A Crowded Desert: Early Results from Survey and Excavation of Nomadic Sites in NW Qatar

Summary

This paper presents the results and preliminary conclusions of the 2016 season of the Crowded Desert Project, aiming to find out about the nomadic occupation and its relations with the settled peoples in the region. Activities includes extensive and intensive surveys and excavations in the area delimited by the areas of Umm al-Mā' and Mulayḥa in the North West desert of the Qatar Peninsula. Conclusions so far complement and expand the ideas developed during the pilot season of the project in 2015, but also provide finer chronological detail and a wider coverage of the area of research. The distribution of glass, metal and pottery recovered shows important chronological differences in the patterns of occupation of the landscape. The paper also presents observed differences of spatial distribution of features, showing how *cairns* (presumably pre-Islamic tombs), Islamic burials and cemeteries and mosques and places of prayer (sing. *muṣallā*, pl. *muṣallayāt*) are distributed with respect to the tents and inhabitation spaces found. Finally, this paper introduces the first stratigraphic and geoarchaeological assessments done in the area. Stratigraphic sequences are hard to find, and very often nothing remains of them around conserved structures. Even when some of them have been found, their interpretation is limited by their poor conservation and the constraints imposed by small trenches. A geoarchaeological program is being developed in the hope of overcoming these problems and providing an environmental information useful to understand the history of the region.

Keywords

Landscape archaeology, desert settlement patterns, nomadism, sedentarism, archaeology of Qatar.

Introduction

The Crowded Desert Project (developed by UCL Qatar and Qatar Museums during 2015 and 2016) is a multi-phase archaeological survey that combines different methodologies and aims to establish a historical narrative of the nomadic occupation of an area in north-western Qatar. The theoretical background of the project considers nomadism and sedentarism not as opposites, but as socio-economic options developing in connection and in the same historical dimension. As a consequence of this, it is not possible to understand the history of the settled societies without considering that of the nomads.

The area of research of this project encompasses a territory of circa 25 Km^2 in the north-western desert of Qatar, close to relevant archaeological sites like Zubārah, Murwab and al-Rubayqa. So far the project has been focused in an area around Umm al-Mā' and Mulayḥa (Mleiha), close to each other and relevant because of the abundance of nomadic structures that have been documented. [1]

In this text a brief presentation of the results of the field season of 2016 is made, with comments about their implication for the development of the project since the 2015 season.

[Insert Fig 1 hereabouts]

Archaeological Survey

Intensive and extensive surveys have been conducted within the selected area of research. The extensive survey in the 2016 season was done on a car by a team of three people and covered roughly an area of 850 hectares, recording a total of 98 sites during 10 days. The intensive survey involved a team of five people during 18 days and covered an area of 245 hectares where 830 features (669 waypoints) were registered. This survey was a bit less intensive than the survey conducted during 2015, but in exchange the activity in 2016 covered a much wider area. For comparison, the intensive survey of 2015 covered an area of 42 Ha and documented 661 features. Future survey work will include a reflection on how to relate the two bodies of data.

[1] For more details on the theoretical grounds of the project and on the results of the pilot season of 2015, see Carvajal López et al 2016.

During the 2016 season, aerial photography has been included in the project as a help to visualize and record features that are otherwise difficult to see on the ground. The aerial pictures during this season have covered the northern Mulayḥa Depression (Mulayḥa al-Shamāl), several campsites identified during season 2015 and two fortresses located close to the Umm al-Mā' police station (Fig 2), which will be explored in more detail in future seasons.

[Include Fig 2 hereabouts]

Distribution of materials in the landscape.

The distribution of finds that has been recorded in the intensive survey of 2016 has been compared by material (pottery, glass and metals) and shows interesting differences from the chronological point of view (Fig 3). The pottery can be dated (at its widest span) between the third century BC and the twentieth century CE. Glass, instead, comes from the interval between the last part of the nineteenth century and the twentieth century CE, with only one documented exception from the mid-nineteenth century (found in 2015).[2] Finally, metal comes mostly from the second half of the twentieth century.[3] The chronological differences mean that the differential distribution of materials is related to different patterns of habitation and circulation in the area in different historical periods. It is interesting to observe that, leaving the concentration of materials in the margins of the Mulayḥa Depression aside, pottery is more evenly distributed across all the surveyed areas than glass and metals. Glass is concentrated inside the depression and its margins. Metals appear to in the northern part of the depression and continue further in that direction, precisely where the current road of access into the area is located.

