

# ARCHAEOLOGICAL DISCOVERIES IN WESTERN DESERT — IRAQ

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During the geological research in the Western Desert in Iraq which was undertaken by P. Mrázek and others in 1978—1979 it was possible to visit different ancient sites and localities where archaeological, epigraphical and pictographical relics could be studied. The area of the surveyed territory is defined by the borderline between Iraq and Syria to the north, between Iraq and Saudi Arabia to the south, by the meridian 39° 30' of the eastern width to the west and by the meridian 41° of the eastern width to the east. The centre of the investigated area was the Gacara Depression (Djūbat al-Qacara), especially its southern environs (as-Sawāb, Abyār al-Mulusa, Wādī al-Agharri, i. e. al-Gharri, Tell an-Nasr, Wādī Xawrān, Qasr al-Muxaiwir, i. e. Qulab al-Muxaiwir) and al-Xalqum in the north of the depression. The second area of our interest lay in al-Wudiyan around the way to the south (to al-Djawf). The region was formerly visited and investigated by our outstanding predecessor Alois Musil in 1908 (cf. his Arabia Deserta, New York, 1927, p. 64 ss. on Biyār al-Mlosi, p. 247 on the region around Čalb al-Čacači, our al-Ki<sup>c</sup>aki), who observed and noted some objects of interest there.

The aim of this paper is to present a preliminary report on our work which is to be continued in the future.

### Geography and Geomorphology

Geomorphological evolution of the territory is conditioned by its geological setting, erosional function of ephemeral streams and eolation.

Subhorizontal bedded permian, mesozoic and paleogene limestones and dolomites are interbedded with marlstones, siltstones and sandstones in the rock basis. In the northern part of the territory slight vault was formed in the course of the geological development (ar-Rutba elevation). The core of the elevation is denuded in the marked terrain depression of Gacara (al-Qacara), the bottom of which is 650 m above sea level, bordered with "mesas" (tafelbergs) and escarpments. Gacara depression is drained toward the north and north-east to the Euphrates (through Wādī ar-Rathqa). The eolian abrasion platforms in the surroundings are covered by the hammada type of desert surface. Beneath the stepwise escarpments there are coarse slope deposits as well as loamy fluviodeluvial deposits.

The south-western part of the territory is mostly flat or slightly waved, with average elevation about 800 m above sea level. In winter ephemeral salt lakes develop in the peneplain closed basins (playas). The type of the desert surface is serir with fluviodeluvial sediments and saltcretes.

The south-eastern part of the territory — al-Wudiyān — differs from the lastly named area in its geomorphology. The upland elevations (600—700 m above sea level) alternate with canyons of many wādīs which lead toward the east and northeast to the lowland near Euphrates (200—300 m above sea level). The most important wādīs are Wādī Xawrān, Wādī Ghadaf (Radaf in A. Musil, o. c. 248) and Wādī Tubal (Tbel in Musil o. c.) with their numerous tributaries. The wādī beds are filled with sand gravel and loamy fluviatil sediments.

Eolian desert sand and dust are to be found inferiorly in the whole territory.

Geological and geomorphological variability of the terrain has influence upon its hydrological conditions. Only in Ga<sup>c</sup>ara depression and in al-Wudiyān there is sufficient quantity of drinking water during the whole year. In winter, water can be found in some of the wādīs while during the other seasons it has to be taken from the wells. The summer wells are sometimes hollowed

in the bottom of a wādī and fulfil the function of a water-tank. The permanent wells, that function all the year round, are hollowed into the waterbearing horizons in the base of quaternary sediments.

Both Gacara depression and al-Wudiyān have favourable conditions for a whole-year nomadic cattle breeding and hunting, as described in the works of A. Musil. In the valleys there is a lot of perennial and one-year herbs, making the life of some wild animals possible (antelope, rabbit, fox, hyena, porcupine, desert wild fowls, etc.) which are hunted by the Slēb and other tribes. In this area trees are very rare, but locally there are conditions for their growth.

