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Ḥafār, Capital of Ḥimyar, Fifth Preliminary Report,
February–March 2005¹

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Abstract: In February-March 2005, the joint University of Heidelberg-Yemen team conducted a season of mapping Ḥafār. Major tasks included the compilation of place-names of the different fields in the area. In this way, we obtain an instrument with which to identify fossil pre-Arabic place-names. Ḥafār is not the largest archaeological site in the Yemen, but may well be the second largest one after Mārib. The large cliff of Ḥafār/al-Ḍāḥāḥ turns out to result from the great earthquake of 1982. The rectification of a Quickbird image documents in concrete fashion the soil erosion and other environmental changes in and around the ancient city. Vulture reliefs from the surrounding area show a new style which appears to date to the 6th century, to judge from related images in Europe. Our recording is just keeping abreast of destruction mostly from building operations.

Following negotiations in 1996 with the Yemenite antiquities authorities, two years later the University of Heidelberg Expedition took up fieldwork at Ḥafār, the capital of the Ḥimyarite empire. In the field we accent cultural resource management, the development of the site museum, mapping as well as research archaeology (Yule et al. 2007 and reports which followed). Our project accents the Ḥimyarite empire (c. 270-523 CE) and late/post (523-632 CE) periods.

During the fifth campaign in 2004, certain tasks remained unfinished, as a result of the large number of different operations conducted in relation to the personnel available and the unexpected uncovering of complicated Ḥimyarite architecture deep in our main trench, z400 - as luck would have it, at the very close of the season. Moreover, on site the most common find are relief fragments. The registration and recording of thousands

of these consumes a great deal of time. Site mapping and museum-related work dominated our 2005 season.

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The project leader enjoyed the close cooperation of the following Yemenite participants: Khalid al-'Ansi, GOAM archaeologist for Ibb province, Ḥisa al-Ḥabāni and Ḥali al-Hakim, GOAM government inspectors. In particular, Ḥali Sannibāni, GOAM archaeologist for Ḍamār province, allowed us to photograph the relief in the watch-

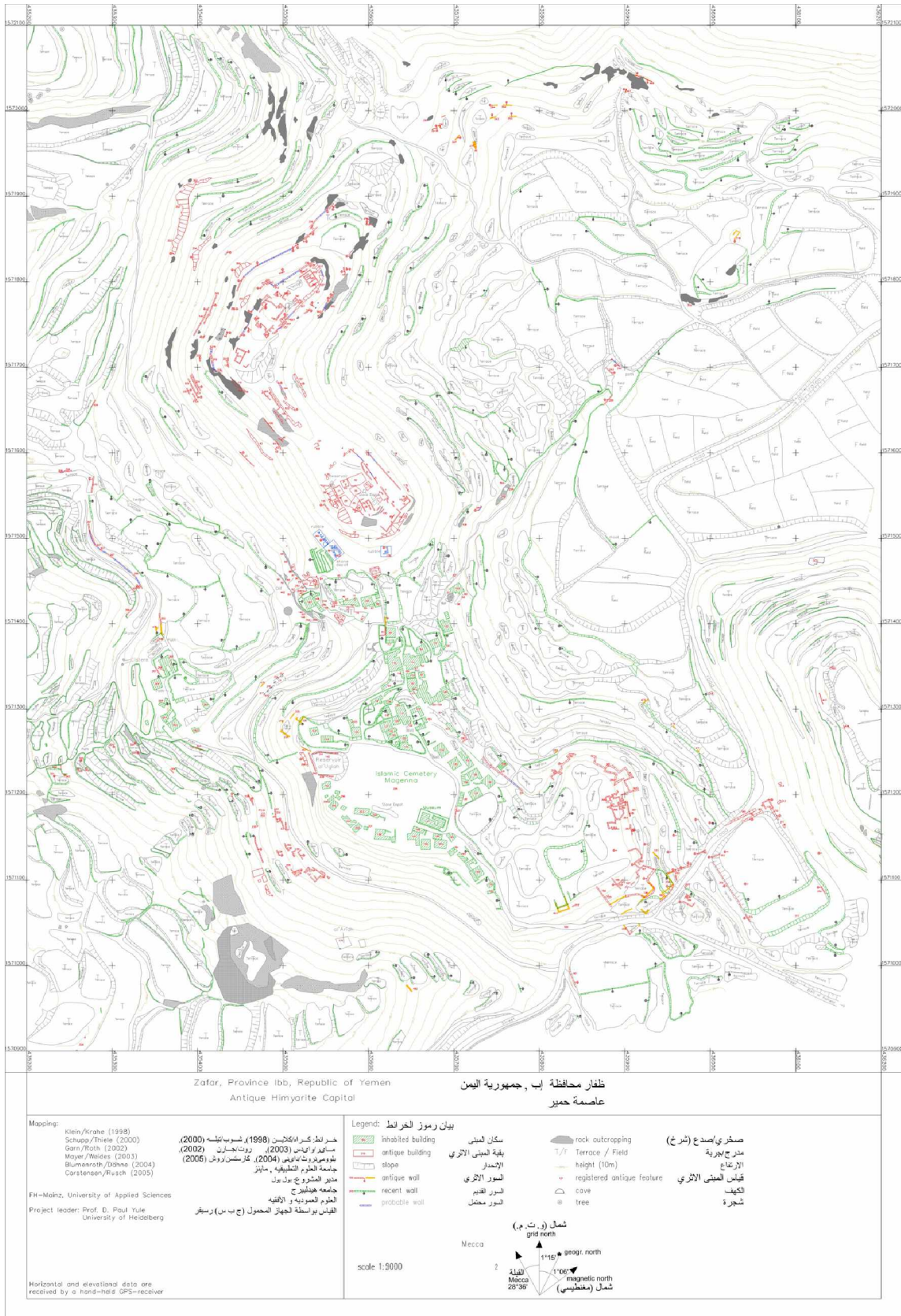


Fig. 1. Map of Zafar, as of July 2005.

