Archaeological study visit to the central part of Oman 16.–29.09.2019, Heidelberg University Initiative¹

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The overall goal for this brief season was to document archaeological sites both published and unpublished with a focus on the Muscat, Šarqiyyah, Daḥiliyya of the Early Iron Age. Several sites find brief mention in the specialist literature, but are little documented graphically or otherwise. In Oman few cemetery sites are documented and their sizes, grave density and geographic positions remain largely unknown. Moreover, grave descriptions are often impressionistic, e.g. the exact orientation of the long axis of the chamber². Missing are good images of well-preserved datable graves and ideal graphic reconstructions of their original state. We continued our mapping since January 2018 at the Ğebel al-Ṣalaylī find zone. Our main instrument is the hand-held GPS receiver and simple recording. Our main goal, the recording of the hoard of prehistoric metallic artefacts from al-Ḥod occupied 5 days. The following brief activity report is organised day by day as a chronicle. So as not to hinder future surveying, we did not pick up any surface finds. No excavation took place.

16.09.2019 Yitī, Wadi Suq cemetery







Fig. 1. Excavated grave Y2

Fig. 2. Excavated grave Y1

Fig. 3. Yitī cemetery, Google Earth taken 02.08.2013

originally it was some $5500~\text{m}^2$ in surface area, but the damage prevents a good estimate. The Wadi Suq graves (excavation: Yule–Weisgerber 1996, 151–4 Figs. 9–11) here are altar

 $^{^1\,\}text{We thank the Ministry of Heritage and Culture for generously allowing us to use the guest house in al-'A\underline{d}aibah.}$

 $^{^{\}rm 2}$ In what follows $\it tombs$ lie above the ground and $\it graves$, below the ground.

stone, which in fact is an unusual geological formation. Correcting an earlier estimate, We returned to this 200×100 m area site briefly to confirm the non-existence of an alleged somewhat better preserved than at other sites in the area, such as al-Birain (see below) and 'Abayah3 & 4 (Yule in preparation). On 18.03.1995 many of the graves were destroyed in order to store telephone masts for further use elsewhere. We published a cemetery plan in April of this year (Gaudiello-Yule 2019). Of the originally estimated 110 tombs which we estimated in 1995 (Yule-Weisgerber 1996, 150-4) this year 74 were tallied. Important is that the preservation of the tombs is relatively good although robbed. These graves stand above the surface, but the chambers are excavated into the ground. At least two kinds of graves occur there (Yule in preparation).

17–21.09.2019 al-Ḥodౖ, Sultan Qabus University

In 2004 during the construction excavation preparatory to build the Cultural Center Complex at the eastern side of SQU workmen came upon a hoard of 352 prehistoric metal artefacts including some 50 small fragments occurred of incomplete objects. A representative of the construction company explained that the find lie embedded on a gentle slope of a tell. The Ministry of Culture and Heritage was informed. The SQU Department of Archaeology started a rescue excavation (team: Nasser al-Jahwarī and Ali al-Mahi (archaeologists), Nasser al-Hinai (surveyor), and Yaqub al-Rahbi (photographer)). The metal objects include a variety of 306 arrow-heads, daggers, spear-heads, swords, bowls in copper alloy. The finds themselves are assignable to the Early Iron Age, but it is impossible to date their removal from contexts and their deposition. Small finds such as arrowheads are in a relatively good state of preservation, some are very good, but metal vessels and long objects anciently were folded. These also suffered from the bulldozing. The





Fig. 4. Google Earth image of the hoard occurred in the north-eastern part of the SQU campus (courtesy Dept. of Archaeology, SQU).

Fig. 5. Most numerous in the hoard find as here are arrowheads in copper-alloy.

documentation of the finds and creation of an adequate layout of photos and texts require much time. Several new artefact types are among the finds. We hope to set a new standard for the documentation and presentation of prehistoric metallic finds (cf. Yule–Gernez 2018). Khalid Douglas and Nasser al-Jahwari are the cooperating members of our study group from SQU.