### Previously Known Human Settlements

There is only one place with perennial settlement on the road from Baghdad to Amman and Damascus — the town ar-Rutba. Human settlements, however, have evidently very old tradition in the area. Through the Gacara depression, which was identified by A. Musil as the classical Gauara (var. Cauara in Ptolemy, o. c. 506), an old caravan route passed from Palmyra to Hit on Euphrates and a second one (named Darb as-Sācī) from Damascus to Hīt; they were important merely as commercial connections between Palmyra, the Parthian city Vologesias and Spasinou Charax in the Persian Gulf. The route from Palmyra to Hit was evidently under control of the Palmyrians (cf. R. Mouterde, A. Poidebard, La voie antique des caravanes entre Palmyre et Hit au IIe siècle apr. J.-C., Syria XII, 1931, 101-115). The most important stations in the Gacara depression were Abyar al-Mulusa, the wells of Rax and Qulab al-Muxaiwir (Qasr al-Muxaiwir) in the Wadi Xawran (Musil, o. c. 69), the latter identified by A. Musil as the classical Aurana. Near the northern rim of the Gacara depression we can find a townlike settlement and defensive stone walls of the Parthian fortress al-Xalqum, which tends to show the strategical importance of the depression. There was an important crossroad in the Gacara depression: the routes in west-east direction (Damascus - Hīt, Palmyra - Hīt) were crossed here by the road leading from the north from the Euphrates (perhaps through Wādī ar-Rathqa) to the Gacara depression and from here to the south through Tell an-Nasr and al-Wudiyan to al-Djawf, where up to the present we can see many

buildings (watch-towers) indicating and watching the route. A. Musil travelled in the region from al-Djawf to Wādī Tbel (Tubal) but he did not observe these towers. He notes that the way from Gacara to the south was very dangerous (o. c. 247). Near Shecīb Čalb al-Čacači (our Kicaki) he also found a low semicircular artificial wall about forty meters long, enclosing a large mound of stones, while behind the wall, on the northern side, was a strip of ground about two meters wide and cleared of all stones. It was said to him that here Prince cAbdallāh ibn Sacūd al-Imām prayed and relaxed when (about 1810) he was engaged in war with the Bedouins. A. Musil also noticed old stone graves on top of which high cairns had been piled and a large corral for goats (sīre) protected by a wall about sixty centimeters high against wolves. The importance of the area is evident.

There are only three archaeological localities recorded on the Archaeological Map of Iraq:

An-Nisir (our Tell an-Nasr):

a rock on the elevation nearly 40 km north-east from ar-Rutba. Here old inscriptions were pecked into the desert varnish on the surface of siliceous sandstone with some stone implement. The settlement is supposed to have existed from middle chalcolitic (Uruk) to Sassanian period (fig. 1).

Xalqum (our al-Xalqum):

The location on the Iraqi archaeological map is not correct. Townlike settlement on a "mesa" (tafelberg) and defensive stone walls are found at the beginning of the Wādī ar-Rathqa, near the northern rim of the Gacara depression. On the plane 250—600 m there are many destroyed stone houses with rectangular ground plane, remnants of fireplaces and fragments of pottery. The settlement is ment to be Parthian (figs. 2 and 3).

Mulusa (our Bîr al-Mulusa, Abyār al-Mlosi in Musil):

indicated on the map as a Parthian locality, we failed to find.

In the collection of Iraqi Museum in Baghdad there are "old yemenite" (safaitic) inscriptions, written by ochre on limestone plates from the surroudings of ar-Rutba. Some of the Iraqi safaitic inscriptions have been published by G. L. Harding, Safaitic inscriptions in the Iraq Museum, Sumer 6, 1950, 124—129.

Most of the safaitic inscriptions were found in Syria and Jordania.

### New Perspectives

To the previous discoveries of archaeological relics several others, not yet known, can be added. This new material lead to some interesting conclusions.

The discovery of a Palmyrian inscription on the rock of Tell an-Nasr, which proves the presence of the Palmyrians in this region and their commercial activity is of great historical importance. This presence has been only supposed until now from the evidence of other inscriptions in Greek language at the beginning of the route Palmyra — Gacara — Qasr al-Muxaiwir — Hīt, which were found and published previously (Mouterde, Poidebard, o. c.). The proposed identification of A. Musil of Gauara as Gacara and of Aurana as Xawrān, that means Qasr or Qulāb al-Muxaiwir in the Wādī Xawrān, underlines the historical importance of the region. For the variant Cauara of classical Gauara of the Arabic classical form Qacara, which means a spacious hollow; in eastern Arabian dialects "G" corresponds to "Q", cf. T. M. Johnstone, Eastern Arabian Dialect Studies, Oxford, 1967, p. 20.

