

TWO PREHISTORIC CULTURES AND A NEW SABAEAN SITE IN THE EASTERN HIGHLANDS OF NORTH YEMEN

An Italian archaeological mission financed by the Ministry of Foreign Affairs and by the Council of National Research (C.N.R.), and supported by the Istituto per l'Oriente of Rome, started to work in the Y.A.R. in November 1980. Its activities, consisting of a series of archaeological and environmental explorations (which have continued during the months of November and December 1981) are described in this report.

The research was made possible thanks also to the time and courtesy of the Director-general of the General Organisation for Antiquities and Libraries of the Y.A.R., Qādī Ismā^Cīl al-Akwa^C, and to the constant enthusiastic help of the Italian Ambassador in Ṣan^Cā', H.E. Francesco Pulcini.

The surveys were located in the central latitudes of the country's highlands, and their objective is the study of pre-islamic cultures in North Yemen. At this stage, the mission's main goal is the analysis of the phenomenon of the sudden appearance of the South Arabian states in the early centuries of the first millennium B.C.

We are as yet lacking all archaeological information concerning this pre-urban phase of North Yemen. The investigation therefore exploits to the utmost the data at our disposal, which include indications of the environment, considered either in its actual typological identity or in its local ecological dynamics. The choice of territory to survey had, therefore, to depend in the first place on environmental considerations.

Because of the great altitude of the mountain range that crosses the country from north to south, North Yemen is characterised by a highly varied geographical structure¹. Inland Yemen can be divided into three separate physiographic regions: 1) the zone of the central highlands, with heights ranging from 2300 to 2350 m; 2) the eastern highlands, dropping to the level of 1500 m; 3) the internal desertic plateau².

This geo-morphological diversity, due to a remarkably stressed geolog-

ical structure, determines definite variations in the ecological factors. Climate, hydrology, pedology and vegetation change rapidly as we descend from the highlands towards the desert. It is obvious that in this context biological resources are available to human exploitation in varying degree.

A modern demographic map reflects indirectly but clearly these environmental diversities³. The high demographic density in the central and south western plateau, which is above 50 inhabitants per km², shows the existence in these areas of relatively optimal ecological conditions for the adaptive needs of modern man. A change is particularly evident if we notice the abrupt descent of the demographic density index in relation to the eastern highlands (under 20 unities per km²), and even more so in relation to the desert area (under 2 unities per km²)⁴.

This is the present demographic distribution; but what was it like in the past? A glance at an archaeological map will suffice to make us realise that the situation was formerly different. All, or almost all, of the centres of the more ancient phase of the South Arabian kingdoms (Minaean, Sabaean, Qatabanite and Ausanite) are localised in the lower-altitude areas which are today less densely inhabited⁵.

1. The later Sabaean sites of the central highlands.

A brief survey conducted by the author in 1980 was planned in order to gain a direct evaluation of the ancient human occupation in the central highland zone of the country⁶ (Fig 1).

In the Bani Huṣaiṣ district (Ṣan^cā') we visited the already well known site of Šibām al-Ġirās⁷. The ruins, of which there remains today a low and wide earth rise in the ground, form a convenient digging site for already squared stones, used for building the houses of the nearby village. The inscriptions embodied in the mosque and in the habitations belong to the late Sabaean (Himyarite) period (Pl VII, a-b).

Further south - beside the Tah site, which also may be ascribed to this later phase on the basis of the few remains and of a rock inscription⁸ - we explored the fortress of Ḥammāt Kilāb (or Ḥammāt Diyāb Ibn Ġānim)⁹. The citadel, surrounded by an impressive wall of basaltic squared stones, stands isolated on top of a hill slightly north of the great volcanic

crater of the Gabal Isbil. Among many visible stone structures at the centre of the citadel area, a more important construction, decorated with false windows surmounted by the crescent and solar disc, stands out¹⁰. Inscriptions, visible on top of the lintels of today's houses, reveal for Ḥammāt Kilāb an age similar to that of Šībām.