[2] Only the glass recovered in 2015 has been properly dated so far (Harrison 2015), but the few finds of 2016 do not show any significant difference.
[3] The metal still is in process of study, but the finds feature mainly nails, bullet cases, can fragments and car parts containing aluminium and produced by machine. This points to mid- to late 20th century dates (personal observations kindly provided by Dr. Loic Boscher, to whom our acknowledgement goes).

The distribution of pottery in different periods offers another view of changing historical patterns. While a more detailed study of pottery is needed, it is easy to classify the ceramic finds within three roughly defined intervals: the Tylos period (third century BC to third century CE), the early Sasanian-Early and Middle Islamic period (fourth to thirteenth centuries CE) and the Late Islamic period (fourteenth to twentieth centuries CE).[4] The patterns of distribution are still imprecise and require a more detailed study of the pottery and a new sampling strategy targeting smaller areas in the survey, but there are clear differences in the distribution of the pottery of the different periods. Again the largest concentration of ceramics happens in the margins of the Mulayḥa Depression, but differences can be noticed between the three documented periods. Whereas the ceramics of the earliest period concentrate in spots where cairns are documented, the pottery coming from the later periods can be found more frequently in the landscape. The distribution between the second and the third period is extremely similar, but finds of the second period seem are slightly more numerous near the coast and the finds from the third period are relatively more abundant to the East of the depression, in a North-South axis. This suggests that there might be slight change in the patterns of inhabitation of the landscape.

[Include Fig 3 hereabouts]

The distribution of inhabitation, funerary and sacred structures shows an interesting and changing landscape across history.[5] Although it is not possible to date accurately most of the structures found yet, it is possible to highlight associations of the different types of structures to the landscape. Whereas inhabitation areas have an even distribution (with an expected higher concentration around and in the Mulayḥa Depression), mosques and places of prayer (*muṣallayāt*) are only detected in and around the same depression, only very rarely far from it. There is a large number of pre-Islamic tombs (*cairns*) around the depression (particularly in between Mulayḥa and the coast). Individual or small groups of Islamic tombs can be found among cairns, nearby the depression, but only in Mulayḥa are cemeteries actually documented (Fig 4).

[4] The pottery has been dated using the following references: Carter 2005; 2011; Kenneth 2004; Priestman 2013. See Fig 4 for details
[5] The identification of structures in this project has been explained in detail in Carvajal López et al 2016. See Fig 4 for a reminder.

[Insert Fig 4 hereabouts]

Archaeological excavations and geoarchaeological sampling.

Excavations have been carried out in strategic areas in and around the Mulayḥa Depression to attempt to find stratigraphy linked to documented structures and to spaces where geophysics conducted in the 2015 season detected possible pockets of stratigraphy. Eight trenches were dug, four targeting structures documented in 2015 (Trenches 1-4) and four in spots where geophysics had shown that the superposition of structures was very likely (Trenches 5-8). The results showed that the stratigraphy is poorly conserved in the area in general, although there are possibilities of finding sequences in the depression.

Only two trenches, 4 and 7, yielded stratigraphy. Trench 4 was selected because a trash pit was detected in the area during the 2015 intensive survey. During excavation, many more pottery fragments were discovered in the layer directly under the surface. Below this layer full of pottery, the remains of a tent were located, featuring a *tannūr*, a small over created by applying clay to the surface of a hole, which also contained pottery remains. A preliminary analysis indicates that the earliest date of the pottery found in the lower level is possibly the late nineteenth century, and the pottery of the level above is probably early to mid-twentieth century.