19.09.2019 al-Ḥodৣ, Ḥor al-Daba' prehistoric cemetery

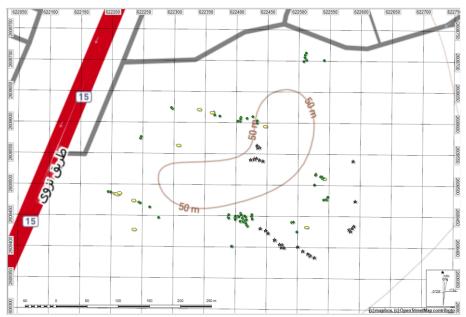


Fig. 6. Map of 2018 and 2019 of the twin mountains al-Ḥod/Ḥur al-Dabaʻ. The greenish dots are hut tombs. The yellow lozenges are recent *sangars*. The stars show the positions of niche graves.

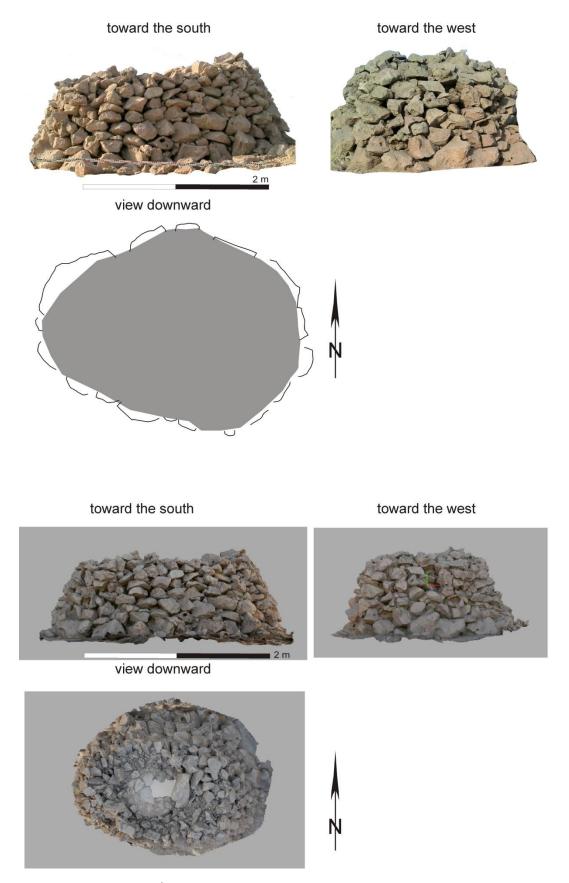


Fig. 7. Gr. 7 at al-Ḥodd/Ḥur al-Dabaʿ is in oval plan. Such hut tombs are elite burials compared to contemporary earth burials. Above is conventional photography, below photogrammetry.

Ḥur al-Dabaʿ deserves special attention owing to the relatively good preservation paired with the danger of encroachment. This large Early Iron Age cemetery lies 300 m E of the large department store, Lulu al-Bandar (cf. Gaudiello-Yule 2018). We mapped 81 ruined hut tombs (see appendix). 30 presumably IA tombs are built beneath the ledges in the horizontal cleaved rock. 6 recent *sangars* (temporary fortified position with a breastwork constructed of stones) also were mapped. Limitations of time prevented a more thorough mapping. It seems possible that the metal finds found on the SQU campus in 2004 (see above) derive from these tombs, owing to their proximity, only 6 km to the east-north-east. The study of such tombs is still in its infancy.

21.09.2019 al-Birain prehistoric cemetery

After leaving SQU, work continued at the al-Birain site where we began to inventory the prehistoric graves to get an idea of their attributes, dating and general preservation condition. The area of the cemetery today is irregular in form and 70 m x 100 m in surface area. At least 122 tombs densely positioned graves are extant. Since the cemetery is surrounded by nearby houses, no doubt many of the distal graves already were destroyed, the collateral damage of building operations.

Before visiting the site, on the basis of photos supplied by Roman Garba, we suspected this to be a multi-period cemetery. Since there are three or more grave forms (Yule in preparation), in itself the question is to assign these on the strength of the few finds to the



Fig. 8. Al-Birain cemetery. On the strength of their architecture, most graves appear to date to the Wadi Suq period. But there is no clear datable classification of the different kinds of graves. The graves are broader than most of this period (23.09.2019).