The plentiful pottery collected in the two major sites (Pl XII, a-b) may easily be compared to that gathered in 1961 at Baynūn¹¹, one of the most important Himyarite centres northwest of Radā^c; at al-Ḥaṭamah (Pl XIII, a-b) a fortress site structurally similar to, and not far from, Ḥammāt Kilāb; and at Ġaymān, southeast of Ṣanā^c,¹². A similar uniformity may be seen in the conception and the manufacture of the vases. Among the most common types are the great storage jars with applied figurative decoration (Pl XIII, b) and bottoms with tripods that are pierced or hollowed for handling (Pl XII, 3); large natural-rimmed steep-walled ring-bottomed bowls; and jars with rims that are externally thickened and internally hollowed for lodging a lid. Technically, in the medium sized vases the burnishing is the most remarkable feature: very carefully done, executed on slip with red paint, it covers the entire surface of the vase.

The sites explored, i.e. those established on the alluvial plains to the north-northeast of Ṣanā^c, and those settled on the volcanic outspills in the region east of Ḍamār, confirm for this area a chronological limitation of pre-Islamic occupation, confining it to the later phase of the Sabaean period¹³. The apparent lack, in the highlands, of large sites belonging to the more ancient Sabaean period leads us to hypothesize a progressive displacement, in the following periods, of the more densely populated area from the middle altitudes of the eastern sub-desertic regions towards the western high altitudes¹⁴. This phenomenon is probably due to a change of hydrological regime, caused not so much by a variation of climate as by the action of man. The constant need of timber and firewood¹⁵, and all the more so during the periods of greatest magnificence of the South Arabian kingdoms, originated a progressive and irreversible deforestation of the valleys of the eastern versant¹⁶. Thus a degradation of the delicate ecological balance took place: the most famous and typical result of this is

the silting up of the Marib dam.

Specific palaeo-environmental analyses are necessary in order to furnish further proof of this hypothesis. But if it can be used here as an experimental fact, the phenomenon of demographic displacement in the Himyaritic period seems to be the focal point in which converge and from which diverge the two pictures we have of Southern Arabia, so different and so apparently contradictory: on one hand the fabulous image of a singularly rich and fertile land; on the other the current image of a dried-up wasteland traversed only by the wind and the nomads.

2. The exploration of the eastern highlands (Wadi Adanah basin)

During the months of November and December 1981 the Italian mission, including - besides the author - Mr F. Di Mario and Mr M. Jung, and accompanied by Dr Ali Muhammad from the Yemeni Organisation of Antiquities, decided to extend the field of survey eastward, descending from the central highlands visited in 1980. This research concentrated in particular on the northern part of the greatest internal hydrographic basin of the Y.A.R.: the basin of the Wadi Adanah, once closed at its end by the Marib dam. The region explored lies east-southeast of Ṣan^Cā'; it includes Hawlān al-Ṭiwāl, which extends into the administrative districts of Ġiḥānah and Ṣirwāḥ, with the northerly part of al-Ḥadā' (the rest being in the province of Damār).

This territory, which has never thus far been archaeologically explored, was examined following the dry courses of the *widyān*. These are in fact the only lines of communication for the entire eastern region of the country between Marib and Radā^C, except for the old trail from Ṣan^Cā' to Marib. Assuming that in ancient times as well, the settlements were situated along these natural routes, and probably more densely in the vicinities of their confluence points, we explored mainly the Wadi Ḥaykān, that flows eastwards from Zarāḡah until it opens into the middle course of the Wadi Adanah, and the Wadi Miswar which, with the name of Wadi Nab^Cah, flows into the Wadi Ḥaykān.

A. The Wadi Yanā^Cim Culture

Following the trail from Ṣan^Cā' to Ṣirwāḥ, which passes through Ġiḥānah, and then leaving the Ṣan^Cā' basin behind at the pass of Wazlah, one enters

the wide basin of Marib. From this point the view is of bare, low hills extending as far as eye can see towards the east. The hilly soils from the granitic gneiss are here cut by the earliest and slightest streams of the great hydrological catchment of the Wadi Adanah¹⁷.

