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Introduction

Saba Farès

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UNDER THE DIRECTION OF

SABA FARÈS

KILWA

PRELIMINARY ARCHAEOLOGICAL
ASSESSMENTS

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TRANSLITERATION LIST

Arabe	Transcription légère	Transcription lourde
ا	a	a
ع	a	a
ب	b	b
د	d	d
ذ	dh	ḏ
ض	ḏ	ḏ
ف	f	f
ج	j ou ġ	g
غ	gh	ġ
هـ	h	h
خ	kh	ḫ
ح	ḥ	ḥ
ك	k	k
ل	l	l
م	m	m
ن	n	n
ق	q	q
ر	r	r
س	s	s
ش	sh	š
ص	ṣ	ṣ
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ACKNOWLEDGEMENTS

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First, I wish to express my heartfelt gratitude to HRH Prince Sultan bin Salman Al Saud, President of the Saudi Commission for Tourism and Antiquities (SCTA) for unequivocal support and for ensuring that our work was carried out under good conditions.

Many thanks to His Excellency, Professor Dr Ali Al-Ghabban, Vice-President of the Saudi Commission for Tourism and Antiquities, for his close follow-up and his continuous encouragement.

Without their help the work in Kilwa would have been impossible because the site is in a remote isolated region far from everyday Saudi life.

I would also like to extend my gratitude to the The Cooperation and Cultural Affairs Department of the French Embassy in Riyadh and to the Social Sciences and Archaeology Department at French Ministry of Foreign

Affairs for their encouragement and resourceful assistance.

I cannot thank Salmān Farḥān al Shrārī enough, representant of Tabuk Governorate I am also grateful staff members of al-Ṭubayq Protected Area for their invaluable support during our stay in Kilwa. Their presence and their familiarity with the archaeological sites lightened up difficult daily life during the fieldwork.



Fig. 1 : Localization map of kilwa-Tabuk

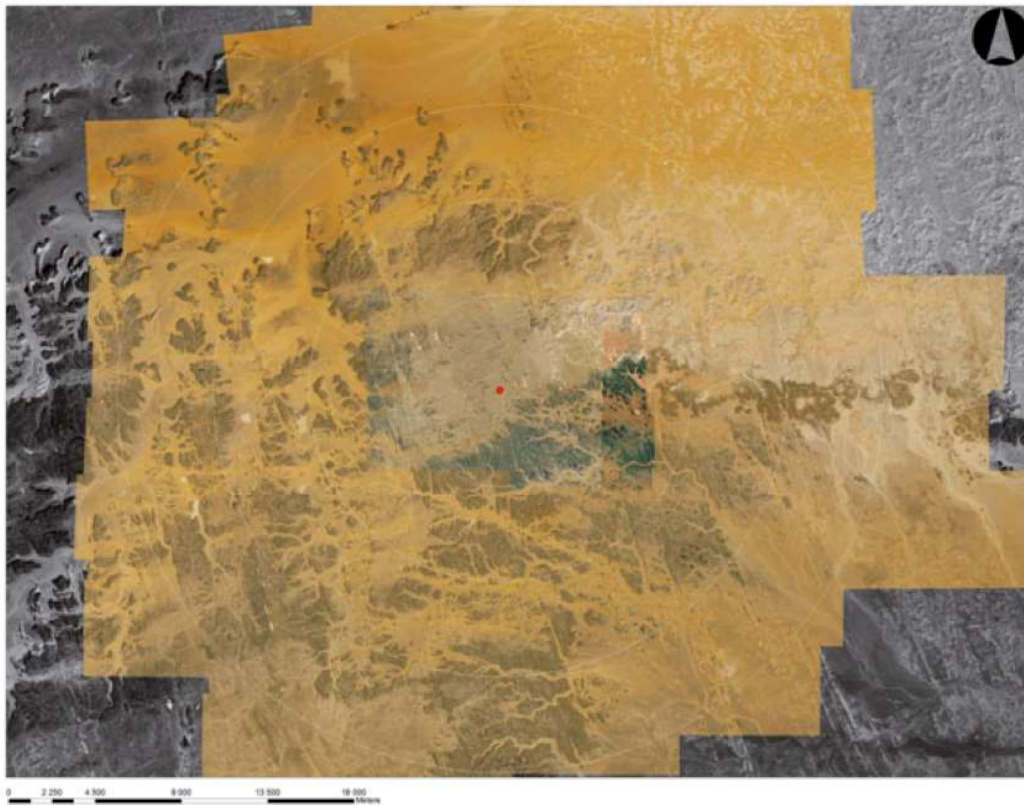


Fig. 2 : Localisation of Kilwa

THE BEGINNING...

In June 2007 an agreement was signed between the Deputy Ministry for Antiquities and Museums of Saudi Arabia and Saba Farès, Professor, archaeologist and epigraphist at Lorraine University and UMR 5189 – Lyon, under the aegis of the French Cultural Attaché in Riyadh, Mr François Delye de Mazieux.

The agreement concerned excavations and prospecting in the Kilwa region (**Fig. 1**), located in the northern part of Saudi Arabia, in an area within a 20 km radius around the Kilwa archaeological

remains (**Fig. 2**) considered to be the hyper-centre of the project according to the agreement.

After the first visit to the region, in 2005, we realised how difficult it would be to carry out such a project because it is isolated and far from roads (Two hours driving from the nearest outside contact). However the Vice President of Saudi Commission for Tourism and Antiquities and the French Embassy expressed their support which encouraged us to finally launch the project in 2008.

Kilwa is not well known in Saudi Arabia however, the region is particularly known for its great number of prehistoric remains. The inaccessibility of the site from all major communicating roads is one of the main reasons why there is little known of the region. An issue we were about to attempt to overcome.





