



**HAL**  
open science

## Urbanization and Settlement pattern in Ancient Hadramawt (1st mill. BC)

Jérémie Schiettecatte

► **To cite this version:**

Jérémie Schiettecatte. Urbanization and Settlement pattern in Ancient Hadramawt (1st mill. BC).  
Bulletin of Archaeology of the Kanazawa University, 2007, 28, pp.11-28. halshs-00581278

**HAL Id: halshs-00581278**

**<https://shs.hal.science/halshs-00581278>**

Submitted on 30 Mar 2011

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

# *URBANIZATION AND SETTLEMENT PATTERN IN ANCIENT HADRAMAWT (1<sup>ST</sup> MILL. BC)*

Jérémie SCHIETTECATTE<sup>1</sup>

## SUMMARY

This paper aims at highlighting the process that leads to the setting up of a regular settlement pattern in inner Hadramawt. It points out the nature of the urban sites being seen in this context as small towns with a growth depending on irrigated agriculture. The religious function of these sites as well as their defensive function is also considered. Thus, we observe that the size and importance of towns in inner Hadramawt are rather limited, that they were cut off from the other South-Arabian regions until the end of the 1st cent. BC and that their development seems to have been conditioned by no other resources than agriculture.

## INTRODUCTION

The Ḥaḍramawt region is generally understood as the oriental region of Yemen, between the Ramlat as-Sabat'ayn, the inner desert, and Maḥra, the eastern border area. For this historical study, Ḥaḍramawt however is understood in its broader expansion, reached by the Ḥaḍramawt kingdom at the beginning of the Christian era. This area was then characterized by a common language and the dominant worship of the deity Sayīn. It stretched over the current region of Ḥaḍramawt but also over the whole coastal plain east of Balḥâf city, at the mouth of the wādī Mayfa'a. Moreover, it included an enclave in the Ḥufâr area, around Ṣalâla in Oman (fig. 1).

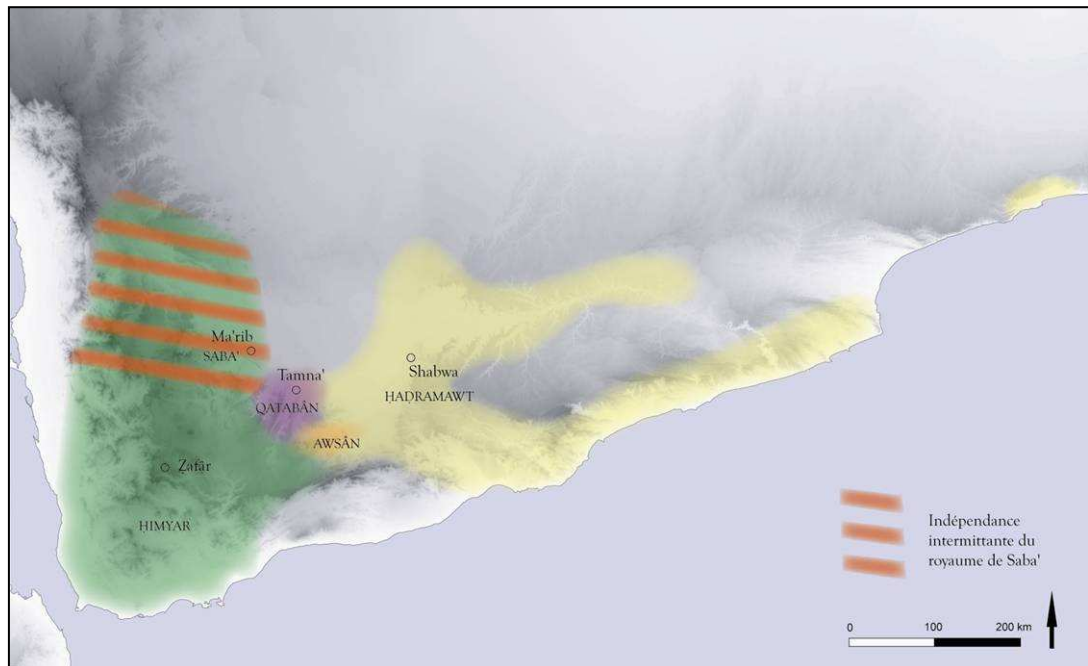


Fig. 1 : South-Arabian kingdoms (1<sup>st</sup> cent. AD).

<sup>1</sup> Centre d'anthropologie, École des Hautes Études en Sciences Sociales, 39 allées Jules Guesde, 31 000 Toulouse (France).

## Urbanization and Settlement pattern in Ancient Hadramawt (1st mill. BC)

A contrasting landscape characterized this region (fig. 2):

- the Hadramawt valley – formed by both the wādī Hadramawt and the wādī Masila –and its tributaries is inserted in a dendritic drainage pattern, deeply cut into the limestone plateau;
- on the western part, the mouths of several wādīs (Jirdân, ‘Irmâ and Duhur) open onto the barren sand dunes of the Ramlat as-Sab‘atayn;
- the narrow southern coastal plain is intermittently crossed by wādī beds.



Fig. 2 : Relief of Ḥaḍramawt and geographical entities

In each of these geographical entities, the evolution of local populations was conditioned by their very specific environmental contexts, that is by their irrigation capacities and the opportunities to interact with their neighbours. The contrast is obvious between small isolated communities settled far from the centre of the kingdom (Makaynûn, Hajar, Sûna), benefiting from only limited runoffs, and sites that are either open onto the desert (Bi'r Ḥamad, Shabwa, al-Barîra), and interacting with western populations from nearby kingdoms, or maritime ports (Khawr Rûrî, Bi'r 'Alî) open to foreign trade partners. In that area more than elsewhere in South Arabia, defining the very urban nature of most of the sites remains venture. They mainly appear as broad built-up areas acting as a weak magnet for the surrounding area and with activities being no more than agricultural ones. Genuine towns are rare or at least uneasy to discern; most of the latter prove to be as such only once excavations unveil their exact nature (for example Makaynûn or Raybûn).

In order to point out this diversity, either due to the specific environmental context or to a particular historical context, I will initially consider the settlement process during the 2nd millennium BC combining both local practices together with external influence. We will then see how this leads to the setting up of a regular settlement pattern in the area. Lastly, I will deal

with the changes that occurred at the beginning of the Christian era as a result of the evolution of the  adrami kingdom and the increase of the political centralisation.

A – THE SETTLEMENT PROCESS DURING THE 2ND MILLENNIUM BC: LOCAL PRACTICES AND EXTERNAL INFLUENCE

The recent surveys in  adramawt have highlighted the density of the sites dating from both Palaeolithic and Neolithic periods<sup>2</sup>. Researches carried out in w d   an  led to the setting up of a first model of the settlement process in that area by J. McCorrison<sup>3</sup>. In this tributary of the w d  Masila, she pointed out that many perennial springs were active – some lasted until a recent date –, leading to moister conditions, locally marshy. The population benefited from propitious conditions for cattle farming, without needing a very big territory to feed their stock. This population settled either in rock shelters or in built structures from 4500 BC onwards, upstream from small tributaries of the  adramawt drainage network. The first irrigation systems appeared towards 3000 BC, mostly made of simple structures such as diversion walls on the slopes or check-dams in the tributaries of the w d   an . According to J. McCorrison, these hydraulic structures were mainly aimed at encouraging the growth of pasture area more than agriculture. The consequences of an increase of the aridity during the 4th and 3rd millennium BC combined to the drying-up of some springs and the shrinking of pasture areas could have only been twofold: the gathering of populations down to the basins, the lower valleys or close by the rare perennial sources on the first hand; and on the other hand, the development of sheep and goat farming, to the detriment of cattle, allowing a greater mobility and an easier access to scattered resources.

During the 2nd millennium BC, we have evidences of the most ancient occupations settled nearby sources or perennial runoffs in the lower valleys, that is to say the main tributaries and the central valley of the w d  Hadramawt (fig. 3):

- The site of Shi'b Munaydir is settled along the bed of one of the main tributaries of the  adramawt valley. This site is established upstream from w d  'Id m. Sixty-four round structures are scattered on a 1-kilometre-long terrace. It took advantage of perennial runoffs by the mid 2nd mill. BC<sup>4</sup>.

- The sites Rayb n XXXII and Rayb n XXXIII in the w d  Daw'an, and a - afil III in the w d  al-'Ayn. According to A. V. Sedov, these sites could have benefited from both the flows on the nearby slopes and the rain-water<sup>5</sup>.

- Makayn n in the w d  Masila (this name is given to the w d  Hadramawt downstream from Tar m). This settlement may have benefited from some perennial runoffs as suggested by the natural watered channels running alongside of Makayn n just before an irrigated system

---

<sup>2</sup> These sites have been pinpointed on the edge of the Ramlat as-Sab'atayn (M.-L. Inizan & L. Ortlieb, 1987 ; S. Cleuziou & M.-L. Inizan, 1993), on the *Jawl* (R. Crassard & P. Bodu, 2004 ; Crassard R. & al., 2006), on the southern coastal plain (J. Schiettecatte, 2004) and in Zuf r (M. Cremaschi & F. Negrino, 2002).

<sup>3</sup> J. McCorrison & al., 2005, pp. 149-150.