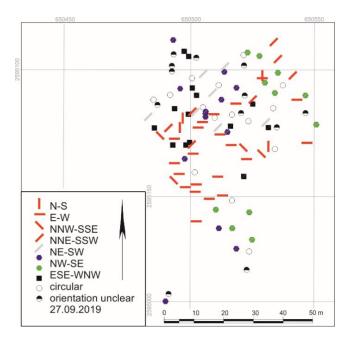


Fig. 9. The majority of the graves are east-west oriented. But other orientations also occur.



Fig. 10. Google Earth image of the al-Birain prehistoric cemetery from 2014. Courtesy of Roman Garba.

Wadi Suq or more than one period. The tombs are in a mediocre condition, and are a playground for children. The most common orientation of the long axis of the graves is east/west (Fig. 9). The occurrence of other axis orientations hinders the forming of grave groups to date the graves. However, in neighbouring Yiṭī of this same period, a mere 20 km to the north-east, most are south-east/north-west. Nonetheless, the two sites share some of the same grave forms. Each cemetery seems to have its own orientation and other rules.

22.09.2019 al-Ahdar prehistoric cemetery, al-Maysar archaeological zone

Some 10 km north of the well-known cemeteries of Samad al-Ša'n and al-Maysar (Yule 2016; Mauro 2019) lies another one across the wadi from al-Aḥḍar village. The multi-period prehistoric cemetery at al-Aḥḍar still exists, although all of the stone from excavated prehistoric graves (e.g. Yule-Weisgerber 2015, 155 Pl. 9.3), especially the neatly hewn white 'sugar stone', not to omit the ministry antiquities signs, have been removed illegally. Excavators from Bochum excavated in 1981 and visited the site repeatedly afterwards.

Weisgerber and Yule published the first foreign excavation of 1975 and that of the German team of 1981 (2015). The first team excavated without noting the individual finds of a given grave. Their finds were mixed together and useless for chronology. The German team assigned the finds of each grave. Already in the early 1980s, by means of grave inventories, Weisgerber hoped to better define the inventory of the Wadi Suq and Samad periods (Yule-Weisgerber 2015, 126 Table 1).

This cemetery contains numerous graves mostly of the Wadi Suq, less so the Samad Late Iron Age. They are not excavated and some may be intact. In Fig. 11 the grave orientations usually cannot be determined without excavation.

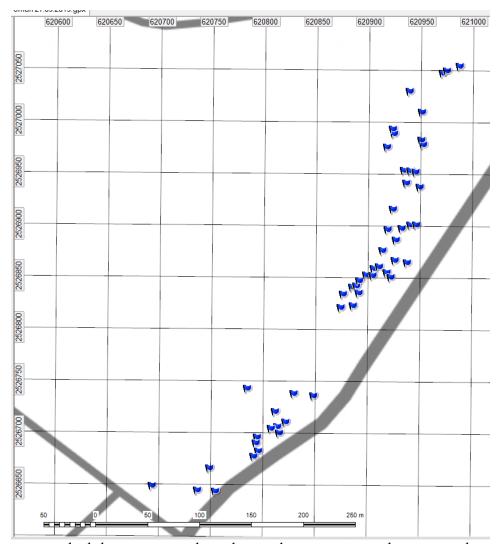


Fig. 11. al-Aḥḍar cemetery plan. The southern part is partly excavated. It contained mostly Wadi Suq burials (state 27.09.2019).

At al-Maysar on this day we inspected a few mountain crests searching unsuccessfully for hillforts.