In Trench 7 several features indicating the presence of one or several tents were discovered, but no ceramics remains were found. The excavation of this trench highlights another problem that anyone looking at the stratigraphy of tents needs to tackle: having found remains, it might not be impossible to establish a chronological sequence of occupation in small trenches, because the stratigraphic associations between features are missing.

One possible way of obtaining chronological information consists in finding adequate microstratigraphic sequences though the study of soil micromorphology, an activity that will still require the location of appropriate places where this information can be located. As a starting point for this activity the Mulayḥa Depression was sampled for geoarchaeology by

opening a series of eight trenches from the north-western corner of the basin (where Trench 4 was located) to the centre (Trenches 9 to 16). These trenches were 5m long by 1m wide, between 25cm and 1m deep (enough to reach the bedrock in each case) and were separated by around 10 m distance. These trenches gave a general view of depositional layers, and samples from micromorphology, microfossiles and organic materials were taken from Trench 15, where the sequence was most evident and complete. No obvious residential area was detected, but it will be useful to obtain general information about the formation of the depression and about general environmental processes. These data will offer a view of the environmental history of the landscape that will be particularly interesting to compare with other sources of information (Fig 5).

[Insert Fig 5 hereabouts]

Future activities

The following lines of work will be developed in future season of the project:

- The methods described in this text will continue to increase our general knowledge about the materials of the landscape. More intensive surveys and excavations will be developed in strategically selected areas in search of concentrations of materials and stratigraphic sequences.

- Geoarchaeological analysis of the landscape and of the archaeological deposits related to structures will be applied in order to provide a better understanding of the stratigraphy of the area and to gain further insight on the relations between the communities and the environment.

- The dating of structures is still the main challenge, and conventional and scientific methods will be tested to find ways to proceed in this field.

- Finally, the Qatari participation of scholars, students and the general public will be encouraged with a program of engagement activities.

Acknowledgements

This research was made possible by NPRP Grant 8-1582-6-056 from the Qatar National Research Fund (QNRF). The statements and interpretations presented herein are solely those of the authors. Thanks are due to the team of professionals and volunteers who worked hard in the field and in the labs to obtain these results, and to an anonymous referee whose comments increased the quality of this paper.

References

Carter R. 2005. Chapter 4 - The Pottery. Pages 107-192 in T. Insoll (ed.), *The Land of Enki in the Islamic Era. Pearls, Palms and Religious Identity in Bahrain*. London-New York-Bahrain: Kegan Paul.

Carter R. 2011. Ceramics of the Qatar National Museum. A report and catalogue. Oxford: Oxford Brookes University [Unpublished circulated report].

Carvajal López J.C., Morabito L., Carter R., Fletcher R., Al Naimi, F.A. 2016. The Crowded Desert: a multiphase archaeological survey in the north-west of Qatar. *Proceedings of the Seminar for Arabian Studies* 46: 45-62.

Cuttler R., Al Naimi F., Tetlow E. 2013. Typological and chronological variation of burial in Qatar: ‘Ubaid to late pre-Islamic. *Proceedings of the Seminar for Arabian Studies* 43: 99-110.

Harrison R. 2015. Report on identification and analysis for glass artefacts of the Crowded Desert Project, UCL Qatar. Doha: UCL Qatar [Unpublished circulated report].

Kennet D. 2004. *Sasanian and Islamic Pottery from Ra's al-Khaimah: classification, chronology and analysis of trade in the Western Indian Ocean.* BAR International Series 1248. Oxford: Archaeopress.

Priestman S. 2013. A Quantitative Archaeological Analysis of Ceramic Exchange in the Persian Gulf and Western Indian Ocean, AD c.400 – 1275. Southampton: University of Southampton [Unpublished circulated PhD Dissertation].

Schreiber J., Daroczi T., Muhle B. & Ewersen J. 2009. Excavations at Umm al Mā', Qatar. Preliminary Report of the second season 2008/2009. Available at www.academia.edu/15075316/Excavations_at_Umm_al-Ma_Qatar._Preliminary_Report_on_the_Second_Season_2008_2009._Unpubl._Report_for_QMA_Doha_2009 (accessed 22 March 2017). [Unpublished circulated report].