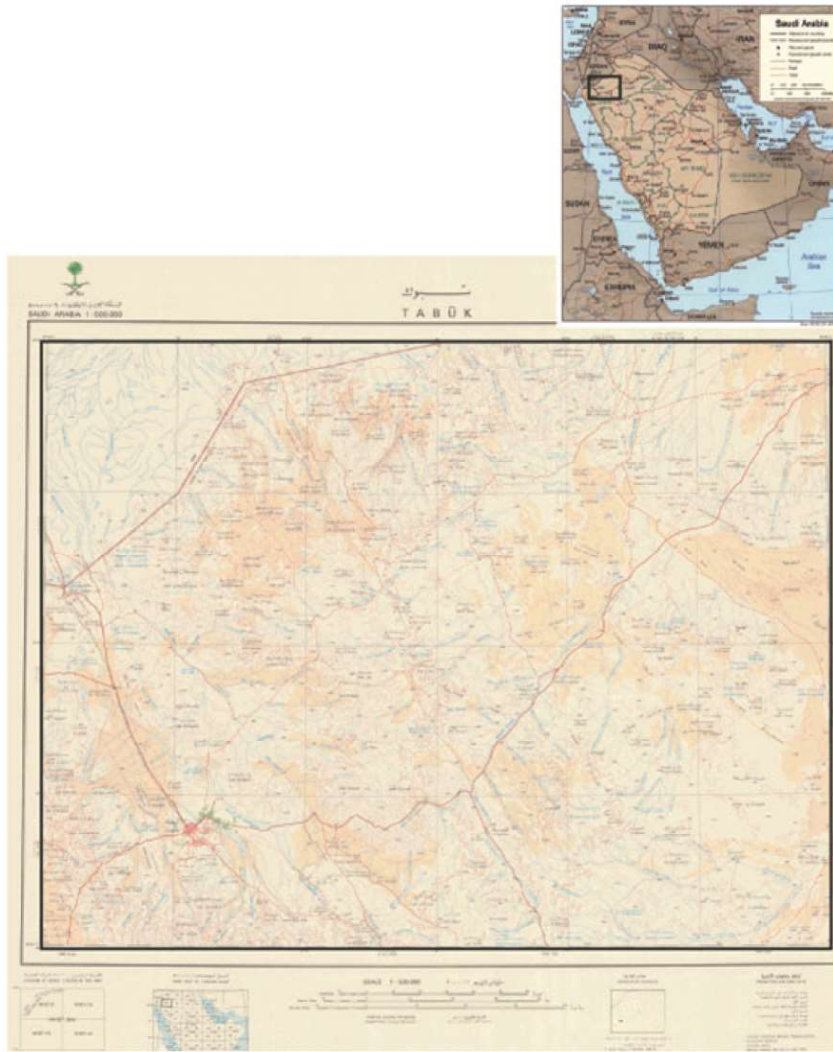


Fig. 3 : *Map of Tabūk*



Fig. 4 : *Al-Moughayra Police station*

INTRODUCTION

LOCATION AND OBJECTIVES

GEOGRAPHICAL LOCATION

Kilwa site [29°41'58.91"N/37°31'58.71"E] is located at about 272 km at the North-East of Tabūk (Fig. 3). The site lies in the hilly region of Tubayq.

This area was part of Jordan until 1965 following an exchange agreement it was conceded to Saudi Arabia.

To reach Kilwa from Tabūk ones should follow Quyrayyat road, after 17 km, at al-Fajr Police Post, head north into the desert. Kilwa is 80 km from that post. Another police post, al-Moughayra, is located half way between al-Fajr and Kilwa. Al-Moughayra was the former Jordanian police post before the borders were changed. Remains of empty houses prove as testimony to the previous situation (Fig. 4). Today, there is in Kilwa only a guard-man called Salmān Farḥān al Shrārī (Fig. 5) and other guardian of the site called Mr Lāzim Mas'ūd al-Shrārī (Fig. 6), who both maintain contact with their seniors by satellite phone.

DISCOVERY AND REDISCOVERY OF THE SITE

Gertrude Bell was the first person who reported on the existence of archaeological remains in Kilwa. She passed through the area in 1914 on her way to Ḥā'il. In the article which recounted her journey, she reported the existence of the Kilwa remains without naming the place: "and in the Jebel Tubayq I found another station, doubtless upon the same



Fig. 5 : Salmān Farḥān al Shrārī



Fig. 6 : Mas'ūd al-Shrārī and his son Sayf

caravan route” (Bell 1914, pp. 76-77). In December 1932, George Horsfield, Director of Antiquities in Transjordan, Agnes Horsfield, and Nelson Glueck, Director of the American School of Oriental Research in Jerusalem, organised a trip to Kilwa and described the surrounding rock engravings in particular (Horsfield, Horsfield, Glueck: 1933, pp. 381-386). Some years later, Agnes Horsfield published an article devoted to the Kilwa remains. She explains, the name of Kilwa comes from the Greek κελλιον which translates to “the kellia, the place for meditation”.

According to Horsfield, given the name of the site and the manner in which the remains were organised, they were probably hermitage monastic cells. Ceramics found and examined outside the site date back, approximately, to the year 1000 of the Christian era (Horsfield, Horsfield, Glueck: 1933, pp. 381-386).

Kilwa has mostly attracted the interest of prehistorians because of its prehistoric remains and its rock engravings, some of which seem to be the most ancient in the Near-East (Rhotert 1938). The most notable, a German expedition organized in 1938 leading to the renowned paper by Hans Rhotert. Aurel Stein attempted to visit Kilwa as well but his mission was cut short due to bad weather (Stein 1940, p. 435). The Department of Antiquities in Saudi Arabia plotted the area while registering archaeological sites in the 1980’ (Ingraham, Johnson, Rihani & Shatla, 1981: p. 59-84). Kilwa was then classified as a prehistoric site and has become widely-known as such.

The prehistoric rock engravings in Kilwa were considered to be amongst the most ancient.

OBJECTIVES

The Kilwa remains were recorded and both briefly and quickly explained by Horsfield who spent little time there. Horsfield and his team limited themselves to gathering ceramics and to a quick dating of the site according to the study of pottery shards. Our goal is to undertake and extend the work of Horsfield and Rhotert by carrying out studies on nomadic societies and cultures. This will give us a better understanding of mobile societies and extend our reflections in this regard. This involves epigraphical, archaeological, botanic and geographical surveys.

It also requires conducting excavation of archaeological remains for chronology, hydraulic systems, and construction methods.

Over three years we have partially excavated three sectors (Kilwa 1: ST 54, 57, 63 and 41 Kilwa) and begun the architectural study of two areas (Kilwa 1: ST 46 and 47). We have also explored an area 15 km west of the main site. After only four seasons it is difficult to provide more than only initial results. Our work is just getting started.

Description of the Main Site of Kilwa and its Surroundings

The very fragile sandstone hills, about 100 metres high, that border the north-eastern limits of the remains emerge from a plain about 900 metres high. These hills, consisting mainly of lime-stone, are then scattered around the plain which extends towards the east and the north-east. From satellite-image, the site appears as follows: a natural alluvium deposit backing onto a hill approximately 800 meters long to the north-east (**Fig. 7**).

To the east, it is bordered by small hills which are not very wide and run along the site intermittently. The hills that border the south of the site face south-east/north-west. They have a progressive slope and culminate at about 200 metres. The main depression, al Qā’, which lies at the southern end of the site, is a water collecting basin for water coming from the wadis flowing from the north-west.

The Kilwa Main Site

The remains of Kilwa constitute a rather dense settlement with a concentration to the western area of the field (**Fig. 8**). The buildings form heaps of varying dimensions. All turn their backs to the west and face east. A group of buildings stand out by their architecture. There are five developments in the centre of which, on a higher level, stands a round house the eastern part of which shortens and is reminiscent of an apse.

The architecture of this building and the orientation of the apse suggest a chapel.

These heaps rest on land which is rather large and not very high, forming a triangle shape. In its southern part lies the Qā’ depression. At the south of the site there are some remains as well as a basin for rain water. In the narrow plain which lies between the hills and the site, three water collecting channels flow from the north-west plain then into the al-Qā’ depression, as well as the basin (**Fig. 9** & **Fig. 10**).

