

DHAMAR PROJECT

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Introduction

In the fall of 1996, we carried out a very successful campaign of survey and excavation in the mountains south of Sanʿa, Yemen, continuing the work reported in last year's *Annual Report* (see the section entitled "Oriental Institute Investigations in Yemen: Progress Report"). The most important finding was the existence of towns at an earlier date than has been hitherto been demonstrated for southern Arabia. Traditional scholarship regards the first Arabian towns as being the direct result of growth stimulated by the frankincense trade between southern Arabia and the Mediterranean during the first millennium BC, roughly coincident with references to the Queen of Sheba (or Sabʿa). However, the 1996 field season demonstrated that towns developed much earlier, slightly before 2000 BC. Rather than growing up in the arid valleys fringing the Arabian desert, as was the case for the Sabaeans

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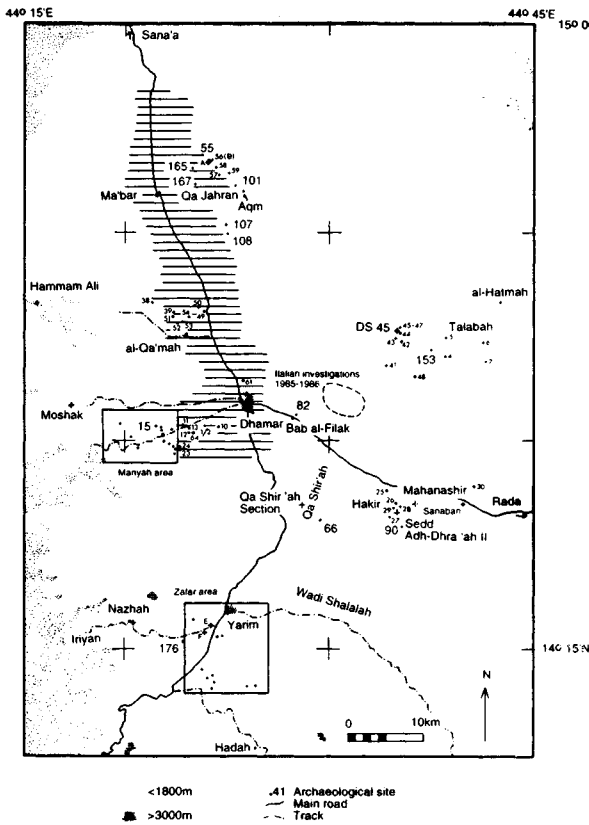


Figure 1. Map of Dhamar area

Institute who contributed to the project budget, especially to one major donor. Without these donations, fieldwork would have been impossible. In San'a, we must also thank Dr. Noha Sadek, Resident Director of the American Institute for Yemeni Studies, who helped with advise and logistical support throughout the field season.

Our primary goals during the 1996 field season were to improve our knowledge of early town development on the Yemen high plains and to supply additional information on the early stages of growth of terraces. Chris and Julie Edens were separately funded by a grant from the American Institute for Yemeni Studies (AIYS) and were thus able to investigate a major Bronze Age town, Hammat al-Qa (DS 101), discovered in the previous field season. In addition they extended the 1995 soundings undertaken at the multi-period site of al-Sibal (DS 66) in order to obtain additional dating evidence for the earlier phases of that site (fig. 1).

Bronze Age of the High Plains

Ever since the pioneering work of Alessandro de Maigret in the early 1980s, it has been known that Bronze Age sites did exist in Yemen and that they were occupied as early as the first half of the third millennium BC. However, these straggling vil-

trade towns, these earlier centers developed on the more verdant plateau to the southwest, at elevations in excess of 2,000 m.

