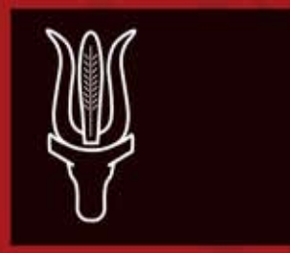
ARCHAEOLOGICAL STUDIES

ARABIA ANTICA 15

HUSN SALUT AND THE IRON AGE OF SOUTH EAST ARABIA



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Husn Salut and the Iron Age of South East Arabia

Excavations of the Italian Mission to Oman 2004-2014

edited by

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Introduction

ALESSANDRA AVANZINI, MICHELE DEGLI ESPOSTI

In late March 2004 the bases for a demanding but greatly rewarding and stimulating enterprise were set, when the original members of the Italian Mission to Oman (hereinafter, IMTO) carried out a preliminary survey in the close surroundings of the site of Salut, near Bisya in central Oman (fig. 1).[1] Although it had entered the archaeological literature not less than 40 years earlier, from this moment on the role of Salut in the understanding of South East Arabia's[2] ancient history has been radically transformed, thanks to the program of extensive excavation that has been since conducted by the IMTO. In fact, it seems that, following a preliminary reconnaissance by J.C. Wilkinson in February 1973,[3] the members of the Harvard Archaeological Survey in the Sultanate of Oman, who recorded it as site BB-15, first surveyed the site of Salut in winter 1973. Based on the surface material, two major periods of occupation were determined: "one in the latter half of the first millennium B.C. and one in the 13th-14th centuries A.D.".[4] Later, D.S. Whitcomb published the surface collection of medieval pottery.[5] In winter 1974-1975 the site was also visited by the archaeologists of the British Archaeological Expedition and was listed in their 'Gazetteer' as site 38.[6] However, none of these surveys included excavation, and the site presented itself as archaeologically pristine to the IMTO's trowels and shovels. The excavation of what is now referred to as 'Husn Salut'[7] was to last for more than ten years, finally revealing a site that has undoubtedly to be listed as one of the most impressive archaeological monuments of South East Arabia. However, new tasks await, and the project is now finding its natural continuation in the excavation of the associated, substantial Iron Age settlement of 'Qaryat Salut'.

The archaeological complex of Salut comprises sites and isolated remains spanning a wide chronology, from the Early Bronze Age to the Late Islamic period,[8] and occupies quite a large portion of the wide valley that flanks Wadi

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[1] Over more than twenty years of activity, the IMTO has been directed by its founder, Prof. A. Avanzini (Dep. of Civilizations and Forms of Knowledge, University of Pisa). During the 2004 and 2005 seasons, fieldwork at Husn Salut was directed by Prof. A. V. Sedov (Museum of Oriental Arts, Moscow). Carl Phillips was appointed as field director in 2006, until 2014. Two of the present authors (MDE and ET) supervised the final activities at the site during the late 2014 and 2015 campaigns, mainly aimed at assisting restoration works. The whole IMTO project at Salut was carried out thanks to the invaluable support of the Office of His Excellency the Advisor to His Majesty the Sultan for Cultural Affairs, Muscat.

[2] South East Arabia is used throughout to indicate the territory of modern United Arab Emirates and northern Oman, from the Musandam peninsula to Masira island. The expression 'Oman peninsula' is synonimous.

[3] Wilkinson 1977: 129. See also Costa 1988: 15.

[4] Humphries 1974: 51.

[5] Whitcomb 1975.

[6] De Cardi, Collier and Doe 1976: 145, 164.

[7] The site became initially known simply as Salut in the archaeological literature, a name that the IMTO has kept using until late 2015, when a new programme of excavation started revealing the associated settlement. This settlement has been distinguished as Qaryat Salut in order to avoid confusion with Husn Salut during the recording of contexts and finds, as well as mirroring the association of a 'village' with its 'fortress' that it seems to bear witness to.

[8] Not to mention the presence of earlier, although more ephemeral, evidence for a Neolithic occupation of the plain (Cremaschi 2007).