We can also be sure that the lacking and not yet identified locality Gannae katalema quoted in the mentioned inscription at the beginning of the route Palmyra — Gacara — Hit (Mouterde, Poidebard, o. c., p. 107: caravansérail de Gannaes), which was supposed to lie between Vologesias and Palmyra (ibid. 111), was situated in our area. The previous etymology proposed for Gannae (ibid. 110-111) should be abandoned. We propose to identify it with the locality al-Qneni recorded and historically explained by A. Musil, o. c. 63 (and Note 15) in connection with the Gacara depression (the basin Djūbt al-Qacara), where the name of the well-known shallow well al-Qnēni, after which the al-Qnēniyāt vicinity is called, is preserved. The valley of al-Qnēni ends in this basin at the wells of ar-Rax (our Bir ar-Rax), which can be identified with the wells of al-Qnēni. Al-Qnēniyāt was the name of the five shecībān coming from the south to the Djūbt al-Qacara. According to A. Musil a tell south of al-Qneni, i. e. Tell an-Nasr, was named after Nasr, the leader of a Carmathian revolt in 906 A. D. He was assassinated by his fellows and the

Kalb tribe and his head was sent to the commander of the Baghdad army. After this act the Moslem armies withdrew and left the rest of the Carmathians exactly here, in al-Qnēni, in peace.

This site was also an ancient post of the Palmyrian garnison on the caravan road (Gannae katalema), where one statue mentioned in the quoted Greek inscription had been probably erected. It is of great importance that we have found Palmyrian inscriptions just on Tell an-Nasr, where also stone enclosures on the top prove the presence of man. (For Palmyrian inscriptions from syro-iraqi frontier cf. J. Stracky, Mélanges de l'Université St. Joseph XXVIII, 1949—50, 45—51; from Wādī Xawrān cf. F. Safar, Sumer XXI. 1965, 9—27; from the Qacara Depression J. Teixdor, Syria 40, 1963, 33—42. On the Palmyrian activity in the Oriental Desert cf. J. Stracky, in F. V. Winnett and W. L. Reed, Ancient Records from North Arabia, Toronto 1970, 181—2.)

The etymology of some names quoted here could help us to understand the general character of the region. The name al-Qnēni is derived from the root QNN with the meaning "to take a rest", "to repose" (cf. the verb in the VIII stem iqtanna, in the X stem istaqanna: "to stop the camels" etc.), or with the meaning "a small hill" (qunn), "an isolated hill" or "a top of hill" (qunnat, pl. qunnāt, qunan, qinān). From the last form of plural (qinān) our toponyme could be derived. A. Musil explains the meaning of qenna from the dialect of the Rwala bedouins (The Manners and Customs of the Rwala Bedouins, New York 1928, p. 680) as follows: "An isolated conical hill on the top of which a beacon is lit whenever the enemy means to attack herds grazing far from the camp." All quoted meanings can be accepted as the basis for the toponyme al-Qnēni.

The meaning of "repose" is concealed also in the name ar-Rāx, but it is possible to look for other explanation as well (e.g. rāx — "plateau covered with rich vegetation"; this meaning, however, could be secondary and derived from the meaning "repose").

The name of al-Xalqūm is derived from halq — "gorge"; xalqūm has the same meaning and both forms are used in connection with the well (xalq al-želīb: "the opening of a well", cf. A. Musil, The Manners and Customs of the Rwala Bedouins, p. 679), or as in our case "the opening of the depression named qacara". The word qacara means (in the dialect of the Rwala)

"a large hollow shut in on three sides by steep slopes" and corresponds precisely to the form of the Ga<sup>c</sup>ara depression.

The name of Qasr al-Muxaiwih is derived from Qulbān al-muxaiwir, the first name indicating wells, the second we can suppose as being derived from the root XWR like in Xawrān, because it lies in the Wādī Xawrān. But the root XWR or XYR has also other meanings, e. g. "to return" (XWR); maxār means in this case "the place of retreat" etc.

All the names quoted fit very well to the character of the region.

The origin and function of the "watch-towers" along the route to the south need further studies and clarification. The same can be said about the circular building between Shecīb Mulayah and Shecīb al-Kicaki (Čicači in A. Musil, with palatalization of "k" to "č" occurring in the eastern dialects, cf. Johnstone, o. c., p. 2).

