

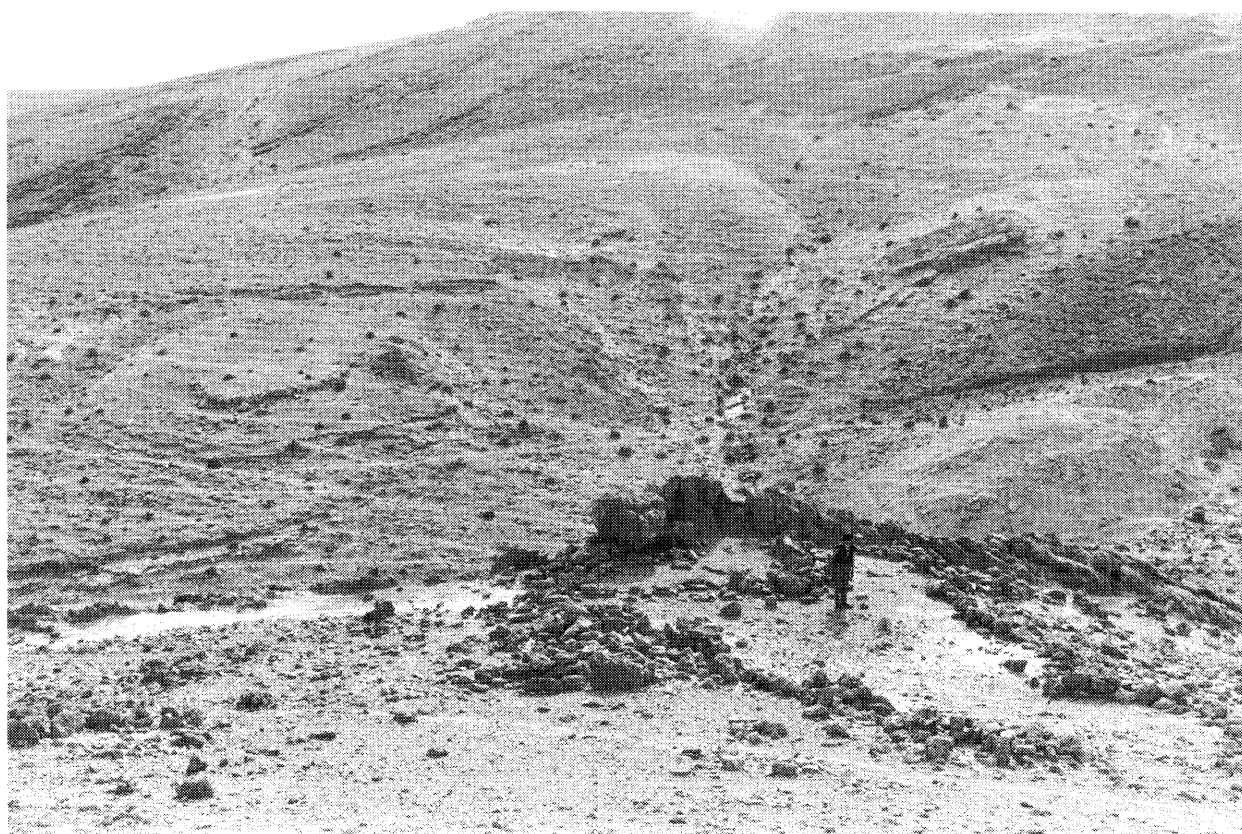
systems? Most of the sites are of very simple form and have no more than three or four rooms. A few sites comprise only circular enclosures. However, several more complex settlements exist in a particularly notable concentration of sites centred on a Bronze Age slag and furnace waste deposit (WF524, UTM 36 R 0736000/3391800; Fig. 6). If these three groups of sites are contemporary in use within the Early Bronze Age (and at this stage of our analysis that must be very speculative), then we may be seeing three different archaeological complexes linked to three overlapping but diverse economic orientations: agricultural, pastoral and metallurgical. It is hoped that further analysis will clarify this situation, but what is clear for the moment is that the systematic mapping and recording of the grid squares here has produced evidence for a previously unsuspected density of well-preserved later prehistoric sites. Interestingly enough, the evidence of Nabatean/Roman/Byzantine activity in this part of the landscape is much more restricted than elsewhere, though both on the southern and northern fringes of

the main field system there are structures of these periods associated with agricultural use, though seemingly on quite a limited scale.

#### **Ethnoarchaeology (CP, HS)**

This year's ethnoarchaeological fieldwork focussed on the examination of contemporary and recent pastoral sites in the Wadi Faynan area. The aim was to determine the form and arrangement of local Bedouin camps and how they are used and understood by their occupants. The results of this research had immediate implications for the recognition of Bedouin camp sites by survey team members. Another important component of this year's fieldwork was the collection of sedimentological samples from recently-abandoned camp sites.