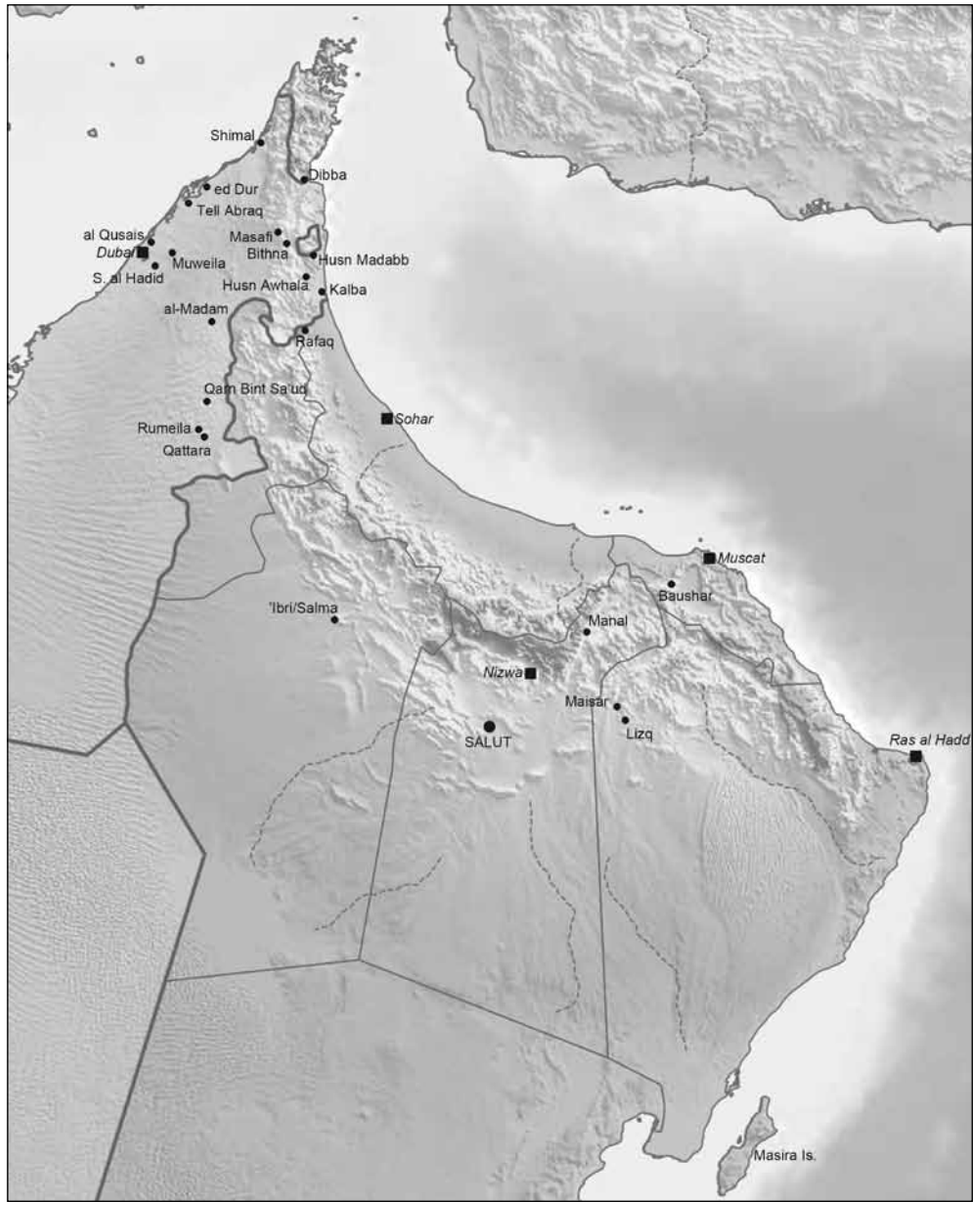

FIGURE 1 – *The location of Salut in central Oman and the main Iron Age sites mentioned in the text. Squares indicate modern towns.*

FIGURE 2 – *General view of Husn Salut in 2004, at the beginning of IMTO's work.*

Saifam, east of its course and near the point where it joins the larger Wadi Bahla, roughly 2.5 km to the northeast of the city centre of Bisya. The closest main centre is Bahla, some 30 km to the north, while the small village of ad-Dhabi stands two kilometres from the site as the crow flies, along the Wadi Bahla's course.

In the early 1970s,[9] as well as at the time of the IMTO's first visit to the area, the visual focus of such a dense archaeological landscape were the massive ruins of what appeared to be a fortress set on a rocky outcrop standing rather isolated away from the nearby hills, thus providing a privileged position for overlooking the surrounding plain ('BB-15' itself, fig. 2). Remains of structures such as stone defence walls or mud-brick features were clearly visible on the top and slopes of the hill, and it came almost naturally that the IMTO activity concentrated exclusively on this fortress during the first years of field work.