From the ethnographical point of view the existence of the artistic activity of the Bedu children in as-Sawāb up to present day is most important. The modern motifs in the rock-art (e. g. a lorry) are of special interest.

The pictographical material connects this area with other regions of the Arabian rock-art. At first we can see analogies in both form and content with the rock-art in central Arabia (cf. only E. Anati, Rock-Art in Central Arabia, vol. 2, 1968).

Epigraphical findings are not numerous and do not bring any surprising data, with the exception of the Palmyrian inscriptions mentioned above. The tribal symbols (wusūm) on boulders, e. g. in as-Sawāb, are common here.

Manufactory equipment for stone industry and the occurrence of stone tools in different sites (deep grooves at al-Mulusa, stone enclosures in al-Wudiyān in connection with stone industry and hollows with burned border) need further study and classification.

Also the distribution of the drawings and inscriptions connected with the geomorphological structure of the region could be of high interest for the historical interpretation of the pictographical provinces in Arabia. The lack of pictographical material in al-Wudiyān deserves our attention and needs explanation.

For the indication of the respective sites Bedu camps, watering places and wādīs were used (cf. the map).

As-Sawāb (as-Swāb in Musil, o. c. 60) in the west of the Gacara depression; a name of a wadı. Our site is formed by a group of boulers in a shallow valley, about 10 km north from the phosphate deposit in the Sheciban al-Akashat, drainage area of Wādī as-Sawāb, 20 km south from the old caravan route from Palmyra to Hit, mentioned above. Round-shaped boulders of chert developed during the weathering of limestone with big chert nodules. Several types of the current wusum are laid on top of the boulder in two layers, without zoomorphical or anthropological drawings (fig. 4), but there is another boulder here showing a nice hunting scene (a horseman with spear hunting an ostrich in front of a round enclosure with a little camel or some other animal) (fig. 5). Such a scene is well documented in other places in Arabia. On the other side of this boulder there are three schematic camels with a rider. The older drawings have a desert varnish, whereas the younger ones seem to have been made recently and are not patinated. Up to the present the Bedu children keep pecking new rock drawings into the desert varnish or they renew the old ones. On plat stones of Bedu desert graves some tribal symbols can also be found.

Bīr al-Mulusa (Biyār al-Mlosi in A. Musil), well depicted in o. c. 64 ss. by our traveller. Above the right bank of al-Mlosi he discovered a high and rocky cliff consisting of horizontal layers of porous sandstone. Here Musil found spacious caves and beduin tribal signs and "primitive carvings of gazelles, camels, horses and so on". But he did not find any writing except the thrice-recorded name of 'Alī (p. 66). During our investigation in the same site on the hillside of the low "mesa" on the eastern rim of the Ga'ara depression, which consists of soft quartz-calcare-ous sandstone, we discovered here and there several schematic pictures of camels, wusūms and protoarabian inscriptions (fig. 6). Several deep grooves found in the wall originated most probably during the sharpening of tools. Stone industry has not been found here.

Al-Agharri (al-Gharri, written al-Rarri in A. Musil, o. c. 63), an erosional remnant of siliceous sandstone, size  $30\times50\times5$  m (height), in the middle of the Wādī al-Gharri (fig. 7). It is situated 12 km south-west from the estuary of the wādī to the Gacara

depression, where a nonperennial Bedu camp and several wells could be found. In the desert varnish of the rock surface we discovered several rock drawings of ibex with dogs, goats (or antelopes), tribal symbols, some unknown objects (figs. 8 and 9) and one short thamudic inscription.

At the lower part of the exposure there is a small circular hollow (diameter 12 cm, depth 10 cm) with red-coloured burned border, engraved also in the southern part of the territory, but especially on the top of the "mesas" or on other observation points (fig. 10). They are perhaps connected with the beacon fires (or lights) used till Musil's days by the bedouins whenever the enemy ment to attack herds grazing far from the camp (cf. sub "qenna" explained by A. Musil, Manners and Customs of the Rwala Bedouins, p. 680).

On the rock and beneath it we found stone knives, scrapes, arrow points and waste stone material.

On the bedding plane of dolomite about 1 km to the northeast from the last-mentioned locality we found an ochre drawing of unusual shape (fig. 11).