Author's addresses:

Jose C. Carvajal López, UCL Qatar, Qatar Foundation, Georgetown Building PO Box 25256, Education City, Doha, Qatar. *e-mail* jose.c.lopez@ucl.ac.uk

Kirk Roberts, UCL Qatar, Qatar Foundation, Georgetown Building PO Box 25256, Education City, Doha, Qatar. *e-mail* kirkkendrick@hotmail.com

Gareth Rees, Oxford Archaeology, 15 Trafalgar Way, Cambridge, CB23 8SQ. *e-mail* gareth.rees@oxfordarch.co.uk

Frank Stremke, Stremke Archaeology, Worpsweder Str. 49, 28215 Bremen, Germany. *e-mail* frank@stremke-archaeology.net

Anke Marsh, UCL Qatar, Qatar Foundation, Georgetown Building PO Box 25256, Education City, Doha, Qatar. *e-mail* ankemarsh@gmail.com

Laura Morabito, UCL Qatar, Qatar Foundation, Georgetown Building PO Box 25256, Education City, Doha, Qatar. *e-mail* lauramorabito@hotmail.it

Andrew Bevan, UCL Institute of Archaeology, 31-34 Gordon Square, London, WC1H 0PY, UK. *e-mail* a.bevan@ucl.ac.uk

Mark Altaweel, UCL Institute of Archaeology, 31-34 Gordon Square, London, WC1H 0PY, UK. *e-mail* m.altaweel@ucl.ac.uk

Rodney Harrison, UCL Institute of Archaeology, 31-34 Gordon Square, London, WC1H 0PY, UK. *e-mail* r.harrison@ucl.ac.uk

Manuel Arroyo-Kalin, UCL Institute of Archaeology, 31-34 Gordon Square, London, WC1H 0PY, UK. *e-mail* m.arroyo-kalin@ucl.ac.uk

Robert Carter, UCL Qatar, Qatar Foundation, Georgetown Building PO Box 25256, Education City, Doha, Qatar. *e-mail* robert.carter@ucl.ac.uk

Richard Fletcher, UCL Qatar, Qatar Foundation, Georgetown Building PO Box 25256, Education City, Doha, Qatar. *e-mail* r.n.fletcher@ucl.ac.uk

Faisal Abdullah al-Naimi, Archaeology Department, Qatar Museums, QM Tower, PO Box 2777, Doha, Qatar. *e-mail* falnaimi@qma.org.qa

Captions:

Figure 1: Location of the survey area in the peninsula of Qatar, with indication of the areas covered by intensive (crossed-lines pattern) and extensive (diagonal-lines pattern) survey in 2016

Figure 2: Aerial picture of forts located in the coast next to Umm al-Mā'. The picture is oriented to the North and the white line measures approximately 45m.

Figure 3: Distribution maps showing results from the 2016 intensive survey, including location of the 2015 intensive survey. A. Glass and metal distribution. Numbers in a circle indicate found samples of glass in the grid. Numbers in a square indicate found samples of metal in the grid. B. Distribution of pottery finds of different periods: Dot: third century BC to third century CE; Triangle: fourth century CE to thirteenth century CE; Square: fourteenth century CE to twentieth century CE. C. Distribution of inhabitation and sacred structures. Square: Tent or house; Star: *Musallā*; Large Star: Mosque. D. Distribution of funerary structures: White Triangle: Cairn; Black Triangle: Islamic tomb. For references, see Figure 4.

Figure 4: Table containing information about structures and ceramics found in the 2016 survey.

Figure 5: Results of excavations. A. Excavation of large mosque in Trench 1. B. *Tannūr* located in Trench 4. C. Fire pits located in Trench 7. D. Sampling for geoarchaeology in Trench 15.