<sup>4</sup> J. McCorrison, 2000. A sample has been dated back to 1501-1422 BC (2  $\sigma$  cal.).

<sup>5</sup> A. V. Sedov, 1996 a, p. 80.

## Urbanization and Settlement pattern in Ancient Hadramawt (1st mill. BC)

was developed at the beginning of the 1st mill. BC<sup>6</sup>. This fact points out that these channel had dried up at that time.

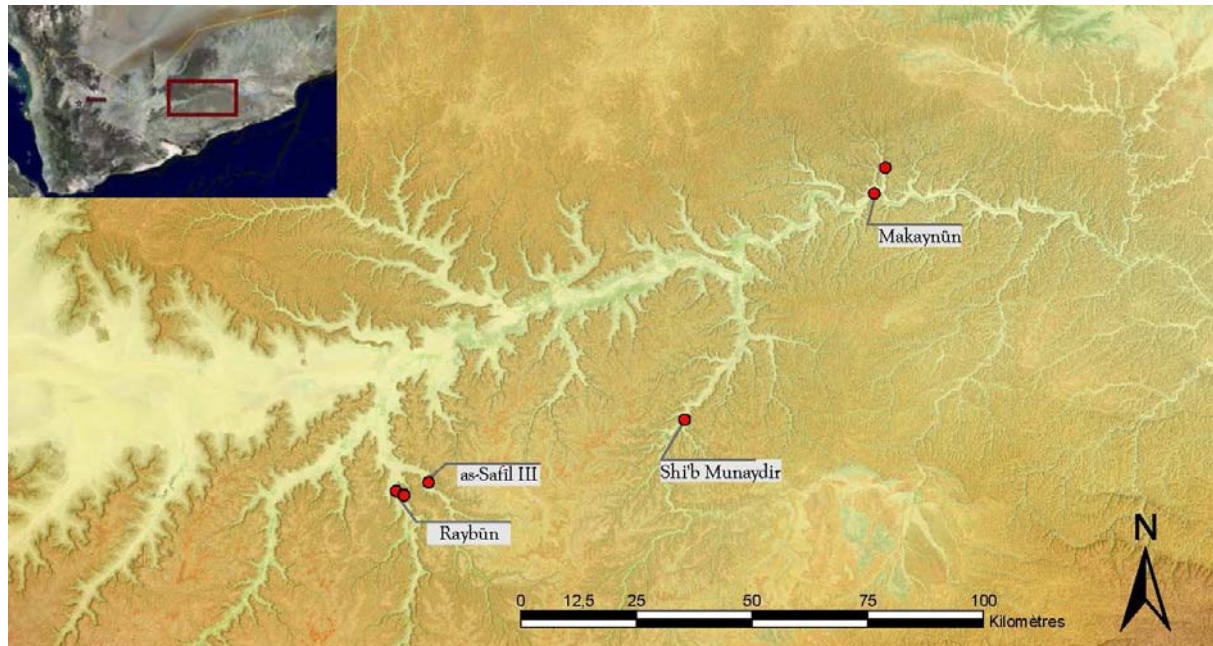


Fig. 3: Location of archaeological sites at the end of the 2nd mill. BC

During the 3rd and 2nd mill. BC, as a response to the environmental stress caused by increasing aridity, small cultivated areas were exploited. The irrigation structures were not widely used as long as the karstic network and the last active springs compensated the water requirements. The dichotomy that appeared at that time between sedentary and nomadic people may be reflected in the two types of necropolis distinguished for the Hadramawt Bronze Age<sup>7</sup>.

At the end of the 2nd mill. and during the first quarter of the 1st mill. BC, the developing irrigation systems conditioned the growth of settlements. It is very likely that it appeared in response to the drying up of the last perennial runoffs. The excavations carried out by the French Archaeological Mission in Hadramawt has shown that the inhabitants of Makaynûn, settled at the confluence of four tributaries of the wâdî Masîla, set progressively up a network of canals taking advantage of the flood that converges on the site at that time<sup>8</sup>. Similarly, the absolute necessity to build up hydraulic structures is being felt in the wâdî 'Idîm where the settlement of Shi'b Munaydir, located upstream and near an active spring by the mid-2nd mill. BC, was abandoned and replaced by larger sites settled downstream, in the middle of the valley, close to the wâdî bed (Mashgha and then Sûna for example). At Raybûn and aş-Şafil too, settlements located on the border of the valley and on the foot of the steep wâdî-side cliffs were replaced by those established in the centre of the alluvial valley, surrounded by hydraulic structures diverting the flood flowing from the course of the main wâdî<sup>9</sup>.

<sup>6</sup> Observation done by J.-F. Berger (CNRS-CEPAM, UMR 6130) for the French Archaeological Mission in Jawf-Ḥadramawt (forthcoming paper). On the development of the irrigation system at Makaynûn, see A. Benoist & al. (forthcoming).

<sup>7</sup> F. Braemer, S. Cleuziou, & T. Steimer, 2003, pp. 180.

<sup>8</sup> A. Benoist & al. (forthcoming).

<sup>9</sup> A. V. Sedov, 1996 a, p. 80; A. V. Sedov, 1997.

A new ceramic assemblage including painted ware and burnished ware characterizes the archaeological levels on most of the  adrami sites between the 13th and the 8th cent. BC. This corpus is one of the constituents of the so-called *ancient w di  adramawt culture*<sup>10</sup> and is contemporary to the development of these irrigation systems and the growth of proto-urban sites. A. V. Sedov mentioned the possible connections between painted sherds from Rayb n and Hij zi and Syro-Palestinian potteries<sup>11</sup>. Did the appearance of pottery-making techniques from northern regions come within a common cultural heritage, in a down-the-line process or from population migration? No answer can be provided yet. Nevertheless, the simultaneous development of a new pottery tradition, of hydraulic systems and the growth of many sites – such as Shabwa, Rayb n, Makayn n, Bi'r  amad, J ja and Mashgha for example (fig. 4) – does not seem to have to do but with chance.

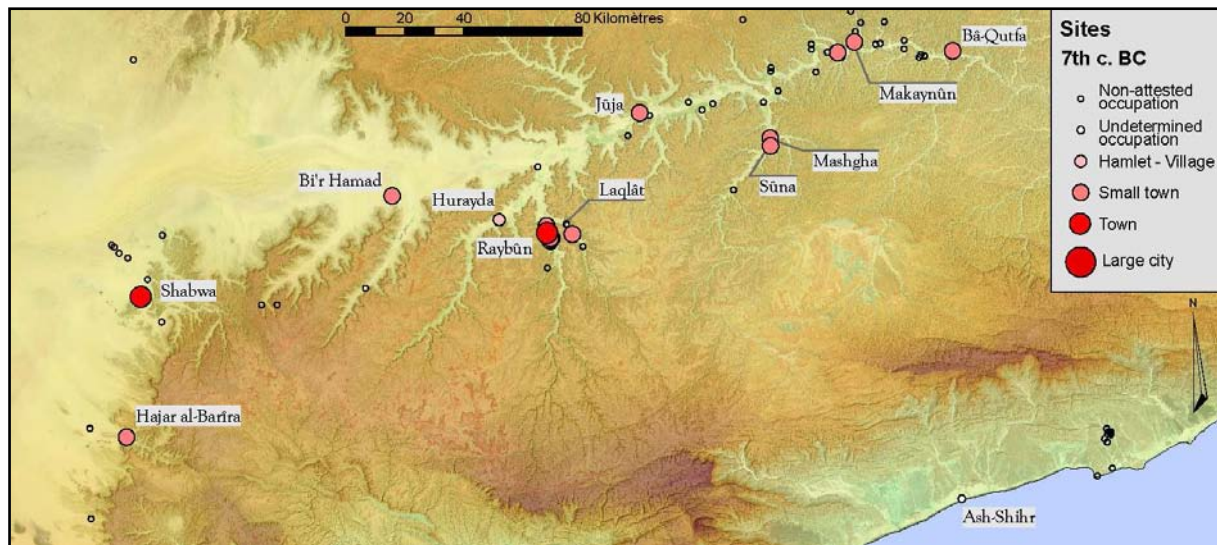


Fig. 4: Location of archaeological sites (7th cent. BC)

This *ancient w di  adramawt culture* disappeared between the 8th and 7th cent. BC, then replaced by the so-called « *classical  adramawt culture* »<sup>12</sup>. Many aspects of the Sabaean culture – a culture that flourished on the other side of the inner desert – were introduced on most of the sites in  adramawt: use of Sabaean language, worship of Sabaean gods such as Almaqah and dh t- imyam<sup>13</sup>. A. V. Sedov considers that the appearance of a new group of pottery along with the other evidences tend to prove a migration of some northern, apparently Sabaean, tribes in  adramawt. Along with the above mentioned novelties, they would have introduced dedications on fine stone slabs and the half-timbered houses with mudbrick filling on a stone base<sup>14</sup>. It is difficult to recognize such a determinist approach, although it could be quite conceivable. Such a technological or cultural transfer might have taken place within the framework of the Sabaean expansion of the early 7th cent. BC, while  adramawt and Saba'

<sup>10</sup> A. V. Sedov, 1996 a, p. 86.

<sup>11</sup> A. V. Sedov, 1997, p. 45.