Tell an-Nasr quoted above in the Archaeological map (an-Nisir) represents in our documentation one of the most important places in the region. There are two sites here: a flat elevation and a small rocky hill. The elevation with debris on the top could be identified with the Tell an-Nasr quoted by A. Musil, o. c. 63, see our explanation above. It contains also some Palmyrian inscriptions together with some drawings (man riding a camel?, symbols). The inscriptions prove the presence of the Palmyrians near the road from Palmyra to Hit.

Qasr al-Muxaiwir (al Mxejwer or Qulāb al-Mxejwer in A. Musil) was named after the modern fortress, but the older name (Qulāb) indicates the importance of the place for the commercial routes. J. Tyráček and M. A. Rahim found a rocky exposure of siliceous sandstone in the Wādī Xawrān valley, about 2 km to the west of an abandoned fortress and watering place of Qasr al-Muhaiwir. In the desert varnish on the rock surface there are some pecked-in drawings: big cattle with realistic or oversized horns, ibex, goats or gazelles (figs. 12 and 13), camels, a red deer (?), sheep as well as men riding horses, hunting a camel with a sling (?) and various symbols (a bow with an arrow?).

One picture represents probably a man riding a horned animal. To some of these pictures analogies on the Arabian peninsula can be found.

On the ground primitive stone knives have been discovered. Wādī Xawrān — under the name of this wādī we understand our locality, i. e. boulders of siliceous sandstone in the erosional gorge 1 km to the south of Wādī Xawrān and about 10 km southwest of the fortress Qasr al-Muxaiwir. Drawings of goats (or ibex with oversized horns) and other animals, symbols executed in the same way as the drawings in the former locality (fig. 14) in addition to primitive stone tools were found here.

## Al-Wudiyān area

Only old buildings with numerous stone tools were found in this area. It is possible that old drawings have not survived on the soft and easy weathering carbonaceous rocks. In this area there are no hard siliceous rocks with dark desert varnish which would be suitable for pecking of drawings and inscriptions or for the development of natural shelters.

In al-Wudiyān we have discovered several types of buildings of different periods.

- a) circular to elliptical stone enclosures of 3—20 m in diameter. The size of the displaced boulders up to 1 m in diameter. These enclosures can be found mostly in the valleys. In several enclosures we discovered primitive stone tools. Such enclosures have been observed also by A. Musil when travelling from al-Djawf to Abyār al-Mlosi. There he found only a low, semicircular wall and a large corral for goats (o. c. 248—9) mentioned above. Our enclosures may be of the same origin.
- b) places enclosed by flat boulders on the top of mesas and sharp crests. Boulders originated during the decay of thin bedded dolomite and were arranged with the bedding plane upright to the ground. Small engraved hollows with burned border and stone tools can be observed there. We consider as possible that such places are remnants of the old system of fire signalization (beacon fires or lights) (cf. A. Musil under the heading al-Agharri).
- c) Most important was the discovery of small circular buildings ("watch-towers") arranged in a line bordering the way

to the south to al-Djawf (figs. 15 and 16). The route was used by A. Musil (from south to north) but he did not notice any buildings of this kind in this region. This route which we frequently used begins to the north of Tell an-Nasr, crosses the Wādī Xawrān and continues in the south-south-eastern direction crossing the Wādī 'Amidj, Wādī al-Xāzimi (Musil: ridjlet al Xāzimi, o. c. 248), Wādī al-Irbiyāni, Ghadfat at-Tawli and Ghadfat Mahfūr, She'īb Ghayda, She'īb Mulayah and the tributaries of Wādī Tubal, i. e. She'īb al-Ki'aki (Musil, Čalb al-Ča'ači), She'īb Sa'īd (Musil: Tal'at as-Sa'īd, 249), She'īb Abū Muntār (Musil: Čalb Abū Muntār, 246, 249) and She'īb al-Faraki (Musil: al-Farāt, 246).

The small buildings served perhaps as watch-towers or beacon fire towers on the road to al-Djawf. Such watch-towers on pilgrim roads are known from other countries in Arabia (cf. A. Musil, The Northern Hegāz, 1925, pp. 25, 38, 45, 89—90, fig. 31, 177, 199), but our type with smaller "towers" in one line was not noted by A. Musil. On the top there were also piles of tiny stones, like those observed and explained by A. Musil, o. c. 199.