Such a choice was also suggested by the overall situation of South East Arabian archaeology at the time of the project's outset. In fact, the Iron Age period had not been studied in central Oman as extensively as the earlier prehistoric and Bronze Age periods; a situation that has not substantially changed today. It is difficult to think of any Iron Age settlements in Oman that have been studied in such detail and extension. The fortress at Lizq for example, a site that indeed shows many similar traits to Husn Salut and is possibly even larger than it,[10] was only partially investigated. Though the distinctive, often painted, pottery discovered at Lizq has represented a key assemblage for the South East Arabian Iron Age, only a very specific part of the site was investigated, and many aspects of its layout remain unveiled.[11] The excavation of Iron Age houses at Maisar (now Moyassar) and Raqi is also owed to the great efforts

[9] WHITCOMB 1975: pl. IB provides a general view of the site, almost unchanged until the IMTO's arrival.
[10] Not including the surrounding settlement of Qaryat Salut, now under excavation; see KROLL 2013: 169.
[11] Most recently, KROLL 2013.

of the German Archaeological Oman Expedition that has been working in Oman at length.[12] To these can be added the partial excavation of an Iron Age site at Manal, in the Wadi Samail area, along the modern Nizwa-Muscat road.[13] Other less extended excavations have been conducted, and several settlements have been reported, but only as a result of surveys (among them, one can recall the remarkable extension of al-Zahra 2, near Sohar).[14] In many instances the Iron Age can be represented only by burials. These can be chronologically restricted to the period itself, such as those excavated in Wadi Baushar,[15] or, more often, represent the re-use of earlier tombs, with consequent mixing of the burial goods (as for example the recently fully published al-Wasit and Nizwa graves).[16]

A greater wealth of data on Iron Age settlements was available from the United Arab Emirates, specifically from the pioneering research at Rumeila and Hili[17] and later excavations at Muweila.[18] A remarkably comprehensive program of archaeological investigation was also carried out between 2000 and 2004 in the Bithna area (Emirate of Fujaira) by the French Archaeological Mission to the United Arab Emirates, where several sites testify to a complex organization of human occupation. Although several papers have appeared over the years,[19] the final publication of this project appeared in 2013.[20] A similar program was developed by the same team in the Masafi area, at the border between Fujaira and Ras al-Khaima Emirates,[21] and is proceeding towards its final publication. Also in this case the results outlined the modality in the occupation of a well-watered area nested among small hills; the latter were preferentially, but not exclusively, chosen for the construction of buildings, in order to preserve cultivable low lands. Dated to the central and final part of the Iron Age period, the site of al-Madam (Emirate of Sharja) also provided important information on the mud-brick architecture of the period and on the subsistence of its population.[22] Unfortunately only partially published are the results of a comprehensive research program carried out along the Wadi al-Qawr, in the Emirate of Ras al-Khaima, which highlighted a complex pattern of sites, including Iron Age sites that cover the so-called Iron Age II and Iron Age III periods.[23] Other sites were excavated to a lower extent or only identified in survey reports.[24] However, none of these sites, despite an extension that is in cases remarkable (Muweila, Hili/al-ʿAin), possesses the prominence of Husn Salut's architecture, not even other hill 'forts' located, for example, at Bithna (Bithna 24)[25] and Husn Madhab,[26] close to Fujaira.

Moreover, during all these years there has been general acceptance of the three-fold chronological subdivision for the Iron Age period of the region proposed by P. Magee in 1996, mainly stemming from the results of Tell Abraq's excavation,[27] and none of the mentioned sites apparently provided evidence to revise it, which has probably largely to do with this misbalance between the data available from the UAE and those collected in central and eastern Oman, the two regions actually displaying much more different chronological trajectories than commonly thought. There-

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[12] Weisgerber 1981; 1982; Weisgerber and Yule 1999; Yule 2001; Yule and Weisgerber 1988; 2001.

[13] Elmahi and Ibrahim 2003.

[14] Costa and Wilkinson 1987: 99-103. An extensive survey has also been conducted in more recent years, among which the work carried out in the frame of the 'Transformation Processes in Oasis Settlements in Oman' project deserves mention (Häser 2010, with bibliography).

[15] Costa *et al*. 1996: 28-41, 49-71.

[16] Yule and Weisgerber 2015.

[17] E.g. Boucharlat and Lombard 1985; Ur-Rahman 1979; al-Tikriti and Haddou 2001. It must be noted that the different sites within the al-ʿAin oasis should conveniently be interpreted as parts of one and the same 'polity' (Magee 2014: 219), each distinguished by its own nature (productive, defensive/control, domestic).

[18] Magee 1996a; 2001; 2007a; Magee *et al*. 2002.