The 1996 field season took place in late October and November 1996. The team was again based in Dhamar, this year staying in a house nearer to the old *suq*, and conveniently close to the house of our long-term representative Ali Sanabani. In addition to ourselves, the team comprised Christopher Edens, his wife Julie Edens, and our two representatives, Ali Sanabani and Khalad al-Ansi, who provided assistance at every stage of work. We wish to acknowledge the full and generous cooperation of the General Organization of Antiquities, Manuscripts and Museums, San'a, especially Dr. Yusuf Abdullah, for speedily granting permits and necessary papers to permit fieldwork to go ahead according to plan. We are particularly grateful to members of the Oriental

lage-scale communities were recorded in the more arid part of the highlands. It seemed natural to expect the more verdant highlands around Dhamar to house much more extensive remains of Bronze Age occupation. It therefore came as no surprise that following our discovery of such sites in 1994, we were finding more and more Bronze Age sites during 1995. They then became positively common during 1996. Such sites were not only larger than their counterparts to the northeast, but also they were more organized, so as to be recognizable as towns.

By this we mean

- a. These sites were characterized by a dense scatter of buildings, usually rectangular (fig. 2), laid out over as much as 4–5 ha (1 ha = 10,000 m² or 2.47 acres).
- b. One site (DS 101) was surrounded by an external defensive wall with gates. A second (DS 66) also showed signs of an outer wall (fig. 3).
- c. There was evidence for a settlement hierarchy in the form of large central settlements, with occasional outlying “satellites” that might have been either subordinate or at least less populous communities.

On the other hand, as yet, we have no sign that any of the sites had large public or religious buildings. Given the limited scale of our excavations, this absence is hardly surprising.

It is not yet clear whether such large communities occurred over the entire area of the Yemen highlands or were restricted to certain areas. Within the Dhamar survey region, large Bronze Age settlements appear to be more common within the semiarid fringes, whereas to the south and southwest, where rainfall is higher, such sites paradoxically appear to be less frequent. However, this may simply be because, in the moister areas, agricultural terracing has been better developed so that archaeological sites have been progressively dismantled in the quest for building stones or covered up by the growing terraces. If the concentration of large early sites in the semiarid area is a real phenomenon, it is possible that they developed for a specific reason, namely as gateway communities that grew up at the boundary between the arid semi-pastoral zone to the northeast and the moister sedentary zone to the southwest. Settlements in such zones often grow in response to the greater prosperity that is generated by trade between the communities in these different zones. They therefore

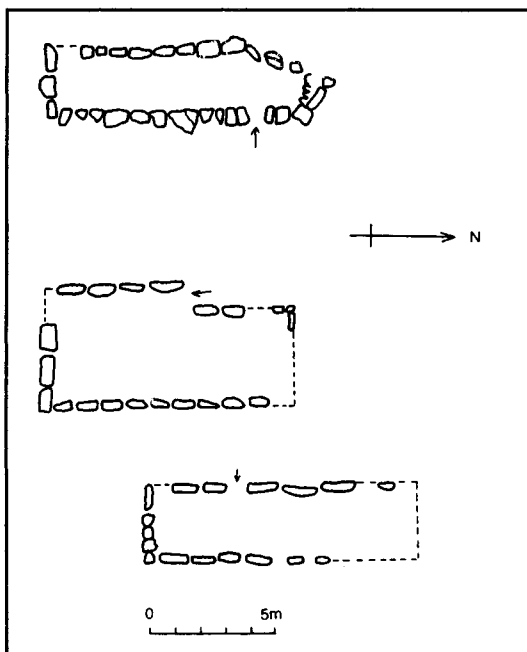


Figure 2. Bronze Age long houses from DS 187

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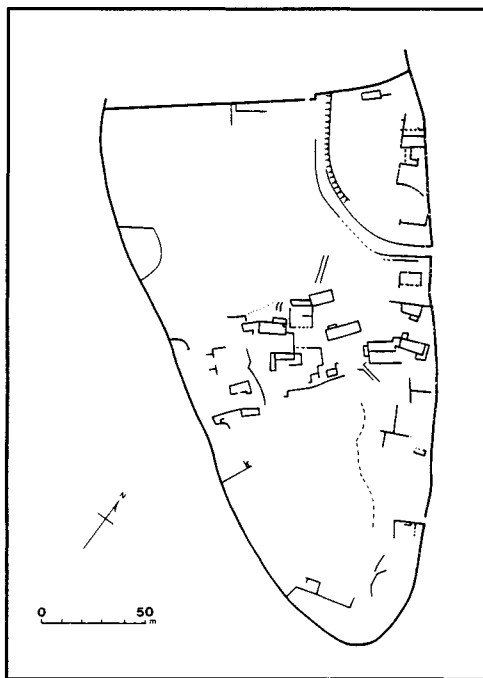


Figure 3. Plan of the Bronze Age site of Hammat al-Qa. By Chris and Julie Edens

sites appear as well-laid-out communities, with a few rough subrectangular dwellings and other structures within compounds (fig. 4). The middens yielded classic examples of Khawlan type pottery (fig. 5), which suggests that these smaller, village-type sites actually relate to those within the area of Khawlan, rather than those of the high plateau with which we have been dealing.