Mapping and Site Documentation

The mapping of Ḍafār provides an instrument for both research and preservation work. Each successive season GOAM receive the updated site map². With these one can study the ancient cityscape and changes in its preservation (Fig. 1). Fortunately, after several campaigns the mapping of the 1000 x 1200 m core area of this important but neglected site is all but complete (Carstensen 2005). Each season has yielded numerous Ḥimyarite archaeological contexts (Yule et al. 2007), 465 to date. In terms of the area built on, Ḍafār was one of the largest cities in Old South Arabia (OSA). Mapping field by field (Fig. 2) enables different investigations, for example, a systematic search for Sabaeo-Ḥimyarite fossil place-names known from different sources including medieval Arabic geographies such as those of al-Hamdānī (cf. Barceló / Kirchner / Torró 2000)³. Such studies illuminate the reliability of al-Hamdānī's descriptions of Ḍafār, which, despite their brevity are all that we have of this kind of source in our area. Whether or not Hamdānī was ever there and if his site descriptions reflect his own observations or are heirlooms are questions which can be debated (M. Barceló and Y. 'Abdullāh, personal communication). The main

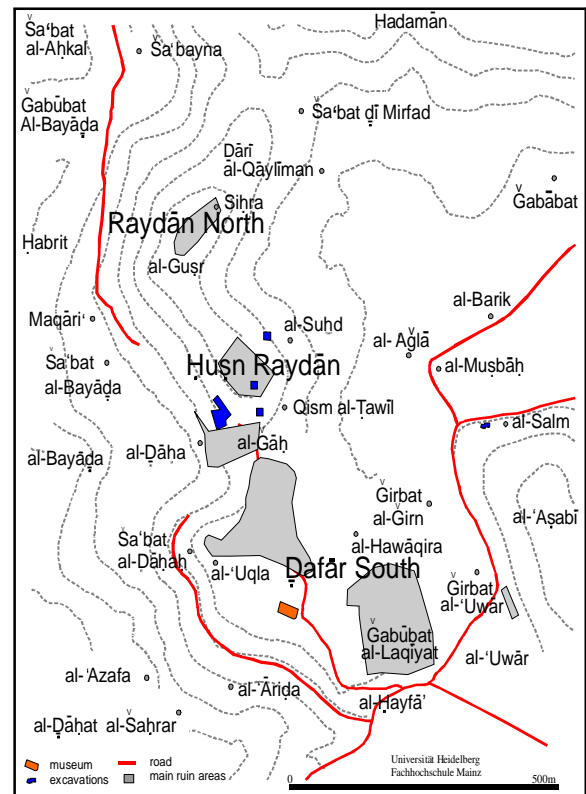


Fig. 2. Place-names at Ḍafār.

question which we pose is, was the fall of Ḍafār and of Ḥimyar in the late 6th or early 7th century CE sudden with a major depopulation, or did the population dwindle gradually?

man's house. The team consisted of Nils Carstensen and Christoph Rusch, now civil engineers, Holger Schwarzer and the author for the museum and other work. Last but not least, Mechthild Kolb assisted in the museum and kept all well-fed and content in Yarīm. At home the following individuals and institutions supported the project: Werner Arnold (University of Heidelberg, Seminar for the Culture and Language of the Near East, project patron), Wolfgang Böhler (University of Applied Sciences in Mainz, Institute for Spatial Information and Surveying Technology), Gunnar Brands (University of Halle-Wittenberg, art historian), Claus-Peter Haase (*Preußischer Kulturbesitz*, Museum for Islamic Art) and Armin Kirfel, (University of Bonn, Mineralogical-Petrological Institute). We thank the University of Heidelberg for allowing us to use their imprimatur. I arrived 11.02. in ʾān:āḏ. After fulfilling formalities, work began on

19.02.2005. The campaign ended on 24.03.2005.

Unless otherwise specified, the undersigned contributed the illustrations.

2 We also provide GOAM a catalogue of new finds, photos and other research materials each season. We deposited five DVDs of our project documentation for safe keeping with the DAI in Berlin and two further ones with geoinformatic data with the University of Applied Sciences in Mainz, Institute for Spatial Information and Surveying Technology.

3 While those experts concentrated on the place-names related to the *ʾasḏād* (water/soil retainers of terrace fields), we systematically recorded place-names of *ḡirbat* (cultivated fields) within our mapping area without any special accent.

Previous mapping campaigns began in the centre of the city area, working toward the periphery. This season surveyors mapped the far western and far eastern edges (Fig. 3). The slopes here contain Ḥimyarite tombs in prodigious numbers. Understandably, as a result of the greater distance from the city core, fewer archaeological contexts came to light than in previous seasons. With regard to the dating of this feature and others at Ṣafār, in the absence of finds and contexts other than later Ḥimyarite ones, there is no evidence to date them either before or after the empire and late periods. On the other hand, rare stray finds (e.g. knapped flint arrowheads) adumbrate earlier habitation which must have taken place here in light of the favourable climatic prerequisites for agriculture and the natural defences. Some 500 m to the west of the core area, on the same latitude as the Ḥuṣn Raydān an antique roadway came to light cut from the granite bedrock. Two to three m in width and visible for some 200 m this way led to the centre of the city. It was associated with dozens of cubic basins, graves, watering troughs and fragmentary buildings – the evidence of a constantly changing function for the area. Since this way lies outside our mapping perimeter (its eastern end: UTM 38p e435186, n1571210), closer study will have to follow later. But what is preserved shows it to be a second main egress to and from the west, the main one accessing Ṣafār's southern fortifications. Ṣafār is mainly accessible to the outside world from the west although small paths thread through the mountains in other directions (Fig. 4). Such topographic information allows a more precise picture about the size and appearance of the city. According to a recent population estimate for OSA towns, with some 50600 to 75900 individuals, Ṣafār would have been the most populous. Its surface area serves as a basis for the estimate compared to settlement density of known settlements (Schiettecatte 2004: 141, table 2). This estimate must be reduced, however, to account for the local variability of the building density in the area, thinning from the core to the periphery. Differences in the pop-

ulation density are clear to judge from that of the house ruins with a denser population in the centre, south and east.