<sup>12</sup> A. V. Sedov, 1996 a, p. 86.

<sup>13</sup> S na (R S 4210), Hajar al-Bar ra (Bar ra n  8, Bar ra n  10), Bi'r  amad (Bi'r  amad n  8, Bi'r  amad n  9, Bi'r  amad n  10), Shabwa (Hamilton 5, Shabwa 2), Makayn n (Mak 7), Rayb n (Rb I/84 n. 209), etc.

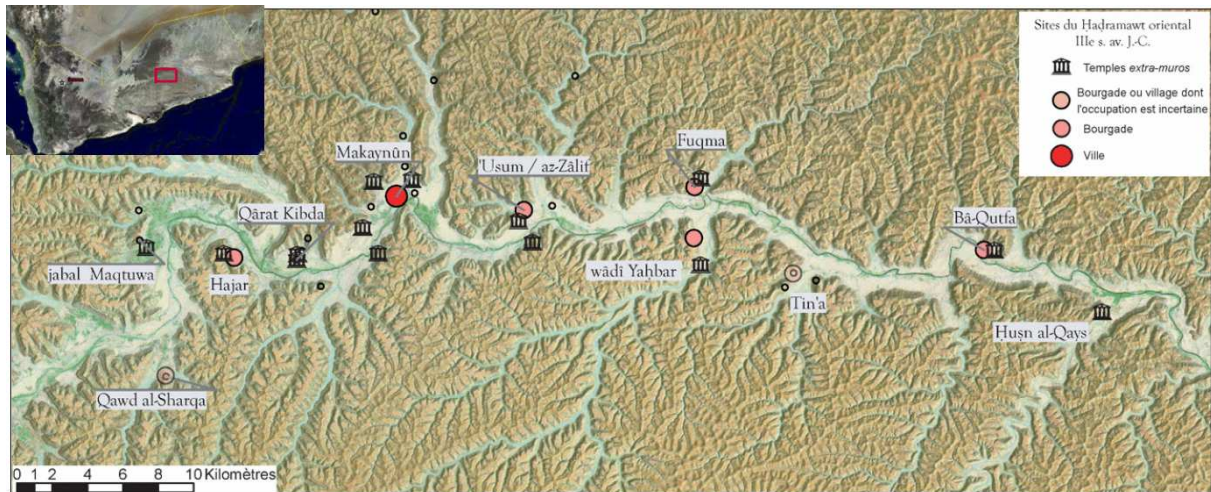
<sup>14</sup> A. V. Sedov, 1996 a, p. 84 : Sabaean population would have mixed together with natives, leading to the new culture made of the ancient  adrami *substratum* and the Sabaean *adstratum*.

## Urbanization and Settlement pattern in Ancient Hadramawt (1st mill. BC)

were allies, without any new tribe settling in. Even if new groups had to settle there, it probably was rather limited.

### B - SITES FROM INNER ḤADRAMAWT, A REGULAR SETTLEMENT PATTERN

#### Settlements in eastern Hadramawt: a limited growth



\* Fig. 5: Oriental Ḥadramawt: Location of archaeological sites (3rd cent. BC)

Having combined the data from both the survey of J.-F. Breton (1979) and M. Mouton (1999)<sup>15</sup> together, it becomes possible to suggest a model of the regular settlement pattern in eastern Hadramawt – i.e. the Masila valley east of Tarīm – for the second half of the 1st millennium BC. The map of the populated places for the 3rd cent. BC. (fig. 5) shows a town



Fig. 6: View of the wādī Masila deeply sunk into the silt of the plain

together with one or several temples located at every confluence of the Masila with its major tributaries. The steeply sided setting of the wādī Masila into the silty plain made it impossible for local population to use its water to supply the irrigation systems (fig. 6)<sup>16</sup>.

<sup>15</sup> I would like to thank J.-F. Breton as well as M. Mouton for having put many unpublished data collected during these surveys at my disposal.

<sup>16</sup> The fieldwork carried out by J.-P. Bravard (UMR 5600, Université Lumière-Lyon 2) for the French Archaeological Mission in the Jawf-Ḥadramawt has revealed that natural silt terraces were deeply cut right from the Antiquity (internal report, paper in preparation).

Indeed the water supply for cultivation did not come from the main w d  but rather from the diverting of floods drained out of tributary valleys.

Communities were settled where the tributaries open out so that they could control its access, handle the floods and develop an irrigation system that stretched over both the central valley and upstream from the tributary mouth. The map displayed above (fig. 5) shows in such a way several settlements at regular intervals. On the western part of the Masila valley, Qawd ash-Sharqa is located at the mouth of the w d  al-'Aynat. Its date is still undetermined. The ruins of a village and the foundations of a temple or a tower-like structure lie on the slope at the bottom of the escarpment. Overlooking the w d  course downstream, the remains of another pre-Islamic village are scattered on the plateau (jabal Maqtuwa). A temple was built on the slope at the foot of the cliff.

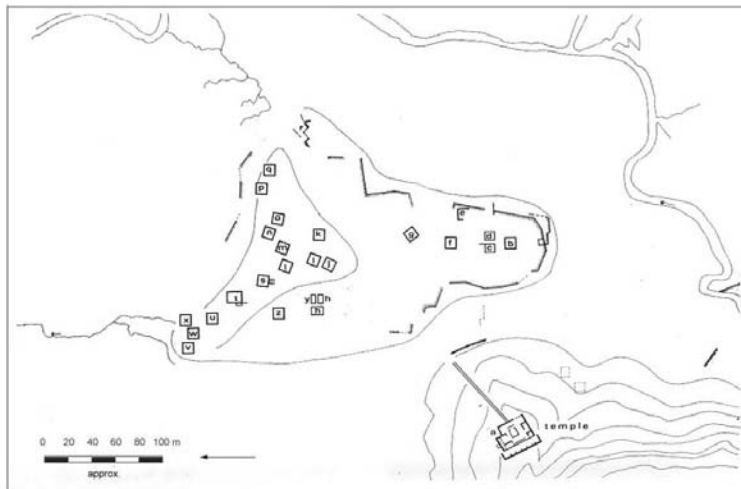


Fig. 7: Sketch-map of Hajar (J.-F. Breton & al., 1980)

Further to the East, the site called Hajar (or Hajra<sup>17</sup>) is a 7 ha wide town, one of the most important in this area. There were built an extra-muros temple on the foot of the cliff, overlooking the site on the slope made of a mass of fallen stones from the cliff, and at least 25 domestic structures on huge stone basements (Fig. 7)<sup>18</sup>. A defensive system is made of a self-standing wall linking the peripheral houses. The collected sherds on the surface resembles those from the « ancient urban

period » layers at Makayn n dated from the mid-1st millennium BC. No sherds from later periods – such as the greenish chaff-tempered pottery common in that area at the very end of the 1st mill. BC – have been observed. The inhabitants of this site made probably the most of runoffs streaming from the southern gullies as well as floods coming out of the broad valley of the w d  al-Kh n to the North.

Ten kilometres east of Hajar, the main site of the area, Makayn n, spread over 8 ha. The central area of the site is circumscribed by a fortification wall. Located at the confluence of the w d s 'Arda,  ukh ra, ath-Thawba and Jib, the site benefited from the runoffs of a huge drainage basin. Hydraulic structures are scattered in all these valleys; each of these tributaries fed both an irrigation system in the tributary and beyond its mouth in the Masila valley (fig. 8).

East of Makayn n, five sites are dispatched at regular intervals: az-Z lif, watered by the w d  'Usum<sup>19</sup>; Fuqma 2, at the mouth of the w d  Fuqma<sup>20</sup>; Ya bar 2 at the confluence of w d s Ya bar and Masila<sup>21</sup>; maybe Tin'a 4 down the w d  Tin'a<sup>22</sup>; and B -Qutf <sup>23</sup> (Fig. 5).

<sup>17</sup> J.-F. Breton & al., 1980.

<sup>18</sup> *Ibid.*, p. 38.

<sup>19</sup> Mound with an area of about 1 ha comprising about fifteen houses on stone basements. Hydraulic structures were built up around the site. In 1979, J.-F. Breton discovered there two cube-shaped incense-burners with a conical foot and an alabaster



## Urbanization and Settlement pattern in Ancient Hadramawt (1st mill. BC)

Each of these archaeological sites is the centre of a cultivated area, the most important ones being dotted with villages. The growth of these various settlements depends partly – not to say mainly – on the size of the drainage basin watering the cultivated land. In this way, the most important sites are Hajar and Makaynûn. The first one lay at the mouth of wâdî al-Khûn, with a drainage basin of about 1100 km<sup>2</sup>, and the second one stretched at the confluence of four tributaries, two of which having an important drainage basin, the wâdîs 'Arda and Şukhûra (c. 700 km<sup>2</sup>). As already said<sup>24</sup>, the largest cultivated area along the Masîla valley – and consequently the most important populated places – are often settled in areas where the deep-set Masîla river followed one of the steep side of the valley, that is to say where it does not split the main area suitable for cultivations.