Because these smaller sites have only been subjected to surface collection rather than excavation, we can only date them ceramically. The equivalent sites to the northeast in Khawlan have however been excavated and have provided dates that span the third millennium BC (fig. 6). Although roughly contemporaneous with al-Sibal (Site DS 66, near

prosper as a result of their position at a point where exchange of goods is most convenient.

Although these Bronze Age sites grew up, approximately at least, during a period when the ancient Near East could be seen as part of a great, loosely interlinked group of trading systems, there is no evidence that the highlands of Yemen belonged to such a "World System." Not only are ceramic parallels with other parts of the Near East fairly tenuous, but also other links with the outside world appear to be minimal. To date, the only trace of contacts outside the area is the presence of a single marine shell found on the surface of a Bronze Age site near Bawsan, towards the north of the survey area.

Interestingly during the 1996 field season, in the most arid northeastern part of the area, we started to find traces of smaller village-scale Bronze Age communities, analogous to those found by the Italians in Khawlan. Although small, such

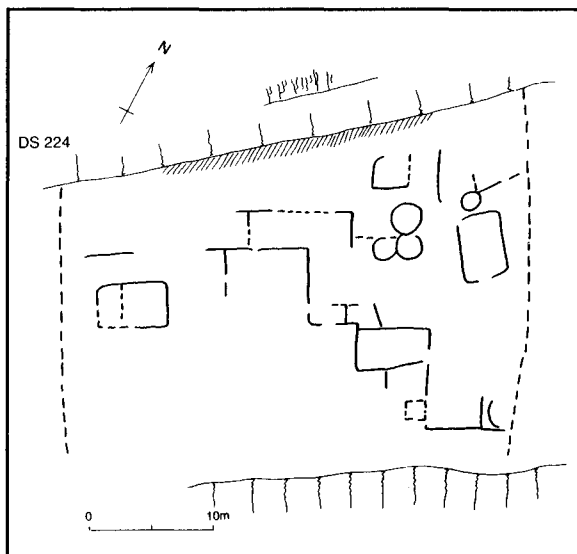


Figure 4. Sketch plan of the small Bronze Age village at DS 224

Dhamar), the Khawlan sites are slightly earlier than Hammat al-Qa (DS 101), the large walled town on the plateau, which appears to have been occupied around 2000 BC. It is therefore feasible that sites such as Hammat al-Qa actually developed at the expense of the smaller Khawlan type sites, which were occupied during the third millennium and then declined towards the close of that millennium. In other words, the growth of Hammat al-Qa could have been fueled by the decline of smaller sites to the northeast. At this point our deductions stray into the world of environmental determinism, that dangerous area where one can perceive human communities as responding solely to environmental factors. This perception is encouraged by the fact that it is during the later part of the third millennium BC that the Indian Ocean monsoon appears to have been weakening, so that rainfall in the highlands decreased. As a result of these global environmental changes it could be argued that those marginal settlements nearer to the desert had to be abandoned, and the occupants shifted west to the moister highlands, where they joined and enlarged the preexisting communities to form proto-towns. Although such ideas are tantalizing, we know that human communities in ancient times had many ways of coping with the uncertainties of their environment. These may have included increased irrigation, development of runoff agriculture, or a changed emphasis upon pastoral resources and so on. Conse-