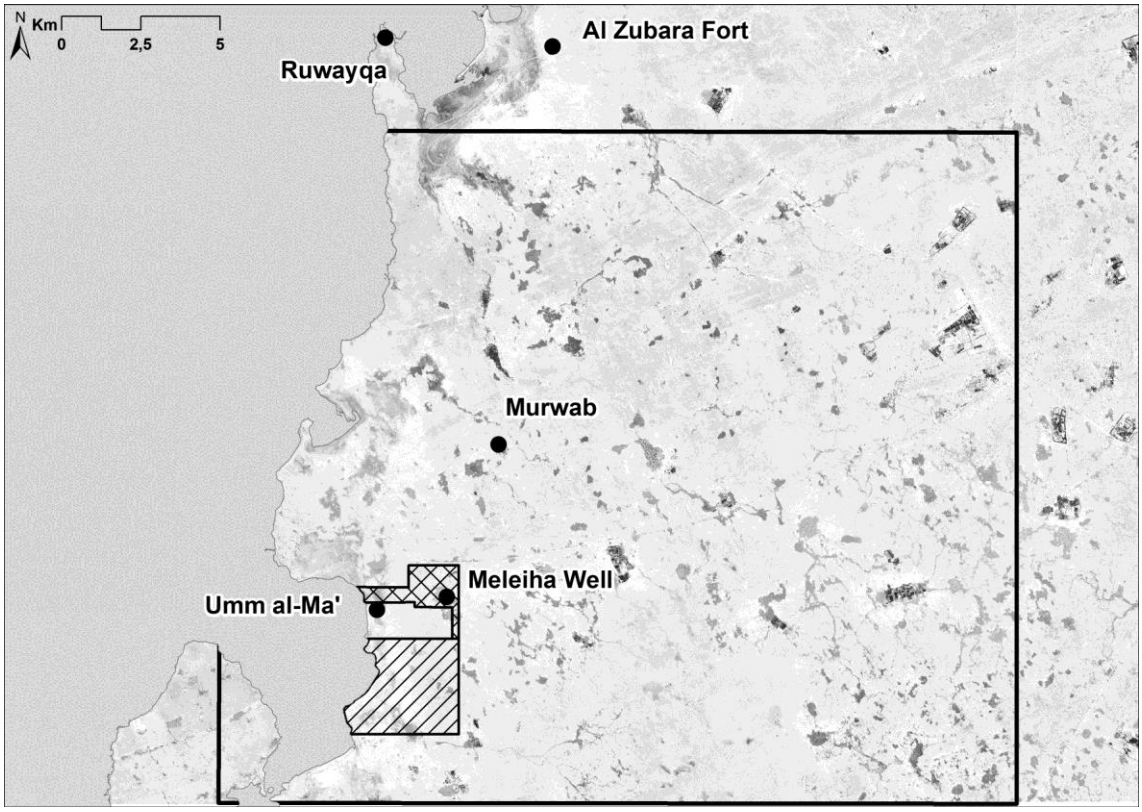
N
Km
0
2,5
5
Ruwayqa
Al Zubara Fort
Murwab
Meleiha Well
Umm al-Ma'

Fig 1.