The al-Qā’ area is bordered on the west side by a dam, the wall of which is one metre thick at its northern end and three metres at its southern end. Its length is 158 metres with a width fluctuates between

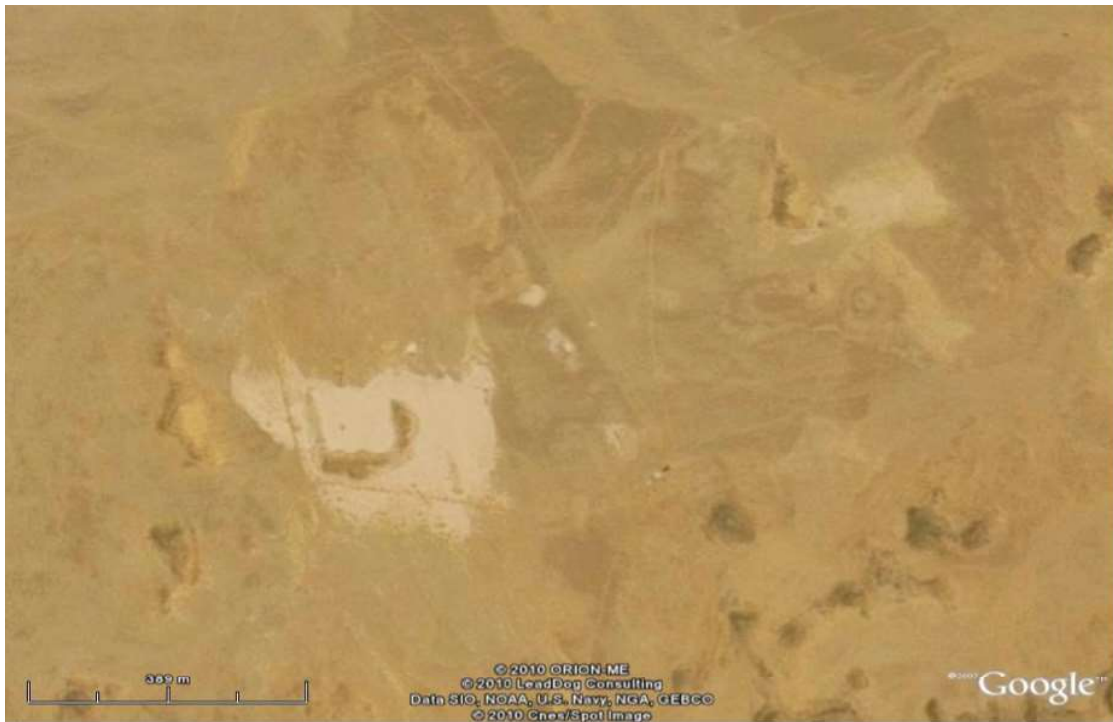


Fig. 7 : Satellite image of Kihwa main site



Fig. 8 : Some archaeological remains in Kihwa

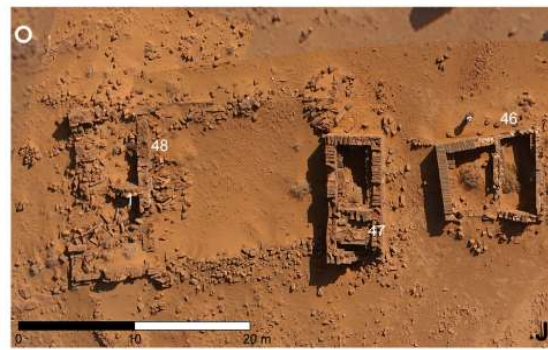
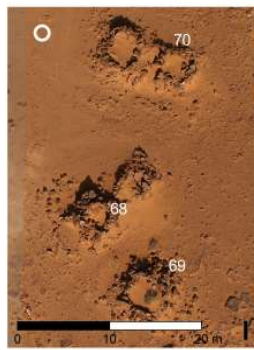
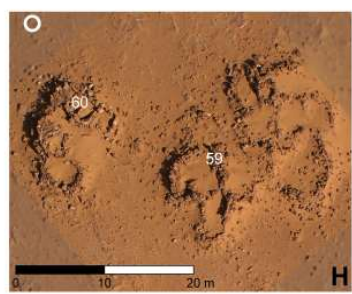
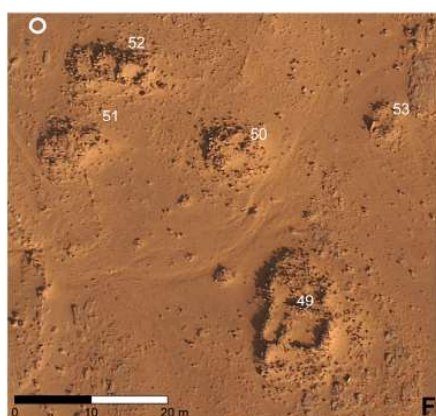
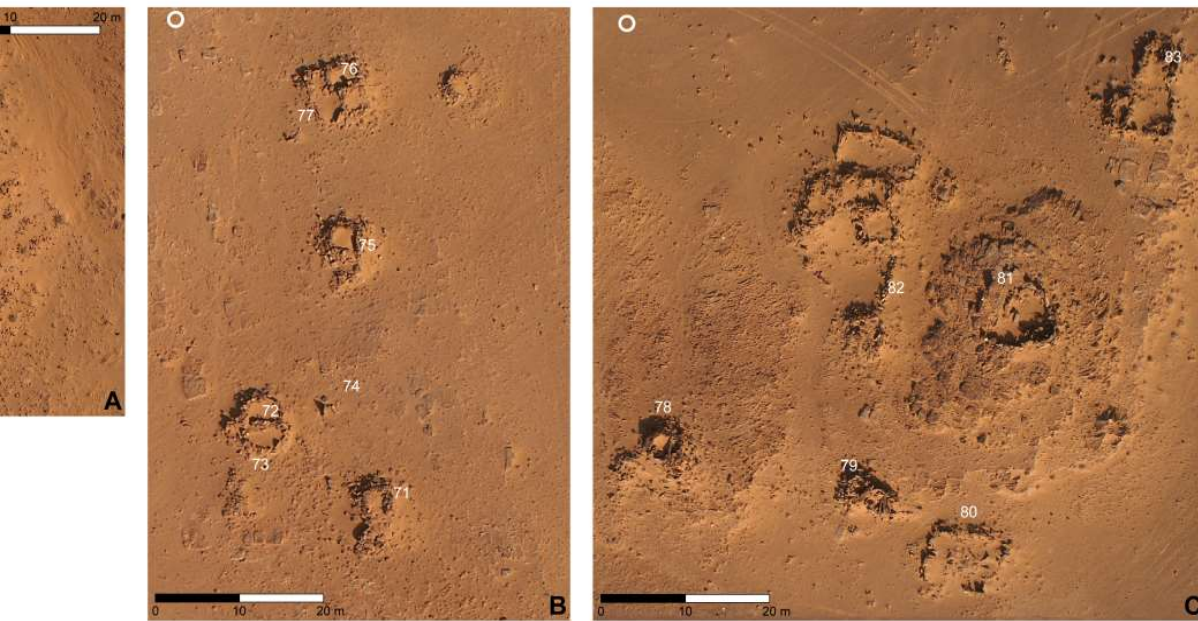
Kilwa



Photographies aériennes du 22/02/2008

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Fig. 9 : Aerial view of Kilwa main site (C)



