


Archaeological Survey of Sīnīya Island, Umm al-Quwain


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Abstract: The preliminary results of a comprehensive survey of Sīnīya Island in the Khawr al-Bayḍā' of Umm al-Quwain are presented here. The onset of human occupation remains to be confirmed, with scarce evidence for limited activity in the late pre-Islamic period (LPI, c. 300 BC – AD 300). The first major phase of occupation dates to the seventh and eighth centuries (early Islamic period) when a monastery and settlement were established in the north-east of the island. Probably the peak occupation falls between the fourteenth and fifteenth centuries, when the stone-town of Old Umm al-Quwain 1 was built, followed by the eighteenth to early nineteenth century when the settlement moved to neighbouring Old Umm al-Quwain 2. The town was destroyed by the British in 1820 and moved to the facing tidal island, where Old Umm al-Quwain 3 (the modern city of the same name) developed. This resulted in an emptying of the landscape, and Sīnīya Island was little visited in the nineteenth and twentieth centuries, except for the estate of the ruling Āl Mu'allā represented by the Mallāh Towers.

Keywords: survey, maritime environment, Late Antiquity, Islamic period, UAE, Arabian Peninsula

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Khawr al-Bayḍā' in Umm al-Quwain is one of the last surviving historic lagoons on the Gulf coast of the United Arab Emirates (**Fig. 1**). It has an exceptional occupational sequence spanning the past 7,000 years, which includes the Neolithic dugong shrine Ghalla Island

(*sic.* Ak'āb), the Bronze Age settlement of Tell Abraq and the Graeco-Roman period site of ed-Dur.¹ These are among the most important archaeological sites of the Emirates. Whilst the mainland sites have been relatively well explored, the islands of the lagoon remain largely unexplored. The largest of these is Sīnīya Island, which constitutes the subject of the present article.

The data presented here summarises the results of three different archaeological surveys on the Sīnīya Island. A first broad assessment of the historic and archaeological remains on the island was carried out by the Tourism and Archaeology Department of Umm al-Quwain (TAD-UAQ, simply TAD henceforth) in 2012. This was supplemented by a short visit by a team from the Italian Archaeological Mission (IAMUQ) in late 2020. Three archaeological sites of outstanding cultural significance were discovered by the preliminary surveys, including a late antique monastery (TAD 15 and 16) and village in the north-east (TAD-18 and 19), and a middle to late Islamic town and mosque in the south-west (IIS-31). A comprehensive survey was subsequently undertaken by the Sīnīya Island Archaeological Project between January and March 2021.

SURVEY METHODOLOGY

The survey included a range of field methods and techniques. The bulk of the data was collected by Federico Borgi, Head Surveyor of the Sīnīya Island Archaeological Project, who covered the whole island by vehicle and extensive field walking (**Figs 1–9, Table 1**). A study of the ceramics collected from individual survey sites was then undertaken by Timothy Power, enabling a chronological and spatial distribution of the sites to be plotted (**Figs 10–12; Tables 2–5**).

For each archaeological feature, the associated topographic data (position and extension) were recorded with a GLONASS rover with ground correction, giving accuracy in a range of one centimetre. When archaeological material was present, a sample was collected, with specific attention to diagnostic pottery. Except for graveyards and a few, isolated, graves recorded by the preliminary TAD survey, only those archaeological features associated with surface finds were assigned a survey code. For each site, a short description was provided (**Table 1**), and all the data were uploaded into a GIS database, which will complement the archaeological map of the Umm al-Quwain Emirate. Features devoid of surface finds were nevertheless recorded and added to the survey maps to provide a better idea of site density (see **Figs 5–7**). However, since they were not assigned a code they are not described in **Table 1**.

The TAD survey resulted in a first site list with tag names in the form 'TAD-*nn*', while the following surveys adopted a different code for the newly identified sites: 'IIS-*nn*'. Note that IIS here stands for the 'Inland and Islands Survey' carried out by IAMUQ in 2020.² All the sites reported by the TAD were more thoroughly re-surveyed in 2021, and

¹ Haerincq 2003; Méry *et al.* 2009; Degli Esposti *et al.* 2022a.

² Note that several TAD site numbers as well as those prior to 30 in the IIS list were assigned to inland sites.



1. Sīnīya Island within the Khawr al-Bayḏā, with main archaeological sites in red (Processing: F. Borgi).

their original name was maintained. In some instances, however, several TAD sites were grouped under a single, new, IIS code, as they could be interpreted as small sites within a larger one.

The survey sites were dated according to a small subjective selection of surface ceramics. We identified four ceramic periods (CPs) which find strong parallels with published sites (**Fig. 10**). CP-1 is very similar to the assemblage of al-Quṣūr and can be broadly dated on the basis of a study of ceramics from Ṣīr Banī Yās to the seventh and eighth centuries.³ CP-2 is virtually identical to the fourteenth- and fifteenth-century assemblage from al-Maṭāf and al-Nudūd in neighbouring Rā's al-Khaimah; the general lack of Chinese Blue-and-White in our survey assemblage provides a sixteenth century *terminus ante quem*.⁴ CP-3 can be dated to the eighteenth and early nineteenth centuries, while CP-4 is dated from the mid to late nineteenth century, on the basis of strong parallels with al-‘Ain and Jazīrat al-Ḥamrā’⁵; the almost complete absence of Japanese coffee cups provides an early twentieth century *terminus ante quem*.⁵ The typology of Julfār Ware cooking-pot rim forms is another useful chronological indicator (**Fig. 11**), with three main types known for the fourteenth- to twentieth-century period.⁶ A preliminary presentation of the survey ceramics is now in preparation and will be published separately.

³ Carter 2008; Perregon, Bonnéric 2021.

⁴ Kennet 2004; Carter *et al.* 2020.

⁵ Power 2015; Priestman 2020.

⁶ Kennet 2004: 72–73, Table 23.

Table 1. Summary of survey sites (Processing: F. Borgi, M. Degli Esposti)

GIS code	Type	Area m ²	Short Description
IIS-30	Scatter 2, Scatter 3	10.5k 3.3k	Wide and dense dispersion of archaeological material. To note the presence of numerous stones, that in this case can be interpreted as the natural degradation of an ancient beachrock shoreline.
IIS-31	Settlement	36k (S) 68k (N)	Old Umm al-Quwain town. Two main areas of shallow mounds with abundant pottery scatter and sparse stones, bordered by large mounds, represents the remains of an earlier settlement to the N and a later one to the S. The southern one has been partially excavated, confirming the presence of largely decayed and robbed buildings. Geophysics has confirmed the presence of buried structures in the northern part as well.
IIS-32	Stone mounds, Scatter 1	5k	Several shallow stone mounds looking like cairns, possible alignments, and very scarce pottery sherds.
IIS-33	Stone mounds, Scatter 1	10k	Several shallow stone mounds, looking like cairns, scarce pottery sherds.
IIS-34	Stone mound	spot	Large, squarish and flattened stone heap. Excavation by TAD revealed it to be a kiln, possibly for lime production.
IIS-35	Grave	spot	Isolated, rectangular stone structure. Most probably an Islamic grave.
IIS-36	Scatter 3, Scatter 1	96k	Very wide and discontinuous dispersion of archaeological material on a flat area. Abundant intact and fragmented shells of different species (<i>murex sp.</i> , <i>marcia sp.</i> etc), sparse stones. Among the main concentration (Scatter 3) is a significant, though not dense, dispersion of archaeological material.
IIS-37	Scatter 1	0.45k	Small and sparse dispersion of archaeological material on a flat area.
IIS-38	Scatter 2	1.1k	Dense dispersion of archaeological material (mainly potsherds) located on a low intertidal area between (recent) mangrove trees.
IIS-39	Scatter 2	8.4k	Wide dispersion of archaeological material.
IIS-40	Scatter 3, Grave	2.7k	Dense dispersion of archaeological material with abundant seashells and stones. At least one grave (rectangular stone structure) eroded by the sea, with visible human remains.
IIS-41	Scatter 2	72k	Very wide and discontinuous dispersion of archaeological material on a flat area. Abundant intact and fragmented seashells of different species (<i>murex sp.</i> , <i>marcia sp.</i> etc), sparse stones.
IIS-42	Scatter 3, Scatter 1	37k	Wide and dense dispersion of archaeological material discontinuously covering a small island. Four areas (A-D) were distinguished for the sake of material collection, the largest and by far denser being 'D'.
IIS-43	Scatter 1, Scatter 2	31k	Wide and discontinuous dispersion of archaeological material arranged in small circular spots often associated with abundant seashells. The presence of shells in long linear areas can be interpreted as ancient beaches.
IIS-44	Scatter 3, Scatter 1	5k	Wide and discontinuous dispersion of archaeological material. The proper site is of Scatter 3 type but, together with TAD-9 and 10, it can be considered part of a bigger Scatter 1 macro-area.
IIS-45	Shell midden	4.6k	Shell midden mainly composed of <i>pinctada radiata sp.</i> Rare potsherds.
IIS-46	Scatter 1	5.2k	Wide and discontinuous dispersion of sparse potsherds.