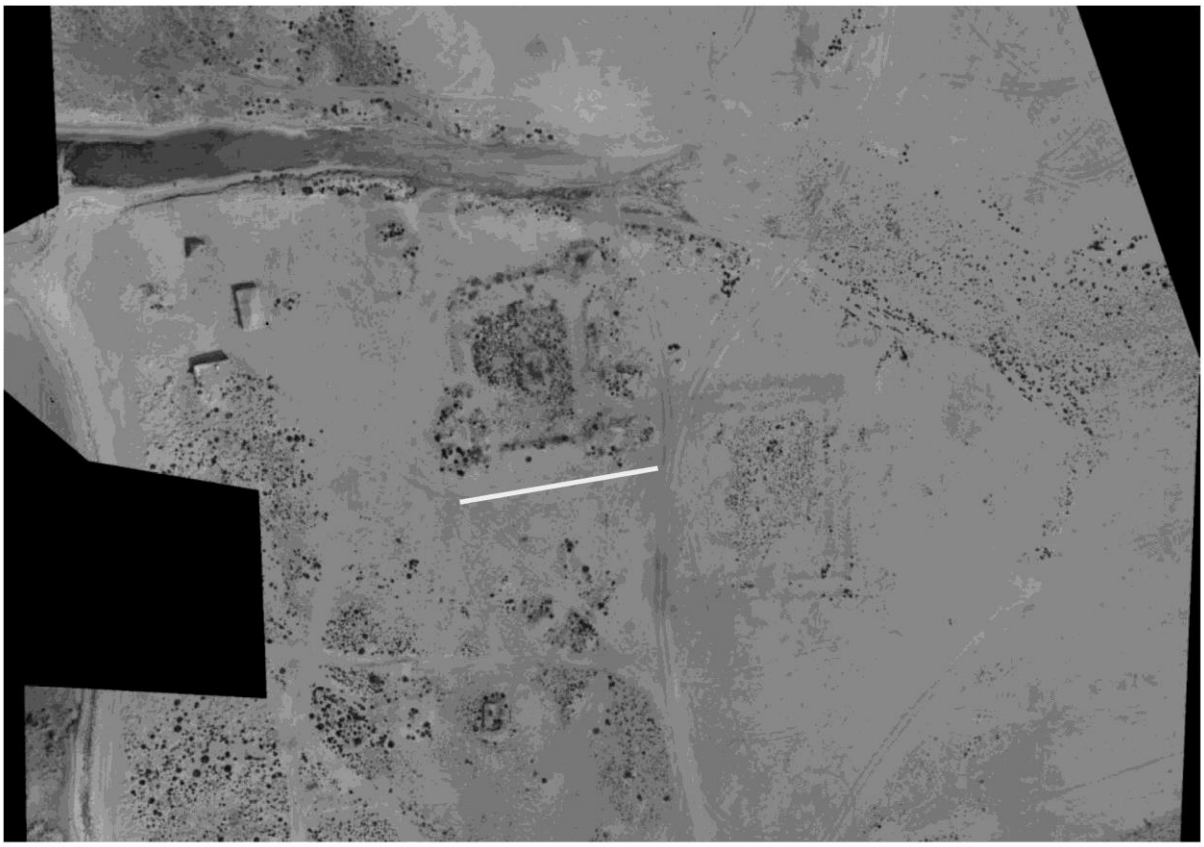

Fig 2.