A little further on, after passing over Ġabal al-^CUrqūb, when about to cross one of these streams (the Wadi Yanā^Cim), we can see two important settlements belonging to the same prehistoric culture, which we have named after the aforementioned *wādī* that bounds them on the east side. To the right-hand of the trail and on top of a rise is the site F/I (Pl I,a); on the left-hand, on the southern slope of a hill, is site F/II. In the immediate proximity of the sites there are no modern settlements. A few isolated houses can be seen in the large valley, which at an altitude of 2200 m extends northward and eastward, and is drained by the sandy bed of the Wadi Yanā^Cim. Scattered trees and sorghum crops are signs of a relatively fertile soil. The high summits of Ġabal Lawz (3310 m), Ġabal Ṭiyāl (3510 m) and Ġabal Taraf (3300 m), that rise about 20 km to the north, shelter and moisten a soil which under more favourable ecological conditions undoubtedly offered substantial natural biological resources.

Site F/I consist of a village comprising about sixty dwellings built near each other or side by side. The remains to be seen are the circular foundations made of large rough granitic blocks firmly driven into the ground. At the centre of the circles (diameters varying from 4-5 m to 10-12 m) there is often a smaller block with a flattened top that was probably used as support for the roof (Pl I,b). Among these circles one may observe a few that are smaller in size (about 1m in diameter) and were evidently used as hearths (Pl II,b)

Besides the circular-based foundations there are also some having rectangular bases with rounded corners, constructed with the same technique and the same kind of blocks (Pl II,a). One of these in the middle of the village retains signs of jambs of a narrow door, and is composed of two rooms with signs of rough paving, and bearing still *in situ* the central stones that supported the roof. Other linear structures are present, that do not seem to have served as dwellings but rather to retain the steeper parts of the

hill in horizontal terraces.

These structures, upon which other dwellings are superimposed, are much more evident in site F/II, lying in a steeper position than F/I. F/II is smaller (about 40 structures) and not so well preserved; however, unlike F/I, it is plausible to think that it has retained *in situ*, in the parts of the pavements nearest to the hill, some of the original contents.

This findings consist of numerous lithic instruments of a grayish flint in remarkable variety (scrapers, burins, picks &c. Pl IX,a). Next to a hearth in F/I there is a semi-ovoidal granitic grinding stone.

In both sites pottery is abundant (Pl X,a-b). At present it would be hard to say whether this pottery is of the same period as the lithic industry. The presence in the site of rectangular as well as circular constructions leads us to believe in the possibility of two different stages of settlement, and the pottery might belong to the more recent one. The clay vessels are in any case very homogeneous and characteristic in their typology (wide natural-rimmed bowls and ollae with outward-flexed rims) and manufacture (very compact, not too well refined handmade clay).

The distinct differentiation between this and other types of pottery collected on later sites during the course of our survey, and the state of preservation of the potsherds (broken into minute, degraded and encrusted fragments), lead us to believe that it must be of generally early date. The peculiarly local appearance of the vase repertoire, and the still preliminary stage of research, make it advisable not to look for comparison elsewhere. However, the morphologies of the flat-bottomed, out-turned natural-rimmed jars would suggest directing an initial search for analogy to the Syrian and Palestinian wares of the fourth and third millennia B.C.¹⁸. At any rate, the potsherds collected at the two Wadi Yanā^cim sites probably represent the first examples of pre-Sabaeen pottery ever known in North Yemen.

The fact that the two different kinds of structure fit into a single urbanistic logic, with the use of an identical building technique and identical materials (granitic blocks with the same stage of weathering), suggests a short time-sequence for the two settlements, if not contempor-

neity. The dwellings with circular foundations, and the flint tools, that could be ascribed, generally speaking, to a conventional (but in this context altogether isolated and fluctuating) Neolithic period¹⁹, probably belong to a phase only slightly previous to that of the pottery.

B. The Palaeolithic workshop of Ḥumayd al-^CAyn

About 10 km south of Gabal al-^CUrqūb, the crystalline rocks of the Pre-Cambrian age that marked the Wadi Yanā^Cim landscape sink beneath a thick layer of Mesozoic sediments. The Wadi Miswar has dug a deep winding canyon in these deposits and revealed impressive stratifications of sandstone, with lenses of pebbles and conglomerate (Pl III,a).