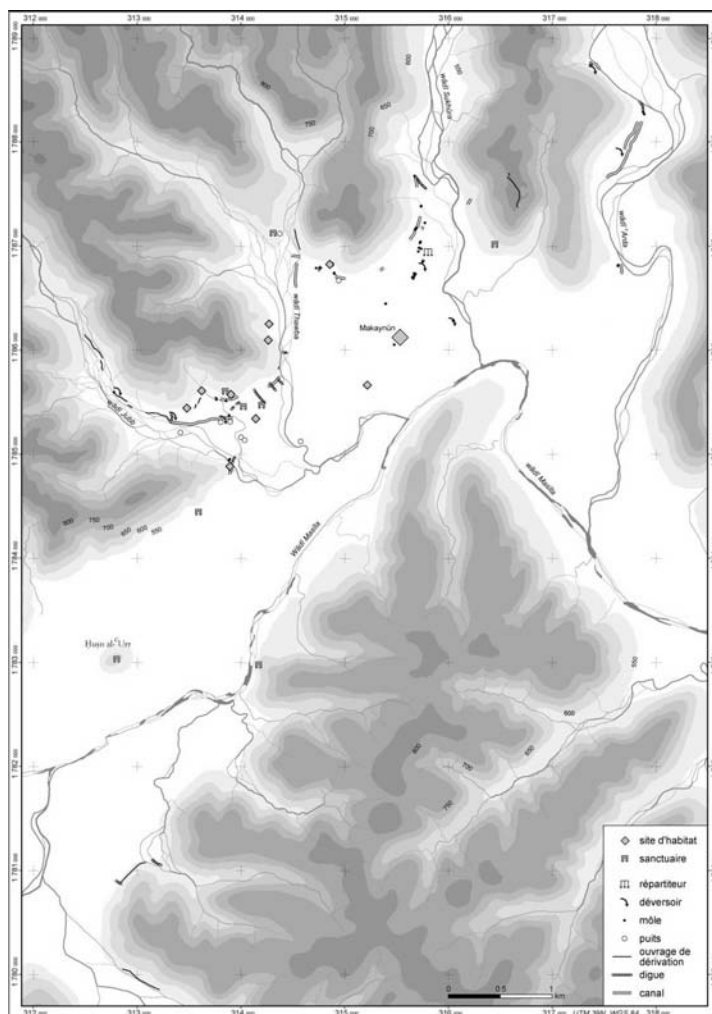


Fig. 8: Map of the archaeological remains around Makaynûn (O. Barge)

Thus, the settlement pattern in the valley depended on environmental constraints that in turn affected the urban growth in this region: the growth of each site was quickly limited by the agricultural capacity that the diverted floods made possible. The genuine towns were therefore extremely rare and most of the settlements located at the mouth of tributaries resembled rather villages than towns. Moreover, according to the map of the region, each

---

vase (J.-F. Breton, pers. comm.); a surface collecting carried out in February 2005 together with A. Benoist (CNRS, Lyons) allowed to draw parallels with the potteries collected at Makaynûn in the 2nd half of the 1st mill. BC levels.

<sup>20</sup> This site has been pinpointed during a survey carried out by M. Mouton in 1999 with the acronym HDOR 190. Domestic structures have been levelled and covered by modern buildings and fields. An irrigation system was developed at the confluence of the tributary. A temple is isolated on the slope at the foot of the escarpments.

<sup>21</sup> This site has been pinpointed during a survey carried out by M. Mouton in 1999 with the acronym HDOR 196. A village dominated by a temple, at the foot of the escarpments, spread over 200 m long and about 1 ha. The hydraulic structures scattered around shows ancient agricultural practises.

<sup>22</sup> This site has been pinpointed during a survey carried out by M. Mouton in 1999 with the acronym HDOR 68. It is located on the western bank of the wâdî Tin'a and comprises remains of about 25 houses and a well. A pre-Islamic occupation dating from the 1st mill. BC might have taken place; however, the potteries picked up in February 2005 by A. Benoist and myself could rather be compared with Islamic shapes or at least very late pre-Islamic ones.

<sup>23</sup> Bâ-Qutfa is located near the actual village Şanâ, close to the mouth of wâdî Yaşkar. J.-F. Breton mentioned here remains of about ten basements of houses almost totally ruined and of a temple overlooking this area (J.-F. Breton, 1979, p. 185). The inscriptions collected in this temple hint to dating the occupation between the 6th and the 1st cent. BC.

<sup>24</sup> A. Benoist, M. Mouton & J. Schiettecatte, 2005.

cultivated area allowed only a single major settlement. The settlement clusters centralised around and dominated by a main town/village at the confluence of each tributary with the Masila modelled themselves on the centralised irrigation network. A map computing the cost weight around each site by taking into account the relief constraints (fig. 9) illustrates this settlement pattern: each site could have been surrounded by a territory of one hour's walk around the centre without overlapping the territory of its neighbours. The whole cultivated area around each site is included inside the limits of this territory. The only exception can be observed in the Fuqma and Yaḥbar area. However, the w d  Masila, that divides this area in two in the middle of the valley, is particularly steep-sided here. It cannot be crossed without having to make a long detour as I experienced myself. It could then be easily understood that two autonomous communities settled on each side of the w d , each one making the most of the runoffs from both the tributaries opening onto the w d .

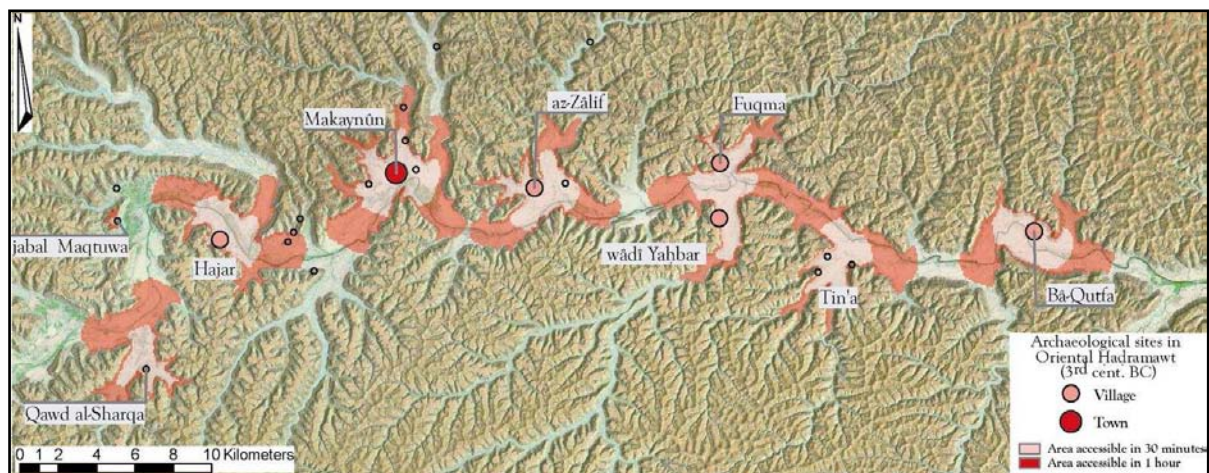


Fig. 9: Map of the theoretical territories around the sites of Oriental Ḥadramawt

To sum up, several agricultural communities grew in the Hadramawt valley, along the w d  Masila, benefiting from the floods of tributaries by using diverting walls and irrigation systems. Their growth depended on the volume of these runoffs. Due to their limited capacities, these runoffs ensured very seldom an important density of the settlement network. The rare intermediate facilities between the main sites were but farms or hamlets aimed at exploiting the cultivable land, as they have been observed around the pre-Islamic site of Makayn n for example (fig. 8).

### The western Hadramawt valley: a lesser regularity

In the western part of the Ḥadramawt valley, the settlement pattern differs from the one above-mentioned. This is partly due to a different landscape and to the greater width of the Hadramawt valley. Moreover, no systematic survey has been carried out in this main valley. The sites are mainly known through late inscriptions from the 3rd and 4th cent. AD. J ja is one of the few sites known in this area as a settlement of the 1st mill. BC. Several archaeological sites are actually hidden by recent urban fabric<sup>25</sup>. According to the available data (fig. 4), the seldom urban settlements did not expand at the mouth of tributaries of the w d  Ḥadramawt but rather

<sup>25</sup> The actual towns Tarim, Say' n or Shib m are well attested as early as the pre-Islamic period but this ancient occupation has been destroyed or at least covered with recent buildings.

on the middle/lower reaches of the main tributaries. There, flood is easier to divert and control. These sites expanded since the beginning of the 1st mill. BC : Raybūn in wādī Daw‘an, aṣ-Ṣafil II in wādī al-‘Ayn<sup>26</sup>, Ḥurayḍa in wādī ‘Amd<sup>27</sup>, Sūna and Mashgha in wādī ‘Idīm<sup>28</sup>. The towns benefited from important flash-floods but kept enclosed and landlocked. Set back from the main valley, none of these display sign of an influence from a centralized power. The inscriptions do not make specific reference either to the authority of the king of Ḥaḍramawt settled in Shabwa, on the edge of the inner desert, or to any representative of the king, whether it be in the above-mentioned sites of western Ḥaḍramawt or those in eastern Ḥaḍramawt. Although these towns probably grew nearby the main ancient roads or determined the draw of these roads, they do not seem having properly integrated the political life of the kingdoms located around the Ramlat as-Sab‘atayn however, at least until the end of the 1st mill. BC<sup>29</sup>. Political conflict and power struggle certainly took place among the inhabitants of these sites or between neighbouring settlements. But that no supra-communal intervention is mentioned before the end of the 1st mill. BC says a lot about the stability of political territories and land-holdings. It seems possible to assume that their extension mainly – not to say only – depended on technical capacities and on the time required to reach the fields.