GIS code	Type	Area m ²	Short Description
IIS-47	Scatter 3	2.7k	Dense dispersion of stones and archaeological material partially obliterated by modern buildings (near the two square towers of Mallāh, TAD-11&12).
IIS-48	Scatter 1, Stone mounds	12.6k	Wide area with numerous stone mounds. Some of them are probably cairn graves. Very scarce archaeological material.
IIS-49	Scatter 1	6k	Dispersion of archaeological material.
IIS-50	Graveyard, Scatter 2	10.2k	Dispersion of archaeological material. An Islamic graveyard appears to be superposed to the earlier scatter.
IIS-51	Scatter 3	2.2k	Dense dispersion of archaeological material, black soil, and possibly preserved stratigraphy.
IIS-52	Scatter 2	5.7k	Dispersion of archaeological material.
IIS-53	Scatter 3	7.8k	Dense dispersion of archaeological material, abundant seashells and stones. Possibly one collapsed stone structure. Several small shell middens (<i>pinctada radiata sp.</i> and <i>murex sp.</i>).
IIS-54	Scatter 3	17.1k	Dense dispersion of archaeological material, including several circular, shallow stone dispersions (deflated, decayed dwellings?). Possible evidence of <i>Cerithium</i> floor.
IIS-55	Scatter 1, Scatter 2	55k	Discontinuous dispersion of rare archaeological material covering the whole peninsula. The two areas with the highest pottery density are at opposite ends.
IIS-56	Scatter 2	6.6k	Dispersion of archaeological material.
IIS-57	Scatter 3	20.1k	Dense dispersion of archaeological material in an area with several shallow stone mounds. Some shell middens are located on the tip of the peninsula but are partially obliterated by modern constructions.
IIS-58	Stone structure, Scatter 1	2.2k	Dispersion of archaeological material with a quadrangular, collapsed stone structure.
IIS-59	Graveyard	0.7k	Several graves, probably Islamic (some rectangular structures and upright stones), scattered in a small area. Rare potsherds.
IIS-60	Graveyard	0.6k	Several graves, probably Islamic (some rectangular structures and upright stones), scattered in a small area.
IIS-61	Scatter 2	3k	Dispersion of archaeological material, mainly obliterated by modern constructions.
TAD-8	Scatter 3	1.8k	Dispersion of abundant stones and archaeological material on a small hillock.
TAD-9	Scatter 3, Scatter 1	11k	Wide and discontinuous dispersion of archaeological material. The proper site is of Scatter 3 type but, together with TAD-8 and IIS-44, it can be considered part of a bigger Scatter 1 macro-area.
TAD-10	Scatter 3, Scatter 1	3.6k	Wide and discontinuous dispersion of archaeological material. The proper site is of Scatter 3 type but, together with TAD-9 and IIS 44, it can be considered part of a bigger Scatter 1 macro-area.
TAD-11	Historic building	spot	Al-Nahar Tower. Standing tower with a squared plan.

GIS code	Type	Area m ²	Short Description
TAD-12	Historic building	spot	al-Baḥr Tower. Standing tower with a squared plan.
TAD-13	Scatter 3, Shell midden	8.7k	Wide and dense dispersion of archaeological material among which are located three shell middens comprising <i>pinctada radiata sp.</i>
TAD-14	Stone structure, Scatter 2	13.5k	Wide dispersion of archaeological material with at least one stone structure.
TAD-15 TAD-16	Settlement, Scatter 3, Scatter 1	23.7k	Wide area occupying the central ridge of the peninsula, comprising a few, large but relatively shallow mounds characterised by heaps and scatters of tumbled stones and separated by flatter areas. One mound is particularly consistent and reaches the height of 2/3m above the surroundings. Potsherds are scattered all over the area (Scatter 1 density) with higher concentrations corresponding to the mounds (Scatter 3 density). Excavation revealed the larger mound to cover the remains of the core area of a monastic building including a church. One nearby mound hosts the remains of another stone building.
TAD-17	Graveyard	1.6k	Several graves, probably Islamic (some rectangular structures and several stones).
TAD-18 TAD-19	Settlement	58.8k	Large area covered by substantial mounds, most showing a squared morphology consistent with decayed buildings. Very abundant scatter of archaeological material, notably including glass. Partial excavation by the TAD exposed a few stone buildings, confirming it is a settlement of Late Antique date.
TAD-22	Grave	spot	Isolated, squarish stone structure, most probably an Islamic grave.
TAD-23	Grave	spot	Isolated, squarish stone structure, most probably an Islamic grave.
TAD-24	Graveyard	spot	Several graves, probably Islamic (some rectangular structures and upright stones), scattered in a small area.
TAD-53 TAD-54	Scatter 3	33.8k	Very wide and dense dispersion of archaeological material.
TAD-55	Grave	spot	Isolated, squarish stone structure, most probably an Islamic grave.
TAD-56	Grave	spot	Isolated, squarish stone structure, most probably an Islamic grave.
TAD-57	Graveyard	1.8k	Several graves, probably Islamic (some rectangular structures and upright stones), scattered in a small area.
TAD-58	Grave	spot	Isolated, squarish stone structure, most probably an Islamic grave.
TAD-59	Settlement	6.3k	Wide and dense dispersion of archaeological material, including abundant seashells, over an area with several shallow stone mounds. Testing by the TAD was too limited to expose any structure but it can be considered the same settlement as TAD-60&61 on the other side of the small bay on the tip of the peninsula.
TAD-60 TAD-61	Settlement	12.6k	Wide and dense dispersion of archaeological material, including abundant seashells, over an area with several shallow stone mounds. Presence of black soil and archaeological stratigraphy visible along eroded sections. One large, big shell midden is partially obliterated by modern constructions. Excavation by the TAD revealed the actual presence of lime kilns.

Table 2. Description and date of ceramic type fossils found during the survey (Processing: T. Power)

Class Code	Name & Description	Origin & Date
BAHLA	Bahlā Ware. Hard-fired light orange to dark grey earthenware with fine sandy temper and orangey brown or green glaze. Common forms include open bowls with ring bases.	SE Arabia, fifteenth-twentieth centuries
BLU-WHT	Blue-and-White Porcelain. Pure white porcelain with blue painted decoration under a clear glaze. Forms include small to medium-sized steep-sided cups/bowls with ring bases.	E Asia, late fifteenth-late nineteenth centuries
CELADON	Celadon Stonewares. Light grey stonewares with range of green glazes. Bowls with ring bases. Class used as a short-hand for E Asian green-glazed wares more broadly.	E Asia, thirteenth-fifteenth centuries
CHING	Kitchen Ching Ware. Dirty grey porcelain with blue or green painted decoration under a smoky glaze. Bowls with ring bases. Note unglazed ring inside bowl from stacking in kiln.	S China, eighteenth-early twentieth centuries
CHOC	Chocolate Chip Ware. Mid greenish grey earthenware with abundant black angular mineral temper often with a black slip. Common forms include basins and storage jars.	S Iran, eighteenth-twentieth centuries
ENAMEL	Enamelled Porcelain. Pure white porcelain with clear glaze and red enamelled decoration. Forms include small to medium-sized steep-sided cups/bowls with ring bases.	E Asia, eighteenth-nineteenth centuries
FRIT.BW	Blue-and-White Fritware. Pure white fritware with cobalt blue floral decoration painted into a white glaze. Forms include open bowls with ring bases. Local imitation of BLU-WHT.	S Iran, fifteenth-nineteenth centuries
FRIT.T	Turquoise-Glazed Fritware. Pure white fritware with bright monochrome turquoise glaze. Forms include open bowls with ring bases. Small sherds may actually be FRIT.TB.	S Iran, twelve-fifteenth centuries
FRIT.TB	Underglaze Painted Fritware. Pure white fritware with black painted decoration under a bright monochrome turquoise glaze. Forms include open bowls with ring bases.	S Iran, twelve-fifteenth centuries
GRN-GLZ.W	Monochrome Green Glazed Ware. Soft, light yellow (buff) earthenware with monochrome green glaze. Open bowls with ring bases. Suffix code refers to whitish (not red) fabric.	Iraq/Iran?, eighteenth-nineteenth centuries
HRD-RAG	Hard-Fired Red and Grey Ware. Hard-fired mottled red and grey earthenware with lime temper and surface spalling. Common forms include a storage jar with incised wavy lines.	S Iran, sixth-eight centuries
JULFAR	Julfār Ware. Mid orangey red to dark greyish black earthenware with abundant small angular red, white and black mineral temper. Cooking pots forms are most common.	SE Arabia, twelfth-twentieth centuries
JULFAR (CP1.2)	Julfār Ware Type: Cooking Pot 1.2 characterised by wedge-shaped rim and applique band running under rim.	SE Arabia, fourteenth-seventeenth centuries