23.-25.09.2019 al-Ṣalaylī cemetery

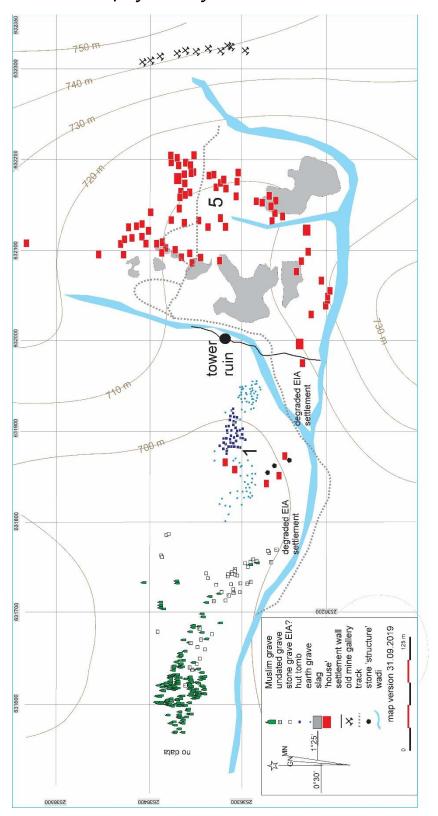


Fig. 12. al-Ṣalayl $\bar{\text{\i}}$ is a mining and smelting site which dates to the Early Iron Age and the early or middle Islamic period.

Discovered by the Bochum team around 1979, the al-Ṣalaylī site (on the site name see Gaudiello-Yule 2019) is rare in Oman in that it still contains an intact environment and archaeological contexts. Public agencies and private persons seeking building land will

encroach in the coming months/years and already have begun to bulldoze. Bulldozing for house and garden building has begun about 1 km from the core of the site. This would be a perfect setting for a public park. It would be useful for local and foreign visitors. Copper prospectors drove a road into site to the main mineralization near the mine.

In April 2019 the presumed dwellings of the middle Islamic miner/smelter population were mapped. Their position in relation to the slag fields shows some overlap and the older, more poorly preserved houses lie to the south.

East and west of the hut tombs of site 1 lie earth burials, often shorter than 1 m in length. This season mapping of the al-Ṣalayl $\bar{\imath}$ site served to illuminate this relatively unimportant site.

Copper producing sites to the north near Wadi Čizzī yielded far larger amounts of copper to judge from the amount of slag which still exists. Weisgerber estimated some 500 tons of copper slag at this site (Weisgerber 2007, 198–9). Although he dated the slag to the early Islamic period, the glazed pottery speaks for a later, middle Islamic dating (Gaudiello–Yule 2018, 6 Fig. 7). The mining remains including the slag seem to be middle Islamic period. Aside from a few pieces of slag built in the EIA tombs, nothing has yet come to light from the early period of mining and smelting – without excavation.

We were fortunate to be able to map the gallery of the copper mine (Fig. 9 on the right, Gaudiello-Yule 2019, 11 Fig. 16). It runs a north-south direction and is visible for some 100 m. In places the width of over 5 m and the height 5 m. The deeper recesses are choked with detritus. Today the north end is dug perhaps more than 10 m deep into the rock. Between the northern and southern gallery ends the entire body of rock has been removed in search of ore.

This season we mapped a surprising number of Islamic graves. To judge from the patina, most are ancient (15^{th} – 16^{th} centuries? to judge from the pottery in the settlement). Muslim period graves range in their long axis from SSE to SSW. At this early date the burials of men and women are distinguished by the presence of two or three standing $šaw\bar{a}hid$ stones. Graves with three may also have doubled stones at one or both ends.

A novum is the occurrence of Early Iron Age stone graves with and east-west grave axis which are far more modest than the nearby hut tombs (Fig. 12). Neither the earth graves in site 1 nor these have been excavated or reported. Such suggest a range of status/wealth in Early Iron Age society.

26.09.2019 al-Šūway'ī archaeological zone

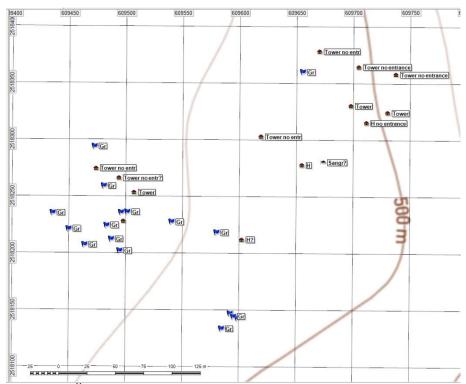


Fig. 13. Al-Šūway i concentration of cylindrical towers and hut tombs (state 26.09.2019).



Fig. 14. Tower structure may have been a tomb (al-Šūwayʿī no. 302, max. height 2m).