### Extra-muros temples: territorial boundary markers?

In Ḥaḍramawt, a specific kind of temple is relevant to understand the way local inhabitants bounded and perceived their space. These are extra-muros temples settled on the top of the slopes of rocks fallen from the escarpments, on the valley-side. The maps of eastern Ḥaḍramawt (fig. 5), Makaynūn area (fig. 8) and Raybūn area (fig. 10) show their incidence. At least one of these temple was built near each settlement, sometimes many: six of these temples have been seen around Makaynūn next to the wādī Masīla or at the mouth of the tributaries (wādī Jib, wādī ath-Thawba, wādī Sukhūra)<sup>30</sup>; at least five temples in Raybūn (Raybūn XIV, Raybūn XIX, Adhab, and later on: Raybūn XXVI and Raybūn VIII)<sup>31</sup>. In the well surveyed eastern Ḥaḍramawt, a viewshed analysis by GIS software lead to a map of visible areas from the temples built at the top of the slopes (fig. 11). It clearly shows that the whole

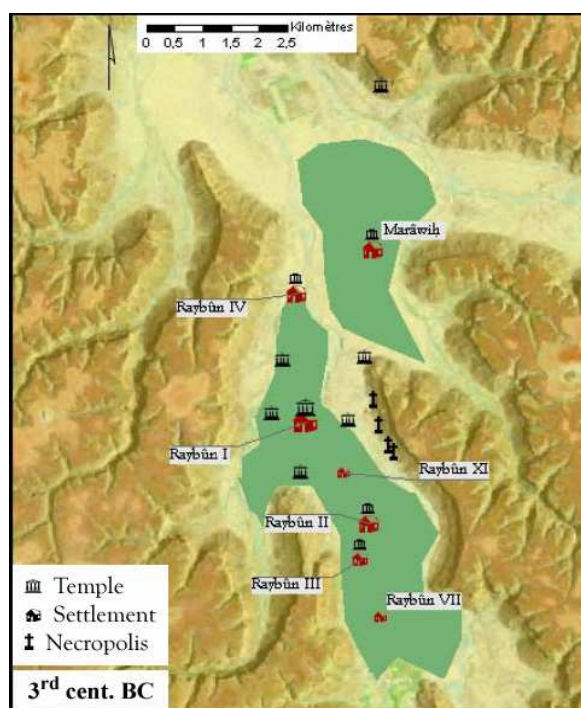


Figure 10 : Sketch-map of the Raybūn area (3rd cent. BC)

<sup>26</sup> A. V. Sedov, 1996 b.

<sup>27</sup> G. Caton-Thompson, 1944.

<sup>28</sup> J.-F. Breton & al., 1980, pp. 2, 16, 22-32, 37-38.

<sup>29</sup> This phenomenon has also been mentioned about Raybūn by S. A. Frantsouzoff, 2000.

<sup>30</sup> Survey carried out by M. Mouton (CNRS, Paris) and O. Barge (CNRS, Lyons) for the French Archaeological Mission in the Jawf-Ḥaḍramawt.

<sup>31</sup> Concerning the temple in Adhab: A. V. Sedov, 1996 b, p. 254 ; for the others: A. V. Sedov, 1997.

Ḥaḍramawt valley and the course of wādī Masīla were within sight. This fact can be interpreted in several ways: did the occupants of temple play a major part in the management of the community? Did they have the control of the land-holding, and therefore need to see it entirely? Did the inhabitants constantly need the blessing and protection of temples? Although none of these specific functions could be granted for certain on the basis of nothing but speculations, these temples might have played an important part either in the land control or as territorial markers.

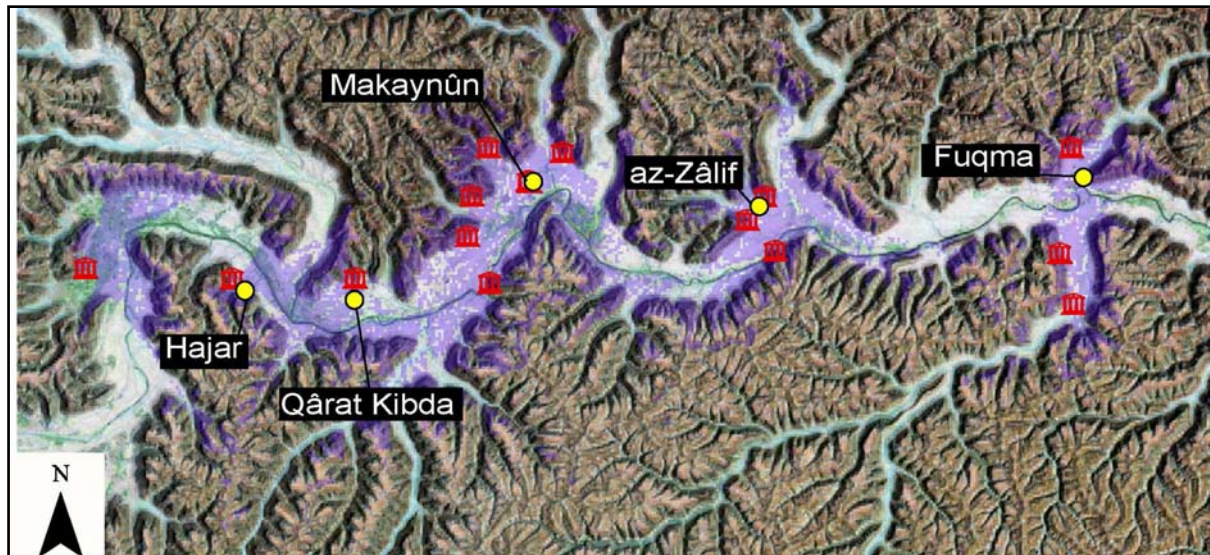


Figure 11 : Map of the visible areas from the steep wādī-side temples

Owing to their high incidence around Makayn n and Rayb n, both these areas are to be seen as spaces sanctified to a lesser degree. More than ten temples were scattered around in the neighbourhood of Rayb n and active during the 3rd cent. BC, at least eleven in and around Makayn n. These two sites were encircled by sacred markers forming the boundary of a specific territory. The very specific nature of these spaces is difficult to define. Following the thought of M. Mouton<sup>32</sup>, I would see them as a pre-Islamic version of the Islamic *ḥaram* or *ḥawṭa*, that is to say a sacralized enclave with specific rules. J. Chelhod mentioned that these spaces contain two concentric parts with different degrees of sacrality<sup>33</sup>. Similarly at Makayn n and Rayb n, extra-muros temples could have encircled a first sacred territory. A second holy area, in the middle of the first one could have been composed of the Say n dh -Mawtar sanctuary inside the city of Makayn n and of the Raḥb n temple at Rayb n I. Both of these temples were circumscribed by a wall. Such sacred spaces still existed during the medieval period in Ḥaḍramawt, at ‘Ayn t and Qabr H d for example. Holy graves then constituted the centre of the sanctuary. M. A. Rodionov described the propitiatory rituals carried out in another ḥaḍrami *ḥawṭa*, that of Mawl  Maṭar. Here, while pilgrimages were held and after banquets, pilgrims performed songs meant to prompt rain<sup>34</sup>. Taking the banqueting halls of pre-Islamic extra-muros temples into account as well as their high location, overlooking the

<sup>32</sup> A. Benoist, M. Mouton & J. Schiettecatte, 2005.

<sup>33</sup> J. Chelhod, 1971, p. 303.

<sup>34</sup> M. A. Rodionov, 1997.

cultivated land, it might be possible to see these temples as the pre-Islamic and pagan genesis of the medieval sanctuaries and their Islamic practices.

### Defending Ḥaḍramawt

The virtual absence of defensive systems in inner Ḥaḍramawt was one of its specificities. The exceptions are located at the western entrance of the Ḥaḍramawt valley, with Shabwa, and in the Qârat Kibda/Makaynûn area (fig. 4), non contemporary sites that successively held the defensive function in the same spot of eastern Ḥaḍramawt. This fact lead S. Frantsouzoff to defend the hypothesis of a war-less society<sup>35</sup>. J.-F. Breton suggested for his part that the defence of Ḥaḍramawt was organized around the sole control of the access to the valley, with the construction of defensive locks at both the ends of the wâdî<sup>36</sup>. These hypotheses are to be put into perspective. The first one, defended by S. Frantsouzoff, takes into account neither the rivalries that should have set agricultural communities against each other in the valley nor the impact the qatâbanian expedition should have had on local populations during the second half of the 1st mill. BC<sup>37</sup>. Breton's hypothesis has to be qualified by several evidences. First, Qârat Kibda and Makaynûn areas cannot be considered as the edge of the settled part of the valley which spread over at least another 40 km downstream. Moreover, many sites located between these two « locks » of Shabwa and Makaynûn area offered a defended fallback position for inhabitants of the area: Hajar was circumscribed by a wall; in Sûna a long wall is still to be observed along the southern edge of the site; Raybûn might have been fortified in its centre if one takes into account the walled enclave of Raḥbân temple in the southern part of Raybûn I. Nevertheless, I shall mention that these defensive systems were seldom able to endure a siege. They were most probably designed to ensure the security of people against facing with raids or neighbourhood disputes.