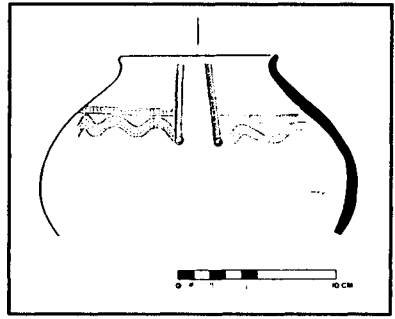


Figure 5. Bronze Age pot from DS 224

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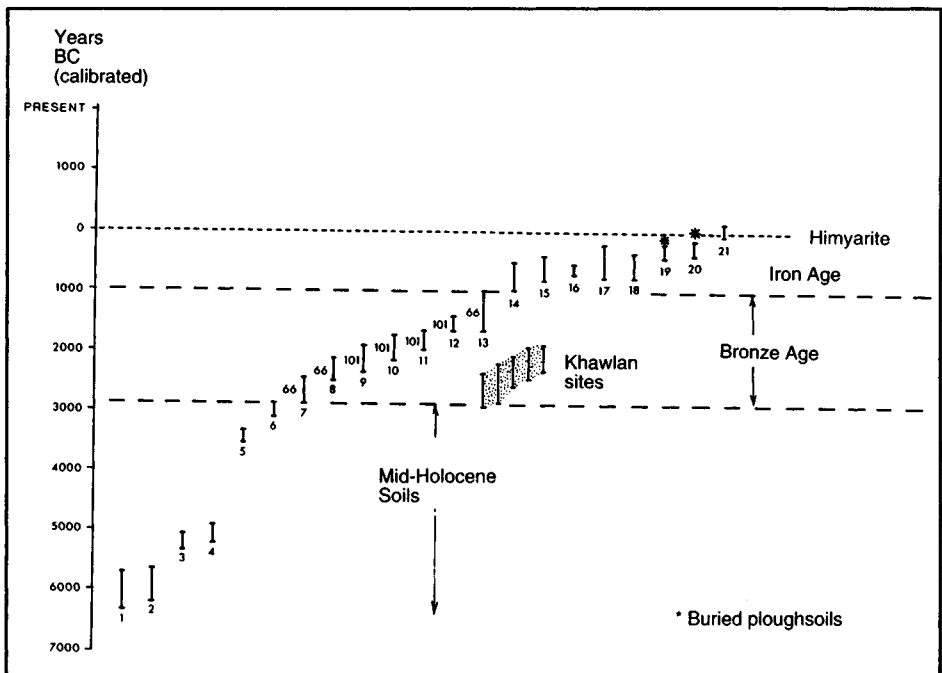


Figure 6. Radiocarbon dates from sites and soils in the Dhamar area

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Figure 7. Iron Age-Himyarite site of DS 198 viewed from nearby hill

ment apparently continued through the second millennium BC, into the Iron Age, towards the close of which the area became more integrated with global systems of trade. It was at this time (about one or two centuries before the Christian era) that the Himyarite state developed. The 1996 field season provided more evidence for Iron Age and Himyarite towns, as exemplified by the walled towns sketched and described in *News & Notes* 154 (Summer 1997; see figs. 7–8). In addition, at two sites pits exposed sections up to 3 m deep through remains of stratified occupation layers that yielded finds of typical Himyarite type. Such trenches were not excavated by the Oriental Institute team, but rather by village people seeking to enlarge their houses or dig wells. One particular site — Bawsan in Hada — provided not only a range of finds, such as bronze bowls, stone bowls (fig. 9) and Himyarite inscriptions, but also the large bath area illustrated (fig. 10). This group of tanks was cut into the soil (whether a natural stratum, earlier archaeological levels, or bedrock, we do not know) and was associated with a large building made of well-cut typically Himyarite stones, presumably a type of ritual baths. Such finds underscore the cosmopolitan sophistication of the Himyarite communities, examples of which were

quently it would, at this stage, be unwise to argue for major shifts of population from the small number of dated sites that are known to us at present.

Iron Age

Nevertheless, as the chart of radiocarbon dates makes clear, we now have sufficient radiocarbon determinations to demonstrate that settle-

first brought to the notice of Oriental Institute members by Raymond Tindel in his campaigns at the Himyarite capital of Zafar.