[19] Benoist *et al.* 2004; Benoist 2005; 2007.

[20] Benoist 2013a.

[21] Benoist 2010a; Benoist *et al.* 2012a; Benoit *et al*. 2012b; Benoist 2013b.

[22] Cordoba 2003; 2010.

[23] Phillips 1987; 1997; 1998a; 2001a.

[24] E.g. the Awhala fort in Fujaira (Potts *et al*. 1996; Petrie 1998), and the enclosure at ed-Dur North in Umm al-Qaiwain (Phillips 1998b; 2001b).

[25] Benoist *et al*. 2013.

[26] Courboud *et al.* 1994; Corboud 2001. It is not the goal here to provide an exhaustive list of Iron Age sites in the Oman Peninsula, but only to sketch the background against which the IMTO's initiative at Salut started. For a remarkably comprehensive list see Kroll 2013: 215-220.

[27] Magee 1996b.

fore, the relevance of Husn Salut's results lies not only in the outstanding architecture they revealed, but also in the data they provided in order to outline a different chronological development for central Oman throughout the second half of the second and the first millennium BC, as will be discussed in Chapter 10.

As excavations at Husn Salut progressed, it became more and more evident that the site was far from a usual settlement, albeit strongly fortified by a massive enclosure.[28] Only two actual buildings were outlined, the so-called Basement and the Burnt Building (see Chapters 2 and 3), appearing totally inconsistent with the necessity of housing at least as large a population as the one that would have necessarily been involved in the site's construction.

From a complementary perspective of the excavation, it thus became of great importance, after the first seasons of field work, to locate the settlement or settlements that likely gravitated around such a prominent site as Husn Salut. In 2009, a new program of surveys became included in the ever enlarging IMTO's scope, finally attaining success as a series of smaller but anyhow not negligible areas of Iron Age settlement were located (fig. 3). While the results of these surveys were detailed elsewhere,[29] worth underlining here is the fact that all these 'satellite' sites were placed along the lower slopes of other hills and rocky outcrops, thus suggesting that the more easily irrigable plain was saved for agricultural exploitation.

FIGURE 3 – *Bronze Age and Iron Age occupation patterns in the Salut plain and adjacent wadi Bahla plain. Squares indicate Bronze Age remains, rounded shapes Iron Age sites (the larger, the more conspicuous; the line around Husn Salut shows possible extension of the associated settlement, i.e. Qaryat Salut). Site names follow IMTO survey coding (see* CONDOLUCI, DEGLI ESPOSTI AND PHILLIPS *2014; also* PHILLIPS, CONDOLUCI AND DEGLI ESPOSTI AND *2011). SS11 comprise an area of field-levelling mounds (Arabic* nadud*), rich in Iron Age pottery.*

[28] See Chapter 9 for a discussion on the possible interpretation of the site's function.

[29] PHILLIPS, CONDOLUCI AND DEGLI ESPOSTI 2010; 2012; DEGLI ESPOSTI AND PHILLIPS 2012; CONDOLUCI, DEGLI ESPOSTI AND PHILLIPS 2014.

However, the location of these sites, none of which was excavated, still left the query about the location of the larger Iron Age population's houses largely unanswered. Indeed, the IMTO team discovered the solution was literally under their feet: as mentioned before, the recently started and ongoing excavation of the remaining part of the Husn Salut hill and adjacent plain is in fact revealing the large Iron Age settlement of Qaryat Salut, comprising hillside terraces and buildings (fig. 4).[30]

Its excavation, considered together with the layout and nature of the wider human-modified landscape, will hopefully provide for a more comprehensive picture of Iron Age society and contribute important information about how the settlements were sustained, their irrigation and husbandry practices, and their contacts with the wider world.

The important place in South East Arabian ancient history that Salut is achieving through the works of the IMTO's archaeologists is actually echoed in a number of legends and allegedly historiographic accounts, the most relevant of which were collected by al-ʿAwtabī in his *Kitāb al-ansāb* (the book of genealogies), of which translations and more detailed discussions have been published elsewhere.[31] Strongly suggestive is the link established between the arrival of Sulaymān bin Dawūd in Oman, namely at Salut, and the excavation of 10,000 canals over 10 days by the demons that he controlled. This episode, said to have taken place at a time when in Oman "the people were nomads",[32] could be read as mirroring the fundamental importance of the introduction of complex irrigation systems in the region. Significantly, its association with King Sulaymān would somehow fit the Early Iron Age chronology for the adoption of the *falaj* technique, now widely accepted on the basis of a number of archaeological validations, including the indirect confirmation provided by the reconstructed demographic growth during the first half of the first millennium BC.[33] In the Salut plain, a sophisticated system of water management surely existed as early as the second half of the third millennium BC, when huge ditches were excavated around the typical Early Bronze Age 'towers' that are located at a short distance from the Iron Age site, also associated with other substantial channels.[34] So far, direct evidence for Iron Age hydraulic features has not been discovered at Salut, although there are clues pointing to their existence. In particular, recent measures of U/Th rates inside calcareous tufa in form of lateral flowstones and stalactites that were cut and removed during the Islamic phase of renewal of *falaj* Shaww, yielded a date which indicates it was originally built before the 4th century BC.[35]