At al-Šūwayʿī we tallied some 17 hut tombs, 13 cylindrical structures which also may have been tombs as well as 1 *sangar*. No finds were gathered. The spatial order seems random. In the late 1970s Weisgerber first noted the hut tombs at this copper-producing site, but did not publish them. Photos, notes and samples from this and other sites which they visited, can be consulted in the German Mining Museum in Bochum.

27.09.2019 Manal prehistoric cemetery

A brief visit to the Manal cemetery west of Sayga. A large cemetery which measures 150 m x 350 m stretches along the bank of the Wādī Banī Ruwaḥah. It is built on an old wadi terrace on the ophiolite bedrock. Although fenced in, today there are at least four breaks in the fence. We began to tally the tombs but running out of time only tallied 48 of the estimated 150 tombs. Particularly this cemetery presented a bewildering variety of grave types and chamber orientations. There were low scatters of stone 10 m in diameter, rectangular stone settings in and around the graves, large hut tombs, agglomerated hut tombs, mounded tombs, not to mention the many badly preserved ones which are difficult to date on the strength of architecture alone. In addition, in the south-eastern corner were structures which we later found out were excavated by Sultan Qabus University (Elmahi–Ibrahim 2003), evidently of the Early Iron Age. The excavators date the pottery to EIA II (pp. 84, 88 fig. 10). The surface is littered with EIA rough ware sherds, like no other cemetery we have seen. Excavation revealed dwellings.



Fig. 15. Hut tomb in Manal prehistoric cemetery viewed toward the south-east. Measuring $4.50 \times 3.0 \times 1.80$ m, it is relatively large. Others of this type at Manal are even larger.

Conclusion

The archaeological contexts of Oman are to a large extent funerary. Growing out of Yule's previous work, this season's focus set to update his grave typology of 2001 with its 28 grave types (2001 I, 27–45). This season confirms that the identification of grave types is a good step forward even if they for the moment cannot be dated closely. The next step is to better define and document these tomb types. Surprising at al-Ṣalaylī was the large number of Islamic graves which complement the dwellings of contemporary metal workers there. Of course, further local survey could easily double this number.

no.	site	type	eastings	northings	alt. m	dating	surf. area m²
1	al-Aḫḍar	cemetery	620872	2526887	577	mostly Wadi Suq	600
2	al-Berain	cemetery	650519	2595079	151	Wadi Suq	1000
3	al-Ḥoḏ/SQU	hoard	613948	2607812	89	Early Iron Age	5
4	al-Ḥoḏ/Ḥur al-Ḍabaʻ	graves	622357	2608507	50	Early Iron Age	80000
5	al-Ṣalaylī 1	cemetery	631800	2536300	706	Middle Islamic	6000
6	al-Ṣalaylī	mine gallery	632238	2536332	759	Middle Islamic	-
7	al-Šūwayʿī	tombs	609561	2518268	498	Early Iron Age	60000
8	Manāl	cemetery	588880	2564888	508	Umm an-Nar, Wadi Suq, Early Iron Age	3500
9	Yiṭī	graves	671223	2600986	43	Wadi Suq	5500

Fig. 16. Sites visited during this season. The coordinates are of the middle of a given site.

Appendix of the tombs at al-Ḥod/Ḥur al-Dabaʿ, data: Gaudiello-Yule 2019 (unpublished)