Conclusions

It is now evident from three brief field season that the Yemen high plains were well populated back to the third millennium BC, that town size settlements



Figure 8. Iron Age-Himyarite gate at DS 212, with Khalid al-Ansi as scale

existed, and there was almost certainly continuous occupation up to the present day. However, we are only beginning to sketch the development of early communities in this region. We still need to extend our knowledge of the original inhabitants of the plateau and to trace the early development of terraced fields. Progress was made in 1996, both

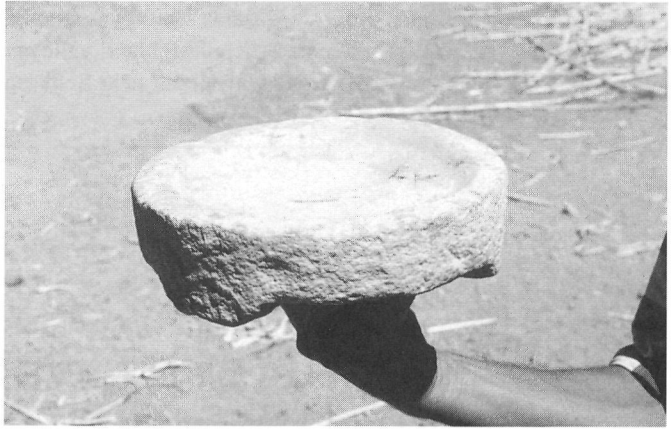


Figure 9. Stone bowl from Himyarite site of Bawsan

in the excavation and dating of terraced fields, and these now seem to date back until around 2000 BC. However, we still need to obtain radiocarbon dates for the earlier phases of fields and to try to link their use with the development of settlement in the highlands. This information will then enable us to determine whether the growth

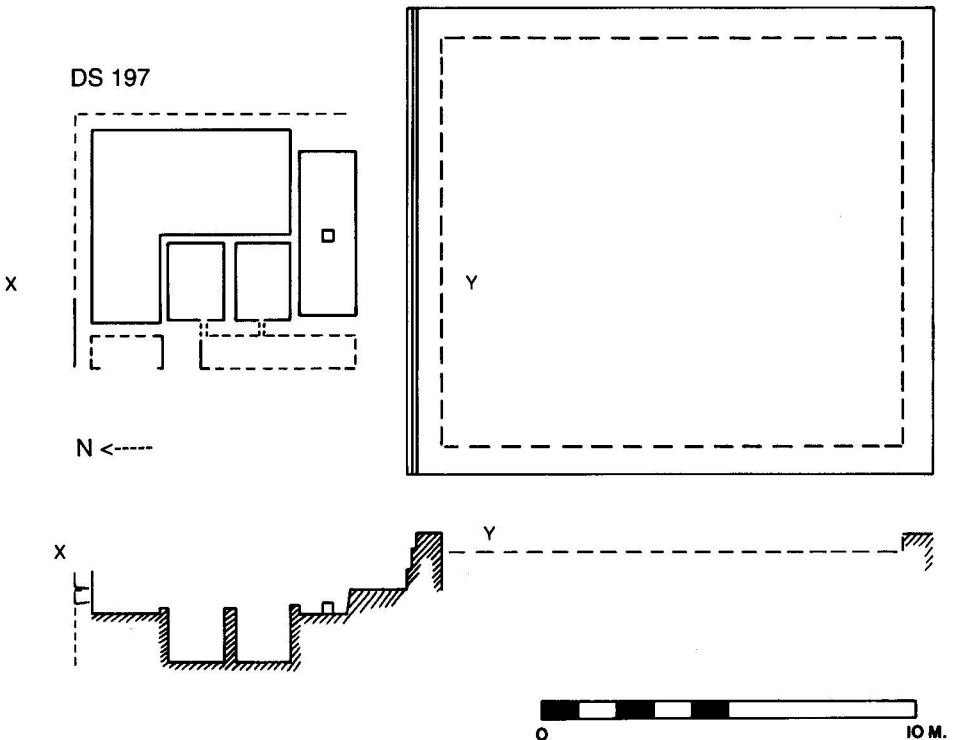


Figure 10. Possible ritual bath (to left) attached to large Himyarite building at Bawsan

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of the typical flights of terraced fields really was stimulated by the growth of settlement and population within restricted highland valleys. The answers to such questions, and numerous others, must await our next field season scheduled for February and March 1998.