To the east of Ṣafār, we re-examined the reported temple ruins on the north face of the Ġ. al-'Aṣabī (Yule et al. 2007), and confirmed their exact whereabouts and characteristics (site z150, cf. the sketch map of W. Radt (1971: 268, Abb. 23). No foundation walls are visible, nowadays just a scatter of exotic calcite (alabaster) and marble worked relief fragments. Unfortunately, one can say little about this building since little is extant.

On the surface at Ṣafār, little Ḥimyarite architecture is preserved. Dwellings, however, are faintly echoed in numerous rock-cut tombs of this age. For example, tomb z091 lies in al-Ġāḥ on the western slope of Ḥuṣn Raydān, where tombs and other archaeological features most densely cluster (Fig. 5a and 5b). Tombs and graves at Ṣafār are profoundly disturbed, the result of centuries of use, re-use and misuse including repeated plundering. Nonetheless, in most, the original plan and nominal appearance can be reconstructed (Yule 2007: 70–76 for other tombs). Time sufficed in 2005 to clear and document the entrance of tomb z091, nowadays a welcome shelter for herders and their sheep during daily August rainstorms. With a total length of 8 m of its north-south axis, this tomb is larger than most, and in addition has an elaborate, broad, sunken, entrance veranda. To make it cosy for the afterlife, the builders went so far as to cut a trough into the western part of the facade for a small flower bed. A central axis with four main flanking chambers is dissimilar to the usual single-chamber tombs. On the eastern side a curious small chamber lies raised above the floor between two larger ones. Since as long as anyone can remember, the Ṣafāris reused the tomb as a stable or stall, these villagers explain it originally as a Ḥimyarite one. Steps on the eastern side of the facade, now very worn, may be an original feature to facilitate access, but for obvious reasons the "porthole" in the facade is not. Other ancient tombs in the immediate area were damaged as a result of a

Fig. 3. The area in Zafār mapped during the 2005 campaign is circled in red. North lies to the upper left (map: N. Carstensen).

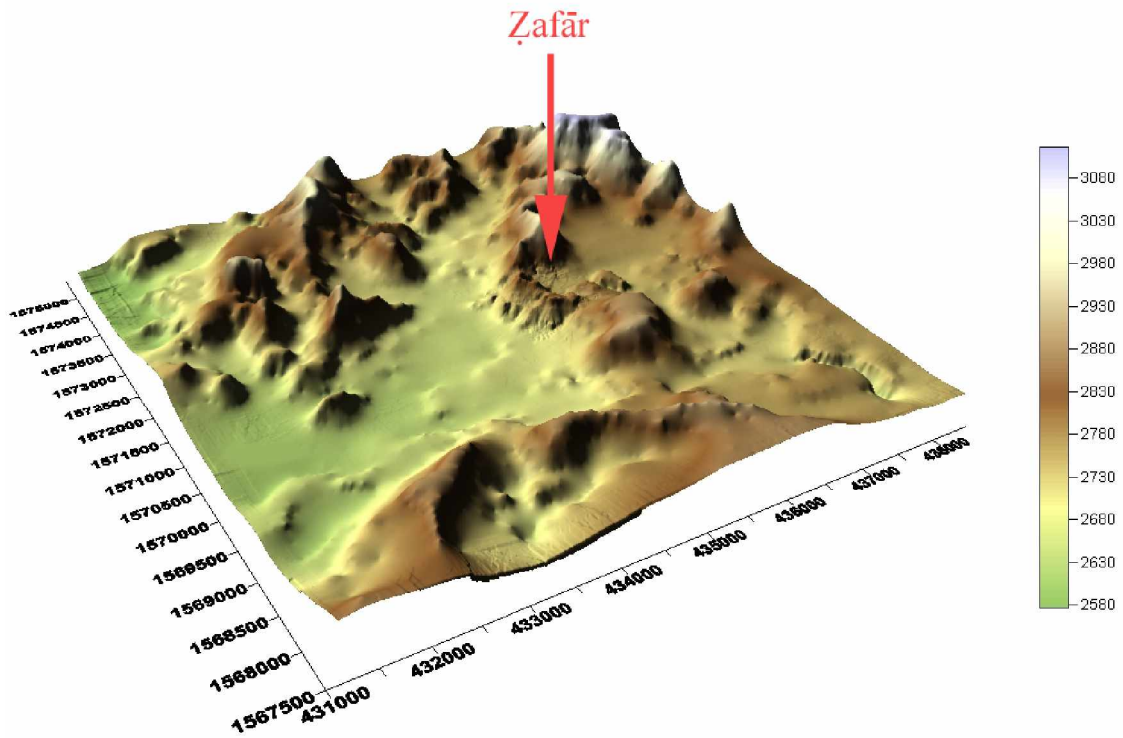
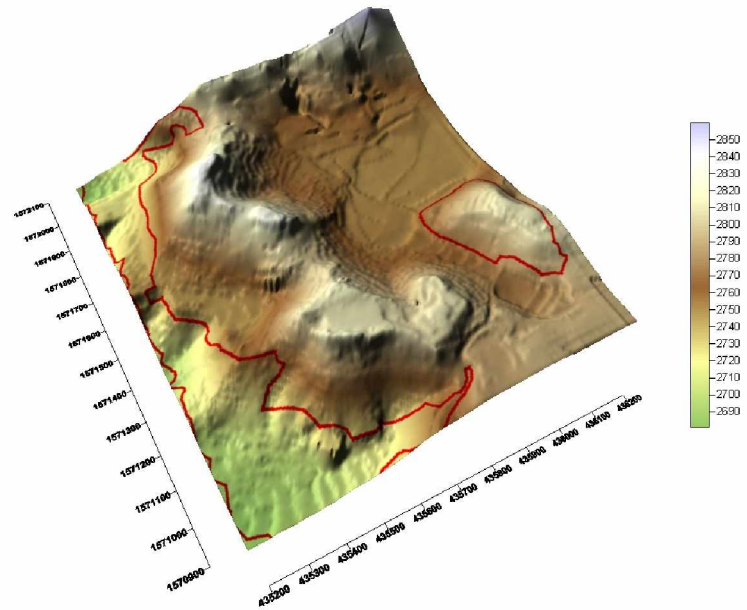


Fig. 4. Isometric view of the rugged area surrounding Zafār. The site is generally accessible from the west. North lies to the upper left (map: N. Carstensen).



