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DEFORESTATION BEGINS AT HOME: Iran: Qal'eh-i Yazdigird,
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Fig. 1. Bellows nestled up against bedrock next to dig-house.

When our kitchen-help, rounding a corner, needed assistance to stop the wind blowing tea-mugs off a tray, I thought that my experience of Kurdish winter was complete. Later, when even, the sheep couldn't go out to graze because it was too windy and wet, I had cause to question the wisdom of a winter season. In October and November it had been glorious weather. With the local figs, walnuts, and pomegranates in season, and

with cosy Indian summer temperatures, the troubles outside of our mountainous valley seemed very remote. But in January we were living just below the snow line. Also, a revolution was under way. Strikes in the oil industry, which were causing politicians in the West to express concern about possible future cut-backs in imports, were having a far more immediate impact on the home country; no kerosene for cooking or heating; and no bottle gas either. With the now unheated work-room clinging to a cool 45° in the mornings, there was reason for concern. Formerly known to us only through the Victorian novel, chilblains became an experienced reality.

Of course, to experience the realities of the climate has immeasurable value for the archaeologist. Because of the normally



Fig. 2. Fissure on the far right holds decorative facade inside.

good winter precipitation, the western Zagros mountains have supported healthy forests since time immemorial. This is surprising to those who have never visited the country and think of Iran as a desert; it is surprising even to visitors who have only travelled the arid plains and parched valleys during summer. While there is little evidence to suggest much climatic change over recent millennia, it is fairly reasonable to assume that there has been heavy cutting of native forests, followed by the destructive grazing of sheep and goats.

This has been particularly true in areas adjacent to large, permanent (urban) settlements. With such a poor summer rainfall, the land is environmentally very sensitive. Once denuded of their hardwoods for charcoal, the forests were never able to recover. Ironically, it might be fair to say that one of the reasons why, after mediaeval times, the Middle East failed to maintain its position as a leader of scientific knowledge and industrial expertise was the lack of fuel.

When our oil and gas supplies began to dry up in December, the R.O.M. expedition turned to the surviving hardwoods of the Zagros. A donkey load of wood, if used sparingly, would last for two or three days. It was already seasoned, because the villagers normally take only dead limbs. The same fuels were certainly used in antiquity. A feature excavated in the alleyway next to the dig-house turned out to be a bellows (for a furnace).—There were large pieces of hardwood charcoal in and around the feature. At first glance, the charcoal was identical in structure with that used by our female help to bake our bread. The ancient feature dates from around the Seljuq period, probably 13th century A.D. From the presence of the bellows in the alley, it would appear that in 1976 we chose to build the expedition house in the area of the Seljuq (village-sized) settlement. This village can be judged perhaps to be about the same size as the basin's modern settlement of approximately 700 inhabitants. The ancient village is represented by nothing more than a scatter of potsherds in the terraced fields, and the chance survival of a feature like our bellows, which was preserved in a pocket of soil behind a large bed-rock boulder.

Occupation on a far grander scale - during the Parthian period of the first two centuries A.D. - had been the original reason for the R.O.M.'s on-going project. The grand dimensions of the fortified site and its fancy stucco-decorated pavilion have been described in previous Newsletters. This past season we were able to continue our examination of the stuccoed pavilion, but in a slightly different way. Since the