Class Code	Name & Description	Origin & Date
JULFAR (CP4.1)	Julfār Ware Type: Cooking Pot 4.1 characterised by barrel-shaped profile and short perpendicular rim.	SE Arabia, late nineteenth-mid twentieth centuries
JULFAR (CP5.1)	Julfār Ware Type: Cooking Pot 5.1 characterised by flattened S-shaped rim and triangular lug handles.	SE Arabia, eighteenth-early nineteenth centuries
MANGA.1	Underglaze Manganese Painted Ware. Hard, light-yellow earthenware painted with geometric and floral designs under a poorly preserved glaze. Open bowls with ring bases.	Iraq/Iran?, fourteenth-fifteenth centuries
MANGA.2	Underglaze Manganese Painted Ware. Soft, light-yellow earthenware painted with geometric and floral designs under a translucent turquoise glaze. Open bowls with ring bases.	Iraq/Iran?, seventeen-mid twentieth centuries
MARTABAN	Martaban Ware. Light grey stoneware with monochrome brown glaze. Small to medium-sized jars. Class used as a short-hand for E Asian brown-glazed wares more broadly.	E Asia, fourteen-fifteenth centuries
PRC-MOD	Modern Porcelain. Pure white porcelain under a clear glaze. Forms include cups, bowls and plates. Class used as a short-hand for all modern factory made China.	E Asia, late twentieth century
RED-YEL	Underglaze Red Rouletted Ware. Soft, light yellow (buff) earthenware painted with red bands perforated by rouletting under a transparent yellow glaze. Open bowls ring bases.	Iraq/Iran?, eighteenth-early nineteenth centuries
SILHOUETTE	Green Glazed Silhouetted Ware. Hard, red earthenware with painted designs under a translucent turquoise glaze. (no white slip or champleve). Open bowls with ring bases.	S Iran, fourteenth-fifteenth centuries
SPEC.B	Blue Speckled Glaze Ware. Hard, red earthenware under a thick speckled monochrome blue glaze. Vessel forms limited to medium-sized open bowls with flaring rims and ring bases.	S Iran, fourteenth-seventeenth centuries
SPEC.G	Green Speckled Glaze Ware. Hard, red earthenware under a thick speckled monochrome green glaze. Forms limited to medium-sized open bowls with flaring rims and ring bases.	S Iran, fourteenth-seventeenth centuries
SPONGE	Sponge Painted Refined Whiteware. Hard, refined white-ware with sponge painted and printed decoration under a clear glaze. Forms include steep-sided bowls and large plates.	NW Europe, mid nineteenth-mid twentieth century
TEXTILE	Textile Ware. Hard, light greyish yellow (buff) earthenware with densely incised geometric decoration giving the appearance of textiles. Form seems to be globular water jar.	SE Arabia, fourteenth-fifteenth centuries
TRANSFER	Transfer Printed Refined Whiteware. Hard, refined white-ware with transfer printed decoration under a clear glaze. Forms include steep-sided bowls and large plates.	NW Europe, mid nineteenth-mid twentieth century

Class Code	Name & Description	Origin & Date
TURQ.G	Greenish Turquoise Glazed Ware. Hard, light yellow (buff) earthenware under a monochrome greenish turquoise glaze. Forms include medium to large-sized jars, bowls and basins.	S Iraq, fifth-eighth centuries
TURQ (Type 72)	Turquoise Glazed Ware: Type 72 consists of a small to medium-sized bowl with a carinated rim.	S Iraq, late seventh-early eighth centuries
WHT.INS	Incised White Ware. Light yellowish grey (buff) earthenware with fine sandy temper. Decorated with incised geometric designs. Forms limited to globular water jars.	SE Arabia, eighteenth-twentieth centuries

Table 3. Surface ceramics from survey sites dated according to pottery type fossils; EI – early Islamic; MI – middle Islamic; LI – late Islamic; MOD – modern. Note some sites have two or more ceramic periods indicative of repeated occupation (Processing: T. Power)

Site	Ceramic Type Fossils	Period & Date
IIS-30	CELADON, JULFAR, FRIT.T, SPEC.B	MI, fourteenth-fifteenth centuries
IIS-31	Old UAQ 1	CELADON, JULFAR (CP1.2), FRIT. T, SPEC. B
	Old UAQ 2	ENAMEL, RED-YEL
		CHING, CHOC, SPONGE
IIS-33	BAHLA, JULFAR (CP5.1), MANGA.2	LI, eighteenth-early nineteenth centuries
IIS-36	CELADON, JULFAR (CP1.2), SPEC.G, TEXTILE	MI, fourteenth-fifteenth centuries
IIS-37	JULFAR	MI-LI, fourteenth-nineteenth centuries?
IIS-38	CHING, JULFAR (CP5.1)	LI, eighteenth-early nineteenth centuries
IIS-39	BLU-WHT, JULFAR (CP4.1)	LI, mid-late nineteenth century
IIS-40	BAHLA, JULFAR (CP1.2)	MI, fourteenth-fifteenth centuries
	PRC-MOD	MOD, late twentieth century
IIS-41	CELADON, FRIT.T, SILHOUETTE, SPEC	MI, fourteenth-fifteenth centuries
IIS-42	CELADON, JULFAR (CP1.2), FRIT.T, SPEC.B	MI, fourteenth-fifteenth centuries
IIS-43	HRD-RAG, TURQ.G	EI, seventh-eighth centuries
	JULFAR	MI-LI, fourteenth-nineteenth centuries?
IIS-44	CELADON, FRIT.BW, SPEC	MI, fourteenth-fifteenth centuries
	JULFAR (CP5.1), BAHLA, MANGA.2	LI, eighteenth-early nineteenth centuries
	CHING, JULFAR (CP4.1), TRANSFER	LI, mid-late nineteenth century
IIS-47	JULFAR, SPEC.B	MI, fourteenth-fifteenth centuries
	BAHLA, JULFAR, MANGA.2	LI, eighteenth-early nineteenth centuries