Fig. 5a. Tomb z091 in Zafar/al-Gah, viewed toward the south.

subsidence which Abdallah al-'Annabi from the village explains took place some 40 years ago which gives great cliff, al-Dahah its present-day striking appearance. In view of this and similar scars on the adjacent cliffs, not to forget the exposed rock-cut tombs, other landslides have taken place for which no recollections exist. Unfortunately, z091 and the other tombs have no significantly close comparisons in terms of the plan outside of Himyar which would enable their historical and regional contextualisation (e.g. Bayt Šeam/Israel). Nonetheless, tomb z091 clearly indicates the social rank of its owner, a leading and not an average citizen at Zafar.

With the rectification and first evaluation of Quickbird satellite imagery in and around Zafar taken on 01.02.2004 in multispectral (colour) and panchromatic (black and white) formats we have a splendid instrument for the visualisation of the site topography. Panchromatic satellite images with 0.60 m/pixel resolution obviously have far more definition than multispectral ones with 2.5 m/pixel resolution. But a new technology (resolution merge) enables one to impose the colour of a given multispectral image onto a panchromatic one of higher resolution.

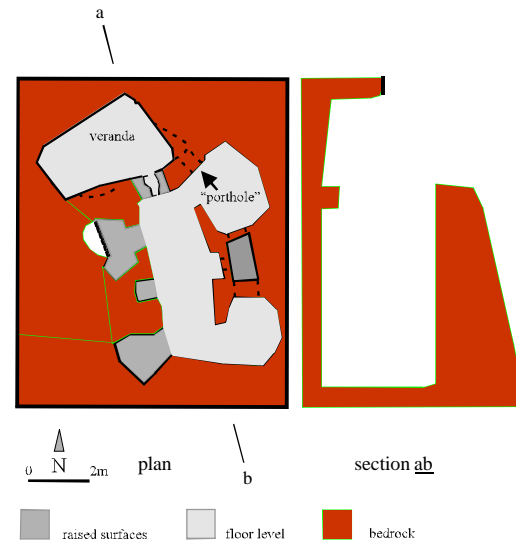


Fig. 5b. Tomb z091 (recording: N. Carstensen and C. Rusch, drawing: C. Borchert).

Fig. 6 shows the main area of our field research. The heavy concentration of tombs close to Zafar's centre is clear, especially near feature z070 in al-Gah. Another aspect is the rectification of the satellite imagery. Raw satellite imagery are distorted for different reasons. In part because they are recorded obliquely, they deviate from the terrestrially mapped data and require rectification for precision mapping⁴. The area around Zafar which Quickbird recorded comprises some 7 x 7 km (Fig. 7). Of this area C. Rusch (2005) rectified 1000 x 1200 m by means of the georeferencing of numerous benchmarks in the landscape with known distances and angles between them. Resultantly, one can, for example, superimpose the terrestrial survey on a rectified photo which gives a vivid impression of the ruins in their topography, makes one to think one's way into the topography more quickly and more securely. For example, it is easier to find the exact location of photos tak-

⁴ Occasional deviations between the two also result from building alterations which postdate the Quickbird recording of February 2004. The overlaying of satellite imagery and terrestrial surveying also helps identify minor errors in the latter.

