PRELIMINARY REPORTS OF THE SYRIA-JAPAN ARCHAEOLOGICAL JOINT RESEARCH IN THE REGION OF AR-RAQQA, SYRIA, 2007

INTRODUCTION

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On February 15th of the year 2007, the Syria-Japan Archaeological Joint Research in the Bishri Region started. Since then, four times of the joint research were carried out until December of the same year. Four preliminary reports presented here in the following sections were submitted to the Directorate General of Antiquities and Museums in Damascus each time the research was completed.

This Syria-Japan Joint Research, supervised by Al-Maqdissi from the Syrian side and Ohnuma from the Japanese side, is an important component of the Japanese archaeological project entitled "Formation of Tribal Communities in the Middle Euphrates", totally supported by the Japanese Ministry of Culture, Science, Education and Sports for the period from 2005 to 2009.

Composed of 15 research teams specialized in natural and cultural sciences, this Japanese project is a multi-diciplinary one to be carried out in the Bishri region on the Middle Euphrates, North-East Syria. This region has been identified by many scholars as a primary homeland of the builders of the ancient civilizations of West Asia, represented by the Assyrians and the Babylonians.

The Syrian Directorate General of Antiquities and Museums agreed with the aim of this Japanese project, and have been cooperating with the Japnese scholars towards the success of the project.

Listed below are the 17 research teams constituting the joint research.

1) Supervising Team "Archaeological Research in West Asia based on Integrated Research Methods" (Director: Katsuhiko Ohnuma)
2) Research Team "Relationship between the Behavioral Evolution and the Process of Sedentalisation during the Palaeolithic Period in West Asia" (Director: Hiroyuki Sato)
3) Research Team "Expansion Process of Food Production Economy and Formation of Community in the Arid Area of West Asia" (Director: Yoshihiro Nishiaki)
4) Research Team "A Comparative Study on the Burial Patterns of the Pastoral Nomadic Tribes" (Director: Sumio Fujii)
5) Research Team "A Study of the Process of Urbanization in West Asia" (Director: Akira Tsuneki)
6) Research Team "Integrated Research on the Assyrian Civilization in Northern Mesopotamia" (Director: Hirotoshi Numoto)
7) Research Team "Establishment and Development of the Civilization of Sumerian Writing System" (Director: Kazuya Maekawa)
8) Research Team "Development of City-States and the Tribes in West Asia" (Director: Akio Tsukimoto)
9) Research Team "Environmental History of the Middle Euphrates based on Environmental

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Geology, Environmental Chemistry and C14 Dating" (Director: Mitsuo Hoshino)
10) Research Team "Biological Features of the Ancient Inhabitants of the Middle Euphrates and its Peripheral Region" (Director: Hidemi Ishida)
11) Research Team "Zoological and Botanical Archaeology in the Prehistoric to the City-State Societies of West Asia" (Director: Hitomi Hongo)
12) Research Team "A Study on the Styles and the Genealogy of Masonry Techniques in Ancient West Asian Architecture" (Director: Yasuyoshi Okada)
13) Research Team "Basic Structure and Re-arrangement of the Bishri Mountains Tribal Culture in the Ancient Oasis City, Palmyra" (Director: Saeko Miyashita)
14) Research Team "Developing Data-base of Archaeological Sites of West Asia: An Investigation through the Analysis of Satellite Images" (Director: Ken Matsumoto)
15) Research Team "An Archaeological Study on the Nomadic Tribal Communities in Northern Eurasia: A Comparative Study" (Director: Shu Takahama)
16) Research Team "A Study of the Process of Urbanization in the Steppical Border of Syria in the Third and Second Millennia B.C." (Director: Michel Al-Maqdissi)
17) Research Team "A Study of the Bronze Age Pottery Obtained by the Syria-Japan Archaeological Joint Research in the Region of Ar-Raqqa" (Director: Michel Al-Maqdissi)

All of the research teams above aim to clarify, through a harmonized cooperation of natural and cultural sciences, changes of natural environment, patterns of settlement, subsistence patterns, human biological features, architectural styles, artistic styles and social relationship, aiming also to clarify how ancient pastoral nomadic tribes contributed, with their repeated influx and efflux, to the emergence of agriculture-based city-like societies in the region.

The members who participated in the four times of the joint research in the year of 2007 are as follows:

Syrian party: Anas Al-Khabour (director), Shaker Al-Shbib (director), Ayham Al-Fahry, Mahmmod Al-Hassan, Ibrahim Musa, Mohamad Ali Jajan and Mohamad Ibrahim.