During the 1st mill. BC, the kingdoms bordering Ḥaḍramawt do not seem to have felt drawn to the Inner valley; the Ḥaḍrami king himself did not leave a mark there. This region does not appear as a potential target before the end of the 1st mill. BC. Its agricultural production capacities cannot feed more than small communities. As far as we know, no mineral resources have been exploited. These unassuming communities acted as a weak magnet on their neighbours and their geographical enclosing probably did not encourage these neighbours to raid them except maybe for nomadic tribes from the plateau. There would be no need for these settlements to get strong walls in view of improbable foes until the end of the 1st mill. BC at least.

### The turning point in the early Christian era: which urban resiliency?

Until the end of the 1st mill. BC, the Ḥaḍramawt entity is defined by a cultural unity based on common language, worships and material culture<sup>38</sup>. In spite of this unity, inner Ḥaḍramawt – including wâdîs Ḥaḍramawt, Masîla, 'Idîm and Daw'ân – does not seem to have integrated the political life of the Ḥaḍramawt kingdom. This kingdom was centred on western Ḥaḍramawt (Shabwa, al-Binâ', Naqb al-Hagar), on the fringe of the Ramlat as-Sab'atayn (fig. 12). About the 2nd and 1st cent. BC, several conflicts set Ḥaḍramawt and Qatabân

---

<sup>35</sup> S. A. Frantsouzoff, 2000, pp. 263-264.

<sup>36</sup> J.-F. Breton, 1994, p. 165.

<sup>37</sup> This expedition is mentioned by the inscription Arbach-Say'ûn 1.

<sup>38</sup> J.-F. Breton, 1980 ; S. A. Frantsouzoff, 2001, p. 61.

kingdoms against one another<sup>39</sup>. Many settlements disappeared at that time: those in w d  al-'Ayn (al-Quff, a - afil I, Laql t, Mar wih)<sup>40</sup>,  uray a, Bi'r  amad, at least partially<sup>41</sup>, probably Mashgha, most of the sites of the Masila valley (Makayn n, Hajar, az-Z lif), sometimes marked by burnt levels (Rayb n I, Rayb n V for example).

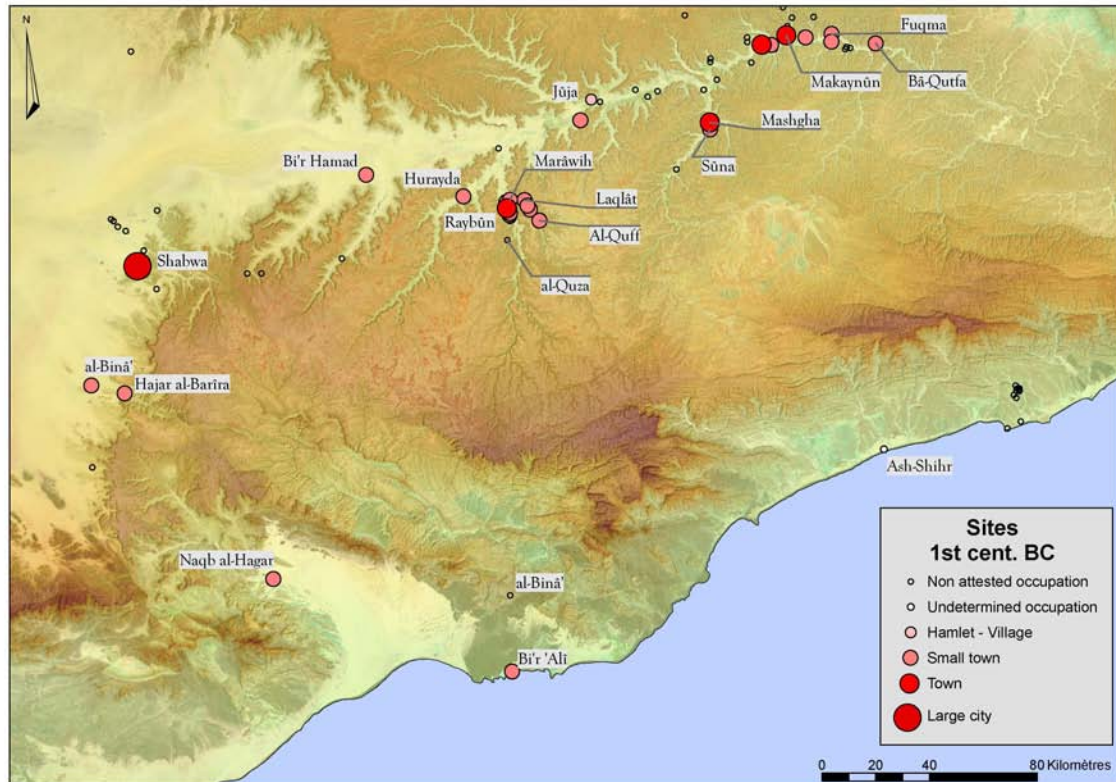


Fig. 12: Location of archaeological sites occupied during the 1st cent. BC

Thus, some of them went obviously through dramatic events (the fire at Rayb n for example) ; others declined quickly without any historical explanation to be put forward. Near Makayn n, while the main town was abandoned about the 1st cent. BC, the occupation of a smaller settlement followed, at al-H w . The different sizes of Makayn n and al-H w  clearly discloses a smaller community. This one-hectare-wide site was surrounded by an irrigated area developed at a higher height than that surrounding Makayn n. The runoffs might then have been insufficient for securing the livelihood of many people. Applied to the whole inner  a ramawt, such an explanation could explain this widespread decay.

#### C – IN THE REST OF THE KINGDOM: SITES INTEGRATED INTO THE POLITICAL SPHERE

The desert and coastal edges of  a ramawt seem to have merged quickly into a territorial entity governed from a single capital, Shabwa (fig. 13). Since the 7th cent. BC, the settlements in the w d  Jird n constitutes a possible resting place on the track from Shabwa to Qatab n kingdom. From the 4th-3rd cent. BC onwards, southern and coastal towns make their

<sup>39</sup> M. Arbach & M. B faqi , 1999, p. 119. These military campaigns are mentioned through several inscriptions such as R S 4932, Pi.  uwaydar 1 and MuB 673 and MAFY-Rayb n 6.

<sup>40</sup> A. V. Sedov, 1996 b.

<sup>41</sup> A. V. Sedov, 1995, p. 110.

## Urbanization and Settlement pattern in Ancient Hadramawt (1st mill. BC)

appearance. From this period at the latest, Ḥaḍramis settled on the Omani shore, at Khawr Rûrî (Zufâr region); the Ḥaḍrami king made a *kabîr* – go-between of the king – responsible of the building of fortifications at Naqb al-Hajar, a stopping place between the shore and the Ḥaḍrami capital city. Furthermore, a settlement is known at Shiḥr-East<sup>42</sup>, an inhabited mooring place. These facts could be logically explained by king's will to control new maritime