Opposite the modern village of Bani ^CĀṭif, situated outside and to the right of the *wādī*, the spring of Ḥumayd al-^CAyn flows into the stream bed from the sedimentary rocks, suddenly bestowing a green colour on the valley bottom with its abundant water. The rocks of the *wādī* walls on the left-hand side, just before one reaches the spring, include copious siliceous nodules.

The strata forming the slope - which is at this point almost vertical - show themselves with varying degrees of erosion (Pl III,b). Hence the walls are punctuated by recesses mainly arranged on lines at the same level. These recesses are often protected by protruding slabs, used today as shelters by shepherds, as can be seen from some present-day dry-walling stone arrangements. On the cliff face, but specially on the higher plateau, the flinty nodules are more numerous than ever. When whole, the pebbles show a rather regular form; when broken they invariably reveal internally a brownish colour. Many are crumbled by atmospheric agencies, but many others, often still attached to the sandstone, appear artificially chipped.

The northern plateau, overlooking the *wādī*, but part of the southern plateau as well, is covered with flakes and cores making it look very much like a quarry workshop for the production of stone tools (Pl IV,a). In the atelier, extending at a rough approximation over an area of at least 12 acres, we also found many completed tools (scrapers, picks, *tranchets*, borers &c. Pl IX,b). The more elevated frequency of artifact samples near the plateau edge directly over the *wādī* seems to indicate that the under-

lying recesses on the cliff face (easily accessible from this point) may have been utilised in ancient times as shelters (Pl IV, b).

A preliminary analysis of the lithic tools (though difficult because this type of material culture is characteristically isolated, not only in North Yemen, but generally speaking throughout the Arabian peninsula) would lead us to classify the main period of utilisation of the quarry-workshop in the Middle Palaeolithic²⁰. Only a more thorough examination of the sites (which should include some diggings inside the shelters as well) will yield a precise answer concerning the age and the duration of the period, or periods, in which the quarry was used.

At any rate, it is fairly easy even at this moment to assess Ḥumayd al-^CAyn as a fundamentally interesting starting point for studies relating to the Palaeolithic economy of Southern Arabia, because: 1) through analysis of the organic findings it will become possible to gain data and information on the still unknown ecology of the western side of the Arabian peninsula; 2) through the specific study of the phenomenon of the coexistence on a single site of activities going on in the workshop as well as in the dwellings, it will be possible to consider the socio-economic behaviour of the ethnic groups of the Palaeolithic period.

C. The Sabaeen site of Madīnat al-Aḥḡur

At the point where the Wadi Nab^Cah opens into the Wadi Ḥaykān is the ancient town of Madīnat al-Aḥḡur; here another *wādī* (Wādī Banī Baddā) flows into the W.Ḥaykān as well, coming from the Damār territory. The confluence area, visible as a widening of the W.Ḥaykān which is the main stream, must always have assumed a major role in communications (Pl V, a).

The *widyān*, whose function in this region is that of roads proper, not only collect all the waters from the entire western side of the W. Adanah basin, but the eastbound traffic of the whole vast territory between Ṣan^Cā' and Damār.

The ancient site lies on a narrow plateau dropping steeply over the W. Ḥaykān on the north side and over the W. Banī Baddā on the east and south edges. From the summit, the view encompassing the wide confluence area to the north is partially blocked by the massive isolated peak on top of

which the almost inaccessible village of Banī Baddā is perched. The Pre-Cambrian volcanic rock, altered by the lengthy process of metamorphism, assumes on the high and steep cliffs of the canyons picturesque crystalline shapes like organ-pipes, and strongly distinguishes the whole region, offering unique constructional material (Pl V,b).

The vast area of ruins of Madīnat al-Ahḡur was formerly protected on the west, the only accessible direction, by a stone fortificatory wall, interrupted near the middle by the town gate. What remains today of this gate is only the square base of the southern tower, made of large square basalt blocks (Pl VI,b). On the northern and southern sides of the plateau, of irregular elliptical shape, appear two erosional cuts, through which access from the valley bottom is barely feasible. Since no signs of constructions appear, we have no reason to believe that these were used in ancient times as passages.