If this legendary episode reflects a key innovation for settlement sustainability in the region, another event said to have taken place in the Salut plain laid the foundation for the development of South East Arabia culture in historical times: the battle of Salut, opening the way for the arabization of Oman. This semi-legendary clash saw Mālik bin Fahm, the first of the Azd to move from Yemen to Oman as a consequence of the Marib dam disaster, defeating the Persians that were occupying the coast and who were based at Sohar, under the command of "al-Marzubān, governor of the king of Persians".[36] It has to be emphasised that the Persian king that this governor was serving is identified as "Dārā b. Dārā b. Bahman b. Isfandiyār",[37] a name recognized as "a mythical construct which combines the names of Bahman, son of Isfandiar, one of the early Persian mythical figures described by Firdowsi, and Dara, as Darius III, Alexander the Great's unsuccessful opponent".[38] This observation is of great importance in two instances, always bearing in mind that much caution has to be exercised in dealing with these sources.[39] First, this would date the leg-

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[30] Avanzini and Tagliamonte *in press*.

[31] See most recently Amaldi 2017.

[32] Amaldi 2017: 199.

[33] E.g. Magee 2014: 214-222, with references; see also the critical review of available data in Charbonnier 2015.

[34] E.g. Degli Esposti 2016.

[35] Cremaschi *et al*. *forthcoming*. Falaj Shaww is an abandoned underground channel running close to the abandoned Islamic village of the same name, in the proximity of Husn Salut. See also Chapter 1.

[36] Amaldi 2017: 177.

[37] Amaldi 2017: 122.

[38] Potts 1990a: 399.

[39] The inconsistency of the link with the Marib dam for example was pointed out by von Wissman, recalled by Wilkinson (1977: 126). Wilkinson himself noted that in the narrative about Mālik bin Fahm "nearly a thousand years of history have been compressed" (Wilkinson 1977: 128).