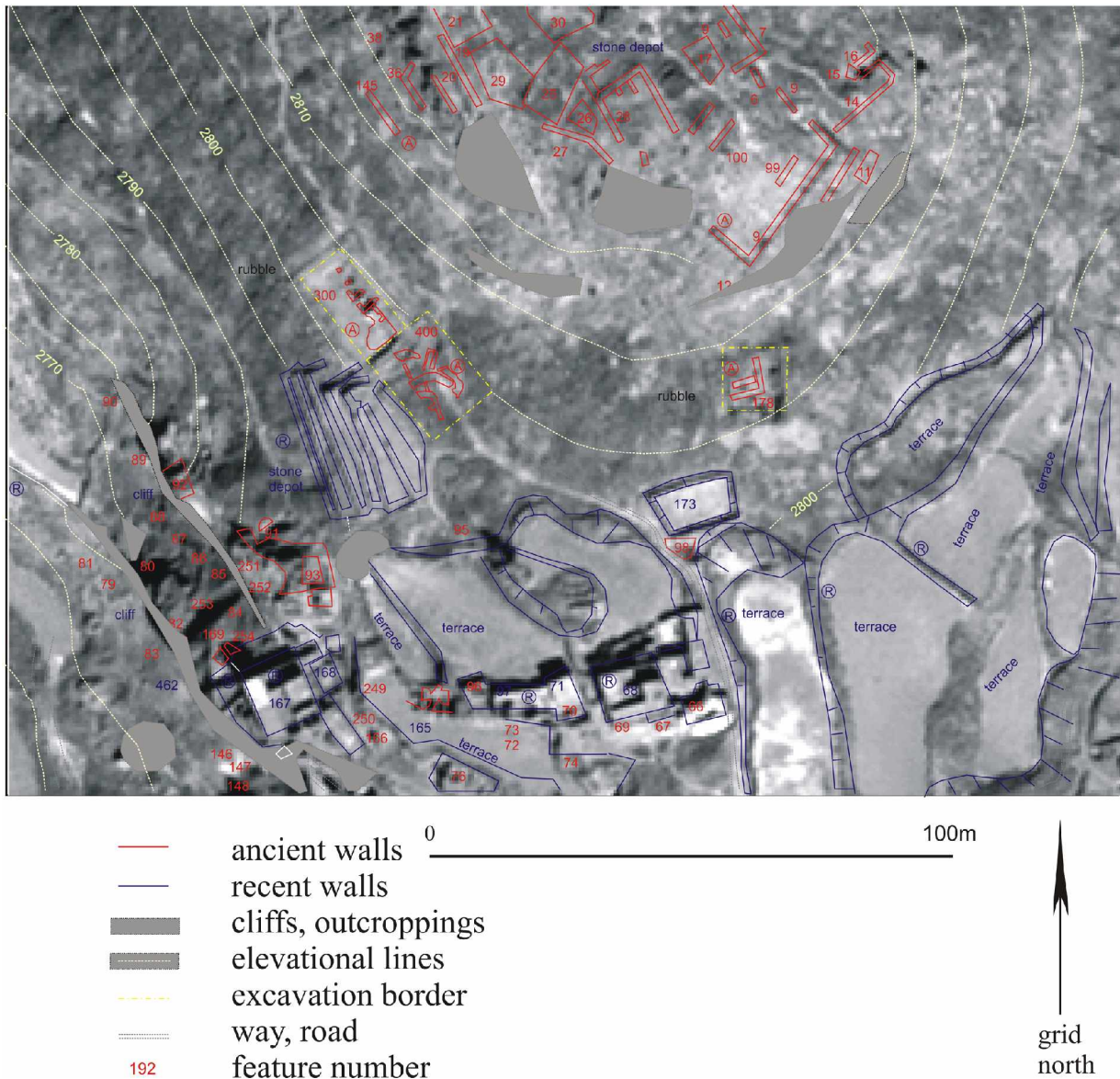


Fig. 6. The main concentration of Ḥimyarite ruins and our excavation trenches z178, z300 as well as z400 lie in Ẓafār/al-Ġāḥ, just south-west of the Ḥuṣn Raydān.

en in the area. The rectified orthophoto serves as a platform for views of any scale and from any angle as well as for computer animations.

False-colour satellite imagery enabled the study of present-day land-use of Ẓafār's core area. Unfortunately, since Quickbird recorded our imagery during the dry winter monsoon, the colour contrast does not suffice to allow optimal land-use analysis. Thus houses

and other structures are difficult to distinguish from fields, rocks and other surfaces, and appear as similar shades of grey (Fig. 8). Under these conditions, five classes of land-use more meaningfully served for the evaluation than the more usual six. These include vegetation, agriculture, rock, gravel and roads. To better differentiate the usage classes, a special filter, "fuzzy convolution", is used which makes the transitions between

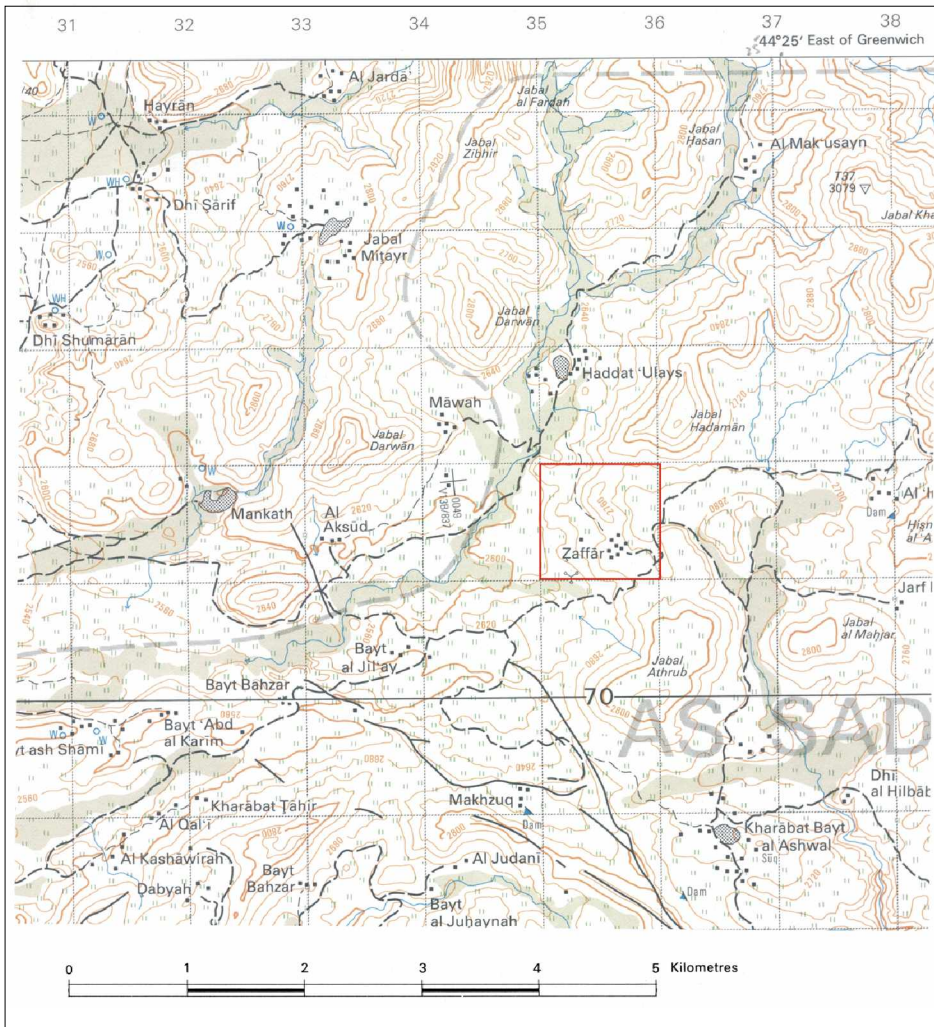


Fig. 7. The entire area of the Quickbird image. The smaller square shows the area rectified (after sheet "as-Saddah", 1444C4, 1984, 72 wgs, courtesy of the Survey Authority).

them more fluid. A normal low-pass filter for this task otherwise would calculate undesirable new grey values disharmonious with those already assigned. Having classified the land-use in the centre of the 7 x 7 km Quickbird image, we now know how the remaining area would react to land-use analysis. A further satellite image taken during the wet summer monsoon would yield better or at least complementary results. The land-use analysis shows the extreme barrenness of the present-day landscape and the extensive erosion at Zaffar. The barren area no doubt reflects centuries of deforestation. Owing to droughts and Zaffar's erratic rainfall, the Himyar built and cut water containers into the rock for themselves and the animals, as often as possible. Further attempts to reconstruct the ancient environment would be rewarding. We considered planting trees in Za-

fār, but at this mountainous height the precipitation was considerably less than expected in this well-watered area, and we found few soil deposits capable of sustaining tree growth. In the surrounding lower area, the situation is considerably more favourable.