tomb	length	width	height	entran	waypo	
no.	m	m	m	ce ori.	int	notes 1
1	3.30	1.90	1.30	E	240	
2	2.90	2.20	1.40	E	241	
3	2.90	2.20	0.75	SE-S	242	sangar, open to S
4	2.90	2.30	1.20	NW?	243	upper portion of entrance & oppos. demolished, roof 25% extant
5	2.40	2.10	1.70	NW?	244	entrance end uncertain, roof collapsed at E end
6	3.30	2.70	1.60	E	245	60% of roof collapsed at W end, sandwich construction
7	3.40	2.40	1.65	E	246	good preservation, roof perforated in middle
8	3.30	2.80	1.50	E	247	NE corner upper courses damaged, roof collapsed
9	3.30	2.30	1.25	E	248	9-10 together, entrance E is demolished, roof collapsed
10	3.50	2.30	1.70	E	249	entrance demolished, roof 50% intact
11	4.00	1.80	1.55	E	250	E end demolished
12	3.50	2.70	1.55	Е	251	upper courses of entrance and SE end of roof destroyed
13	3.90	2.50	1.70	NE-E	252	junction between entrance and roof demolished, otherwise basically intact
14	2.90	2.70	1.20	E	253	most of roof & uppermost N side demolished
15	3.20	2.20	1.65	E	254	15-17 built together, entrance damaged, roof caved in
16	3.80	2.10	1.40	E	255	roof mostly collapsed
17	3.10	2.50	1.25	E	256	roof collapsed
18	2.00	2.10	0.65	S-SW	257	small sangar
19	3.10	2.10	1.45	Е	258	NE corner & roof collapsed, black stones mixed in
20	3.20	2.20	1.65	Е	259	black stones mixed in, roof collapsed
21	3.10	2.20	1.40	NE	260	21-4 built together, dishevelled, roof largely intact
22	3.10	2.00	1.60	NE	261	roof & entrance largely collapsed

23	3.10	2.00	1.20	SE	262	upper courses of NE corner damaged
23	3.00	2.20	1.20	SE	263	upper courses of NE corner damaged
25	2.60	2.60	0.40	E?	264	square 2x1.50m, not a hut tomb
23	2.00	2.00	0.40	L:	204	N-NW end upper courses missing, 26-9 unclear where entrance
26	3.10	3.00	1.40	SE	265	is, white and black stones
27	3.00	2.60	1.10	Е	266	NE corner upper courses are destroyed, roof collapsed
28	2.20	2.60	1.40	NE	267	roof collapsed, black stones mixed in
29	3.00	2.40	1.20	SW-NE	268	oval plan, roof collapsed
30	3.00	2.55	1.20	SE	269	isolated position, roof missing
31	3.00	2.70	0.50	SE	270	oval sangar
32	3.00	2.40	2.00	ESE	271	flattish entrance, there roof collapsed
33	3.50	2.70	1.65	SE	272	part of SE wall & roof collapsed
34	3.90	2.20	1.60	E?	273	roof collapsed, thick entrance at SW end
35	3.50	2.15	1.50	E	274	roof largely intact, NE wall damaged
36	3.30	1.70	1.10	E	275	36-7 built together, white & black stones, roof collapsed
37	3.50	2.40	1.70 E	E	276	SE upper courses damaged, roof collapsed
38	3.60	2.00	1.60	SE	277	perforation in the roof, NE side damaged
39	3.30	2.20	1.45	E	278	NE end & roof collapsed
40	3.20	1.90	1.55	E	279	40-1 built together, upper courses esp. in NW dishevelled, roof collapsed
41	3.20	2.30	1.30	E	280	NNE end collapsed, roof partly intact
42	3.50	2.25	1.55	E	281	42-4 built together, W end demolished, roof collapsed
43	4.20	2.50	1.80	E	282	NNE corner & roof collapsed, this built 1st
44	3.60	2.50	1.70	E	283	upper courses of SSW side damaged, roof collapsed
45	3.20	2.40	1.45	E	284	S upper courses missing, roof collapsed
46	3.00	2.20	1.60	E	285	45-7 together, large hole in roof
47	2.60	1.65	0.90	E	286	just to N of 46, roof perforated,
17	2.00	1.03	0.50	L	200	E upper courses damaged, roof partly intact, black and white
48	3.60	1.70	1.70	E	287	stones
49	4.20	1.50	1.60	Е	289	lies between 48 & 50, roof indented
50	3.60	2.30	1.30	NE	290	NE wall and roof demolished
51	3.40	2.40	1.60	NE-E	291	upper walls badly damaged, roof demolished
52	3.70	1.80	1.55	N	292	N end upper courses and roof damaged,
53	3.80	2.10	1.40	N-NW	293	lies between 53 & 54, BW mixed stones, roof collapsed
54	3.80	2.10	1.40	N	294	roof collapsed
55	3.10	1.90	1.60	Е	295	55-6 twin tombs, 55 at NNW end, roof collapsed
56	3.30	1.80	1.60	Е	296	56 at SSE end, roof collapsed
57	3.00	1.80	1.40	NE	297	roof collapsed
58	3.30	2.10	1.00	NE-E	298	ENE end & upper courses demolished, roof intact
59	3.45	1.90	1.35	NE-E	299	59-61 SSW end and roof destroyed
60	3.30	2.50	1.80	NE	300	stones mostly dark
61	4.60	2.20	1.70	E	301	E upper courses and roof missing
62	4.50	2.10	1.70	E	302	E courses and roof missing, 20% of roof preserved
63	3.20	2.20	1.60	E	303	W end of chamber intact, NE wall missing
64	3.50	2.80	0.60	E	304	completely demolished hut tomb
65	destro yed	-	-	?	305	stone scatter, once a hut tomb
						semi-circular, roof collapsed, not a hut tomb, standing rock
66	3.80	3.70	1.20	E	306	defines one wall
67	2.50	2.40	0.85	NE	307	located on a peak, sangar, breastwork to the SW