Japanese party: Katsuhiko Ohnuma (director), Hiroyuki Sato, Masanobu Tachibana, Yoshihiro Nishiaki, Tomoyasu Kiuchi, Sumio Fujii, Takuro Adachi, Kae Suzuki, Akira Tsuneki, Atsunori Hasegawa, Hirotoshi Numoto, Izumi Yoda, Harumi Horioka, Haider Urebi, Mitsuo Hoshino, Tsuyoshi Tanaka, Toshio Nakamura, Hidekazu Yoshida, Takeshi Saito, Kazuhiro Tsukada, Yusuke Katsurada, Ken-ichi Tanno, Lubna Omar, Chie Akashi, Yasuyoshi Okada, Naoko Fukami, Ryuichi Yoshitake, Yo Negishi, Shouko Ueda, Natsuko Fujikawa, Saeko Miyashita, Ken Matsumoto, Hitoshi Hasegawa, Tomoya Goto, Shu Takahama, Toshio Hayashi, Ryuji Matsubara and Toshiki Yagyu.

On the occasion that we have completed four times of joint research in the field near the city of Ar-Raqqa, we present here in the journal *Al-Rāfidān* all of the four preliminary reports, in the hope that we can proceed further to attain the aim of our joint research.

Dr. Bassam Jamous, Director General of the Syrian Directorate General of Antiquities and Musems, kindly understood this archaeological project into its realization, and we express our sincerest garatitude to him for his warm-hearted cooperation.

31/December/2007

ARCHAEOLOGICAL SURVEY IN THE BISHRI REGION SOUTH OF RAQQA — REPORT OF THE FIRST WORKING SEASON —

Katsuhiko OHNUMA*
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(5/March/2007)

1. Introduction

The first working season of the 2007 Syria-Japan archaeological joint research in the Bishri region was initiated on February 15 and was completed on March 3.

The members who participated in this joint research from Syrian and Japanese missions are as follows.

Syrian mission: Anas Al Khabour (director), Shaker Al Shbib (director), Nawras Mohamad, Ayham Al Fahry, Mahmmod Al Hassan and Ibrahim Musa.

Japanese mission: Katsuhiko Ohnuma (director), Sumio Fujii, Saeko Miyashita, Hirotoshi Numoto, Akira Tsuneki, Atsunori Hasegawa, Tomoyasu Kiuchi, Lubna Omar, Izumi Yoda and Yasuyoshi Okada.

Dr. Bassam Jamous, Director General of the Syrian Directorate General of Antiquities and Musems, and Dr. Michel Al Maqdissi, Director of Archaeological Excavations and Research at the Syrian Directorate General of Antiquities and Musems, kindly understood this archaeological project and cooperated towards its realization. We express our sincerest gratitudes to them for their warm-hearted cooperation. We also thank Mr. Samer Abdel Ghafour of the Syrian Directorate General of Antiquities and Musems for his kind help and cooperation.

2. Topography of the surveyed areas

The region between the city of Raqqa on the middle Euphrates and the northern edge of the Mount Bishri can be divided into three fundamental areas from geomorphological points of view.

The first of these areas is the riverside plain, which extends into west and east directions in the width of 1 to 4 km along the Euphrates. This area is irrigated now using water from the Euphrates, and its most parts are utilized as grain fields. There are some small villages at the southern edge of the riverside plain.

The second area is the Euphrates plateau between the riverside plain and the Mount Bishri. This plateau is some 100 m higher than the riverside plain, and the boundary line between the riverside plain and the plateau is formed very steeply. The inner parts of this plateau, however, are almost flat, and we could find ore of gypsum in a large quantity. There are some huge *wadis*, but this flat area is a dry and wild moorland. In this area, therefore, only nomadic people live today, pasturing their sheep and goats.

The third area is the mountain named *Jabal Bishri*. The highest altitude of this mountain is some 800 m, but it is too gradually sloped to tell the boundary between the plateau and the mountain area.

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3. Surveys of archaeological sites and birs

In this working season, two kinds of surveys were undertaken in the area between the city of Raqqa and the northern edge of the Mount Bishri, within the roughly triangular plateau surrounded by the towns of Mansura, Rasafa, Ghanem al-Ali and Hauijt Shnnan (Map 1).

One of the two surveys was aimed to map archaeological sites with sampling of archaeological specimens, and another was aimed to map *bir*s (wells).

In the following sections, archaeological sites and *bir*s which we mapped during the surveys are briefly described.