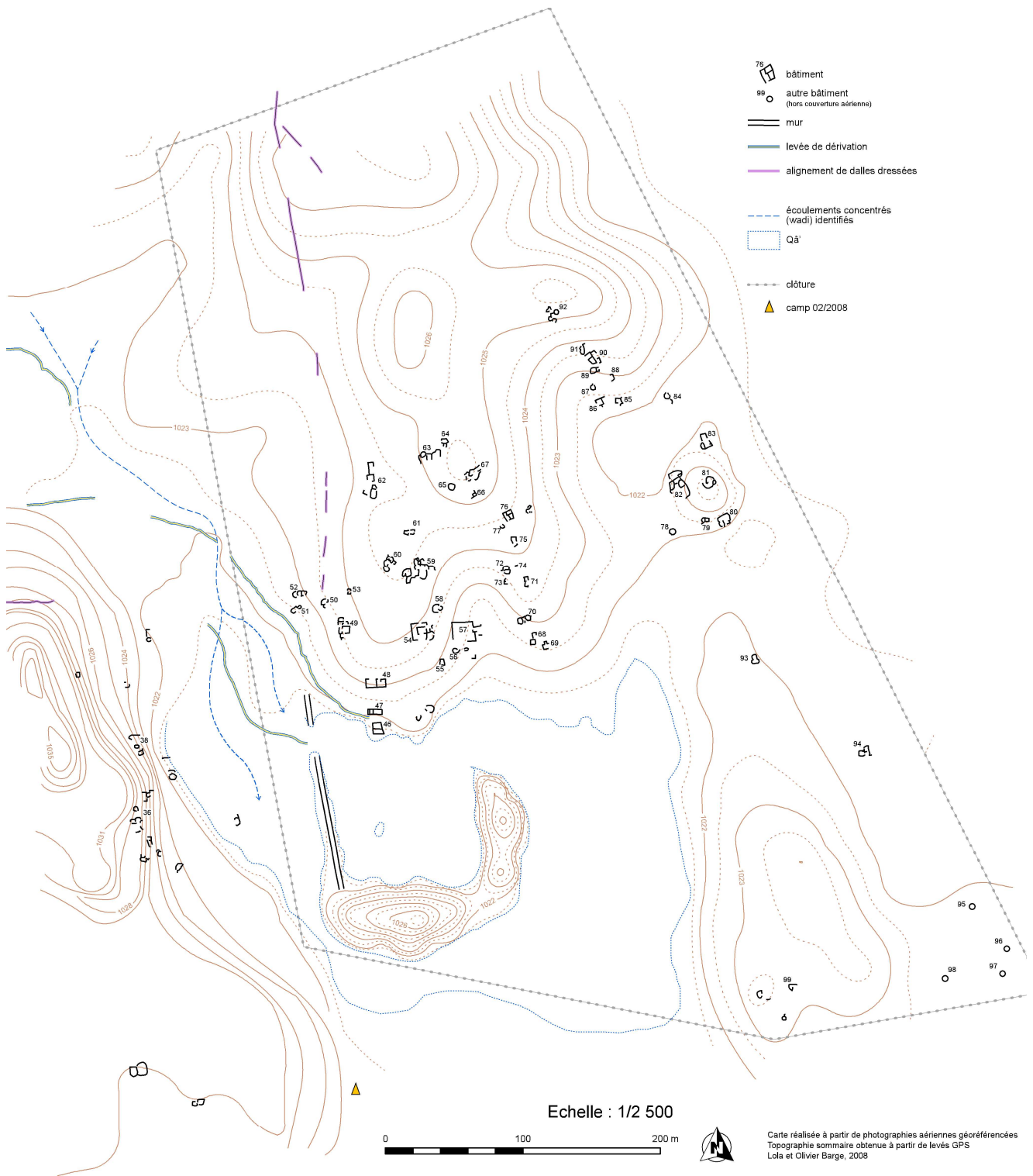


Fig. 10 : Sketch of Kilwa main sit (O. Barge, CNRS-Archéorient UMR 5133)

2.5 and 3.5 metres and it is built of sandstone. The remains occupy a surface 800 m. long and 400 m. wide.

Half of its north-eastern part is abandoned, no buildings were found. In the south-western part of the site, there are three buildings (ST 46, 47, 48) constructed with dry carved stones mortared by lime (Area J on the general map). Lime is used as decoration at the entrance of ST 48 and it looks like the reverse of an icon (**Fig. 11** & **Fig. 12**). Elsewhere the units are isolated from one another. The walls of the cells are built using uncarved dry stones without lime. In some units, there are lintels topped with crosses.

The Outer of the Settlement in Kilwa

The settlements spread into the nearby hills there is a troglodyte hermitage within thirty metres or so to the south-east of the main site. It was previously reported on by Horsfield. It consists of a solid mass constructed like an altar with several crosses engraved in the rock and a stacked tomb.

To the east, next to a small hill, stands a round building. Considering that lime fragments cover the entire area, it seems possible that it was a lime oven. A similar construction covered with sand leads us to believe it is a similar installation.

This hill is covered with rock-animals engravings and northern Arabic inscriptions. Flints are abundant in this area but there are no ceramics.



Fig. 11 : ST 48, Section-drawing



Fig. 12 : ST 48, Decoration, details



Fig. 13 : Scientific and technical members

FIRST SEASON: 15TH.-26TH. FEBRUARY 2008

Scientific and Field Members (Fig. 13):

Team Members:

- FARÈS, Saba, archaeologist/epigraphist, head of the project, Lorraine University, HISCANT-MA (EA 1132), GREMMO (UMR 5189), Lyon;
- ALI (al), Ya‘rub, Director of Tabūk Antiquities;
- BARGE, Olivier, cartographer, Maison de l’Orient et de la Méditerranée, UMR 5133, Lyon;
- ESKOUBI, Khaled, epigraphist, SCTA, Riyadh;
- GATIER, Pierre-Louis, archaeologist-epigraphist, HiSoMA, UMR 5189, Lyon;
- INIZI (al-), Hmoud, topographer, SCTA.
- ROBIN, Julien Christian, epigraphist, UMR 8167 Orient et Méditerranée, Paris.

For the logistic, we were accompanied by:

Saïd Eid al-AṬwī, driver for the SCTA, Tabūk;

Salameh Eid al-AṬwī, driver for the SCTA, Tabūk.

OBJECTIVES

Our first mission: Assessing the feasibility of the field work because this type of project requires rather heavy logistics. Our second target was to examine the archaeological remains in the area, gather cartographic and photographic documentation to prepare for the following year’s excavation. Therefore, before starting the excavation, it was necessary to start identifying the buildings and assessing the dimensions of the site. We took aerial photographs of the site, using a drone called ‘pixy’, equipped with a digital camera. These photographs would constitute the basis for the topographic plotting, which was to take place before the excavation during the next season.

The expedition was supported by the Cultural Service of the French Embassy (SCAC) in Saudi

Arabia and by the Saudi Commission for Tourism and Antiquities in Saudi Arabia.

We spent two days in Riyadh (from the 15th to 17th of February 2008) in order to meet Mr Daniel Ollivier, Cultural Adviser of the French Embassy in Riyadh, Mr François Delye de Mazieux, Scientific Attaché of the French Embassy in Riyadh, as well as the Saudi Commission for Tourism and Antiquities, Prof. Dr Ali Al-Ghabban. Mr Olivier Barge held a conference in Riyadh on the Geographic Information System and how to use it in the field of archaeology. He also presented the using of the camera-equipped



Fig. 14 : 2008 Camp

aeroplane mentioned above.

Our Saudi colleague, Dr Khaled Eskoubi, took charge of organizing the logistics of the desert-camp. The Saudi Commission for Tourism and Antiquities covered all the logistic expenses. The camp was made up of a large tent for the team, a small tent for cooking facilities, a tent for meals, a tent for the drivers and a tent for the policemen who were in charge of team security. A tank truck supplied water and for our daily needs.

Two cars from the Department of Antiquities and Museums were initially provided to us and another car carried provisions (Fig. 14).