Zaffar Museum

The site museum contains numerous reliefs, inscriptions and other finds which GOAM has acquired since it began in 1973, as well as those from our own activities since 1998. Initiated by 'Abdullāh al-'Annābi and other Zaffaris, and later housed by the government, the collection, is the largest assemblage of Himyarite sculpture in the Yemen, to say the least. Despite our reorganisation in 2000, which doubled the amount of shelv-

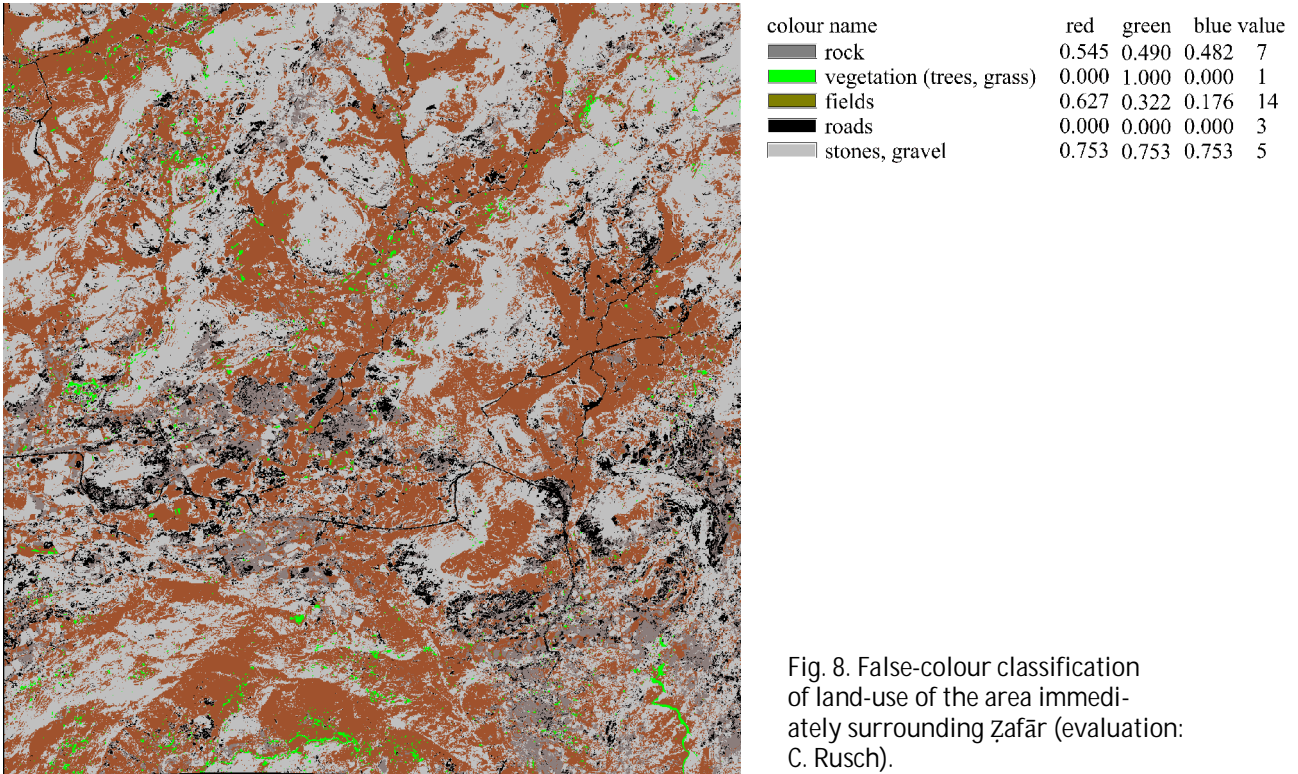


Fig. 8. False-colour classification of land-use of the area immediately surrounding Zafār (evaluation: C. Rusch).

ing in the magazine, mostly stone reliefs have accumulated such that the magazine has reached the bursting point. In addition, since 1998 we have excavated large numbers of sculptural fragments. In order to use the last remaining space in the museum storerooms, we literally have to hang our tools from the roof beams. In 2005 we inventoried and catalogued all of the excavated finds and assigned them "zm" (Zafār Museum) numbers. Thus the finds are now de facto and de jure property of GOAM and its site museum. The inventorying of the new finds allowed the opportunity to photograph some further 200 relief fragments which also turned up during the course of the year in the museum itself. Each year, sanguine villagers collect fragments and bring them to the museum for sale to GOAM. They invariably give a provenance in the immediate area. Fig. 9a and 9b, for example, show an intriguing Ḥimyarite relief

with no known significant stylistic or typological parallels. With regard to the subject matter, in the centre a woman standing beside a strangely stylised tree holds a bird in her left hand. Her right hand grasps a stylised tree branch. It emits something ethereal - water, clouds or perhaps vapour. On the far right, a vertically positioned bead and reel band decorates a moulding. Scene left, a second woman poised coquettishly with crossed legs. With her left hand she plays with her hair. The surfaces of the figures themselves have largely spalled off, but their silhouettes are still recognisable. The relief evidences a curious narrative scene, the meaning of which is lost to present-day viewers. In contrast, Sabaeen and other Old South Arabian sculpture, which predate this relief, are frontal, hieratic in style and as such represent a different style epoch. Reliefs such as this often become recognisable after comparing different photos and drawing studies of them.



Fig. 9a. Alabaster (calcite) relief in the Zafar Museum magazine tendered by villagers for sale to GOAM (photo: H. Schwarzer).

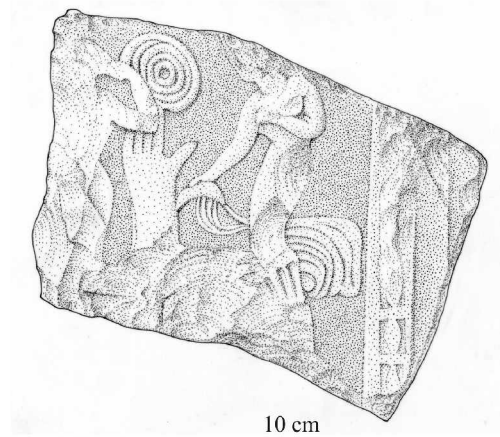


Fig. 9b. Relief previously in the Zafar Museum magazine (final drawing: I. Steuer-Siegmund).