Survey of archaeological sites

Rasafa North is a small mound located some 2 km north from the town of Rasafa. We collected potsherds of the Byzantine and Umayyad periods (Map 1).

Kherbet al-Halul is a town with a surrounding wall. It is located some 25 km south from the town of Rasafa. Potsherds of the Byzantine and Umayyad periods were collected (Map 1).

Barayt Tell Hammam is located at the town of Baluda, 10 km north-east from the town of Mansura. It is a low mound, reminiscent of an open-air site, seemingly located on the lower terrace of the Euphrates. We collected Middle Palaeolithic artifacts from this mound (Map 1).

Site GCHS C113 is a medium-sized tell located 1 km south from Barayt Tell Hammam. At this site with a bench mark GCHS C113, we collected potsherds of the Byzantine period (Fig. 1).

Al-Hura is a small tell 2 km south from Site GCHS C113. Potsherds collected date this site to the Roman, Byzantine, and Umayyad periods (Map 1; Fig. 2).

Bir Kredy is located 15 km east from the town of Mansura. Judging from potsherds collected, this site with a well in its center is dated to the Byzantine and Umayyad periods. The well is said to be 70 m deep (Map 1; Fig. 3).

Al-Qabu al-Saghir is located some 24 km south-east from the town of Mansura. It is also a site surrounding a well, said to be 170 m deep. Potsherds collected date this site to the Buzantine period (Map 1; Fig. 4).

Tell Muheir is a medium-sized tell located some 30 km south-east from the town of Mansura. It is basically a natural mound, on which several graves and structures are remaining. Most of the potsherds collected are dated to the Islamic period. It is probable that this natural mound was often used in the past before the Islamic period, for it stands very clear on the flat plateau (Map 1; Fig. 5).

Tell Muheir East is a small tell some 1.5 km east from Tell Muheir. We collected few Islamic potsherds at this site (Map 1).

Tell Hammadin is a medium-sized tell located 800 m north from the Raqqa/Deir-ez-zor road at the town of Al-Jibly. It is located on the riverside plain of the Euphrates. Many potsherds of the Bronze Age are distributed on its surface (Map 1; Fig. 6).

Ghanem al-Ali A-E is a complex of small tells located 600 to 800 m east from the Ghanem al-Ali/Jabal Bishri road, at the spot 3 km south from the Raqqa/Deir-ez-zor road. Site A is a complex of mounds, shaped like Letter L. The length of this site complex is 300 m and the width 50 m. Site B is shaped oblong, 100 m in length and 30 m in width. Potsherds distributed on these sites are similar to those from Tell Hammadin. It is strongly suggested, therefore, that Site Ghanem al-Ali A-E is dated back to the Bronze Age. The looting of archaeological objects from this site is remarkable (Map 1; Figs. 27, 28).

Nakhila is located some 23 km south-east from the city of Raqqa and south of the Euphrates. It faces the village named Al-Rabt, located 500 m south from the Raqqa/Deir-ez-zor highway road. This Islamic castle, built on the northern edge of the cliff, measures 100 m from the north to south and 40 m from east to west. The base of the castle was constructed with square-shaped gypsum.

The wall built of baked bricks remains on the gypsum base. The height of the south-east wall is 3 m. The use of baked bricks on gypsum bases as architectural materials is the typical feature of the Islamic period. The castle, at least, has two gates at south-east and north-east parts. Potsherds distributed on the surface are dated to the Byzantine and Islamic periods (Figs. 16-19; Maps 1, 2).

Qala't Safin is located some 16km south-east from the city of Raqqa and south of the Euphrates. It is located on the northern edge of the steep cliff named "Jabal Safin", south of the Raqqa/Deir-ez-zor highway road. This Islamic castle is similar to that at Nakhila and measures 60 m from east to west and 30 m from north to south. The plan of this castle is roughly rectangular. Different from Nakhila, most of the building materials are square-shaped gypsum. Two rooms, at least, stick out from the south wall (Fig. 22). It seems that this castle was a kind of defense structure such as watch-tower facing the *Jabal Bishri*. Potsherds of the Byzantine and Islamic periods are distributed on the surface.

Qart al-Sud, located 2-3 km east from Qart al-Beit, is a *cairn* constructed on the top of a natural hill. Several stones were used to construct this grave. It has a circular plan and measures 1.2 m in diameter and 1 m in hight. At the center of this *cairn*, there is a small hollow facing north-east (Fig. 25). No potsherds were collected around the *cairn*, and the period of its construction is unknown. It seems that many *cairn*s are distributed in the plateau, especially on the tops of natural hills (Fig. 26).