The Saudi authorities appointed three security patrols to join us from the time we arrived at Tabūk airport until our journey back to Tabūk. These patrols set up a camp next to ours and accompanied us on all trips. The Saudis’ efficiency was exemplary. The guardian of the site, Mr Lāzim Mas‘ūd al-Shrārī, proved to be very efficient in solving everyday problems such as petrol re-fuelling. He saw to our

comfort and was always ready to meet our needs. His knowledge of the region helped us find some archaeological sites. It is important to emphasise that, despite the remoteness of the site, the mission proved to be much easier than we previously thought because we did not have to organise the heavy logistics which usually precedes ground missions. We feel immense gratitude towards Prof. Dr. Ali Al-Ghabban who covered the mission costs and towards Mr Khaled Eskoubi who took charge of organisation.

Our stay was also facilitated by the representative of the Imirah of the Tabūk Region, Mr Salmān Farḥān al Shrārī, who was our guide in this immense desert with no landmarks. On our way back, he drove us all the way to Tabūk so that we

would not get lost. He was a native of the region and knew the locations of many archaeological and epigraphical sites.

AERIAL IMAGES

Our first and main objective was to take aerial photographs of the Kilwa main site through 'Pixy.'

This consisted of putting GPS points in the ground and adding coloured dishes to these points which were visible through aerial images and the Geographic Information System in order to replace images with these geographic points.

The base of the differential GPS was fixed at the southern fence.

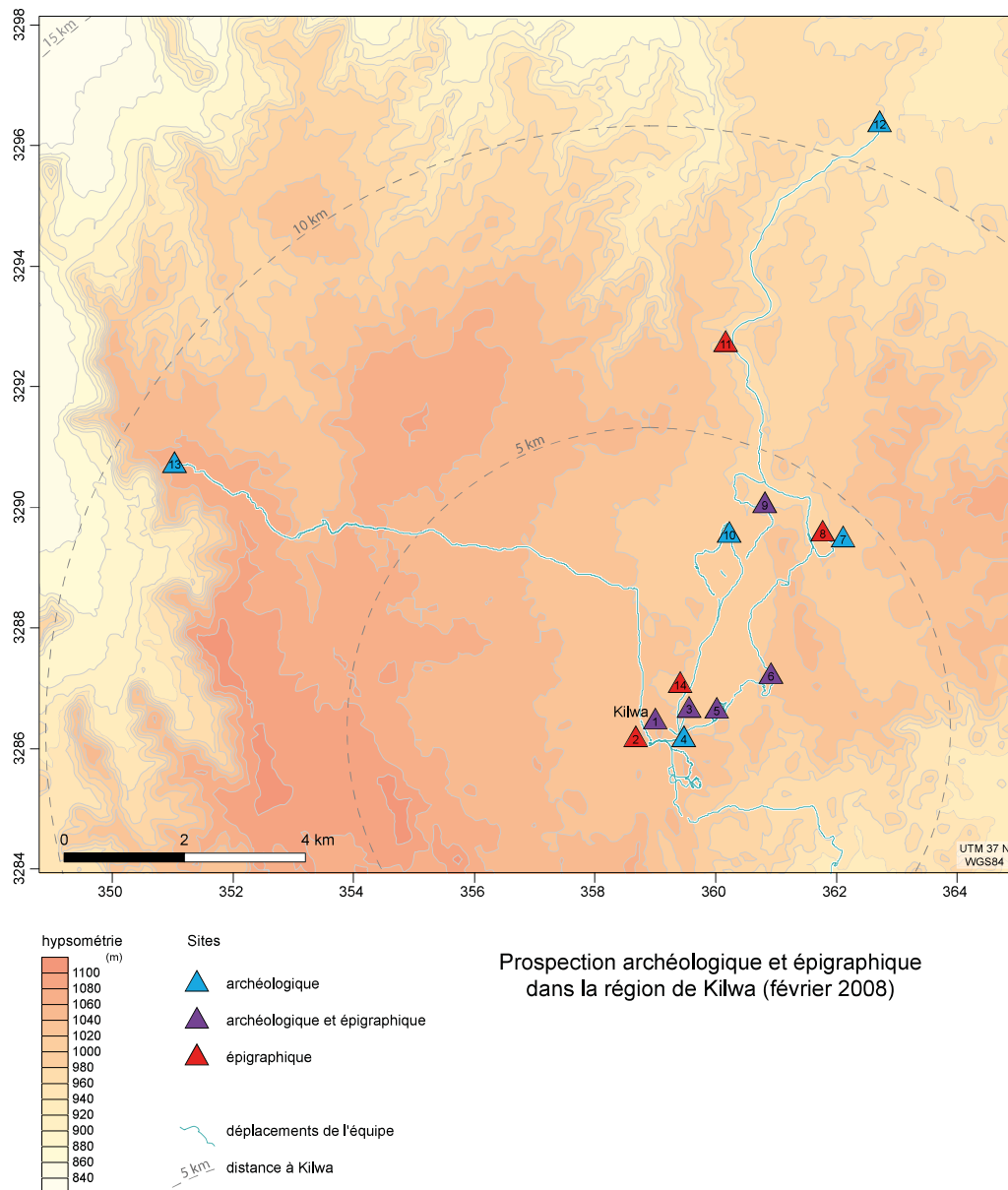


Fig. 15 : 2008 Survey zones

The work proved to be difficult due to weather conditions, particularly heavy winds, we nonetheless achieved our goals.

These documents allow us to study the various constructions and the overall layout of the site.

EPIGRAPHICAL AND ARCHAEOLOGICAL SURVEY

We have determined the area of our search with the Saudi authorities. On this basis, we have begun the prospecting process (Fig. 15).

We followed the North-Arabian inscriptions mentioned by Horsfield and localized prehistoric sites published by Rhotert (Fig. 16).

We also recorded new prehistoric sites and new North-Arabic inscriptions in the North-East of the Kilwa main site and also visited the looted site of Umm Gaḍa (Fig. 17).

We also found the Northern Arabic inscription previously noted by Horsfield (Fig. 18).



Fig. 17 : Looted site of Umm Gaḍa



Fig. 16 : Rhotert map



Fig. 18 : Horsfield northarabic inscriptions



Fig. 19 : *2009 team*



Fig. 20 : *2009 camp*

SECOND SEASON: 6TH. APRIL-9TH. MAY 2009

Scientific and Field Members (Fig. 19):

Team Members:

- **FARÈS, Saba**, archaeologist/epigraphist, head of the project, Lorraine University, HISCANT-MA (EA 1132), GREMMO (UMR 5189), Lyon;
- **ALI (al), Ya‘rub**, Director of Tabūk Antiquities;
- **AṬWĪ (al-), Abd al-Rahman**, archaeologist;
- **HADLAG (al-), Abdallah** archaeologist, draughtsman, Riyadh;
- **INIZI (al-), Hmoud**, topographer, SCTA.
- **JOUVENEL, Aurelie**, archaeologist, French Institute in the Middle East, Amman, Jordan;
- **KHALIFA (al-), Khalifa**, epigraphist, head of Saudi team, Riyadh;
- **OMARI (al-), Abd Al-Aziz**, archaeologist, Ṭā‘if;
- **RÉGAGNON, Emmanuelle**, cartographer, Maison de l’Orient et de la Méditerranée, UMR 5133, Lyon;
- **DEVIDAL, Élise** draughtsman, Paris;

Students:

- **CONCHON, Guy-Roger**, architect trainee, ALBA, Lebanon;
- **HULLO, Jean-François**, PhD candidate, topographer, INSA, Strasbourg;
- **KENOUSI, Lamia**, archaeologist, Master’s student, Lyon 2 University, France.