Over the years, we have observed rather painfully that if antiquities such as in Fig. 9 are not purchased and recorded, they simply sicker into local markets (Yule in press), which is what happened with this relief. As a final measure of our museum project, to counter vandalism and for general security reasons, in 2005 we installed eight vitrines in the museum exhibition to accommodate existing and new finds (Fig. 10).

Recording in the Vicinity of Zafar

Each year our recording of reliefs and inscriptions in the vicinity of Zafar has been fruitful and 2005 was no exception. Unfortunately, certain Himyarite reliefs known from earlier publications neither can be found nor photographed, and evidently have changed hands and for whatever reason are no longer in the Zafar area⁵. To these belong often the most interesting works known unfortunately from fuzzy snapshots taken in what can be described as emergency or pioneer recording situations. On the positive side, in 2002 Alexander Sima first photographed a relief with an "eagle" motif in the town of village Haddat Gulays (Fig. 11, cf. Yule in press), 1 km to the north of the northern edge of Zaf-



Fig. 10. New window vitrines in the Zafar Museum, 2005.

ar/al-Guṣr. But given the relative inaccessibility of this relief and a thick coat of fresh paint, the motif was hardly recognisable. An antenna cable tacked over the lower part of the relief further obscured it. But three years of sunlight caused the paint to peel, reveal-

⁵ For example, P. Costa 1973, pl. 11, p. 192-193, cat.-no. 46 (lion hunt, zm0004); pl. 20.1, p. 198 cat. no. 80, a Himyarite relief of a leaping ram (zodiac sign, Aries); idem 1976, cat. nos. 132 (cherub) and 134 (knight). R. Tindel 1984, 44 middle (niche relief, zm0003).

Fig. 11. Ḥaddat Ġulays lies 1 km to the north of Zafar/al-Guṣr (al-Qaṣr). In this view to the north, the arrow shows the present location of the vulture relief.



Fig. 12a. Ḥaddat Ġulays, relief.

ing a reddish, coarsely mottled marble beneath. Given a lack of known stylistic and typological parallels, initially it was difficult to fit the motif into a larger historic-cultural context. In 2005, time allowed to re-photograph the relief mounted on the facade of the house of Muḥammad Aḥmad Ġulays inside the village (Fig. 12a and 12b). The bird on this 54 x 36 x 12 cm relief block is posed in the

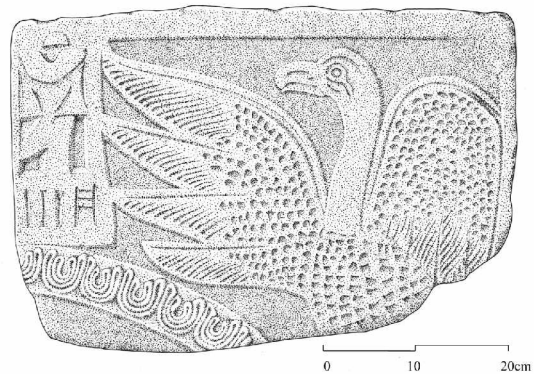


Fig. 12b. Ḥaddat Ġulays, relief (final drawing: I. Steuer-Siegmund).

upper right corner of an arch. It faces left and is rendered with a long swan-neck⁶. On the left edge of the relief a late Ḥimyarite sunk calligraphic monogram appears. Below

⁶ Cf., however, as a parallel, a Ḥimyarite seal which depicts an eagle, purchased in Ṣan:āḥ and presently in the collection of W. Daum (Pirenne 1977: 601; also published in Daum 1987: 89, above left).



Fig. 13. Recently plundered Ḥimyarite shaft tomb at Ḥaddat Ġulays/al-Ḥanūnah.



Fig. 14. Alleged plundered find-spot of the vulture relief, on Maṣna'at Māriya.



left a row of relief-cut leaf buds delineate the curvature of the arch. Owing to weathering and the coarse crystalline structure of the stone, initially the inscription was illegible. But an impression enabled its visualisation. The villagers led me to the find-spot of the relief 400 m south-west of the centre of the village, an east-west oriented stone wall known as Ġirn al-Ġir'ayn, which is 50 m long and preserved to a height of some 50 cm.

Nearby, between Ḥaddat Ġulays and Ṣaf ār on the mountain slope "al-Ḥanūnah" (Fig. 15), we stumbled onto more ubiquitous evidence for recent intensive and extensive clandestine excavation. Such activities occur despite the worthy efforts of diverse GOAM watchmen in the area. This is certainly not only a problem in the Yemen; it is

Fig. 15. Relief from Maṣna'at Māriya in the watchmen's house at Qaryat Māriya.