The ruins are about 400 x 300 m, but seem not to extend to the eastern part of the plateau (where there are two modern houses, built with squared blocks removed from the ancient site); they consist of thick, irregular earthen mounds. In some places, where the surface has been broken in order to collect stones, roughly squared whitish sandstone blocks are visible. This type of material is uncommon in the al-Ḥadā' region. Numerous potsherds can be found in the whole ruin area. Unauthorised diggings, while not seriously damaging the site, reveal (as indicated by the inhabitants) abundant archaeological material, which is sold on the black market. These findings, to judge by the inscriptions and by a small alabaster statue of a splendid recumbent bull (now in the custody of one of the two houses' owners), are particularly interesting.

A preliminary analysis of the Sabaean pottery collected by the mission during the two years of survey is sufficient (comparative analysis being at present totally lacking) to make us believe in a fairly ancient dating for the Ahḡur pottery (Pl XI,a-b). This conclusion is mainly due to some of the features of the red-burnished ware, which in this case reveals decidedly distinctive attributes. Whereas the burnishing on the later Sabaean potsherds, collected in 1980 at Šibām al-Ġirās and Ḥammāt Kilāb

(Pl XII,a-b) and in 1981 at Baynūn and al-Ḥaṭamah (Pl XIII,a-b), is applied in a thick slip covering the imperfections of the clay so as to make the surface smooth and homogeneous, on the other hand at Madīnat al-Aḥḡur the polishing, spread directly without slip on the rather rough and not well fired clay, does not give the surfaces an even covering, and leaves visible signs of the burnishing tools only at the points of major pressure. Burnishing is used in Aḥḡur, mainly in the bowls, to decorate with shining lines a light coating on the surface²¹. This type of decoration, together with another type which is engraved in wavy parallel lines (very common on the jar shoulders) is a distinctive feature of this pottery as compared with the later Himyarite pottery found on the sites of the central highlands.

Red-burnished ware is typical, in the first millennium B.C., of almost all the Mediterranean Near East. The Yemeni pottery seems to follow, with due allowance made for peculiar criteria and local models, the same developmental stages as the better-known Syrian, Palestinian and Jordanian pottery²². It seems reasonable therefore to ascribe a more ancient dating to the Aḥḡur pottery, with its natural likeness to the red-burnished ware of the Aramaic or Israelite tradition, than to the ceramics of the Himyarite sites, similar instead to the Near Eastern pottery of Hellenistic or Roman inspiration.

The palaeography of two inscriptions discovered at the site seems to confirm a relatively early date for Madīnat al-Aḥḡur, i.e a period around the 4th or 3rd century B.C. Professor G.Garbini, to whom we are indebted for the palaeographic appraisal, has completed a preliminary study of the two inscriptions, which refer to the construction of a house by *Lḥy^ctt* and his sons of the tribe 'hgrn (inscription Y.81.C.0/1, Pl VIII,a), and of a reservoir by *ḥmkrb* also from the same tribe (inscription Y 81.C.0/2, Pl VIII,b)

The two inscriptions remind us of Gl 1591, 1592²³, also drafted by *Lḥy^ctt* and sons of the 'hgrn tribe, on the construction of houses. For the toponym of Aḥḡur cf also CIH 3 (now in the museum of Riyāḍ), dedicated to "Ta'lab Riyām^m, in the irrigated fields of 'Aḥḡurān for the safety of their slaves"²⁴. The toponym 'hgr-m occurs in CIH 126²⁵, of which the provenance is Šibām

at the foot of Kawkabān, and there is a modern place-name al-Ahḡur just to the south of this. But neither of these last two references can relate to the important Sabaean centre of Madīnat al-Ahḡur in the southern part of Hawlān.

