part of the site into two halves, E and W. A badly preserved wall made of heavy stone seems to divide the two sections. The foundation of a 10 m wide tower is datable to the sub-recent period. This also dates the associated wall.



Fig. 15. Plan of the eastern end of the al-Ṣalaylī archaeological zone showing the site 1 hut tombs (navy blue) and earth burials (light blue), the slag fields (grey), the Islamic settlement (5) and the abandoned mine (mine symbol). State: 19.04.2019. The red rectangles signify buildings.



Fig. 16. Al-Ṣalaylī abandoned mine probably used at the latest in the middle Islamic period. The most accessible entrance is the 3^{rd} arrow from the left (632327 m E, 2536312 m N, alt. 757 m).

The collapsed gallery of the copper mine (Fig. 16) was located and fixed with coordinates instead of just the incorrect place-name, 'Musfa' (Weisgerber 1980, 66 Abb. 4 & 5), which now is understood to lie 3.5 km to the NNW. Today one can trace the exploitation of the copper ore vein for 115 to 140 m. However, Weisgerber describes the vertical shear zone as 500 m long and vertical (Weisgerber 2007, 198). Further 130 m to the W (632194 m E,

 $2536310~{\rm m}$ N, alt. 719 m) we located a search gallery which the miners made, distant from the main shear zone.

7.04.2019, Sunday: al-Ṣalaylī,

We mapped houses, wall roads in al-Ṣalaylī. Toward SE the settlement is more degraded, probably older. Toward N the dwellings are in a far better condition. Some seem to have a stall. They are no doubt of later date.

8.04.2019, Monday: Wādī Ṣāʿ, al-Šūwayʿī

Visit with Sultan al-Bakrī to Lakšebah. Visited the Wādī Ṣāʿ. Nearby at al-Šūwayʿī we conducted survey. Undocumented cylindrical towers preserved to 1.80 m in height or higher made of rough stone were interspersed with hut tombs. Since few or no sherds occurred, the dating can only be guessed at, EIA on the strength of the building style. The architectural mixture is difficult to understand. Graves seem interspersed with possible dwellings.



Fig. 17. Al-Šūway'ī archaeological zone, cylindrical towers are interspersed with EIA hut tombs.



Fig. 18. al-Šūwayʿī archaeological zone, cylindrical tower, preserved to 1.60 m in height. View toward the SW.



9.04.2019, Tuesday: al-Ṣalaylī

Fig. 19. Al-Ṣalaylī site 1, view toward the SW. The 15 white slips show earth graves. Visible in the background to the left are the well-preserved hut tombs of this cemetery.

Today at al-Ṣalaylī we mapped the degraded middle Islamic settlement to the SE of the main house concentration (Fig. 15). We mapped earth burials, noted for the first time, which lie

directly to the SE and W of the burial site, 1 with its excellently preserved hut tombs. The hut tombs provide provisional dating for the earth graves until one is excavated. The earth burials are taken to be of women and children, to judge from their small size. Often they are 1 m or less in length.

Several different building plans were observed (Fig. 20). Owing to the size and distribution we took the buildings to be houses. The pottery finds appear to be middle Islamic (see report of 2018). Two open mosques of unknown date with *mihrabs* came to light.



Fig. 20. Sketched buildings in the al-Ṣalaylī settlement. H44 is the largest building. H65 is taken to be possibly a mosque owing to a *qibla*-like orientation. H75 is of far heavier building material and lies beside the EIA degraded settlement alongside what is taken to be an enclosure wall. Damage to the wall is from water erosion.

10.04.2019, Wednesday: al-Hod, Hur al-Daba', Yiţī fort

Mapping of this well-preserved hut tomb cemetery begun in October 2018 continued today at the EIA site of al-Hod, Hur al-Daba[°], 300 m E of the department store, Lulu al-Bandar (report of October 2018). We mapped over 120 mostly hut tombs. Numerous presumably IA tombs are built beneath the ledges in the horizontal cleaved rock. Some 10 recent shooting positions also were mapped. Limitations of time prevented a more thorough mapping.



Fig. 21. Map of 2018 and 2019 of the twin mountains al-Hod/Hur al-Daba[•]. The greenish dots are hut tombs. The yellow lozenges are recent emplacements for military defence. The stars are niche graves.

Our final visit on the 10th took place at the Yiṭī fort, about 100 m WSW of the prehistoric cemetery, about 150 m S of the tarmac road and directly above the garden to the south. This fort contains local Islamic period pottery which is yet to be studied. Its E–W extent is nearly 90 m in length. It appears to be built of dry-stone masonry. The main building lies to the E.