Seven tents were dressed (Fig. 20):

- Tent serving as a kitchen;
 - Tent for the male members of the French team (Jean-Françoise Hullo and Guy-Roger Conchon). This tent also served as a place of work for the French team;
 - Tent for the female members of the French team (Saba Farès, Élise Devidal, Emmanuelle Régagnon, Aurélie Jouvenel and Lamia Kenoussi);
-
- Tent divided into two parts: one part was occupied by the Saudi team while the other served as a storage area for archaeological artefacts and a meeting room;
 - Black tent that served as a common area for food and rest;
 - Tent for the guardian of the site.
 - The bathroom (shower and WC) was installed in a rudimentary way by our Saudi colleagues. Water was supplied by a tanker installed upon arrival. Electricity was provided by an electric generator.

I. OBJECTIVES

- i. Conducting epigraphical and archaeological survey at a distance of 15 km from the west of the Kilwa main site. Several sporadic surveys were carried out in parallel in the north-east and south-east (**Fig. 21**).
- ii. surveying the structures from within the fenced site of Kilwa starting with the study of a cell-type structure (ST 63) and the study of the water basin (ST 46).
- iii. Producing of photographic surveys, topographic and the photogrammetric production of the entire site of Kilwa.

To achieve these ends, tasks were distributed amongst specialists on the team:

- The survey and excavation of the 63 architectural complexes in Area E, north of the site. The structure of the monastery of Kilwa is considered to be one of the most revealing with the most decorated lintel (cross carved in the shape of a “Maltese Cross” with Arabic inscriptions). The typology of this cell probably served as a prototype for other similar buildings. Members who were affiliated with this research were Aurélie Jouvenel, élise Devidal, Yarub Al-al-Alī, Lamia and Kenoussi Abd Al-Aziz Al-Omari.
- Creation of a Digital Terrain Model (D.T.M.) and a 3D model of the site by photogrammetry.

This work was directed by Jean-François Hullo and Hmud Al-Inizi.

- Exploration and inventory of the various traces of human occupation, archaeological remains and rock engraved inscriptions using a GPS within the 20 km radius permitted. Members who participated in this operation were Saba Farès, Khalifa Al-Khalifa, Emmanuelle Régagnon and Lāzim Mas‘ūd al-Shrārī (guide).
- Creation of a database with all the relevant information relating to the mission: graphic materials, discovered objects, samples (ceramic, bone fragments...). This work was carried out on a daily basis by Saba Farès, Emmanuelle Régagnon and Aurélie Jouvenel.
- Continuation of a mosaic mapping composed of very high resolution aerial photographs (started in 2008) of the whole site was carried out by Emmanuelle Régagnon and Khalifa Al-Khalifa.
- Architectural survey of the structures in Kilwa and its surroundings. This work was carried out by Guy-Roger Conchon, Abdallah Al-Hadlag and Abd al-Rahman Al-Itiwi.

ACHIEVEMENT

During the mission in 2009, we excavated three trenches on building 63, calculated the measurements of the building and established a detailed documentation of the architecture of the site (aerial photos, ground photos, statements, observations, DTM, etc.).



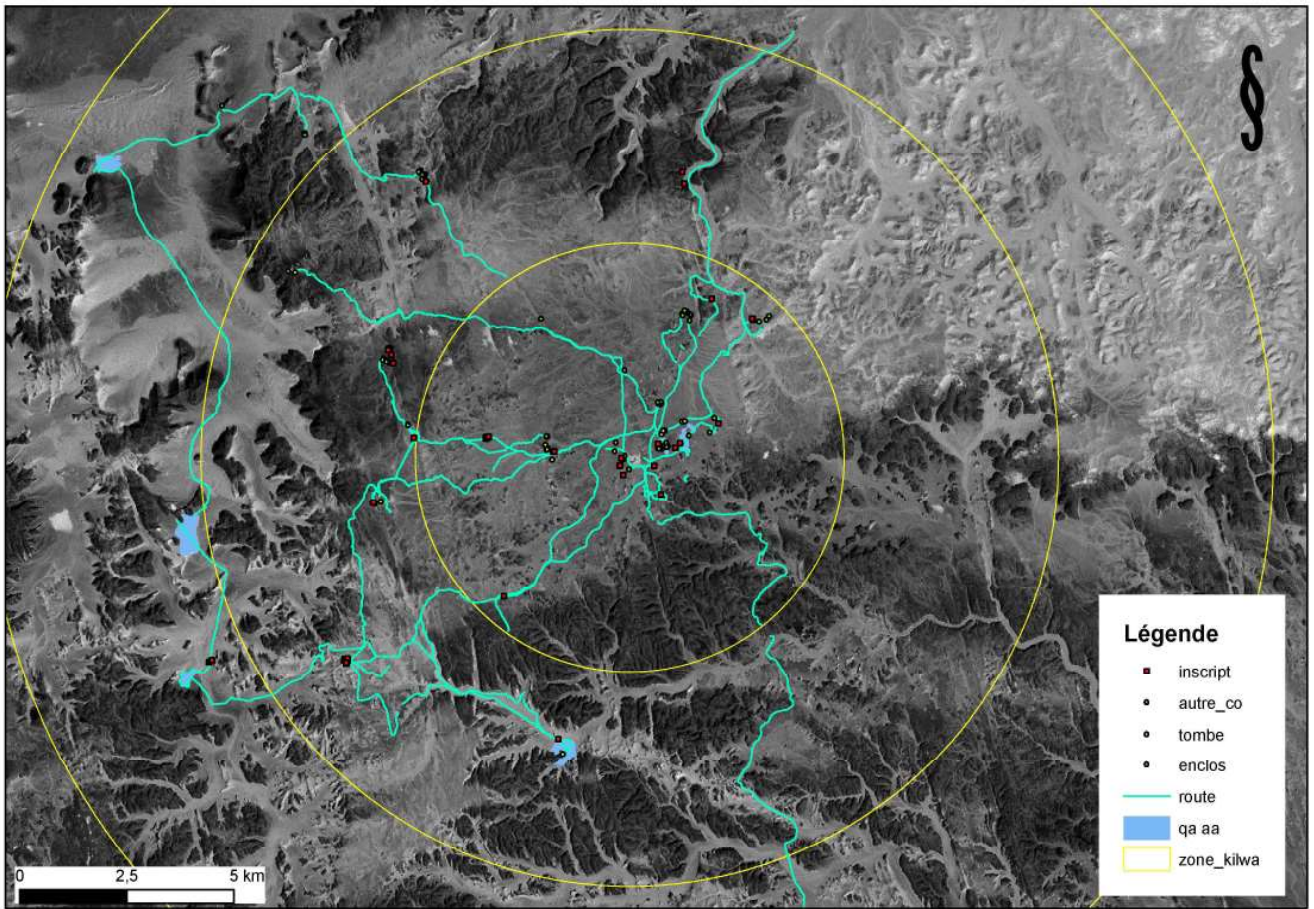


Fig. 21 : *survey zone of 2009 season*



Fig. 22 : 2010 team



Fig. 23 : Installation of sanitary

THIRD SEASON: 9TH. APRIL-15TH. MAY 2010

Scientific and Field Members (Fig. 22):

Team Members:

- **FARÈS, Saba**, archaeologist/epigraphist, head of the project, Lorraine University, HISCANT-MA (EA 1132), GREMMO (UMR 5189), Lyon
- **ALI (al), Ya‘rub**, Director of Tabūk Antiquities;
- **AṬWĪ (al-), Abd al-Rahman**, archaeologist;
- **CALLOT, Yann**, geographer, Lyon 2 University, France
- **DEVILLECHAISE, Aurélie**, archaeologist, Archeodunum, Lyon
- **FERREIRA, Patrick**, archaeologist, INRAP, Nîmes, France
- **GAULON, Alain**, archaeologist, University Paris 1, France;
- **HERVEUX, Linda**, archaeo-botanist, Archeorient, Lyon, France;
- **KRAEMER, Charles**, architect and topographer, Lorraine University, France;
- **SOLI (-al-) Muhammad**, draughtsman, Riyadh;
- **MUZAYNI (al-), Fahd**, archaeologist, Riyadh;
- **OMARI (al-), Abd Al-Aziz**, archaeologist, Riyadh

Students:

- **CASSOLA, Virginia**, Master’s student, museology, Parix X University, France
- **MUTERY (al-), Sultan**, PhD candidate, architect, Lyon 2 University, France
- **CRÉPY, Maël**, Master’s student, geographer, Lyon 2 University, France.