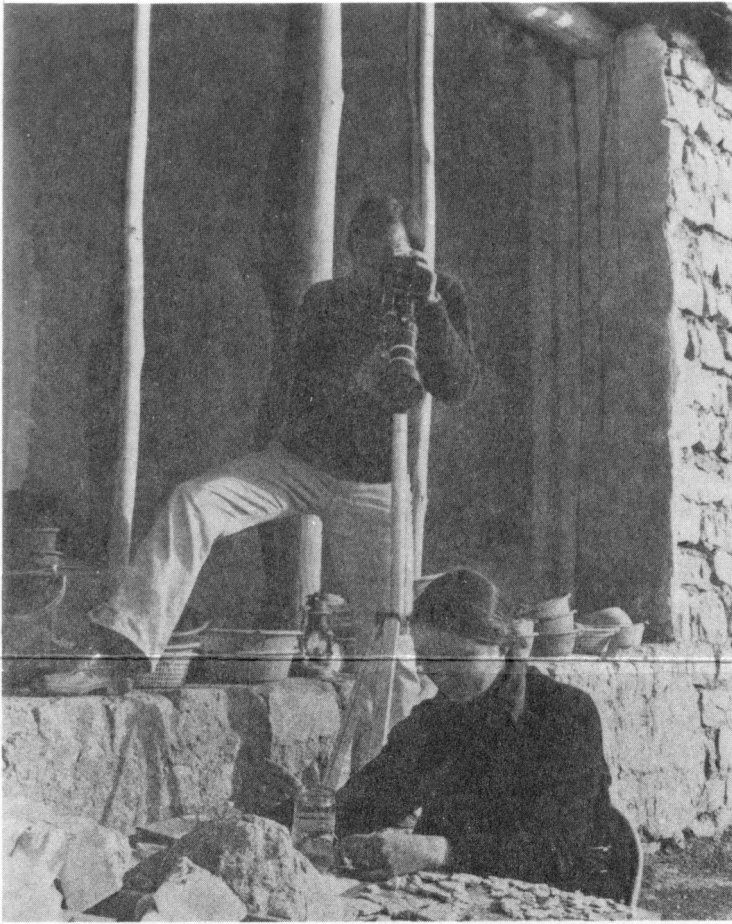


Fig. 3. On location: Bill Pratt photographer, Mimi Leveque conservator.

political situation prevented our taking advantage of a budget promised to help us with the restoration work, we deliberately avoided the area where large quantities of fallen stucco decorations are known to exist below ground. Instead, our attentions were directed towards the other side of a gulley (but still within the once-gardened enclosure), where surface features suggested there were much more menial storage and residential quarters associated with the fancy building to the east. The discovery of an arched cloister seems to have knocked that theory into a cocked hat. Its presence speaks of a much more extensive and grand complex than was previously expected. The gulley turns out to be largely due to erosion, having been formed by abrasive run-off after the site's demise. Both sides of the gulley are in fact much more part and parcel of the same complex than was first suspected.

Our probes also revealed that we should probably extend beyond a modestly suggested 50 year life the time span during which the building can be considered to have been maintained in a major way. There was at least one massive rebuilding project, involving repairs to sizeable blocks of masonry. The clue to all this lies in the enigmatic block of rubble and stone masonry which dominates the Gach Gumbad site. Seemingly shapeless, and inexplicable, the block had previously retained the attention of only the romanticists amongst our midst. The pragmaticians used it as a convenient high point for survey triangulation. It turns out in fact to be two blocks.

Sheltering in a fissure in the side of the block during those awful January rains, and not distracted by the blinding bright light outside that one would have in summer, our architect realized that he was looking up at a decorated facade - but in reverse. Originally the block had been a smaller block. It had been decorated with an articulated facade very much in the same manner that we had encountered in a room in the central part of the pavilion. For some reason, at a later time, another mass of virtually identical masonry had been thrown up against the outside of this facade. In time, the addition pulled away from the original, creating the fissure. But it also pulled away the original plaster decoration, so that it adhered to the back of the addition in reverse. These decorations include the portrait of a male, with distinctively bunched hair-style, which in a larger version we had jokingly labelled as the portrait of the owner of the mansion. The smaller ver-

sion now becomes (jocularly) the "younger son". To join the family, we also have another portrait which is that of a female in a tunic. Her garment is based on a Greek style of dress, but the beaded edging gives it a local touch. Perhaps we can label this picture as the portrait of the "madam" of the mansion.

Gach Gumbad was not the only area worked this past season. In October, as a way of easing the expedition into the heat of late summer, our attention focused upon a mound of stones that reportedly our foreman's grandfather had cleared from the fields. The heap indicated that there was probably something beneath it too large to move. It seemed a good idea to take a look to increase our knowledge of features outside of the area of the stuccoed pavilion. It was also a sneaky way of getting more loose stones to build up the expedition compound wall to give us all a greater feeling of security.

It turns out that the structure beneath the heap - now called Qal'eh Dawar or Dawar's Castle, in honour of our foreman - has a chahar tag or four pier-and-arch plan, such as one would normally associate with a classic Sasanian fire-temple (ca. 250-650 A.D.). Whether that transpires to have been its original function remains for future seasons to prove. What is clear is that at some point in Islamic times (i.e. post 650 A.D.), the structure was modified by the addition or re-use of rooms adjacent to the hypothetical central shrine. From the academic point of view, the discovery of a stone cylindrical roof-roller was a neat find. It meant that the additional rooms had flat roofs, while the chahar tag can be assumed from its form to have been domed. From the practical point of view, in January, after snow actually fell on the expedition compound, it meant that we were able to perform the customary obligatory roof-rolling with our own pre-Seljuq roof-roller. The Qal'eh Dawar rooms, with their erst-while flat roofs, contained heavy deposits of ash and charcoal. The debris suggests some modest form of industrial activity, because the ash contained numerous fragments of glass. The source of the raw material for the glass is not known; the fuel was clearly Zagros hardwood.

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