3. Conclusions

At Madīnat al-Ahḡur several obsidian tools were also found belonging to a previous settlement. Still other lithic artifacts of obsidian, flint or serpentine, of the same typology as the W.Yanā^Cim instruments, are common in the W.Ḥaykān, specially near its beginning. Similarly manufactured tools (not linked to any special site) have been collected further north in proximity to the *widyān* along or across the trail to Ṣirwāḥ, particularly in the stretch between the W.Yanā^Cim and the village of al-Watadah. It is noteworthy that the findings become far less frequent at altitudes lower than 1500 m, where the path towards Ṣirwāḥ enters the W.Ḥabāb.

The location of the surface lithic finds and of the described prehistoric sites indicates a demographic concentration in the pre-Sabaean age in this central physiographic area. Thus in the inner Yemen regions another peculiar pattern of human distribution emerges, the third in addition to those relevant to the more ancient and the later (Himyarite) Sabaean periods.

These territorial fluctuations reflect the temporal variations of the economic relationship between the diverse communities of ancient Yemen and their environment. We believe this relevant because we can now deal directly with the structural relam of the ancient South Arabian civilizations . A scientifically exact explanation of the factors determining these demographic changes, ane consequently a description of the technological progress and of the economic and social development of the ancient Yemeni communities²⁶ is, for the present, by no means a simple task; it is, at any rate, beyond the scope of this article, which aims only at delineating observed facts. However, the mere recognition of particular time-varying human settlement patterns seems significant to us in the special context of the cultures being studied, and will be a decisive factor, in future campaigns, in choosing the territories in which to continue our research.

NOTES

- ¹ H.DEQUIN, Arabische Republik Jemen, Wirtschaftsgeographie eines Entwicklungslandes (Riyad 1976).12 ff.
- ² R.SCHOCH, Regionale Gliederung der Arabischen Republik Jemen mit Hilfe von Landsat-Bildern (Zürich 1977).
- ³ U.GEISER, H.STEFFEN, Population distribution, administrative division and land use in the Yemen Arab Republic (Berne, *San'a'* 1977).
- ⁴ H.STEFFEN, Population geography of the Yemen Arab Republic (Wiesbaden 1979) I.56 ff and map 1:2 mio "Population density".
- ⁵ N.St J.GROOM, A.F.L.BEESTON, A Sketch Map of south west Arabia, showing pre-Islamic archaeological sites (London 1976).
- ⁶ A.DE MAIGRET, Prospezione geo-archeologica nello Yemen del Nord, notizia di una prima ricognizione, 1980 (OA 19, 1980).307-13.
- ⁷ The site was better known as Šibām Suhaym. Cf N.A.FARIS, The Antiquities of South Arabia, a translation of the eighth book of al-Hamdani's al-Iklil (Princeton 1938.53; H.VON WISSMANN, M.HÖFNER, Beiträge zur historischen Geographie des vorislamischen Südarabien (Wiesbaden 1952).18.
- ⁸ For other inscriptions from this site cf Ch.ROBIN, Les Montagnes dans la religion sudarabique, in AL-HUDHUD, Festschrift Maria Höfner herausg. von R.G.Stiegner (Graz 1981).1 f.
- ⁹ The fortress was visited for the first time by a French mission in 1972; cf J.PIRENNE, Découverte de douze sites anciens au Nord-Yemen par la Mission Française de 1972, in Dossiers de l'archéologie 33 (mars-avr.1979).26 f.
- ¹⁰ *ibid.*, photo at p.27.
- ¹¹ Cf al-Hamdānī, in N.A.FARIS *op.cit.*, 40.
- ¹² H.VON WISSMANN, M.HOFNER *op.cit.*, 40.
- ¹³ Cf also Ch.ROBIN, Le Haut-plateau, berceau de la civilisation sudarabique, in Dossiers de l'archéologie 33 (1979).51 ff.
- ¹⁴ A.DE MAIGRET, *op.cit.*, 312.
- ¹⁵ J.ALKAMPER [and others], Erosion, control and afforestation in Haraz, Y.A.R. Giessener Beitr.zur Entwicklungsforschung, Reihe 2, Bd 2 (Giessen, *San'a'* 1979); H.DEQUIN *op.cit.*, 42.
- ¹⁶ H.STEFFEN, *op.cit.* I.11. Concerning the rich forests of pine, fir, cedar, juniper, acacia, tamarisk &c, which once covered the country, there are several indications in ancient literary sources, e.g. Eratosthenes, Diodorus Siculus, Strabo; we notice, however, in Pliny's Natural History (Book 12, §§52-4) that in the first century A.D. Southern Arabia was already in the course of progressive dessication.
- ¹⁷ For the geological structure of the region surveyed cf M.J.GROLIER, W.C.OVERSTREET, Geologic map of the Y.A.R., *San'a'*, 1:500.000 (Reston 1978).