Site	Ceramic Type Fossils	Period & Date
IIS-48	JULFAR (CP5.1)	LI, eighteenth-early nineteenth centuries
IIS-49	BAHLA, JULFAR	MI-LI, fourteenth-nineteenth centuries?
IIS-50	BAHLA, JULFAR (CP5.1), MANGA.2	LI, eighteenth-early nineteenth centuries
IIS-52	BAHLA, JULFAR, SPEC.B	MI, fourteenth-fifteenth centuries
IIS-53	BAHLA, CHOC, JULFAR (CP5.1)	LI, eighteenth-early nineteenth centuries
IIS-54	BLU-WHT, GRN-GLZ.W, RED-YEL	LI, eighteenth-early nineteenth centuries
IIS-55	BAHLA, JULFAR, FRIT.TB	MI, fourteenth-fifteenth centuries
IIS-56	JULFAR (CP1.2)	MI, fourteenth-fifteenth centuries
IIS-57	JULFAR, BAHLA, MANGA.2	MI-LI, fourteenth-nineteenth centuries?
IIS-58	JULFAR (CP1.2)	MI, fourteenth-fifteenth centuries
	BLU-WHT, SPONGE, TRANSFER, WHT.INS	LI, mid-late nineteenth century
IIS-59	JULFAR	MI-LI, fourteenth-nineteenth centuries?
TAD-8	BAHLA, BLU-WHT, CHING, JULFAR (CP5.1)	LI, eighteenth-early nineteenth centuries
TAD-9	BAHLA, JULFAR, SPEC.G	MI, fourteenth-fifteenth centuries
TAD-10	CELADON, FRIT.T, JULFAR (CP1.2), SPEC.G	MI, fourteenth-fifteenth centuries
TAD-13	CELADON, FRIT.T, JULFAR (CP1.2), SPEC.G	MI, fourteenth-fifteenth centuries
TAD-14	BAHLA, BLU-WHT, JULFAR (CP5.1), RED-YEL	LI, eighteenth-early nineteenth centuries
TAD-53&54	CELADON, FRIT.BW, SILHOUETTE, SPEC.G	MI, fourteenth-fifteenth centuries
TAD-60&61	GRN-GLZ.W, JULFAR (CP5.1), MANGA.2, CHING	LI, eighteenth-early nineteenth centuries

Table 4. Quantification of site types. Note that sites with a double number are considered and counted as one (Processing: T. Power)

Type	Sites	Total
Settlement	IIS-31, TAD-15&16, TAD-18&19, TAD-59, TAD-60&61	5
Scatter 1	IIS-32, IIS-33, IIS-36, IIS-37, IIS-42, IIS-43, IIS-44, IIS-46, IIS-48, IIS-49, IIS-55, IIS-58, TAD-9, TAD-10, TAD-15&16	15
Scatter 2	IIS-38, IIS-39, IIS-41, IIS-43, IIS-50, IIS-52, IIS-55, IIS-56, IIS-61, TAD-14	10
Scatter 3	IIS-30, IIS-36, IIS-40, IIS-42, IIS-44, IIS-47, IIS-51, IIS-53, IIS-54, IIS-57, TAD-8, TAD-9, TAD-10, TAD-13, TAD-15&16, TAD-53&54	16
Shell middens	IIS-45, TAD-13	2
Graves	IIS-35, IIS-40, TAD-22, TAD-23, TAD-55, TAD-56, TAD-58	7
Graveyards	IIS-50, IIS-59, IIS-60, TAD-17, TAD-24, TAD-57	6

Type	Sites	Total
Stone structures	IIS-58, TAD-14	2
Stone mounds	IIS-32, IIS-33, IIS-34, IIS-48	4
Historic buildings	TAD-11, TAD-12	2

Table 5. Surface ceramics from survey sites dated according to type fossils; sites with repeated occupations are counted more than once; EI – early Islamic; MI – middle Islamic; LI – late Islamic; MOD – modern (Processing: T. Power)

CP	Period	Date	Sites	Total
N/A	MOD	late twentieth century	IIS-40	1
CP-4	LI 2	mid nineteenth century	IIS-31, IIS-39, IIS-44, IIS-58, TAD-11, TAD-12	6
CP-3	LI 1	eighteenth-early nineteenth centuries	IIS-31, IIS-33, IIS-38, IIS-44, IIS-47, IIS-48, IIS-50, IIS-51, IIS-53, IIS-54, TAD-8, TAD-11, TAD-12, TAD-14, TAD-59, TAD-60-61	16
N/A	MI-LI	fourteenth-nineteenth(?) centuries	IIS-37, IIS-43, IIS-49, IIS-57, IIS-59	5
CP-2	MI 3	fourteenth-fifteenth centuries	IIS-30, IIS-31, IIS-36, IIS-40, IIS-41, IIS-42, IIS-43, IIS-44, IIS-47, IIS-52, IIS-55, IIS-56, IIS-58, TAD-9, TAD-10, TAD-13, TAD-53&54	17
CP-1	EI 1	seventh-eighth centuries	IIS-43, TAD-15&16, TAD-18&19	3

GEOMORPHOLOGICAL BACKGROUND

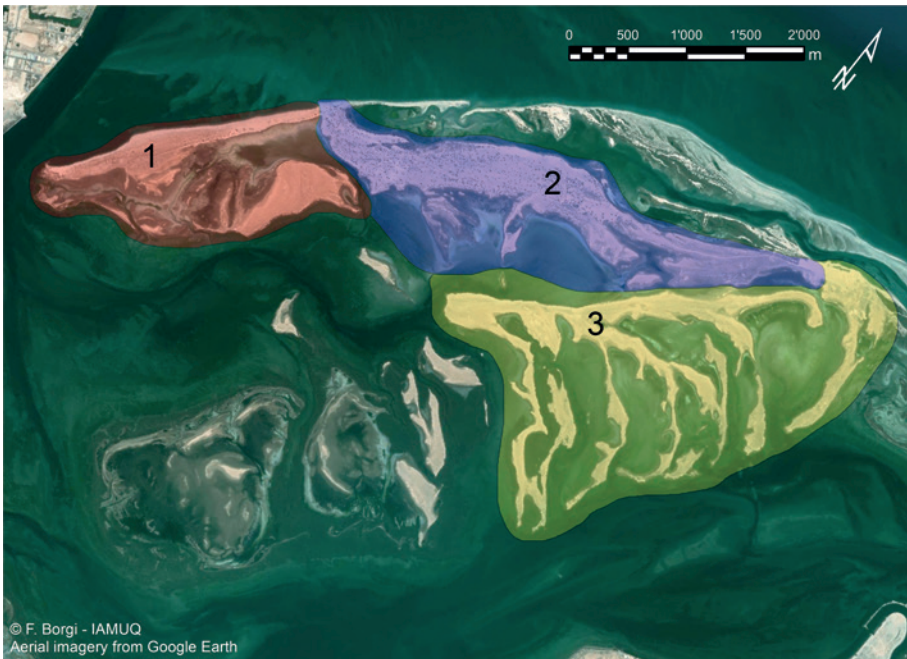
To properly interpret the archaeological record, it is first necessary to have some understanding of the geomorphology. Sīnīya is the largest island in the Khawr al-Bayḏā' and frames its northern extension towards the open waters of the Arabian Gulf (**Fig. 1**). The toponym 'Sīnīya Island' in fact encompasses a cluster of smaller islands, sandbars and spits – partly stabilised and partly still rapidly evolving under the action of several factors – most of which are connected to one another at low tide. At average tide, the main core of the island has a limited extension of around 9km². However, due to its peculiar branched out shape, its shores span more than 60km.

The whole lagoon complex of Khawr al-Bayḏā' was the subject of several paleogeographic and geomorphological studies in the 1980s and 1990s,⁷ the results of which, still relevant today, help to understand the evolution of the lagoon during the Holocene epoch (**Fig. 2**). Unfortunately, the raw data upon which the reconstructions mentioned above are

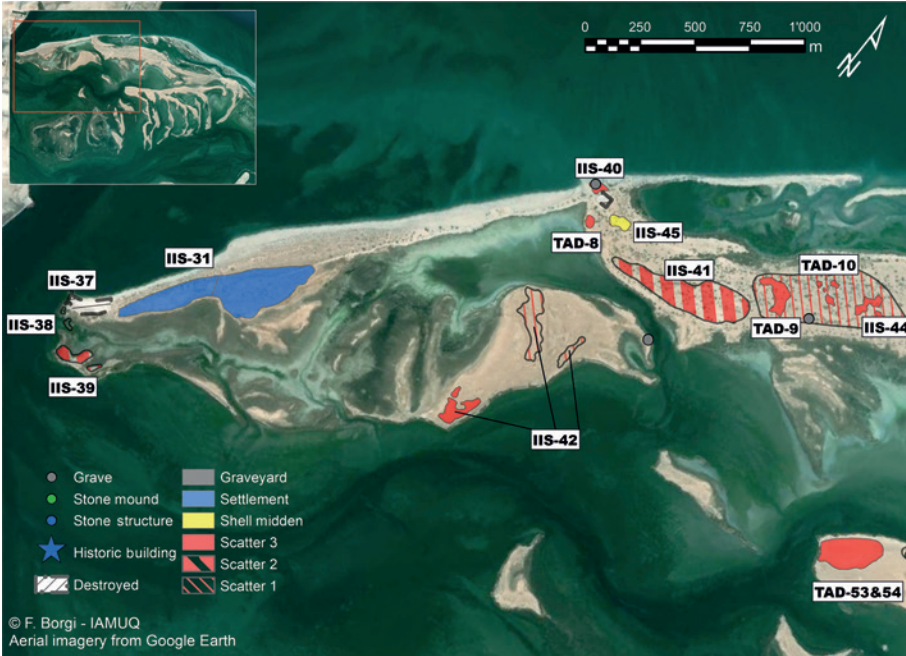
⁷ Bernier *et al.* 1995; Sanlaville, Dalongeville 2005.