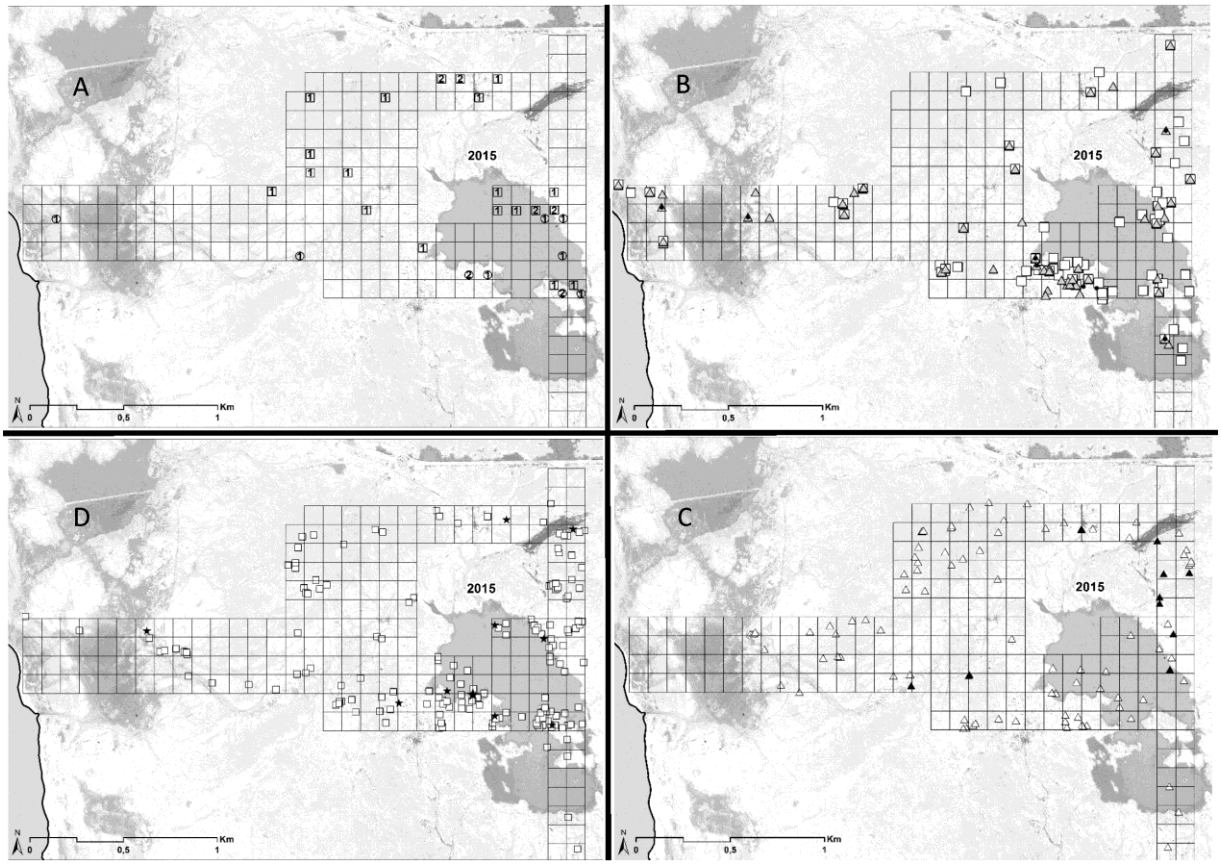

Fig 3.

STRUCTURES (for more details, see Carvajal Lopez et al 2016)		
General classification	**Denomination**	**Brief description**
Funerary structure	*Cairn*	Mound made of stones, usually of circular shape and 2 to 3 metres diameter
	Islamic tomb	Small oval mound with the size enough to contain at least one person. The burial is longitudinally orientated N-S, thus allowing the deceased to be buried in supine position facing W, the direction of Mecca.
Inhabitation structure	*Tent*	Dwelling space made of perishable materials which leaves non-architectural but visible imprint in the landscape. The imprint may consist of stone lines, stone piles for the pegs of the tents, cleared spaces for the installation of the tent and sometimes even conserved floors. With some frequency abandoned elements of modern tents may be found: pegs, strings, textiles, poles, etc.
	House	Dwelling space that is totally or partially delimited by architectural elements, usually walls made of stone or pise. The dimensions and even duration of this type of dwelling are not necessarily much longer than those of a tent (Fig 5).
Sacred space	*Musallā*	Sacred space which is indicated by a structure consisting of a *qibla* wall with a *miḥrāb*, clearly orientated to Mecca. The wall is usually made of stones lined up. The structure is not closed.
	Mosque	Sacred space delimited by walls, one of them being a *qibla* with a *miḥrāb*. These structures are scarcer than the *musallās*, they appear to be closed or almost closed and they have been documented in several sizes, usually more regular when bigger.
CERAMICS		
Chronology	**Ware types most frequently located assigned to this chronology in the survey (some wares can go across several periods too)**	
300 BC to 300 CE	- Black-Fired Earthenware (BEARTH) (Kennet 2004: 78; Priestman 2013: 479-80) - Grey Conglomerate Coarse Ware (CONG.G) (Priestman 2013: 470) - This chronology is suggested as well by the general chronology attributed to the pre-Islamic cairns (see Cuttler et al 2013 and references there for a discussion). Cuttler et al suggest that a much more extended chronology, going back to the fifth millennium BC, should be considered. The pottery documented in this survey, the finds of G. Schreiber's excavations (Schreiber et al 2009) and the lack of any documented artefact in the survey dating before 300 BC have made the authors to keep the more restricted chronology until more evidence can be gathered.	
400 CE to 1300 CE	- Cream Coated Red Ware (CREAC) (Priestman 2013: 476-8) - Gritted Red/Brown Slipped Ware (REBROS) (Priestman 2013: 474-6) - Turquoise Alkaline Green ware (TURQ.T) (Priestman 2013: 555-6) - Clinky Fired earthenware (CLINKY) (Carter 2011: 37-8; Kennet 2004: 84-85)	
1400 CE to 2000 CE	- Julfar Ware (JULFAR) (Carter 2011: 36; Kennet 2004: 70-76; Priestman 2013: 520-6, as JULFAR, JULFAR.PB and JULFAR.RW) - 'Ali Ware (Carter 2011: 33) - Sandy Ware (Carter 2011: 36) - Porcelain coffee cups (Porcelain, Carter 2011: 38) - European Refined White Wares (Carter 2011:39)	