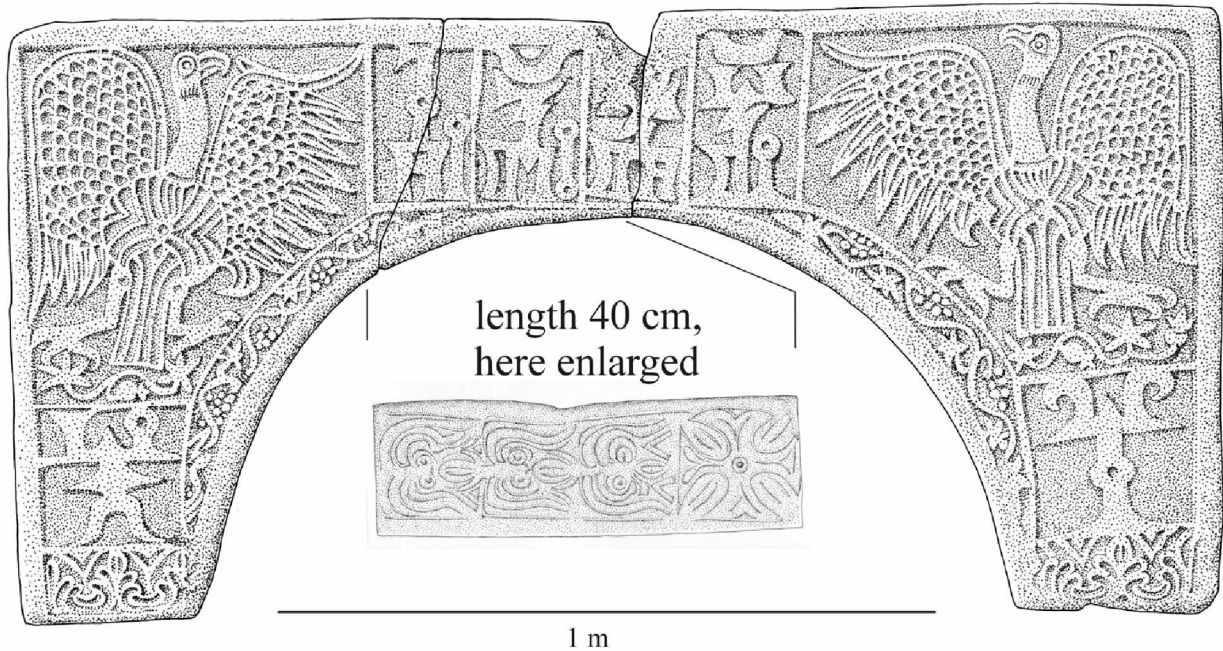


Fig. 16. Reconstruction of the relief from Maṣnaʿat Māriya (final drawing: I. Steuer-Siegmund).

the same all over the world. Beside a quadratic stone dwelling ruin of some 15 x 15 m visible was a freshly robbed shaft tomb (UTM 38p e0436293, n1573025) with a simple rectangular opening which measured some 3.1 x 1.2 m in width. The shaft tomb appears to be over 10 m deep. Dug into the soft bedrock, it seems to be of the same type as the large Ḥimyarite shaft tomb “ar1” in neighbouring al-ʿArāfah, which the undersigned excavated for GOAM in 2004, following its robbing by local villagers (Yule et al. 2007). The mountains are full of recent unofficial excavations – mainly of tombs. The villagers explain that they even excavate with their bare hands, without tools if necessary. Grave robbing, a blissful nocturnal pastime and welcome source of income for the locals, unfortunately shows no sign of abating.

In August 2004 Alexander Sima and I came upon a beautiful, large, Ḥimyarite relief arch which shows two antithetically poised eagles. It was hidden in the house of the guards in the village Qaryat Māriya just next to Maṣnaʿat Māriya (ancient Samjān, 12 km west of

present-day Ḍamār, Fig. 15)⁷. Six months later official permission to photograph was forthcoming. Late Ḥimyarite sunk calligraphic monograms lie between and below the eagles. Vines, leaves, grapes and pomegranates accentuate the arch curvature. According to a local guard cum school teacher, Ṣāleḥ Aḥmad Boḡāša, in 2003 robbers dug into one of the many mounds on the escarpment, once perhaps a splendid villa. This yielded the relief which broke into three large fragments (Fig. 16). The breaks are fresh and free of accretions, a sign of recent damage - and an indication of the recent removal of the relief. After the thieves transported the c. 250 kg relief from the site, police recovered it and deposited it securely in the house of Ṣāleḥ Boḡāša. The latter led me to the alleged find-spot in which recent excavation is clearly evident in what appears to be a room some 2.5 x 4 m in interior length to width in a debris mound. How exactly the 2.25

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I thank C. Robin for correcting my rendering of the inscription, C. Robin in press.



Fig. 17. Hiyarite inscription in al-Sirreh near Bayt al-'Ašwāl (photo: M. Schicht, 2003).

x 0.89 x 0.14 m relief fit into or next to this chamber is unclear. After a few studies, we were able to reconstruct the relief arch graphically (Fig. 16).

With regard to the identification of large birds of prey, W. Müller (1994) explains that in different Semitic languages, with some exceptions the common root *našru/nišru* does not distinguish between eagles and vultures. Ancient Arabian representations of large birds of prey also often elude identification by species. Nonetheless, the two reliefs under discussion appear to depict the cowardly vultures, which is far less suited as a sign of symbolic power than inimitable eagles.

The vulture relief from Mašna'at Māriya is much better preserved than one from Ḥaddat Ġulays, with which it shares a close stylistic, typological and iconographic similarity. First, the style of both eagle motifs is purely linear and unmodelled. Second, the intricately imbricated rendering of the feathers brings to mind fortuitously, cloisonné work. In another study (Yule in press) the writer presents arguments for both reliefs as key examples of Hiyarite style in its terminal phase, possibly in the 6th century. These include that a medallion forms the breast of the Mašna'at Māriya vultures with radially ordered lines,

such as, for example, in the case of early medieval Gothic eagle fibulae. Also, the edges of the wings of both show the same narrow parallel border channels broken at regular intervals. Similar stylistic tendencies are characteristic of migration period metalwork. Robin dates the style of the monograms – not the relief – to the 5th or 6th century CE (Robin in press), which partially supports the author's dating.

Other late Hiyarite inscriptions come to light each year, e.g. in the area of Bayt al-'Ašwāl at al-Sirreh (Fig. 17), which complement the late Hiyarite emphasis of our project.

As previously in 2002 and 2003, in our final days this season on the site, bulldozers again widened and planed the road from Ẓafār to al-'Arāfah, mauling and completely eradicating several Hiyarite contexts in the southern fortifications – the best preserved part of the ancient site (Fig. 18)⁸. The patron of this particular 'improvement', the police, are by no means required to notify the antiquity authorities of their building activities, or stop work when damage occurs. Unfortunately, it was

⁸ Contexts z180, z181, z184, z207, all Hiyarite fortifications in al-Ḥayfāh and al-'Uwār. W. Radt reported these features in his report of 1971.

Fig. 18. Destruction of Ḥimyarite fortifications during road-building in Ẓafār/al-Ḥayfah, March 2005, view to the west-south-west. The Ḥimyarite settlement outside the southern gates is visible in the upper left corner.



neither possible for GOAM representatives to impose a building-stop nor to investigate prior to this careless destruction. Although but GOAM recently conducted cultural resource operations, for financial and other reasons this area remains largely the activity of foreign archaeologists. Mindful of this, the more we do in the area to record, the more finds and contexts will survive for future generations.

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