2. The geomorphological evolution of the island of Siniya from c. 4000 BC to present, with coloured shapes representing the progression of land formations (based on: Sanlaville, Dalongeville 2005; Google Earth, status as of 4th August 2022; processing: F. Borgi).



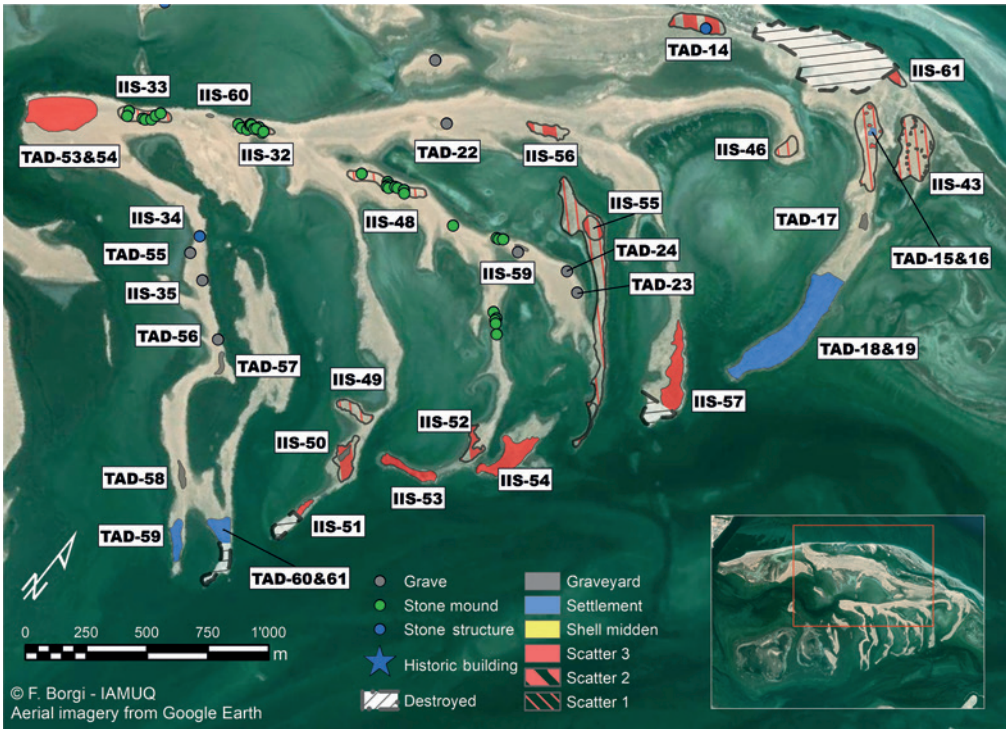
3. Zoning of Siniya Island (Processing: F. Borgi).



5. The south-western extent of the Siniya Island, corresponding to Zone 1. The sites identified during the surveys are indicated, distinguished according to the implemented typology (Processing: F. Borgi).



6. The north-central area of the Siniya Island, corresponding to Zone 2. The sites identified during the surveys are indicated, distinguished according to the implemented typology (Processing: F. Borgi).



7. The north-eastern area of the Sīnīya Island, corresponding to Zone 3. The sites identified during the surveys are indicated, distinguished according to the implemented typology (Processing: F. Borgi).

based were not published, and neither a detailed description of the applied methodologies nor specific information on the laboratories where the analyses were performed was provided. While this clearly does not mean those results are not trustworthy, a word of caution is necessary in light of the significant advances that have occurred during the last 25 years, especially in the field of radiocarbon dating. In particular, the delicate issue of the so-called reservoir effect has emerged in all its significance, pointing out the scarce reliability of many ^{14}C dates obtained from seashells and more generally samples from the marine environment. No consensus has yet been reached among specialists and, although an agreed-upon calibration curve was elaborated,⁸ the value of the ΔR variable remains difficult to establish, with different scholars applying values sometimes diverging by many centuries even for the same micro-region.⁹ Notwithstanding this situation, in this paper, the chronology proposed by Paul Bernier and others¹⁰ will be adopted, with the awareness that new studies might lead to its substantial revision.

⁸ Heaton *et al.* 2020.

⁹ Saliège *et al.* 2005; Zazzo *et al.* 2012; Lindauer *et al.* 2017.

¹⁰ Bernier *et al.* 1995.

In **Fig. 2**, the main phases of the lagoon's evolution can be observed. The gradual north-eastward progradation of the lagoon's entrance results in the formation of a series of narrow, hook-shaped spits. As the accretion of the main sandbar proceeds, it forms a barrier against the erosion from direct sea currents, which protects the outermost (i.e. north-easternmost) hook, that can thus consolidate into beachrock.¹¹ This process continued for more than three thousand years, until around 600 BC when the main south-west – north-east sand bar that originated from the mainland breached, just east of today's city of Umm al-Quwain. From that moment on, one can speak of Sīnīya as a proper island. Its inner part, comprising these sandy hooks consolidated by beachrock formation (**Fig. 3**, Zone 3) will remain almost unchanged thereafter.

Conversely, the outer part(s) (**Fig. 3**, Zones 1 and 2) underwent continuous modifications mainly by the formation of additional sandbars on the open water side. **Fig. 2** also shows the range and rapidity of the possible variations in the coastline, induced by the action of Gulf streams, as evident from a comparison of the island's northern outline around 1980 (in red) and the underlying satellite imagery taken in 2020.

This geomorphological reconstruction provides a partial explanation for, on the one hand, the absence of evidence for human activity before the Late Antique period (see below) and, on the other, the absence of any type of anthropogenic evidence along the shallow and sandy shores facing the open sea, impacted by the continuous and rapid alternation of accumulation and erosion processes. Current and forthcoming geoarchaeological work aims to further our understanding of the origin and development of Sīnīya Island and its human interactions over the Holocene epoch.¹²

CHARACTERISATION OF THE ARCHAEOLOGICAL RECORD

For the sake of building a coherent dataset to be integrated into a GIS database, a site typology was established and assigned to each recorded survey site (**Table 1**; **Fig. 8**). This further allowed us to characterise the archaeological record of Sīnīya Island. A basic quantified analysis of site types demonstrated that pottery scatters make up 59% of the survey sites, with five settlement sites located (**Table 4**).

Permanent settlements include areas of mounding indicative of buried stone structures, further associated with substantial scatters of surface ceramics and other archaeological material (**Fig. 8:1**). The interpretation is supported by test pits, trial trenches or partial excavation. Notable examples include the Late Antique settlement equivalent to TAD-18 and 19, and the neighbouring sites of Old Umm al-Quwain 1 and 2 represented by IIS-31. Note that possible palm-frond (*'arīsh*) settlements indicated by larger and denser scatters of surface pottery have not been included in this category, since they are often seasonal and at best semi-permanent and, above all, would need excavation work to assess their nature.

¹¹ The mechanism and timing of such processes are as yet not fully understood (e.g. Kellelat 2006).

¹² Degli Esposti *et al.* 2022b.

Scatters of surface ceramics are the most common type of site encountered during the survey. A typical example is shown in **Fig. 8:2**. Some attempt was made to distinguish between the density of material to give some idea of the duration and intensity of activity. Scatter 1 refers to areas with a sparse dispersion of archaeological material, indicative of low-density activity and/or temporary occupation. Scatter 2 constitutes areas with a consistent dispersion and intermittent concentrations of archaeological material, interpreted as low-density to high-density activity and/or seasonal occupation. Scatter 3 is characterised by areas with a high density of archaeological material, sometimes stratified, indicative of high-density activity and/or semi-permanent occupation. Although many surveys, also covering nearby areas, usually define different site types, such a density-based distinction seem not to have been used.¹³ Despite being somewhat arbitrary, this distinction affords a qualitative appreciation of occupational density and informs the effective management of the historic environment.