The winter of 1998–99 was more than usually dry, the area receiving approximately one-third of average precipitation (Tariq Abu-Hawa, pers. comm.), and the shift from winter to summer locations was



**Figure 6.** Site WF789, a complex of rooms and enclosures probably of Early Bronze Age date according to surface artefacts, situated immediately below WF524, a deposit of slag and furnace waste of Early Bronze Age type – a site geared to metallurgical processing? Looking west. (Photograph: G. Barker).

already underway when the team arrived in the field in April 1999. Families move to the highland plateau in search of good grazing and cooler living conditions, although many families also stay in the vicinity of Wadi Faynan, or delay moving until the end of the school year. In contrast with spring 1998, recently abandoned winter camp sites were a common feature of the landscape (Fig. 7). In addition, next to some former camps carefully rolled-up winter tents, complete with tent poles, could be found, indicating the intention to return later in the year.

During the 1999 fieldwork over 70 currently occupied or recently occupied tents were visited, usually accompanied by a local informant. Observation and questioning formed the basis of the understanding of camp structure and site formation. For each camp, the position, spatial arrangement, and orientation were recorded alongside common key features. In addition, a number of sites was described in greater detail and sedimentological samples were taken from three camp sites. Camps

take distinct forms, according to their season of occupation and the social affiliation and structure of the family working and socializing within them. The focus of any camp, however, is its central tent.

The most common form of Bedouin tent, *bait sha'ar* ('goat-hair tent'), has three centre poles allowing the tent to be divided into four possible sections. In winter, a common arrangement is to divide the tent in three and shelter goats overnight in one half of the tent, dividing the other half into men's and women's sections (Fig. 7). The men's section is where guests are received and its main feature is an excavated central hearth, the men's hearth, which may be stone-lined (Fig. 8). As soon as guests arrive, mattresses are placed around the hearth and coffee, or more usually tea, is prepared. The dregs of the drinks and water used to wash the cups are frequently splashed around the edge of the hearth, helping to form a hard surface. There is another hearth in the women's section, where food, particularly bread, is cooked. Three stones are usu-



**Figure 7.** The typical site of a winter Bedouin tent (*bait sha'ar*) in Wadi Faynan (WF953), in the final stages of removal. Gullies to direct rainwater away from the cleared men's and women's sections are clearly visible. The men's hearth is under the tent poles to the left of the photographic scale. The women's hearth is in the far left-hand corner of the cleared area where there are fire-blackened stones. To the rear, there is a thick, dark accumulation of animal dung – evidence of housing the goats in the tent at night. Scale: 1 m. (Photograph: C. Palmer).

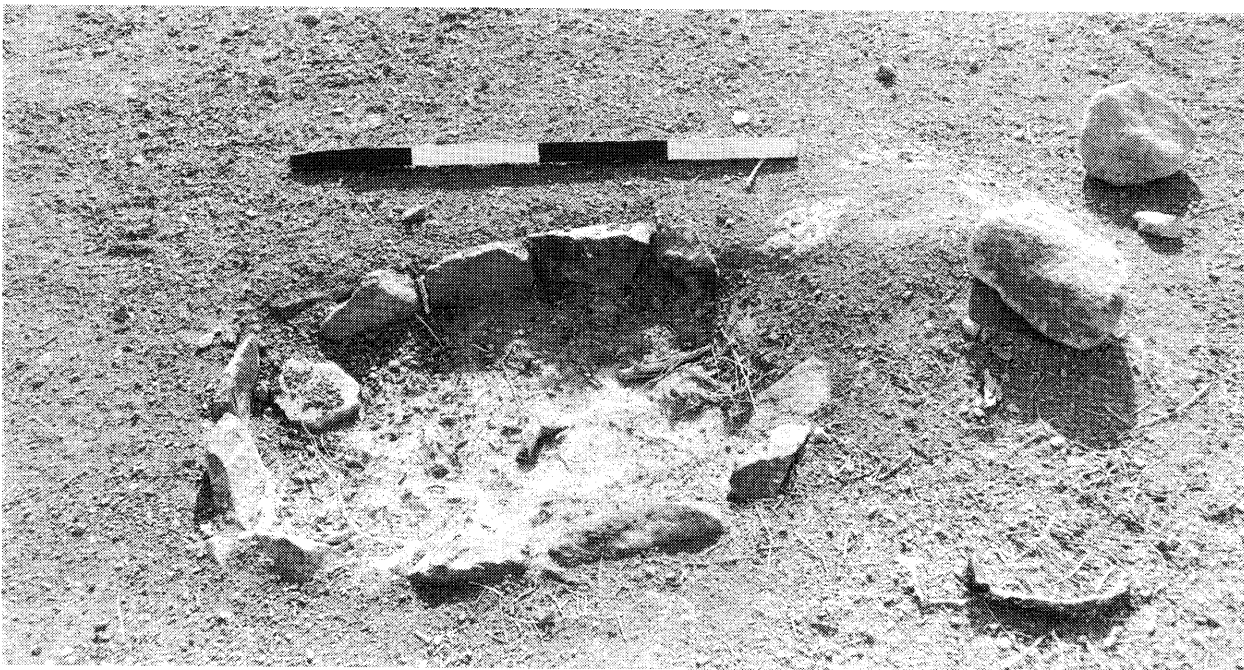
ally placed at the edge of this hearth to form a stand for a bread-tin or cooking pot (Fig. 9). The women's hearth is usually offset to one side of the tent and, again, the edge of the hearth is hardened from water splashes and frequent trampling. Women sleep in their section, and the men in the men's section, but bedding and mattresses are stored in the women's section, against the cloth which divides the two sections. Mattresses are often stored on a raised platform made from large stones and some groups define an adjoining sleeping area with stones as well. Drainage gullies are often cut around one side of a winter tent, in particular, to direct rainwater away from living areas. The same tent form is described by Banning and Köhler-Rollefson (1992, 193–5) in their survey of camps in the Beidha area, near Petra.