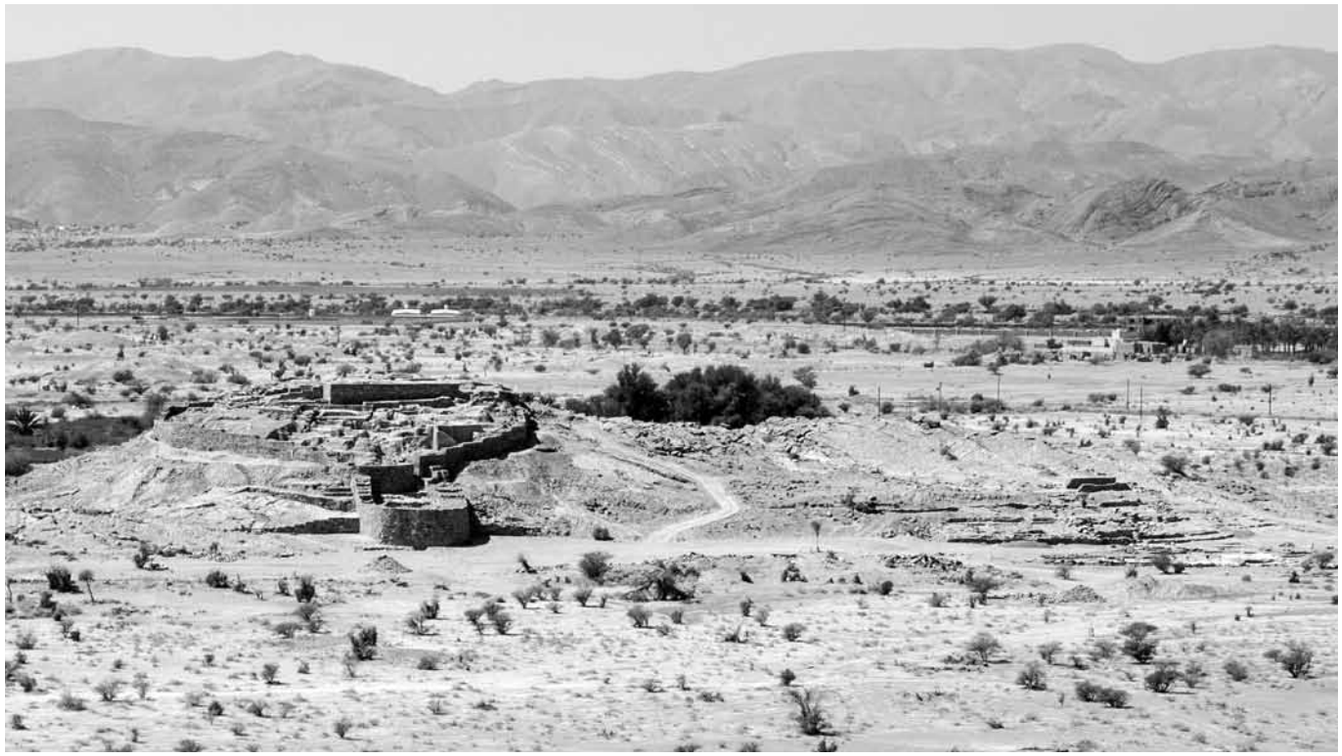

FIGURE 4 – *A general view of the new IMTO's excavation at Qaryat Salut (April 2017).*

endary Azd migration to Oman to the 4th century BC at the latest, much earlier than usually hypothesized.[40] Second, such a date would find a rough correspondence in the chronological range of some ceramic affinities evident at Husn Salut, and in the presence of South Arabian items, thus contributing to the discussion on the final date of Iron Age Salut (see Chapter 10).

Finally, it needs to be remembered that according to the Neo-Assyrian and Achaemenid written sources the Oman Peninsula was known as "the land of Qade (Kade)",[41] and that the king of this land, mentioned as a tribute-bearer to Assurbanipal around 640 BC, is said to be living in his capital, "the City of Iskie".[42] It is tempting to see in this toponym a reference to the town of Izki, not far from Salut in central Oman, an identity that has been proposed with some agreement[43] and that finds a peculiar echo in the local tradition that considers Izki to be the oldest town in Oman.[44] Archaeological surveys and limited test excavations have confirmed the presence of pre-Islamic remains, also including evidence for an Iron Age occupation that extends to the final part of the period.[45] However, what is lacking is any substantial remains that could be, from an archaeological point of view, identified as the capital mentioned in Assyrian sources. The plausible chronological correspondence between this mention of an Omani 'capital' in a Neo-Assyrian text, and the massive undertaking of Husn Salut's re-arrangement and extension in the site's phase III (see Chapters 2 and 10), gives way to some intriguing, although not verifiable, speculation, if one considers that toponyms may sometimes remain, but their geographic location may vary, or that similar polities as the one to be hypothetically

[40] See the discussion in POTTS 1990a: 398-400, specifically notes 234-235.
[41] POTTS 1985a; see also LOMBARDI 2015: 29-30.
[42] As reported in the so-called Ishtar slab, see translation in LOMBARDI 2015: 29.
[43] POTTS 1985b.
[44] WILKINSON 1977: 130, 208.
[45] COSTA 1988; SCHREIBER 2004; HÄSER 2010; YULE 2015.

identified with Izki could have existed throughout the region. What seems to be sure in fact, for the time being, is that no other Iron Age site in the Oman peninsula can become a stronger candidate than Salut for the role of Qade's capital.

The excavations at Husn Salut have already made a significant contribution to aspects of the Iron Age in the Sultanate of Oman, and in particular to a reassessment of the internal chronology of this long period, as discussed in Chapter 10. Further work at Qaryat Salut will no doubt expand upon this, and add remarkably more details also along different lines of research. Although the undertaking of the IMTO has been extremely demanding, in fact, it is clear from the initial results of its new project that much more work awaits, and this will make an important contribution to the regional, South East Arabian picture of the Iron Age period – a period that witnessed significant changes throughout the whole of Arabia.

In this report the main results of Husn Salut's excavation will be presented (Chapter 2), with a particular focus on the fundamental stratigraphic sequence revealed within the earliest edifices that were erected on the hill, namely the so-called Basement and the Burnt Building (Chapter 3). This sequence is of the uttermost importance in that it covers a remarkably long time-span, allowing the discussion of Early Iron Age chronology in central Oman and its correlation with the chronological model so far widely accepted for the whole Oman peninsula, but which is actually based on a bulk of data from the territory of modern day United Arab Emirates.[46] A first outline of the critical implications of Husn Salut's excavation for this issue was provided by C. Phillips,[47] at the time when a general update on the site's excavation was also published.[48] However, the relevance of the matter requires a more exhaustive publication of the robust data set that served as a basis for the proposed chronology, including the comprehensive illustration of pottery and other finds, and additional radiocarbon dates that complement those already published.