I	destro	1	Ī	İ	l	68-71 converted into a defensive emplacement, 68
68	yed	-	-	E	308	northernmost
69	destro yed	-	-	?	309	
70	destro yed	-	-	N	310	most westerly, floor recognisable
71	destro yed	-	-	SE	311	floor recognisable
72	3.30	1.70	1.15	SE-E	312	72 built with 73, roof perforated
73	destro yed		_	SE-E	313	collapsed
74	3.40	2.10	1.10	E	314	collapsed chamber, roof dismantled
75	4.40	3.40	1.50	SE	315	ESE-WNW secondary use of stones, floor excavated, recent
76	2.80	1.90	1.40	SE	316	built on a steep slope leaning against a boulder, S side walled in
77	3	1.8	1.3	Е	848	1 1 0 0
70	destro				242	
78	yed destro	-	-	-	849	
79	yed	-	-	-	-	
80	2.3	2.3	0.7	S	850	sangar
81	1.2	1.2	0.2	S-N	851	niche grave
82	3.2	1.5	1.0	NW-SE	852	niche grave
83	1.8	1.3	0.8	NW-SE	853	no phot
84	3.4	2.3	1.2	Е	854	together
85	3.6	1.9	1.0	Е	855	together
86	3.2	1.6	1.2	Е	856	together
87	3.2	2.0	1.2	Е	857	together
88	destro yed	-	-	-	858	twin
89	destro yed	-	-	-	859	twin
90	1.8	1.9	0.7	S	860	few remnants
91	2.4	1.5	0.7	NW-SE	861	niche grave
92	3.4	1.5	0.9	SW-NE	862	niche grave
93	2.2	2.0	0.9	SW-NE	863	niche grave
94	2.0	1.6	0.9	SW-NE	864	niche grave
95	-	-	-	SW-NE	865	niche grave
96	-	-	-	-	866	niche grave
97	3.2	1.9	1.0	E-W	867	niche grave
98	3.0	1.5	0.5	E-W	868	niche grave
99	2.3	1.6	0.5	E-W	869	niche grave
100	3.3	1.6	1.3	E-W	870	niche grave
101	2.6	1.8	1.5	E-W	872	niche grave
102	3.2	1.9	1.9	E-W	873	niche grave
103	3.1	1.7	1.6	E-W	874	niche grave
104	2.7	1.8	1.2	E-W	875	niche grave
105	3.1	1.8	1.4	NW-SE	876	niche grave
106	3.0	2.2	-	SW-NE	877	niche grave
107	3.2	2.2	1.0	N-S	878	niche grave
108	destro yed	-	-	-	879	niche grave
109	destro yed	-	-	NW-SE	880	niche grave

110	3.6	2.6	1.5	SE	881	niche grave, roof intact
111	3.2	2.0	1.4	E	882	niche grave
112	3.0	1.4	1.6	Е	883	niche grave
113	3.4	1.7	1.5	NW-SE	884	niche grave
114	3.2	1.9	1.1	NW-SE	885	niche grave
115	3.0	1.9	1.3	NW-SE	886	niche grave
116	2.3	1.6	1.1	NW-SE	887	niche grave
117	2.5	1.7	0.8	NW-SE	888	niche grave

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