Fig 4.

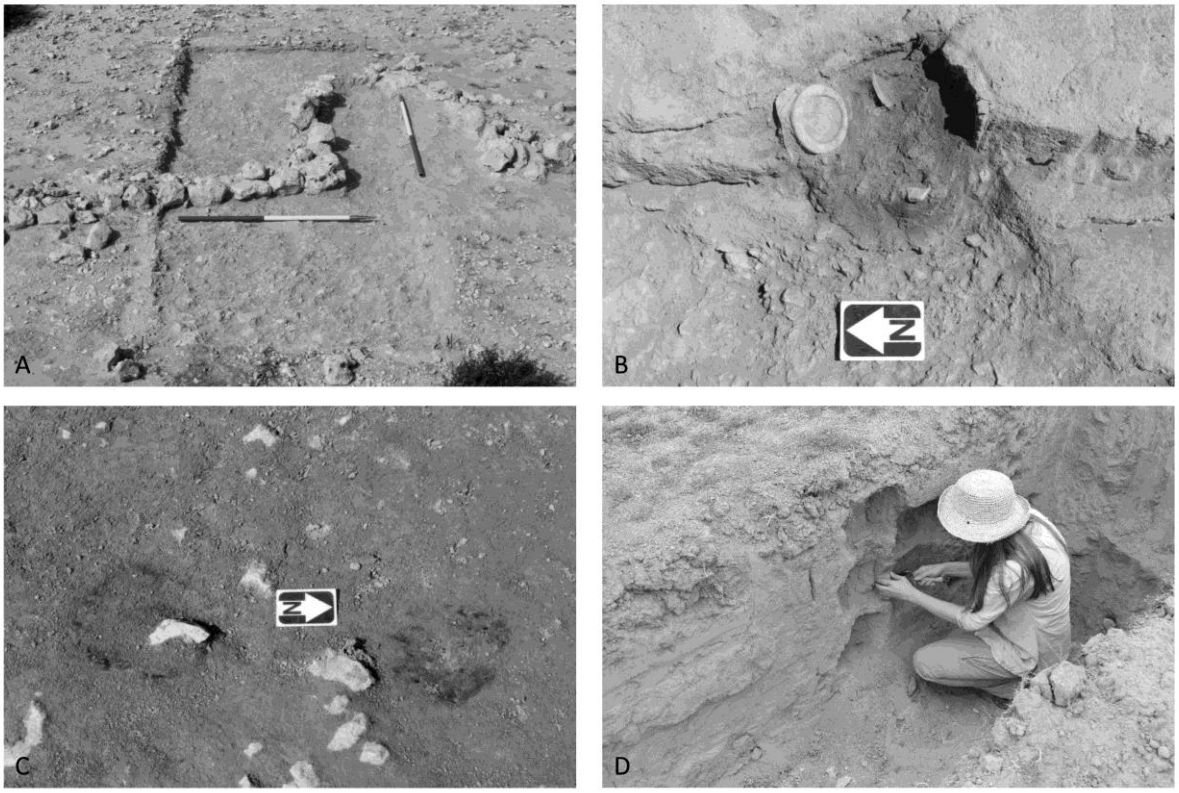

Fig 5.