Goats require overnight penning or housing within the tent during winter to protect them from winter storms and to prevent them from dispersing into the mountains to seek shelter for themselves. This penning creates an accumulation of dung, which quickly forms into thick slabs. Where goats are sheltered within a tent, this accumulation eventually becomes so thick that the occupants choose to shift location, and tents of this form are relocated at least once per winter. Movement is also influenced by the availability of grazing, although many families today depend upon supplementary fodder

during the winter. Where animals are penned outside, the *bait sha'ar* can be divided only between men's and women's sections, with the men's hearth at one end of the tent and the women's hearth and kitchen area at the other. The centre sections are then used as sleeping sections. This tent form is one that can be used in both the winter and summer seasons.

In late spring and summer, as the weather becomes increasingly hot, people swap their goat hair tents for cooler tents made of sacking and, if summering in the Wadi Faynan area, move from sheltered wadi-edge terraces to cooler, breezier, ridge-top locations. Animals are not penned, although tethers may be used, and summer camp sites are more ephemeral in their nature than winter camp sites (Fig. 10). Tea-making and cooking are frequently undertaken outside the tent.

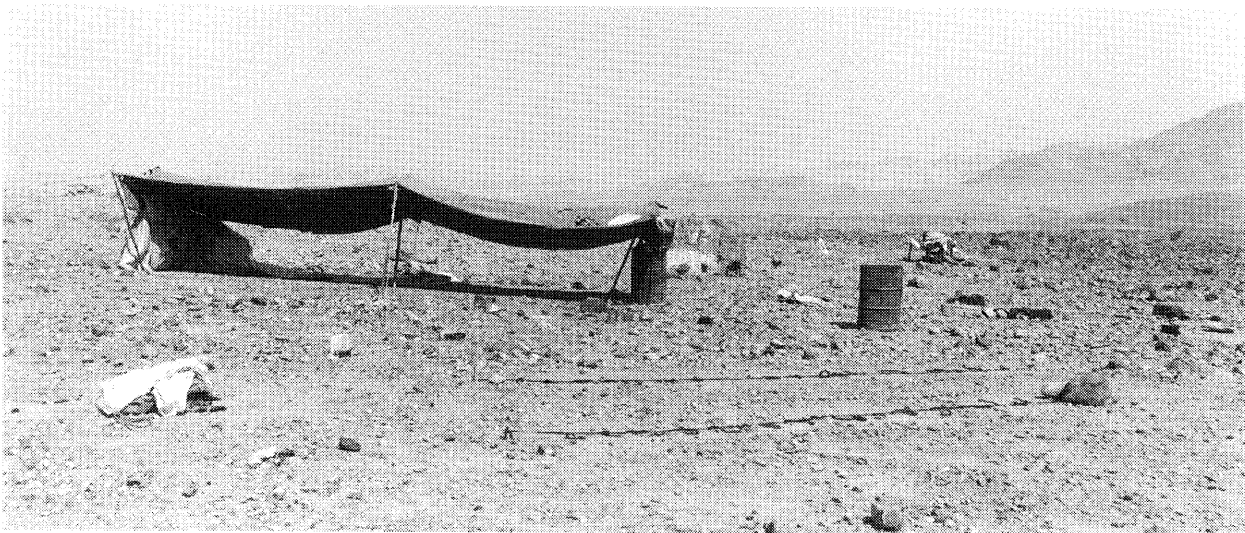
There may be more than one tent in any camp, and not all tents take the classic form with three centre poles. Tents can be smaller, with just one or two central poles, or they may be larger, with four central poles or even more. There is always one main tent, however, within any camp containing a men's section, with a men's hearth, where guests can be received. Camps possess a number of supplementary structures such as chicken coops, sun shades, and a variety of features associated with the storage of fod-



**Figure 8.** A stone-lined men's hearth on a tent site abandoned approximately three years ago. Scale: 1 m. (Photograph: C. Palmer).



**Figure 9.** Sampling ash from a women's hearth. Note the three blackened stones (one of which is fire-cracked) used to support a bread-tin or cooking pot. (Photograph: C. Palmer).



**Figure 10.** A typical summer tent site in Wadi Faynan (WF935), with a lightweight tent made of sacking. Note the goat tethers, spun from goat-hair, in the foreground. Old oil drums are used for storage and rubbish disposal. (Photograph: C. Palmer).