Fig. 22. Yiṭī medieval fortified settlement (19.12.2009, Google Earth).

site	type	eastings	northings	alt.	dating	surf. area m²
al-'Amqāt	graves	614764	2593614	213	Early Iron Age	c. 250
al-Bațīn 1	graves	671081	2520111	459	Wādī Sūq, Samad LIA	20000
al-Bațīn 2	graves	672544	2518986	438	Samad LIA	5000
al-Bațīn 3	honeycomb graves?	671080	2520111	456	Wādī Sūq?	400
al-Ḫod/al-Madīnah	graves	613948	2607812	89	Samad LIA	3000
al-Ḫod/al-Madīnah	settlement	613921	2607846	90	Samad LIA	3000
al-Ḫod/Ḥur al-ṉabaʿ	graves	622357	2608507	50	Early Iron Age	80000
al-Kamil/al-Ġubayrat	graves	733000	2451000	142	Early Iron Age?	750000
al-Moyassar, M34a	hillfort	616344	2522465	559	Samad LIA	1500
al-Moyassar, M34b	hillfort?	616241	2522284	552	Samad LIA	70
al-Ṣalaylī 1	cemetery	631897	2536303	706	Early Iron Age	6000
al-Ṣalaylī 5	settlement	632162	2536334	716	Middle Islamic	40000
al-Ṣalaylī	gallery	632194	2536310	719	Middle Islamic	-
al-Šūway'ī	graves	609597	2518267	498	Early Iron Age	60000
Faġr	trilith	667282	2489887	346	non-Samad	70
Fulayğ al-Rašāšdah	graves	670131	2493126	339	Umm an-Nar	600000
Sarūr 1	graves	613570	2585517	260	Early Iron Age	250?
Sarūr 2	graves	613410	2585673	274	Early Iron Age	250?
Țawī ʿAyša	graves	736383	2465481	206	Umm an-Nar	25000?
Wādī Ṣāʿ	Cu smelting?	606781	2519949	487	Islamic	_
Yițī	graves	671223	2600986	43	non-Samad LIA	7000
Yițī	fort	670166	2600721	24	Islamic	6000

Sites surveyed in 29 March – 12 April 2019.

Conclusion

Survey in the al-Šarqiyyah region and Muscat governorate shed new light on the archaeologist in this area. Unpublished and under-published sites could be preliminarily investigated. With little expenditure of time and money several sites came to light. We focussed on EIA and Samad LIA sites in hope of illuminating these two periods, and more particularly the archaeological zone of al-Ṣalaylī which we have studied for three short campaigns. This was rewarded by new information regarding the cemetery no. 1 which now is known to contain earth burials, presumably of the EIA.

We located the positions of Samad LIA cemeteries on the flanks of the al-Baṭīn oasis. They contain less than 20 graves. Another small settlement of this same period was localised at al-Ḫod/al-Madīnah. The continued mapping at al-Ḫod/Ḥur al-Dabaʿ revealed graves in niches usually at the base of small mountains. These burials appear to date to the EIA, to judge from a few finds and the neighbouring tombs. As a result of the protracted survey activity of Ḫ. al-Rāsibī, we expanded the size of the prehistoric cemetery at al-Kamil/al-Ġubayrat and brought it into connection with a part which we mapped in 2017. At al-Moyassar we improved the documentation of the Samad LIA fortlet, the dating of which was challenged unsuccessfully in 2014.

The site of al-Šūwayʿī (previously realised phonetically as 'ad-Shewei') in a copper producing area was mapped which revealed an unknown kind of cylindrical building, probably a kind of dwelling. These were interspersed with hut tombs in a manner which is difficult to explain. It seems that houses and tombs lay close to each other, although the fine chronology is open to discussion.

 $W\bar{a}d\bar{i}$ $S\bar{a}$ (previously phonetically realised as 'Wadi Salh') was first mentioned as a mining and smelting site (Weisgerber et al. 1981, 177 Abb. 2). However, little evidence turned up to verify this identification.

At al-Bațīn we located an unexpected high number of graves attributable to the Wādī Sūq period. Curious was what appears to be a honeycomb cemetery of this period. Samad LIA graves are rather tare here.

The site of Faġr, 4 km SW of the Umm an-Nar cemetery, Fulayǧ al-Rašāšdah, features a lone and isolated trilith (non-Samad LIA) without so-called burning pits. Orientation: SSW–NNE without a clear relation to the local topography.

<code>Ṭawī ʿAyša</code> is manifestly a large and unpublished Umm an-Nar cemetery 11 km NE of al-Wāfī.

At al-Ṣalaylī we re-mapped the Islamic settlement '5' at the E end of the valley and determined two different building phases, which perhaps both date to the middle Islamic period (c. 15th century). Further research may determine if the early Islamic period also is represented. The settlement wall appears to have existed to the W between it and the EIA cemetery 1. The cemetery, site 1, showed earth graves datable to the EIA – a novum. Much of the damage to the site copper slag fields seems to result from the prospection of mining companies to determine the amount of slag available. This beautiful site, with its intact environment, should really be placed under state protection to fence it off from building encroachment. It could serve as a recreational park area. We attempted unsuccessfully to erect a tourist sign to valorise the site and to explain its importance. This site was the most important to society of those which we surveyed.

At al-Hod/al-Madīnah we confirmed the Samad LIA dating suggested by B. Mershen (2002, 103) by virtue of the surface pottery and the shape of the graves.

Survey at Yiṭī revealed a prehistoric cemetery with some 55 graves and a possible altar, fenced in and identified by signs from the ministry. On the strength of the grave architecture this cemetery dates not to the 3rd millennium, as indicated on the signs, but rather to the non-Samad LIA. 1.1 km to the WSW lie the remains of an Islamic period fortified settlement as much as 150 m in length, E–W.

In the space of some 12 days, time was lacking for a more thorough mapping and description of the sites located this season. In this short time we mapped c. 900 prehistoric graves.

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