Support:

- **DUHR, Victor**, doctor
- **COCHIN, Pierre**, independent photographer

We were accompanied by:

- **HARBI (al-), Fhayd al-and Huwayti (al-), SWAYLIM al-**, drivers;

Seven tents were set-up:

- Tent for the male members of the French team (Patrick Ferreira, Alain Gaulon, Pierre Cochin, Charles Kraemer, Victor Duhr, Yann Callot and Maël Crépy). This tent also served as a place of work for both geographers;

- Tent for the female members of the French team (Saba Farès, Aurélie Devillechaise, Linda Herveux and Virginia Cassola);
- Tent for members of the Saudi team (Ya‘rub al-‘alī, Abd al-Raḥmān al-Aṭwī, Muḥammad al Soli, Abd Al-Aziz Al-Omari Suwaylim al-Ḥuwayṭī, Fhayd al-Ḥarbī and Sulṭān al-Muṭayrī);
- Working tent which also served as a meeting room for the two teams each evening;
- Black tent that served as a common room;
- Tent serving as a kitchen;
- Tent for the guardian of the site;
- The sanitary facilities (shower and WC) were installed in a rudimentary way by both teams, the first day of arrival at the site (**Fig. 23**). Water was supplied by a tanker installed before our arrival. Electricity was produced for a limited time by an electric generator.

OBJECTIVES

- i. Continuing the excavation of ST 63
- ii. Excavation of ST 54
Excavation of ST 57
- iii. Continue architectural study of ST 46
- iv. Finalizing topographical survey
- v. Surveying epigraphical and archaeological of the west site of our authorized field, within 10 km;
- vi. Surveying the geography of the site
- vii. Conducting a Botanic study

ACHIEVEMENT

- I. Excavation of the entire area at the entrance in ST 63
- II. Excavation of building B on ST 54;
- III. Three soundings at ST 57 and botanic analysis of the sediment
- IV. Study of various geographical phenomena to the west of our authorized zone

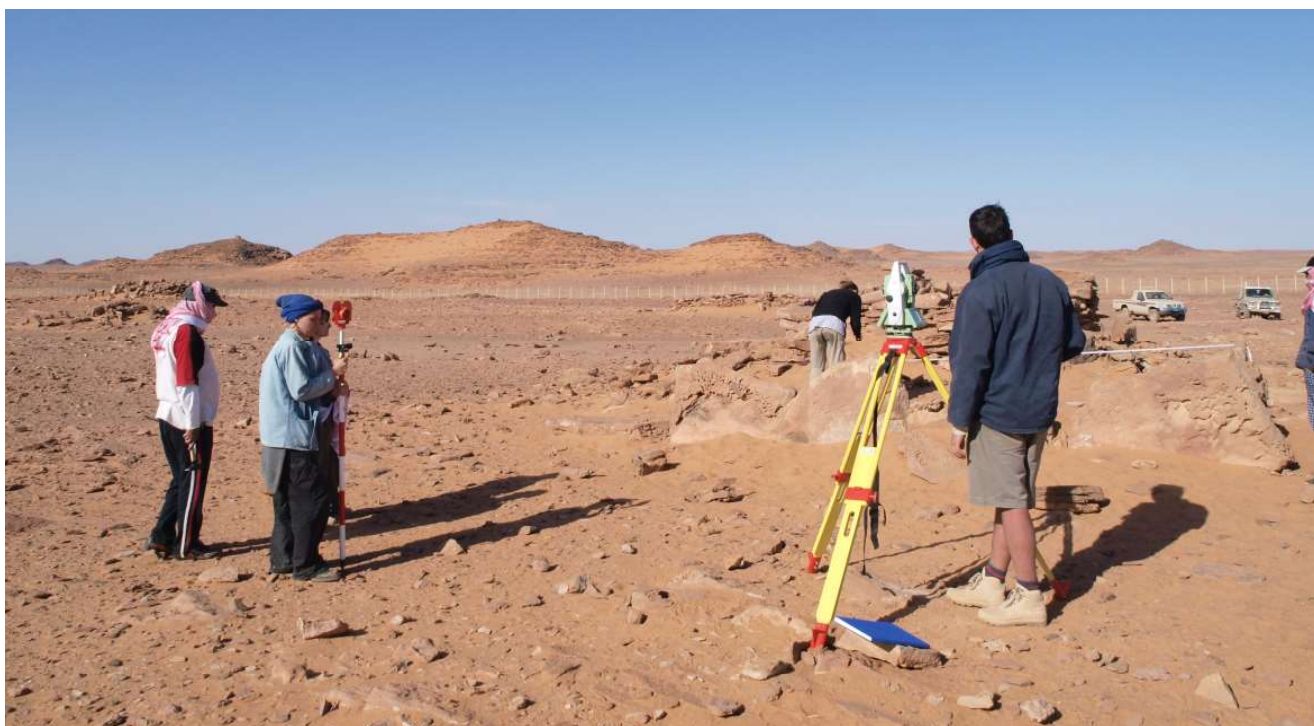






Fig. 24 : *2013 team*

FOURTH SEASON: 17TH. APRIL - 3TH. MAY 2013

Scientific and Field Members (Fig. 24):

Team Members:

- FARÈS, Saba, archaeologist/epigraphist, head of the project, Lorraine University, HISCANTMA (EA 1132), GREMMO (UMR 5189), Lyon
- DEVILLECHAISE, Aurélie, archaeologist, Archeodunum, Lyon
- INIZI (al-), Abdulhadi, archaeologist, Director of Antiquities of Diba;
- MUZAYNI (al-), Fahd, archaeologist, Riyadh;
- OMARI (al-), Abd Al-Aziz, archaeologist, Riyadh
- ROKITTA-KRUMNOW, Dörte, archaeologist-prehistorian, Deutsches Archaeologisches Institut
- SOLI (al-), Muhammad, draughtsman, Riyadh;
- ZAHRANI (al-), Badr, geographer, SCTA, Directeur des Antiquités d'al-Baha

We were accompanied by

- FHAYD al-Harbi and Swaylim al-Huwayti, drivers;

Practical installation details

In accordance with its commitment, the SCTA has installed prefabricated housing for us:

- A 13-metre-long element dedicated to living and working together;
- Two 13-metre-long elements, each with four bedrooms;
- One 8-metre-long kitchen unit;
- An 8-metre-long bathroom and WC unit.
- We had a water supply and an electric generator.