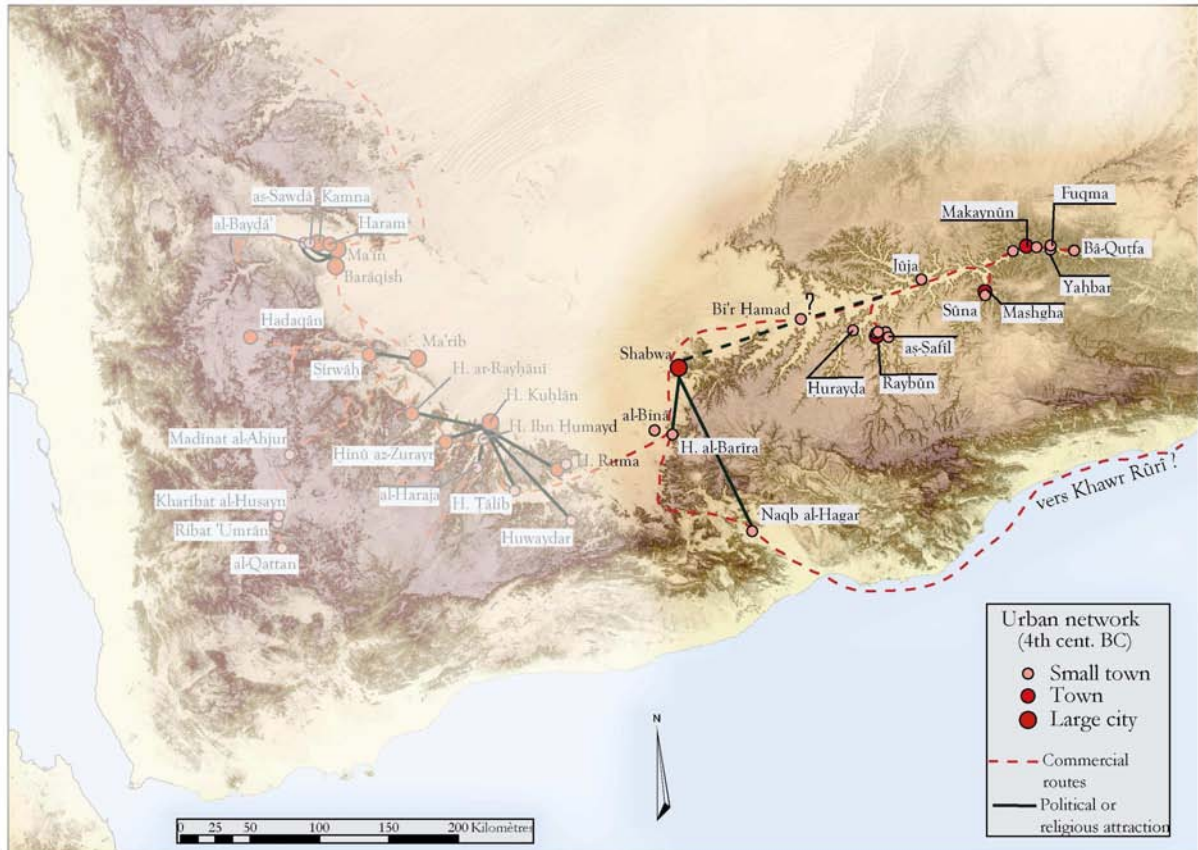


Fig. 13: The urban network in South-Arabia during the 4th cent. BC

commercial routes that could have developed at that time with an increase of coastal shipping practice. Frankincense from Zûfâr may have been transported by coastal shipping and then by land along the wâdî Mayfa'a, *via* the new grown city of Naqb al-Hajar, up to the capital Shabwa and later reoriented towards the north by the caravan road.

During the 1st cent. BC, the port of Bi'r 'Alî was founded and the pass of al-Binâ' – the ancient Qalat (RÉS 2687) – fortified. These facts emphasize the primacy of the maritime route for incense handling from the growing areas of Zûfâr and Mahra to Shabwa. At this time, a small coastal settlement, al-Musayna'a, also might have been founded on the seashore of Ḥaḍramawt. Here, a large structure could have been used as a warehouse<sup>43</sup> and is another evidence for coastal shipping practices until the very end of the first millennium BC. It is only at the middle of the 1st cent. AD, while Khawr Rûrî was rebuilt in its entirety and Bi'r 'Alî initiated a quick growth, that the maritime trade definitely overtook the caravan trade.

<sup>42</sup> A. Rougeulle, 1999.

<sup>43</sup> A. Rougeulle, 1999, p. 128 : site located c. 125 kilometres east of Shiḥr. The above-mentioned structure could be paralleled with some buildings at the foot of Ḥuṣn al-Ghurâb, in Bi'r 'Alî and dated from the 1st cent. BC/AD. This is a large building, about 50 m long and 30 m wide, built with huge basalt stones bound with a heavy pinkish mortar. Finely hewn limestone of the pecked and drafted masonry kind were also used.

Therefore, contrary to inner sites, most of the  adrami settlements of the desert edge and coastal plain of the kingdom were soon integrated in a territory that the king controlled directly, because of their strategic function near the border of the Qatab nian kingdom and their importance on the trade routes. At the beginning of the Christian era, the power of the king significantly increased, thanks to the collapse of the Qatab nian kingdom. The monarch was addressed as *mukarrib* in the inscriptions, a title taken by the king when its kingdom had become the most powerful of South-Arabian kingdoms. He led expeditions against Qatab n and tribes of the Jawf valley, west of the Ramlat as-Sab'atayn (see inscr. Haram 10 and Ja 643). He extended its control over the aromatics' trade. It is only at that very moment that we get clues of the integration of inner  adramawt into this political entity (fig. 14). Several inhabitants of the cities of Shib m and 'Uqr n went on a pilgrimage to the federal temple of Say n in Shabwa (see inscr. RF-Al m 1 and R S 3512). Most of the sites from inner  adramawt mentioned above were abandoned at this period but others located in the western part of the  adramawt valley are quoted in the South-Arabian inscriptions (fig. 15).

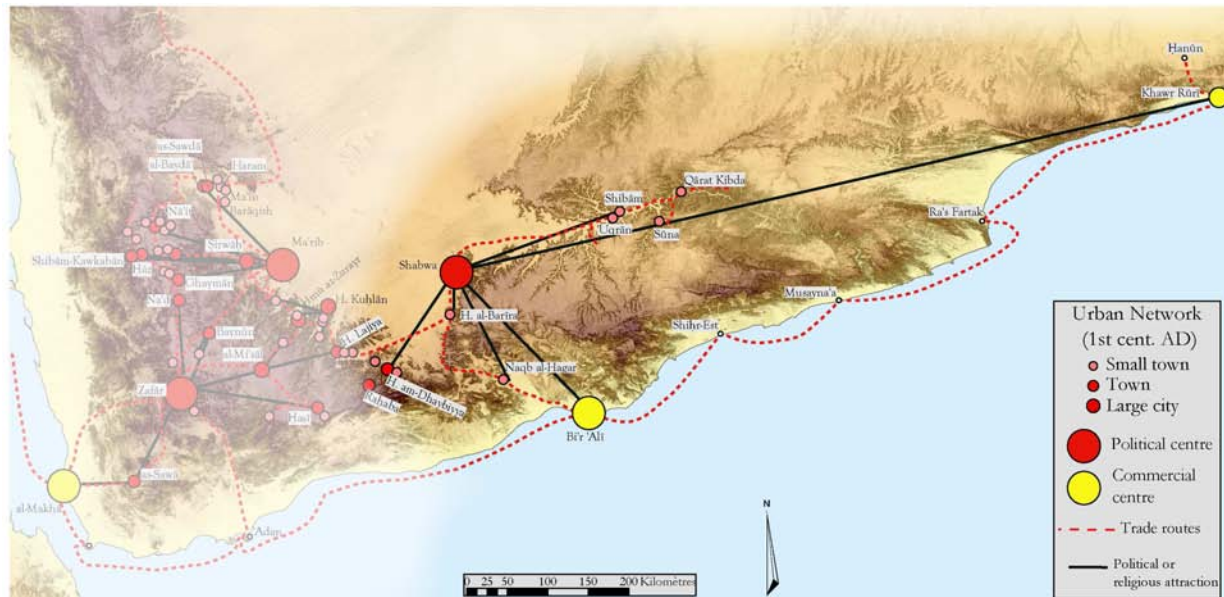


Fig. 14: The urban network in South-Arabia during the 1st cent. AD

During the 3rd and 4th cent. AD, the urban network in the  adramawt kingdom profoundly changed following several military campaigns led first by the Sabaeen kingdom against Shabwa and Bi'r 'Al , and second by the kingdom of Himyar against Shabwa and the sites in inner  adramawt:  awa'r n, 'Uqr n, Ra ghat, Maryamat, Tar m, Say' n,  adib and Shib m<sup>44</sup>. As far as we know, most of these settlements were not mentioned anymore in the later inscriptions. There is no evidence to support the survival of these towns as such or a collapse of the settlement pattern during the last centuries of pre-Islamic time. After the annexation of the  adramawt kingdom by the kingdom of Himyar at the beginning of the 4th cent. AD, the only town on the edge of the Ramlat as-Sab'atayn for which growth is attested was 'Abad n. It was the political centre of the Yezanide tribe that controlled the area on behalf of

<sup>44</sup> Two military campaigns are mentioned by several inscriptions. The first is dated from the reign of Samar Yuhar'ish, king of Saba' and dh -Rayd n at the end of the 3rd cent. AD (Sh 32), a second from the reign of Dhamar'al  Yuhabirr king of Saba' and dh -Rayd n during the first quarter of the 4th cent. AD (Schm/M rib 28, Ir 31 and Ir 32).



## Urbanization and Settlement pattern in Ancient Hadramawt (1st mill. BC)

Ḥimyar. In southern Ḥadramawt, Naqb al-Hajar received the support of the Yazanide tribe; this town survived until the 6th cent. On the shore, the only settlement that survived was Bi'r 'Alī in spite of an obvious declining activity from the mid-4th cent. AD.