Shell middens consist of an accumulation of seashells with little or no other archaeological material. They are usually of the same species and indicate intensive utilisation of the marine environment. IIS-45 represents a typical example of a shell midden (**Fig. 8:3**), in this case made up of pearl oyster shells (*pinctada radiata* sp.). Some shell middens, like those associated with Old Umm al-Quwain 2, are quite large – several metres in diameter and up to 2m high. Such large shell middens reflect the industrial scale that pearl fishing reached in certain periods.¹⁴

Graves and graveyards refer to individual inhumation burials, all apparently from the Islamic period, with one or two stones set at the head and feet. In Islamic burial practices the body is wrapped in a shroud and placed in a hollow excavated into the bottom or side of the grave shaft, over which flat stones are laid at an angle.¹⁵ This arrangement sometimes becomes visible as a result of truncation or erosion, as is the case of IIS-40 (**Fig. 8:4**), a grave cut into the side of a natural mound eroded by the sea. Several Islamic graveyards were noted (**Fig. 8:5**).

Stone structures represent a range of miscellaneous features including stretches of walls or clear stone alignments, while stone mounds constitute a range of sub-circular stone features which, in some cases, could be interpreted as cairns, usually considered to represent burials.¹⁶ Some of the cairns, however, were identified by Shaikh Majid as markers delineating fishing rights. Others are more likely to be non-Islamic burials, such as some of those at IIS-48 (**Fig. 8:6**), which comprise an upright flat stone surrounded by a circular row of stones. A few sherds of possibly late pre-Islamic (LPI) pottery were noted nearby. This identification remains hypothetical and needs further study. A previous survey failed to identify any remains of this date, but the details were not published.¹⁷

¹³ E.g. King *et al.* 1995; King, Tonghini 1998; Hellyer, Hull 2002.

¹⁴ Carter 2012: 141–181.

¹⁵ E.g. Petersen 2013.

¹⁶ Cairns are not a distinct type site.

¹⁷ Haerinck 2003: 200–201.



8. Composite of survey sites (Phot. T. Power, F. Brogi, M. Degli Esposti).

1) IIS-31



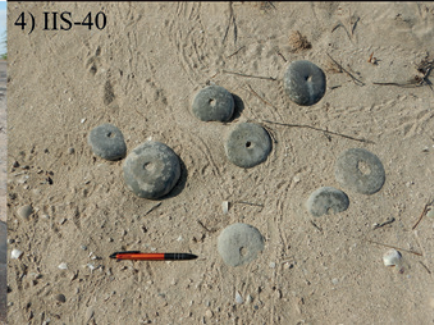
2) TAD18&19



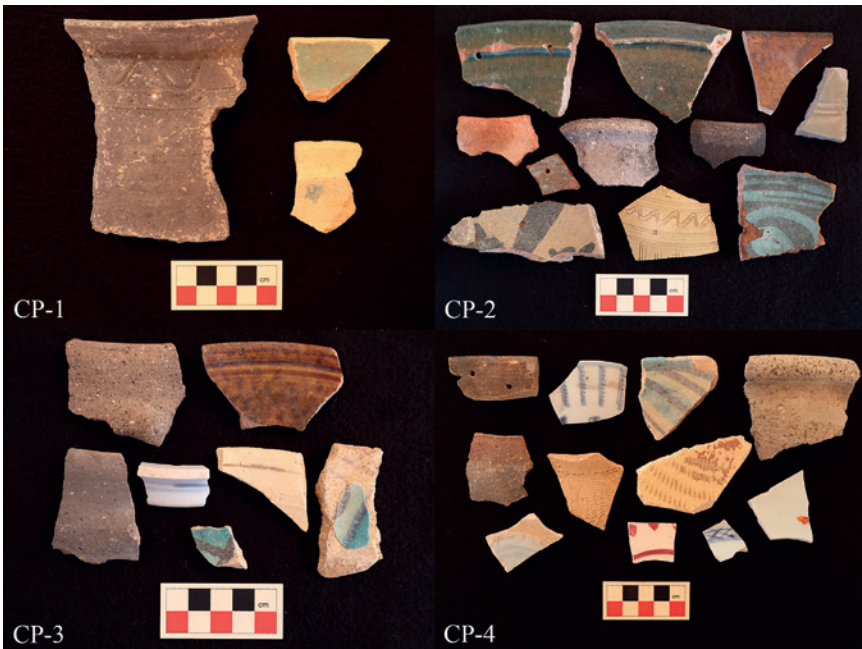
3) TAD-13



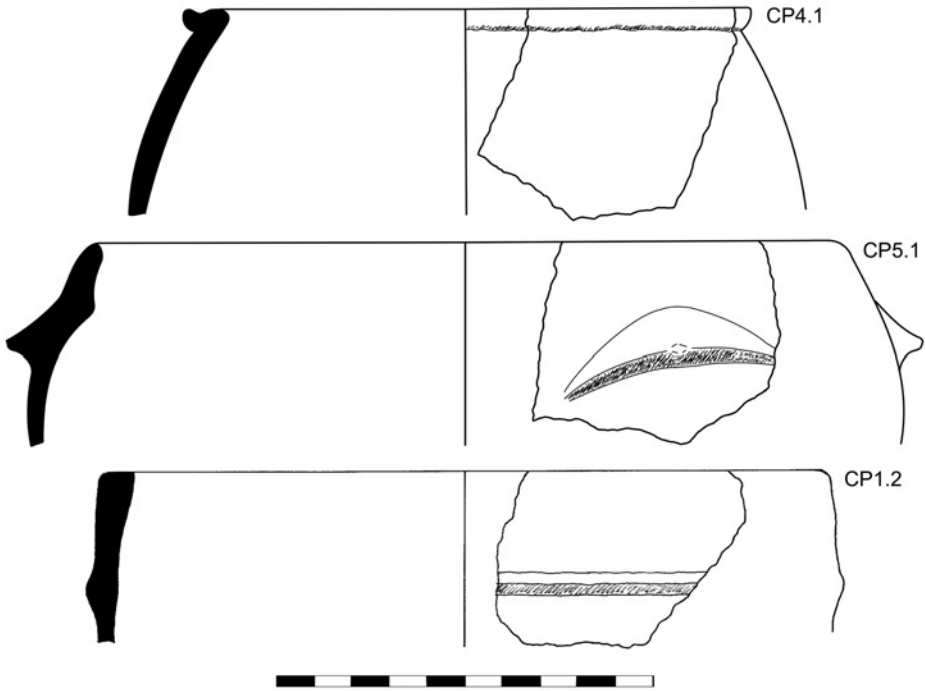
4) IIS-40



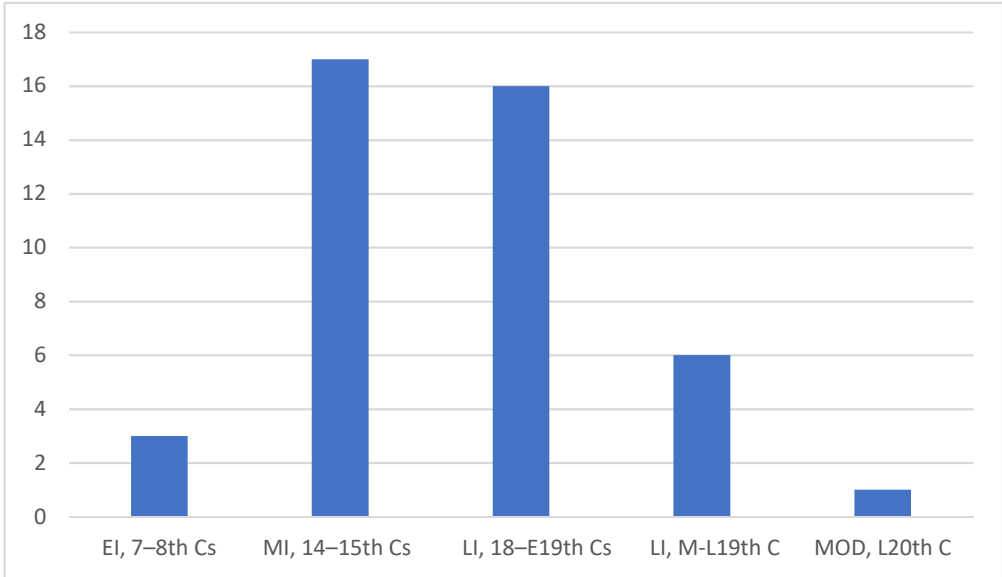
9. Finds from the survey: 1) A coin of Shaikh Sultān b. Ṣaqr from Old Umm al-Quwain; 2) LPI/early Islamic soft-stone vessel; 3) a stone anchor; 4) stone net weights (Phot. T. Power, F. Borgi).