Fig. 25 : 2013 housing installation







General informations

We initially planned to clear all of Zone B of Structure 54, but we were not able to meet our objectives because we had limited time, few human resources (an archaeologist with two workers, who also had to draw and who had to take care of recording the material), because of our limited financial means.

The two sectors opened in 2013 nevertheless allowed us to clear the access to the building (south side) and the entire eastern sector. The latter has not delivered much material and we do not yet know if it is contemporary to the main building.

I would like to remind that the building was excavated in 2010 following the observations I made when analyzing the aerial images taken by Olivier Barge in 2008. My hypothesis was whether this is

a church. The excavation confirmed this hypothesis and reinforced the idea that it is indeed a monastic establishment of Laure type: a church, a chapel, a common building and about thirty isolated cells. Moreover, in 2009 we began our work in Kilwa with the excavation of a cell (ST 63, cf. excavation 2009 and 2010) (**Fig. 26**). The excavation of structure 54 should be completed in 2014.

Furthermore, in this last 2013 mission, we hired a prehistoric archaeologist to study prehistoric sites that we had recorded in 2009 and 2010.



Fig. 26 : ST 63 (2009 and 2010 excavation)



Fig. 27 : 2015 team members



Fig. 28 : Prefabricated housing unit blowing out



Fig. 29 : Debris of prefabricated housing unit



Fig. 30 : Clearing the prefabricated housing before stating the fieldwork



Fig. 31 : Sandstorm

FIFTH SEASON: 22TH. MARCH - 27TH. APRIL 2015

Scientific and Field Members (Fig. 27):

Team Members:

- FARÈS, Saba, archaeologist/epigraphist, head of the project, Lorraine University, HISCANT-MA (EA1132), Nancy; GREMMO (UMR 5189), Lyon;
- HUMBER, Jean, dessinateur indépendant.
- MUNCHY, Marc, géophysique, École et Observatoire des Sciences de la Terre, Institut de Physique du Globe de Strasbourg
- MUZAYNI (al-), Fahd, archaeologist, Riyadh;
- OLLIVE, Vincent, archéo-géographie, Université de Lorraine,
- OMARI (al-), Abd Al-Aziz, head of Saudi team, archaeologist, Riyadh;
- ONAIZI (al-), Abdulhadi, al-archaeologist, Director of Antiquities of Diba;
- ZAHRANI (al-), Badr, geographer, SCTA, Directeur des Antiquités d'al-Baha

Students

- DUMAS, Marius, Medieval Archaeology, University of Paris IV
- LEMAIRE, Pauline, geophysics, University of Strasbourg
- ZAHRANI (al-), Adel, pre-Islamic archaeology and epigraphy, University of Lorraine

Logistics

- Mohammad al-Shrari (Driver).
- Othman (cook)
- Al-Badawi (cook)
- Ibrahim Mohammad Al-Thoum (worker)
- Mohammad Abdallah (worker)
- Abdallah Mohammad (driver)
- Al-Thuhami (worker)

Difficulties encountered

- Staff

A last-minute withdrawal by the archaeologist-drawer, Aurélie Devillechaise, due to the refusal of a late authorization for absence, caused difficulties. It was necessary to find a draftsman and an assistant archaeologist 10 days before the beginning of the

campaign. Since a visa for Arabia requires a lot of work, I had to find someone who already had a visa. I turned to Mr. François Villeneuve, co-director of the Madāin Salih project, who had just finished his campaign. He gave me the names of two people who participated in his mission in January 2015: Jean Humbert (draftsman) and Marius Dumas (young PhD student in archaeology). As Mr Humbert could only come to Kilwa towards the end of the campaign, Marius Dumas was also recruited to assist Mrs Farès.

- Material

When we arrived, we found that a unit of the prefabricated housing installed in 2013 had been blown off by a storm the year before (Fig. 28). The debris was still there (Fig. 29). We spent several days to clear them away because they represented a danger due to the violent wind during our campaign (Fig. 30). The guardian of the site had reported the accident to the Tabuk Antiquities Authority, but his letter remained unanswered.

In addition, we were faced with a major problem: our theodolite was lost and the level was out of service. We brought a total station from Riyadh which appeared to be defective, after 4 days of work. We then looked to buy a construction level from Riyadh, by the time it arrived we hired a surveyor from Tabūk. The latter's total station broke down after a long day's work.

- Intemperate weather

The period of our fieldwork corresponded to a period of violent sandstorm that lasted throughout our stay (Fig. 31). A lull occurred towards the end, starting on April 17, 2015. The strong wind made it impossible for us to work at times. It was very cold, with temperatures sometimes reaching 3° at night and 35° during the day. A complete list of photographs was updated daily as well as the database.

Visit

- On Tuesday 7 April 2015, we had the visit of Dr. Abdallah al-Saud, Director of Excavations at the SCTA. He was accompanied by Ya'rub al-Ali, director of the Museum of Tabūk (Fig. 32). It was the first time that a Saudi official visited us. Our visitor left in the afternoon.

- On Friday, April 10, we received the visit of Louis Blin, Consul General of France in Jeddah. He was accompanied by his wife and son. It was also the first visit of a French official to the site. He stayed in Kilwa from 10 to 12 April (**Fig. 33**).
- On Saturday 18 April 2015 we received the visit of Mr. Cyrille Le Deaut, Attaché for Cooperation and Cultural Actions at the French Embassy in Riyadh. It was also the first visit of a member of the French Embassy in Riyadh. Our visitor left on April 20, 2015.

Operations

We conducted three simultaneous operations:

- Excavation of the southeast sector (Zone J, ST 47) (dir. Saba Fares)
 - Poll in the temporary lake (dir. Vincent Ollive)
 - Geophysical prospecting over the entire site (dir. Marc Munsch)
- The objectives of this campaign are as follows:
- Study building No. 47, a carefully constructed, cut stone building.
 - Investigate the temporary lake at which the community has settled in Kilwa.
 - Lime analysis: phasing and use

In order to achieve our objectives, we have planned the following actions:

- Excavating ST 47

- Stone by stone drawing of ST 47
- Geophysical survey of Qā' and the whole site
- Analysis and geo-archaeological studies of the entire site.

The approach adopted for each part of the project is to analyze satellite or GNSS images to detect anomalies and then implement the soundings. We thus opened six test pits: four in ST 47 (47.2, A and B; 47.3, A and C); two in Qā' (Qā' 1 and 2). The first test pit in Qā' was drilled with a pickaxe, the second with a jackhammer. We reached the substratum in the ST 47 bores, however, we down 1.60 m in Qā' 1 and 1.30 m in Qā' 2. The excavation was carried out stratigraphically in ST 47. The decision to locate the soundings in ST 47 was based on questions about the links between structures and to find out the function of the structure. In contrast, the soundings in 'Qā' were decided on the basis of images obtained from geophysical prospecting.

The geo-archaeological analysis was carried out in Qā' 1, by Vincent Ollive.

The site's isolation and difficult access means that we have to perform many tasks manually without the use of mechanical machinery such as a shovel or a high-powered jackhammer. Thus, the qa' was cleared manually and with a small jackhammer (**Fig. 34**). The large blocks of the collapse layers were also cleared manually with the equipments available (**Fig. 35**).



Fig. 32 : *Abdallah al-Saud trying geophysics materials*



Fig. 33 : *French Consule at Jeddah during his visit*



Fig. 34 : qa' cleared manually and with a small jackhammer



Fig. 35 : 47.2A, blocks cleared manually