The latest field work in other parts of the site has yielded important results that enlighten its architectural phasing, partially modifying previous reconstructions and providing new ^{14}C dates that can be considered together with those from the Basement and the Burnt Building.

Therefore, in addition to the complete publication of the aforementioned contexts, a general outline will be presented of all the other areas of excavation, and the associated pottery and relevant objects will also be discussed at a more general level, while the most indicative finds and parallels will only be considered (Chapters 2 and 4). This outline will hopefully serve as a reference for a future, complete publication of the materials from these areas as well. For them in fact, data at hand are not as comprehensive as those for the Basement and the Burnt Building. This is due both to the nature of the contexts and deposits, often severely damaged by erosion and/or later activities, and to the extent to which the investigation was carried out in the different areas of the site. It is known that excavation necessarily entails a degree of destruction. As reconstruction and presentation to the wider public have always been among the main goals of the works at Husn Salut, in several cases it was not deemed worthwhile to proceed to further excavation, especially when the plausibly predictable results were likely going little way in clarifying key issues, and rather adding only minor details. This has been the case, for example, for the massive outer wall, specifically in its western part; of the main tower; or of the southern part of Area 4.

A detailed discussion is dedicated to the nature and diachronic development of Husn Salut architecture, undoubtedly its most striking feature (Chapter 5). Apart from the technical description of the ways in which the ancient builders faced the constraints of working on such an inconvenient building site as the hill of Husn Salut originally was, this part of the report will deal with the implications of certain specific deposits discovered inside the supporting substructure of the main wall and terraces.

Different approaches were followed depending on the different classes of materials recovered during the excavations.

Stone vessels at Husn Salut were discovered from numerous contexts, and in a number that seems not to be so common at coeval settlement sites. Furthermore, their study reveals some interesting issues that bear contribution to

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[46] Magee 1996b; see Chapter 10.

[47] Phillips 2010. The suggestion for a different chronology for central Oman was also put forward independently by J. Schreiber (Schreiber 2010).

[48] Avanzini and Phillips 2010.

the discussion on the site's chronology, specifically for what concerns its later days. Therefore, a complete catalogue of stone vessels is presented (Chapter 6), that builds on the unpublished dissertation of E. Tagliamonte.[49]

Different is the case for the copper/bronze finds. On the one hand, they were not particularly numerous, with a large part consisting of arrowheads. On the other, the recent discovery or renewed excavation of large-scale metal-working sites like al-Safa near ʿIbri[50] and Saruq al-Hadid[51] in the Dubai desert, still largely unpublished especially for what concerns archaeological materials catalogues, are dramatically changing the knowledge related to this class of materials, with thousands of objects awaiting a proper study. These actually add to the numerous unpublished finds on display in the archaeological museums of the region. Besides, several metal items from Salut come from the uppermost, mixed contexts. As such, when their typology is not safely datable *per se* to the Iron Age on the basis of existing dated parallels, any attribution would be speculative at best. Thus, the catalogue presented here was kept as straightforward as possible, with very limited discussion. Basically, it is meant to provide an overview of the typology of finds recovered at Salut (Chapter 7).

Animal bones were studied from selected stratigraphic units excavated in the Basement and other chosen contexts, in order to verify possible diachronic shifts in livestock and/or game consumption. Earlier studies of the animal bones collected from two safe contexts of Area 4[52] and from a peculiar, possibly ritual deposit in Area 1[53] have also been reviewed and their results considered in the light of new archaeozoological data presented (Chapter 8).

Other artefact categories are not so widely attested at Husn Salut. This obviously does not diminish their importance but, as general references to them can be found in a recent publication that summarizes ten years of the IMTO's work at Salut, not only concerning the Iron Age remains,[54] it was chosen not to wait for the conclusion of their detailed study, in order not to postpone further the publication of this report.

Acknowledgements

We would like to thank Carl Phillips. His passion and intuition, together with his great archaeological knowledge, have been essential help and inspiration over the fields seasons we spent together at the site.

Unfortunately, we cannot accuse him with the possible mistaken made in this work!