¹⁸ The 'plain simple ware' of the G,H,I,J phases of the ^CAmuq is the most representative for the Syrian area, cf R.& L.BRAIDWOOD, Excavations in the plain of Antioch. I, the earlier assemblages: Phases A-J (Chicago 1961); for the Palestinian pottery of the Early Bronze Age cf R.AMIRAN, Ancient Pottery of the Holy Land (Jerusalem 1969).35 ff.

¹⁹ The only other similar lithic tools found in South Arabia and published up to now come from the vicinities of al-Adit, north of ^CSan'a'; they are classified in the same way by R.DE BAYLE DES HERMENS, Première mission de recherches préhistoriques en R.A.Y., in Anthropology 80 (1976).11 ff, fig 2. This North Yemeni lithic industry shows, in its roughness, consistent differences from the more refined Neolithic instruments from Qatar (H.KAPEL Atlas of the Stone-age cultures of Qatar (Aarhus 1967) and Hadramawt (G.CATON-THOMPSON, Some Palaeoliths from South Arabia, Proc.Prehist.Soc. 19 (1953).189 ff), and even from those found in the western part of the Rub ^Cal-Hālī (F.E.ZEUNER, Neolithic sites from the Rub al-Khali, in Man 209 (1954).133 ff.

²⁰ Fairly similar instruments were found near the village of Bayt Na^Cm, ca. 20 km west of ^CSan'a'. Both G.Garbinī (as suggested by S.M.Puglisi, see Antichità Yemenite, AION 30 (1970).542, figs 1,2) and R.De Bayle des Hermens (op.cit., 12 ff, fig.3) are inclined to assign them to the Middle Palaeolithic period. Some analogies (as conjectured by M.Piperno) between the Yemenite industry and the Mousterian implements found at Jarhom in Iran seem to confirm this dating (M.PIPERNO, Jarhom, a Middle Palaeolithic Site in Fars, East and West 1972.183 ff). For other palaeoliths in Southern Arabia cf G.CATON-THOMPSON, E.W.GARDNER, Climate, irrigation and early man in Hadramaut, Geogr.Jnl.93 (1939).18 ff; G.CATON-THOMPSON op.cit.; id., Flint tools from Southern Arabia, Nature 29/2/1964.

²¹ The main technical and decorative features of South Arabian pottery in this early pre-Islamic phase, so far as known through the few reports published up to now, are summarised by R.FATTOVICH, Materiali per lo studio della ceramica pre-aksumita etiopica (Napoli 1980).73 ff.

²² See also B.DOE, Southern Arabia (London 1971).117.

²³ B.SCHAFFER, Sammlung Eduard Glaser VII, Sbr.Öst.Akad.d.Wiss., phil.-hist.Kl., 282/i (Wien 1972).43-5. The provenance of the two texts is given as "el-Ahgur, Ḥadā", i.e. the same site that we have here been describing.

²⁴ A.JAMME, Pre-Islamic Inscriptions of the Riyadh Museum, OA 9 (1970).120.

²⁵ The Corpus text should be corrected by reference to M.HÖFNER, Sabaeica III, Mitt.a.d.Mus.f.Völkerkunde in Hamburg 28 (Hamburg 1966).21 ff.

²⁶ M.R.JARMAN, A territorial model for archaeology, in 'Models in archaeology' ed. D.L.Clarke (London 1972).705-35; E.S.HIGGS, C.VITA-FINZI, Prehistoric economies, a territorial approach. in 'Papers in economic pre-history' ed. E.S.Higgs (Cambridge 1972).27-36.