The partly destroyed stone walls of the central building are approximately 2 m high and up to 5 m in diameter. The other smaller buildings diverging from the central one could have indicated the direction of the route in this hardly accessible area. The number of the smaller "towers" varies.

b) On the plane between She<sup>c</sup>īb al-Ki<sup>c</sup>aki and She<sup>c</sup>īb al-Mulayah a big circular building with concentric structure has been discovered; its function deserves further investigation (figs. 17 and 18).

Stone knives, scrapes and arrow-heads (figs. 19 and 20) can also be found in many places both on the uplands and in the wādīs, far from buildings or water sources. The raw material of the above-mentioned tools is mostly light grey to brown chert, which often forms nodules in paleogene and upper cretaceous limestone. Rarely upper cretaceous greyish white quartzite as raw material was found. Because of the discovery of stone waste in different places we can conclude that the tools were manufactured in an area far away from the source of raw material. It could have been transported to the distance of 200 km.

The obsidian tools known from the neolithic cultures of the southern Mesopotamia and elsewhere have not been discovered in our area.

Two iron arrow-heads were found in the area of Wādī al-Xāzimi.

Note the grapheme x(X) for the pharyngeal h.

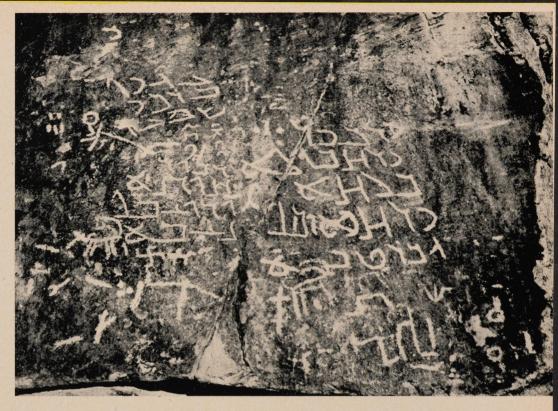


Fig. 1: Tell an-Nasr: Palmyrian inscription. Pecked into the desert varnish.

Fig. 2: Al-Xalqum: outline of the situation.

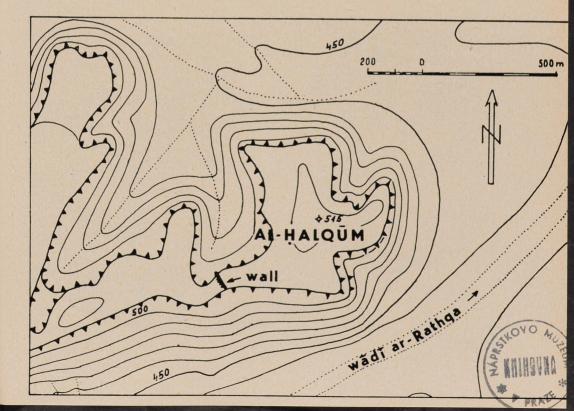




Fig. 3: Al-Xalqum: protective wall.

Fig. 4: As-Sawāb: the wūsūms are pecked into the desert varnish. Similar symbols are also on other sites in the neighbourhood of the Gacara depression.





Fig. 5: As-Sawāb: a horseman with a spear hunting an ostrich in front of a round enclosure. Pecked into the desert varnish.

Fig. 6: Bir al-Mulusa: camel and a short safaitic inscription. Rock engraving.





Fig. 7: Al-Agharri: the wūsūm. Pecked into the desert varnish.

Fig. 8: Al-Agharri: a symbol of unknown meaning is pecked into the desert varnish.



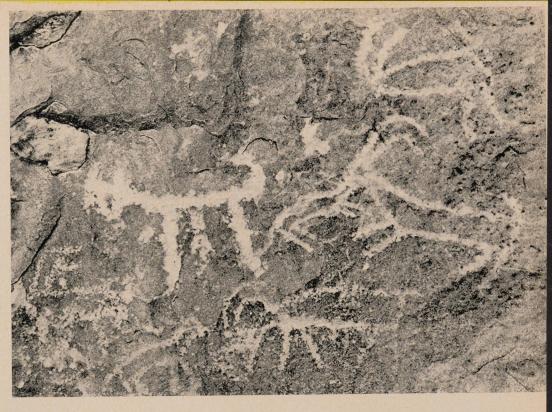


Fig. 9: Al-Agharri: ibexes with dogs and with a horse (?). Pecked into the desert varnish.

Fig. 10: Al-Agharri: a small circular hollow with red-coloured burned border (used for beacon fires or lights whenever the enemy means to attack the bedouins' herds?).