Several people have passed by Salut during these years. The authors' list of this book speaks for itself for the names of some of those who have played relevant parts in the Mission's achievements. Hosting the works of Enrica Tagliamonte and Marzia Sasso, who both first joined the team as students, is particular pleasant, as it mirrors the efforts to build a working group that could also offer possibilities of intellectual growth to other younger students.

Sandra Lombardi has been a wonderful (and patient) editor, and her countless advice and suggestions were, as usual, the quintessence of accuracy.

All the work done by the IMTO at Salut would never be possible without the supervision and the constant collaboration of HE Abdulaziz Al-Rowas, Advisor for His Majesty the Sultan for Cultural Affairs: his contribution to the IMTO's success is invaluable.

The Office of the Advisor has been fundamental for the good outcome of the IMTO's work at Salut. All its members, who, over the years, have worked at the site deserve mention and the warmest thanks. Dr. Said Al-Salmi, General Director, Mr. Hassan Al-Jabri, Director of Archaeological Sites Department, and Mr. Walid Al-Muzaini, representative of the Office at the site, coordinated every activity of the Office in our support.

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[49] Tagliamonte 2011.

[50] al-Bakri, Genchi and Tosi n.d. Despite the toponym al-Safa being initially used to indicate the site, and in the first communications of the results of its investigation, the correct toponym is ʿUqdat al-Bakra (Giardino 2017: 64).

[51] Most recently Weeks *et al.* 2017; Contreras *et al.* 2017.

[52] Rasile 2011.

[53] Wilkens n.d. See also Chapter 5.

[54] *Salut* 2015.

1. Geographical and environmental setting

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Geo-environmental zones of the Oman peninsula

Three prominent features characterise the geography of the Oman peninsula:[1] the sea/ocean, the al-Hajjar mountain range, and the desert.

On a physical map of the region (fig. 5), the first thing that catches the eye is the long crescent shape of the al-Hajjar mountain range, extending for almost 600 km from the Jaʿalān in the southeast to Ruʾus al-Jabal in the north, where the Musandam peninsula (Ras Musandam) closes the Persian Gulf and delimitates the Strait of Hormuz as the gateway to the Arabian Sea. Its average width oscillates between 30 and 50 kilometres, with points were it enlarges up to 90. Maximum heights are found on Jabal Shams and Jabal al-Akhdar, almost in the middle of the range, where the altitude is around 3000 metres.

The barrier represented by these mountains, separating the eastern coast and adjacent plain from the piedmont plain on their west, is more apparent than real. In fact, all along the mountain ridge a series of wadis dissect the hills' sides following fault lines, thus providing relatively easy transit routes. Studying the settlement networks that developed along these routes,[2] both from a diachronic and a synchronic perspective, is of particular interest for understanding how fully-evolved an integration existed between the coast and inland Oman, a tight link that can be traced back at least to the V millennium BC.[3]

The main trans-mountain itineraries are, from north to south, the corridor connecting Fujaira with the western coast along Wadi Ham and then via al-Dhaid; Wadi Jizzi together with its bifurcation into Wadi Suq, connecting the oasis of al-ʿAin (nowadays split between the UAE and the Sultanate of Oman) with the port of Sohar; the Wadi Hawasina-Wadi Kabir system, connecting central-northern Batina with the area of Yanqul and Dank, and further southwest to ʿIbri; Wadi al-Fulaij, connecting the port of Sur with the northern end of Wadi al-Batha. Another, neatly wider

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[1] From a strictly geographical point of view, the use of the term 'peninsula' to indicate the territory of modern United Arab Emirates and northern Oman is rather inappropriate (cf. Yule 2016: 31-32): the only real peninsula is that of Musandam at the southern end of the Persian Gulf. However, 'Oman peninsula' has become a widely favoured expression in the literature, and can find some explanation. In fact, the desert belt formed by the eastern fringes of the Rubʿ al-Khālī and the Sands somehow separates this relatively densely populated area from inner Oman and Saudi Arabia, communication being allowed by the southern and northern coastal corridors and the central corridor that connects Nizwa to Salala. Hence, the UAE and northern Oman result in being more oriented toward the Persian Gulf and the ocean than toward the opposite side of the Arabian Peninsula, a situation that is partly mirrored in the archaeological records, at least from the Bronze Age to the Iron Age (although for the latter period some elements could indicate contacts were less ephemeral than usually believed – see Chapter 11; for a concise overview on the middle and long-range connection witnessed at prehistoric Salut, see Degli Esposti 2015a).

[2] See for example Wadi al- Qawr in the Emirate of Ras al-Khaima (Phillips 1987; 1997).

[3] Cleuziou and Tosi 2007: 7.