10. Surface ceramics representative of the four ceramic periods distinguished in the preliminary study (Phot. T. Power).



11. Middle to late Islamic Julfār Ware cooking pots (CP): rim types (Drawing: T. Power).



12. Chronological distribution of survey site phases. Some sites have more than one phase (Processing: T. Power).

Circular shafts lined with stone cut into large shell middens and surrounded by thick layers of ash and shell were found at two locations, of which IIS-34 (**Fig. 8:7**) is contemporary with Old Umm al-Quwain 1 and TAD-60 and 61 is contemporary with Old Umm al-Quwain 2. It is possible that the shells were being burnt to produce lime, an essential building material used in the construction of the middle and late Islamic stone-towns on the island.¹⁸ Both have been excavated by the Tourism and Archaeology Department and we look forward to the publication of these important case studies in the pre-modern industry of the Emirates. Prior to excavation, they could not be distinguished from general stone mounds (IIS-34) or undefined elements within a settlement (TAD-60 and 61). Consistently, they do not constitute a survey site type.

Several historic buildings were noted in the course of the survey. There is some interpretative latitude as to how old buildings should be in order to be considered historic, especially when traditional architectural forms employing modern building materials persisted into living memory.¹⁹ A cluster of historic buildings including two square towers were noted at Mallāḥ (**Fig. 8:8**), an estate of the ruling Āl Mu‘allā family, to which mosque, majlis and residential compound were added in the mid twentieth century.

The finds assemblage is quite limited, mainly comprising pottery with the exceptional addition of metal (bronze) items, rare coins – unreadable without proper conservation – and occasional glass items (mostly bracelet fragments). A total of seventy-four coins were collected from the surface of IIS-31 – the stone-towns of Old Umm al-Quwain 1 and 2 – of which all but one are Iranian civic series dated very broadly between the fourteenth and eighteenth centuries, with a single rare issue of Shaikh Sulṭān b. Ṣaqr (r. 1803–1866), the powerful ruler of the Qāsimī confederation (**Fig. 9:1**). To these can be added a complete profile of a soft stone bowl from TAD-18 and 19 (**Fig. 9:2**), a site which is covered by an intermittent spread of potentially late Sasanian to early Islamic glass items. Small finds such as a stone anchor from TAD-13 (**Fig. 9:3**) and stone net weights from IIS-40 (**Fig. 9:4**) point to the importance of maritime industries, as might be expected given the location.

LANDSCAPE DEVELOPMENT

Having presented a characterisation of the archaeological record and proposed a periodisation of survey sites based on the study of surface ceramics, it is now possible to put forward some ideas as to the development of the landscape. Sīnīya Island can be hypothetically divided into three distinct zones, each with distinct morphological characteristics and archaeological patterns (**Figs 3–4**).

The south-western part (**Fig. 3**, Zone 1), near the current entrance to the lagoon in front of Old Umm al-Quwain 3, stands at a very low elevation above the sea level, easily

¹⁸ Cf. presentation of Lambert, A., Biets, C., Beech, M.J., Cuttler, R., Magee, P, entitled ‘Short-term coastal occupation on Jubail Island: Modern Lime Kilns and Marine Resource exploitation for artisanal activities (Abu Dhabi Emirate, UAE), given at the 55th Seminar for Arabian Studies, Humboldt University, Berlin, 5th–7th August 2022.

¹⁹ Hawker 2008.

subject to erosion and partially submerged by tidal variations. It hosts the remains of the two successive large settlements of Old Umm al-Quwain 1 (to the north) and Old Umm al-Quwain 2 (to the south). Marked by the substantial mounds bordering them, they are both included in the large survey site IIS-31 and were partially investigated in early 2022 by drone-mounted photogrammetry, geophysical prospection and stratigraphic excavation, revealing the presence of robbed-out stone structures.²⁰

Just north of this area, a substantial landmass (**Fig. 3**, Zone 2) reaches the maximum topographic elevation in the island, around 6m asl and hosts, among other things, the most recent remains in the whole island, datable to the late nineteenth and mid twentieth centuries. Over this area, survey sites mostly consist of very large scatters of archaeological material with intermittent smaller concentrations, mostly located towards an earlier shoreline facing the open sea (**Fig. 2**). Notable is the presence, in the locality known as Mallāḥ, of two standing towers (TAD-11 and 12) with squared plan currently named Burj al-Nahr and Burj al-Baḥr – respectively the ‘lagoon tower’ and the ‘sea tower’ – in an area still used as a country retreat for the ruling family.

Finally, the inner part of the island (**Fig. 3**, Zone 3), comprising narrow and winding, hook-shaped spits, is rather low – at sea level – and is constituted by several beachrock platforms consolidated at different times. The most conspicuous sites of this area are to be found on the distal ends of these spits, thus directly facing the inner lagoon. Areas with a less direct access to water are conversely pointed by structures of an unclear nature that can, however, be interpreted as burials in many instances. In these areas the density of archaeological material is very scarce.

The easternmost tip of Zone 3, where survey sites IIS-43, TAD-15&16 and TAD-18&19 were identified, constitutes a distinct subsection. These sites can all be dated to the seventh and eighth centuries based on pottery. By that time, most probably, the lagoon had not yet expanded eastward and these sites would therefore have been located at its eastern entrance, thus taking advantage of direct connection with both the open sea and the safer waters of the lagoon.

SETTLEMENT PATTERNS

The discovery of a monastery and settlement on Sīnīya Island by the Tourism and Archaeology Department Umm al-Quwain is part of a growing number of Christian sites in the Arabian Gulf.²¹ The closest parallels for the architecture and finds assemblage of the Sīnīya monastery are at al-Quṣūr in Kuwait.²² There has been some debate around the dating of these churches, which is beyond the scope of the present paper.²³ No unambiguous late Sasanian ceramic type-fossils have so far been noted at Sīnīya, either in the excavation of

²⁰ Unpublished reports submitted to TAD by Mauro Mele (geomorphology) and Walid El Hajj (drone survey).

²¹ Insoll *et al.* 2020; Power *et al.* 2022.

²² Bonnéric 2021; Perregon, Bonnéric 2021.

²³ Carter 2013; Simpson 2018.

the monastery or the island survey. Indeed, the main ceramic dating evidence is TURQ Type 72 (see **Table 2**), which we consider to have been produced between the seventh and eighth centuries (CP-1/early Islamic 1), and it is perhaps possible the monastery and settlement were built and abandoned in this period. Much more work remains to be done on this period.

The main period of occupation on Sīnīya Island is the fourteenth to fifteenth centuries (CP-2/middle Islamic 3). Survey sites with material of this period were among the most numerous, with seventeen sites constituting 35% of the identifiable site phases (**Table 5, Fig. 12**). These include the extensive remains of Old Umm al-Quwain 1, the first in a series of three stone-towns spanning the fourteenth to twentieth centuries. Indeed, since some of the contemporary survey sites appear to be lime kilns targeting discontinued shell middens, we might assume that these were producing building materials for the stone-town. Other survey sites of this period constitute scatters of surface pottery plausibly indicative of palm-frond (*arīsh*) villages, which we might suppose were involved in fishing the lagoon (e.g. IIS-36). We therefore appear to have a settlement hierarchy with a centrally placed stone-town economically oriented towards pearl fishing and international trade, surrounded by subsidiary settlements and workshops producing lime or supplying fish and shellfish to the town. The archaeological record of Sīnīya, remarkably, preserves an entire classical Islamic settlement hierarchy and economic system – the urban centre within its landscape context.