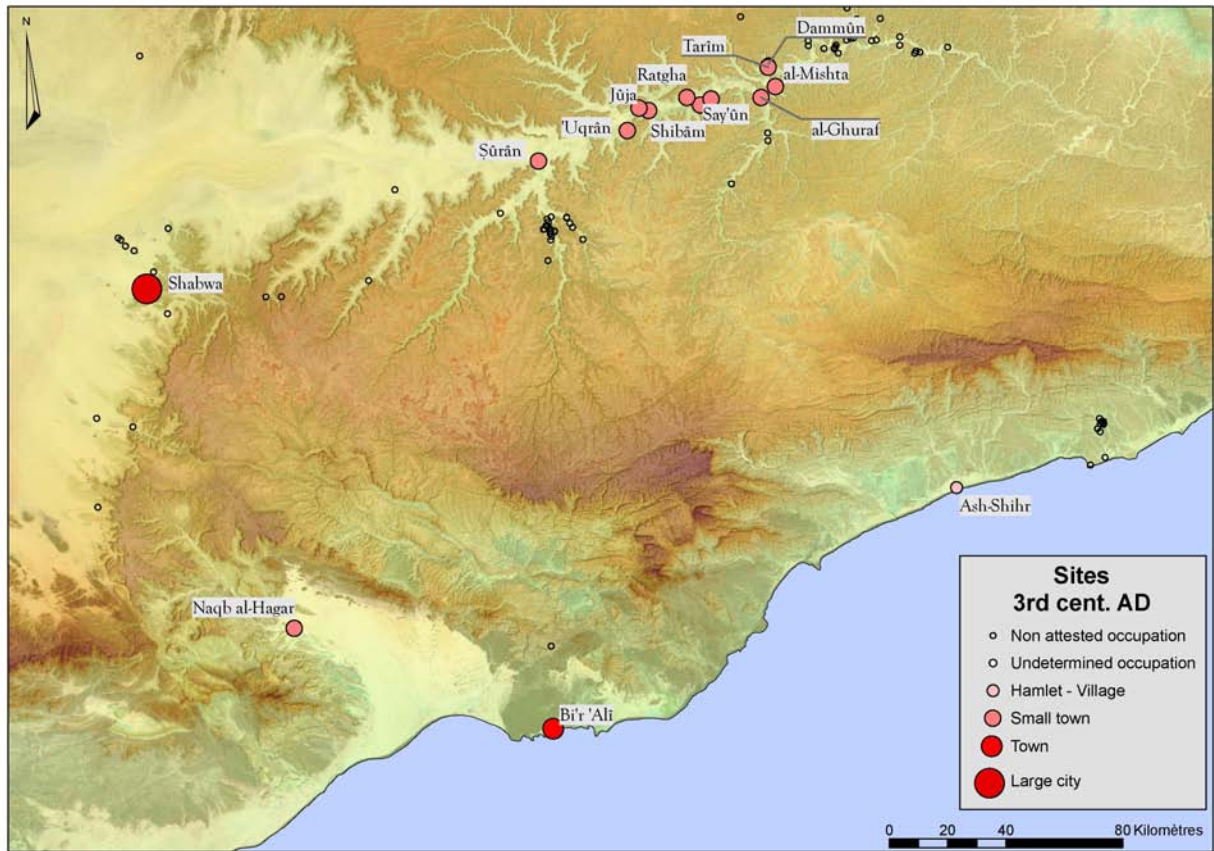


Fig. 15: Location of the archaeological sites occupied during the 3rd cent. AD

## Bibliography

ARBACH (M.) & BÂFAQÎH (M. 'A.)

1999. « Nouvelles données sur la chronologie des rois du Ḥaḍramawt », *Semitica* 48, pp. 109-126.

BENOIST (A.), MOUTON (M.) & SCHIETTECATTE (J.)

2005. « Makaynûn, un centre régional antique dans le Hadramawt oriental ». In Sholan A. M., Antonini S. & Arbach M. (éds), *Sabaeen Studies. Archaeological, Epigraphical and Historical Studies in honour of Yûsuf M. 'Abdallâh, Alessandro de Maigret and Christian J. Robin on the occasion of their 60th birthdays*, Napoli - Sanaa, Il Torcoliere, pp. 59-94.

BENOIST (A.), LAVIGNE (O.), MOUTON (M.) & SCHIETTECATTE (J.)

(forthcoming). « Chronologie et évolution de l'architecture à Makaynûn : la formation d'un centre urbain à l'époque sudarabique dans le Hadramawt », *Proceedings of the Seminar for Arabian Studies* 37.

BRAEMER (F.), CLEUZIOU (S.) & STEIMER (T.)

2003. « Dolmen-like structures: some unusual funerary monuments in Yemen », *Proceedings of the Seminar for Arabian Studies* 33, pp. 169-182.

BRETON (J.-F.)

1979. « Le temple de SYN D-HLSM à Bâ-Quṭfa », *Raydân* 2, pp. 185-203.

1980. « Rapport sur une mission archéologique dans le Wâḍi Ḥaḍramaout (Yémen du Sud) en 1979 », *Comptes Rendus de l'Académie des Inscriptions et Belles Lettres* 1980, pp. 57-81.

1994. ABADY VIII, *Les fortifications d'Arabie Méridionale du 7<sup>e</sup> au 1<sup>er</sup> siècle avant notre ère*, Mainz, Verlag Philipp von Zabern.

BRETON (J.-F.), BADRE (L.), AUDOUIN (R.) & SEIGNE (J.)

1980. *Le wadi Hadramawt. Prospections 1978-79*, Aden.

CATON-THOMPSON (G.)

1944. *The tombs and Moon temple of Hureidha (Hadhramaut)*, Oxford, University Press.

CHELHOD (J.)

1971. « Ḥawṭa ». In Lewis B., Ménage V. L., Pellat Ch. & Schacht J. (dir.), *Encyclopédie de l'Islam, Nouvelle édition*, Tome III, pp. 303.

CLEUZIOU (S.) & INIZAN (M.-L.)

1993. *Rapport préliminaire de la mission de prospections des régions bordant le secteur central du système fluviale Jawf-Hadramawt, 2oct.-29 oct. 1993*, unpubl.

CRASSARD (R.) & BODU (P.)

2004. « Préhistoire du Ḥaḍramawt (Yémen) : nouvelles perspectives », *Proceedings of the Seminar for Arabian Studies* 34, pp. 67-34.

CRASSARD (R.), MCCORRISTON (J.), OCHES (E.), BIN 'AQIL (A.), ESPAGNE (J.) & SINNAH (M.)

2006. « Manayzah, early to mid-Holocene occupations in Wâḍi Sanâ (Hadramawt, Yemen) », *Proceedings of the Seminar for Arabian Studies* 36, pp. 151-173.

## Urbanization and Settlement pattern in Ancient Hadramawt (1st mill. BC)

CREMASCHI (M.) & NEGRINO (F.)

- 2002, « The frankincense road of Sumhuram: paleoenvironmental and prehistorical background ». In Avanzini A. (éd.), *Khor Rori Report 1*, Pise, Edizioni Plus - University of Pise, pp. 325-363.

FRANTSOUZOFF (S. A.)

2000. « The Society of Raybûn ». In Kradin N. N., Korotayev A. V., Bondarenko D. M., de Munck V. & Wason P. K. (éds), *Alternatives of Social Evolution*, Vladivostok, Institute of History, Archaeology and Ethnology, Far eastern Branch of the Russian Academy of Sciences, Russian State University for Humanities, Ussuriysk State Teacher College, pp. 258-265.
2001. « Epigraphic evidence for the cult of the god Sin at Raybûn and Shabwa », *Proceedings of the Seminar for Arabian Studies* 31, pp. 59-67.

INIZAN (M.-L.) & ORTLIEB (L.)

1987. « Préhistoire dans la région de Shabwa au Yémen du Sud (RDPY) », *Paléorient* XIII, pp. 5-22.

MCCORRISTON (J.)

2000. « Early Settlement in Hadramawt: Preliminary report on prehistoric occupation at Shi'b Munayder », *Arabian Archaeology and Epigraphy* 11, pp. 129-153.

MCCORRISTON (J.), HARROWER (M.), OCHES (E.) & BIN 'AQIL ('A.)

2005. « Foraging economies and population in the middle Holocene Highlands of Southern Yemen », *Proceedings of the Seminar for Arabian Studies* 35, pp. 143-154.

RODIONOV (M. A.)

1997. « Mawlâ Maṭar and other *awliyâ'* : On Social Functions of Religious Places in Western Ḥaḍramawt », *Mare Erythraeum* 1, pp. 107-114.

ROUGEULLE (A.)

1999. « Coastal settlements in southern Yemen: the 1996-1997 survey expeditions on the Hadramawt and Mahra coasts », *Proceedings of the Seminar for Arabian Studies* 29, pp. 123-135.

SCHIETTECATTE (J.)

2004. « Prospections dans les wâdis Dhuba et Hamem ». In Rougeulle A. (dir.), *Fouilles à Sharma. Hadramaout. Rapport préliminaire sur la 8<sup>e</sup> campagne*, Paris, unpublished report.

SEDOV (A. V.)

1995. « Bi'r Ḥamad: a Pre-Islamic settlement in the western Ḥaḍramawt. Notes on an archaeological map of the Ḥaḍramawt, 1 », *Arabian Archaeology and Epigraphy* 6, pp. 103-115.
- 1996 a. « On the Origin of the agricultural settlements in Hadramawt ». In Robin Ch. J. & Gajda I. (éds), *Arabia antiqua, Early Origins of South Arabian States, Proceedings of the First International Conference on the Conservation and Exploitation of the Archaeological Heritage of the Arabian Peninsula Held in the Palazzo Brancaccio, Rome, IsMEO on 28-30th May 1991, Serie Orientale Roma LXX, 1*, Rome, IsMEO, pp. 67-86.
- 1996 b. « Monuments of the Wadi al-'Ayn. Notes on an archaeological map of the Hadramawt, 3 », *Arabian Archaeology and Epigraphy* 7, pp. 253-278.
1997. « Die archäologischen Denkmäler von Raybûn im unteren Wâdi Dau'an (Ḥaḍramaut) », *Mare Erythraeum* 1, pp. 31-106.