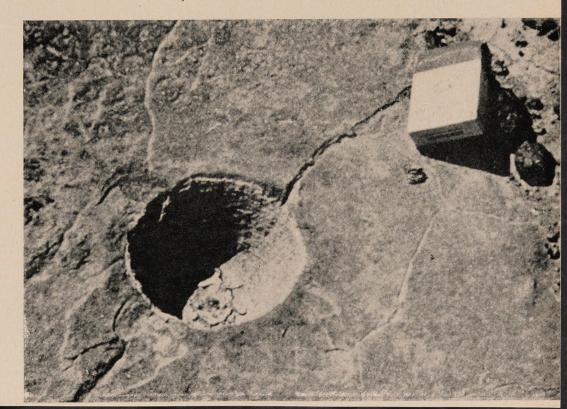




Fig. 11: Al-Agharri: an ochre painting on dolomite.

Fig. 12: Qasr al-Muxaiwir: antelope with oversized horns. Pecked into the desert varnish.





Fig. 13: Qasr al-Muxaiwir: various cattle. Pecked into the desert varnish.

Fig. 14: Wādī Xawrān: ibexes or goats with symbols (wūsūm). Pecked into the desert varnish.



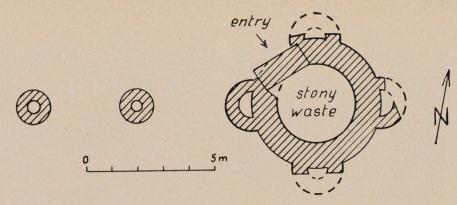


Fig. 15: Ground plan of the "watch-tower" above She<sup>c</sup>īb al-Irbiyāni with smaller buildings in line. In other localities the apses round the "watch-towers" are usually missing.

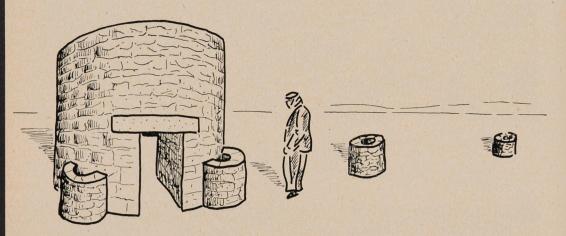
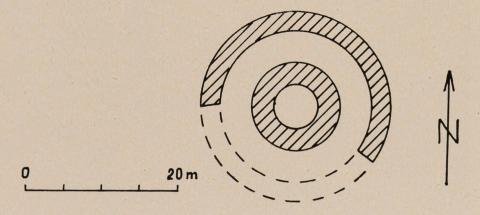


Fig. 16: Reconstruction of the "watch-tower" above Shecib al-Irbiyani with smaller buildings in line indicating the direction of the caravan route.

The number of the smaller buildings varies from 5 to 16 (indicating the number of the day courses of caravans?).

Fig. 17: Ground plan of the circular building between She $^{\rm c}$ ib al-Ki $^{\rm c}$ aki and She $^{\rm c}$ ib al-Mulayax.



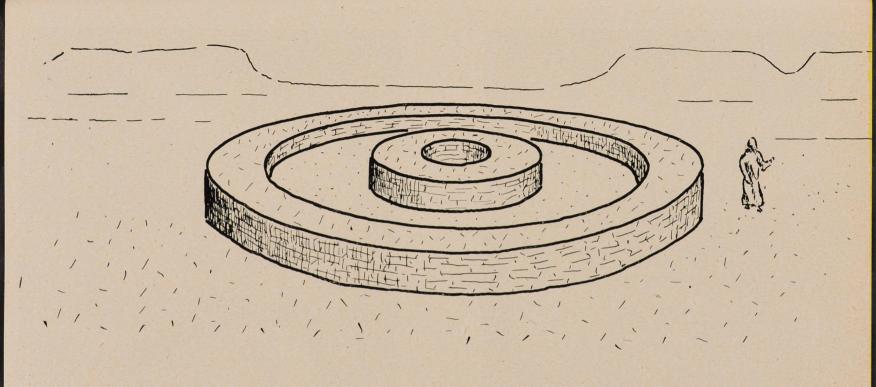


Fig. 18: Reconstruction of the circular building between Shecib al-Kicaki and Shecib al-Mulayax.



Fig. 19: Stone knives and arrow-head.

Fig. 20: Stone scrapes.