Sīnīya Island, like most of the littoral of the Arabian Gulf, was in this period a part of the Kingdom of Hormuz.²⁴ The Hormuzi period arguably represents the political and economic high-water mark of the pre-modern Gulf. Julfār lay in the maritime foreland of Hormuz and seems to have constituted the ‘second city’ of the kingdom. The archaeological record consists of a stone-town, associated with the sites of al-Maṭāf and al-Nudūd, surrounded by extensive *arīsh* suburbs – possibly as much as 10km of intermittent settlement between Rams and Rā’s al-Khaimah – with the Shimal Oasis protected by a 7km wall and subsidiary settlements reaching up into the mountainous hinterland.²⁵ The extensive archaeological remains of this period on Sīnīya Island may therefore be placed in the historic context of a regional ‘Hormuzi boom’.²⁶

The second main period of occupation on Sīnīya Island corresponds to the eighteenth to early nineteenth centuries (CP-3/late Islamic 1). Survey sites with material from this period were almost equally numerous as those discussed above, with sixteen sites representing 33% of the identifiable site phases (**Table 5, Fig. 12**). These include the stone-town of Old Umm al-Quwain 2, established just to the south-west and built using the robbed-out building materials of Old Umm al-Quwain 1. Again, we can posit a central place surrounded by subsidiary settlements, albeit on a smaller scale than the classical Islamic peak. It is during this period – specifically in 1768 – that Shaikh Rāshid b. Mājīd al-Mu’allā is said

²⁴ Aubin 1953; Piacentini Fiorani 2000; Vosoughi 2009.

²⁵ Velde 2012.

²⁶ Kennet 2002.

to have established a fort in Umm al-Quwain, a tradition that reflects the growing power of the Āl ‘Alī. The survey evidence lends credence to this tradition, as it is clear that Sīnīya Island was thriving in the mid eighteenth century.

Indeed, the eighteenth to early nineteenth centuries constitutes the ‘threshold epoch’ of the United Arab Emirates. This period corresponds to the beginnings of the pearl boom, a result of the expansion of the European mercantile empires and creation of a fully globalised world-system, whereby new and prosperous markets were opened to Gulf pearls.²⁷ Rising regional prosperity drove princely particularism and dynastic aggrandisement. The Banī Yās and Qawāsīm established their independence from the Ya‘rubids of Oman – who had ruled the entirety of Southeast Arabia between the 1630s and 1720s – and established two powerful tribal confederations. The Yāsī foundation of Abu Dhabi and Qāsīmī expansion of Rā’s al-Khaimah parallel the rise of Old Umm al-Quwain 2 and its subsidiary settlements on Sīnīya Island.

The mid to late nineteenth century (CP-4/late Islamic 2) is much less well represented in the survey data, with just six sites accounting for 12% of the identifiable site phases (Table 5, Fig. 12). Undoubtedly this is because the site of Old Umm al-Quwain 2 was destroyed by the British in 1820 and not subsequently reoccupied.²⁸ Instead, the focus of urban settlement – Old Umm al-Quwain 3 – moved to a neighbouring tidal island, which over time stabilised into the present peninsula that forms the south-eastern boundary of the Khawr al-Bayḍā’. Given the settlement hierarchies proposed above for the fourteenth to fifteenth centuries and eighteenth to early nineteenth centuries, we might further argue that the demise of a central place led inevitably to the abandonment of the subsidiary settlements, resulting in an empty landscape.

The major exception to this emptying of the landscape in the mid to late nineteenth century are the two towers of Mallāḥ. A fortification labelled ‘Bery Moolah’, *Burj Mallāḥ*, appears on British charts, indicating that at least one tower existed by the early nineteenth century.²⁹ The name indicates brackish water supporting conjecture that the tower originally guarded a well serving the stone-town of Old Umm al-Quwain, and the chart shows a scattering of palms around the tower which might be taken as further evidence for water. A second tower was built in the course of the nineteenth century, possibly by Shaikh ‘Abd Allāh b. Rāshid al-Mu‘allā (r. 1817–1862), who elsewhere undertook the fortification of Old Umm al-Quwain 3. The site was continuously occupied and repeatedly modified until recently, serving as a country estate for the Āl Mu‘allā rulers to find rest and repose away from the town.

²⁷ Carter 2012: 109–139; Hopper 2015.

²⁸ Lorimer 1915: 669.

²⁹ Brucks, Guy 1822.

CONCLUSIONS

The archaeology of Sīnīya is remarkably well preserved on account of the fact the island was spared the ravages of urban expansion and demographic growth in the second half of the twentieth century. This fact alone makes it an important case study in the archaeology of the United Arab Emirates, the Gulf coast of which is increasingly turning into one long suburban sprawl. At Sīnīya, therefore, we have an exceptional window onto the past from which to watch regional developmental dynamics unfold over the *longue durée*. This is made all the more remarkable by two archaeological sites of outstanding cultural significance – the late antique monastery and village, and the classical Islamic town and mosque – which are now under excavation by our team and will be published over the coming years.

This paper in some sense presents a hinterland survey of these major settlements. The network of subsidiary sites, from fishing villages to lime kilns, gave rise to a transformed island landscape. Conversely, the abandonment of the population centres led to an emptying of the landscape. It is striking that virtually no survey sites were identified in the hinterland during the periods in which the major settlements fell into abeyance. There is no ‘background noise’ of low-level occupation enduring through the centuries, rather four clear episodes of occupation punctuating centuries of silence. The developmental dynamics driving these changes in the landscape will be explored in future archaeological fieldwork and historical research.

Acknowledgements

The Sīnīya Island Archaeological Project was set up by Shaikh Majid b. Saud Al Mualla, Chairman of the TAD-UAQ, in response to major development plans and following the promising results of the preliminary surveys. The project aims to document, study and preserve the archaeological record of Sīnīya Island and communicate its outstanding cultural significance to a range of local and international stakeholders. Fieldwork was funded by a Start-Up Grant from the United Arab Emirates University (UAEU). The field team is directed by Timothy Power (UAEU), Michele Degli Esposti (IAMUQ), Robert Hoyland (ISAW-NYU) and Rania Hussein Kannouma (TAD-UAQ). Project partners further include the Ministry of Youth and Culture (MoYC), the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM). We would like to thank a number of individuals for their support for the Sīnīya Island Archaeological Project, whose enthusiasm and passion for the heritage and culture of the United Arab Emirates has been fundamental for getting the project off the ground. Above all we must thank Shaikh Majid b. Saud Al Mualla who has driven the work and has been involved at every step of the journey. Moreover, we sincerely appreciate the help and support of Peter Hellyer and Hassan al-Naboodah who have brokered institutional collaborations and secured vital funding for the project.

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Table des matières

WOJCIECH EJSMOND, MARZENA OŻAREK-SZILKE The Collection of Egyptian Mummies of the University of Warsaw and their Role in the ‘Prehistory’ of Polish Egyptology	7
KAROL JUCHNIEWICZ Aynuna: A Case Study of the Changing Functions of a Hijazi Coastal Settlement from the Nabatean to the Early Islamic Period	39
ANNA URSZULA KORDAS The Inscription of Tiberius Claudius Claudianus Heterianus Engraved on a Marble Column Found in the ‘Saranda Kolones’ Castle at Nea Paphos, Cyprus	59
ÉMILIE MARTINET La politique territoriale du roi Sahourê à la lumière de récentes découvertes	75
MOHAMED MEGAHED, HANA VYMAZALOVÁ The Pyramid of Queen Setibhor at South Saqqara	103
JOLANTA MLYNARCZYK <i>Fanari</i> Hill in the Urban Plan of Hellenistic and Early Roman Nea Paphos and the Question of the ‘Two <i>Akropoleis</i> ’ of Nea Paphos	119
TIMOTHY POWER, FEDERICO BORGHI, MICHELE DEGLI ESPOSTI, ROBERT HOYLAND, RANIA HUSSEIN KANNOUMA Archaeological Survey of Sīnīya Island, Umm al-Quwain	135
MAREK A. WOŹNIAK, SZYMON POPLAWSKI Water and Fire – The History of a Mound of Ash: Water Management in Hellenistic Berenike, Its Environmental and Logistical Setting	163
ABRÉVIATIONS	189