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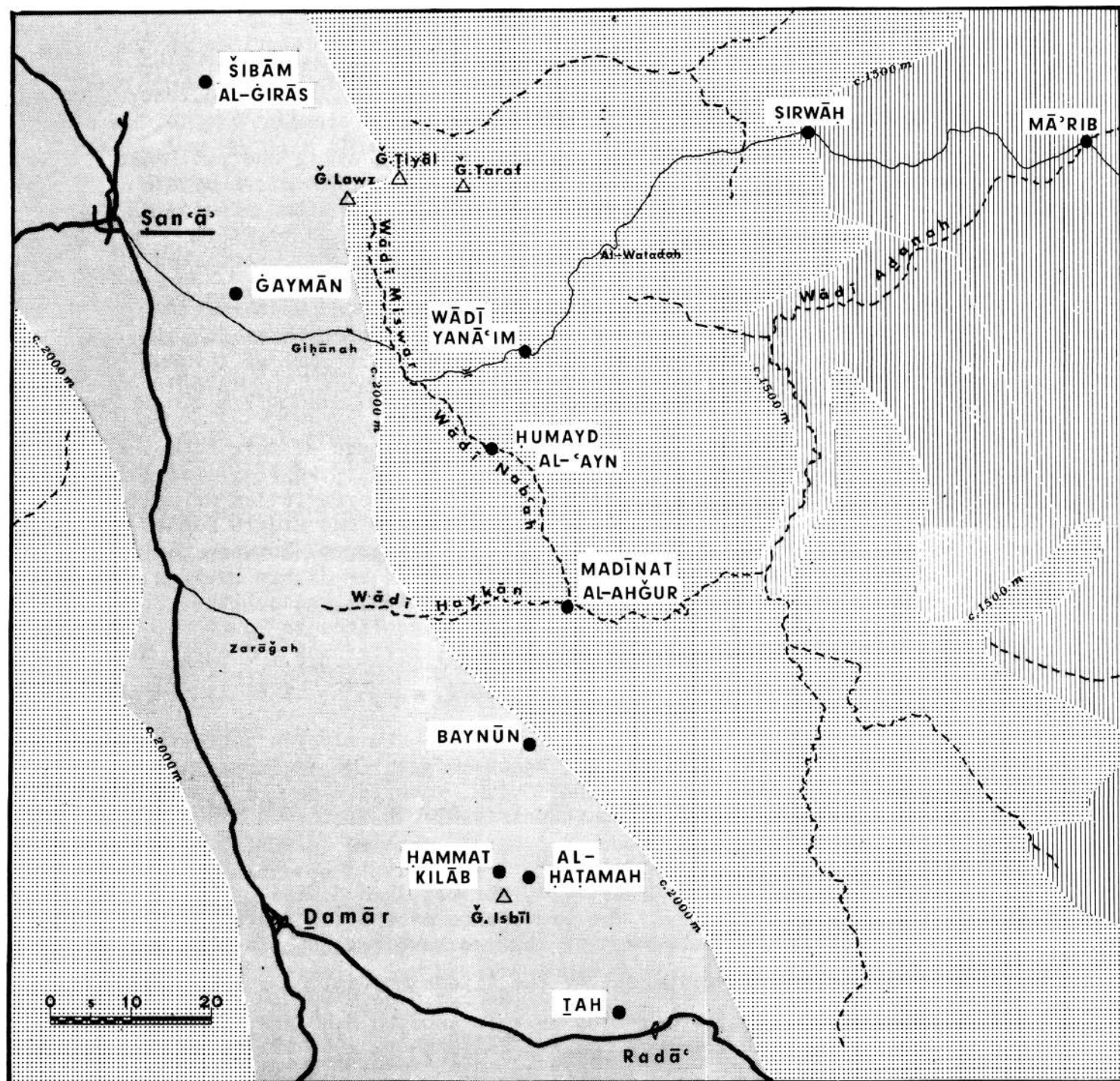


Fig. 1.