Survey of *Bir*s

In this working season, we surveyed the places with names *bir* and *jlib*, meaning well on the map published by the Syrian government (S=1/50,000). According to the map, there exist wells in more frequencies in the eastern part of the plateau than in the western part.

We surveyed 5 wells: Bir Bueidan, Jlib al-Hardan, Bir al-Mazyd, Bir Khatun and Bir Mazra' at al-manarh (Maps 1, 2).

Bir Bueidan is located some 6 km south from the northern edge of the plateau and 6.5 km south of the village named *Ghanem al-Ali*, located on the junction point of the Aleppo-Deir-ez-zor road and the road to *Jabal Bishri* (Map 1). This well measures 1.4 m in diameter (Fig. 7), and is attached with a kind of water-supply system for sheep and goats running into north-east direction. The wall of this *cairn* is made from basalt (Fig. 8). It does not produce water now, and no potsherds were collected.

Jlib al-Hardan is located some 1.5 km south-west from Bir Bueidan and some 4.5 km south from the northern edge of the plateau (Map 1). It measures about 2 m in diameter and is enclosed with concrete. It has three water-paths (Fig. 9). One of these is made from concrete, but the other is constructed with basalt and is broken (Fig. 10). It seems clear that this well was repeatedly scraped and reused.

Bir Khatun is located some 6 km south-east from Ghanem al-Ali and 4 km south from the northern edge of the plateau (Map 1). Measuring 1.5 m in diameter and being enclosed with concrete (Fig. 11), this well has two water-paths. One of these, extending into north-west direction, is made with several blocks of basalt, and the other directed to south-east is made with gypsum. Both of these water-paths are broken, and the well does not produce water.

Bir Ali al-Mazyd is located some 500 m south-east from Bir Khatun (Map 1). It measures 1 m in diameter and has two water-paths (Fig. 12). This well, like others, is called Bir Ali al-Mazyd after the name of a man who constructed the wells. It produced water until recent days but it is abandoned now, because nomadic people nowadays get water from modern equipments such as water wagon. According to a man living near the well, people at this place used *bir*s before 30 years ago. Many ores of basalt are scattered on the west part of Bir Ali al-Mazyd and Jlib al-Hardan, suggesting that this place used to be one of the sources of basalt on the plateau and the plain.

Bir Mazra' at al-Manarh is located some 10 km west from Ghanem al-Ali and 3 km south

from the northern edge of the plateau (Map 3). It is located on the center of a small mound (Fig. 13). This well has a square hall cutting into the bedrock (Fig. 14). It seems that this well has a kind of water-supply system at the western side (Fig. 15). Aso, this well does not seem to have been constructed by nomadic people. It does not produce water now.

All of the wells reported above are located in the areas within the distance of some 6 km south from the northern edge of the plateau. It is important to collect information in more details about the dates of wells on the plateau, as to when nomadic people used them.

4. Perspectives of future research

The Syria/Japan joint research entitled "Formation of Tribal Communities in the Bishri Mountains on the Middle Euphrates" aims to clarify, by means of integrated research methods by different scientific fields, how sedentary and nomadic tribal communities contributed to the formation of agriculture-based city-state societies in the Middle Euphrates.

In order to approach this subject, a series of research are indispensable as follows.

1) Sites-distribution survey in the area between the city of Raqqa and the northern edge of the Mount Bishri
2) Dating of the sites surveyed
3) Selection of a site for excavation in order to clarify processes when and how agriculture-based city-state societies appeared in the area
4) Confirmation of activity traces of nomadic tribes represented by the *Amorite* in the process of formation of city-state societies

In this working season, we undertook surveys of archaeological sites and of *bir*s in the triangular area surrounded by the towns of Mansura, Rasafa, Ghanem al-Ali and Hauijt Shnnan.

These two kinds of surveys have made it clear that there is a bias in the dates of the sites distribued on the Euphrates plateau between the towns of Mansura and Ghanem al-Ali.

Most of the sites in the western part of the plateau are dated to the Roman, Byzantine and Islamic periods, while in the eastern part only a few sites are distributed but several of them are dated back to the Early Bronze Age.

Fortunately enough, we have confirmed a small-scaled site complex, which are dated back to the Early Bronze Age on the basis of pottery features. We named this site complex "Ghanem al-Ali A-E" because there are no villages in its surroundings. This site complex is located near to Tell Ghanem al-Ali (ca. 5 km) and Tell Hammadin (ca. 10 km), both of which are dated back to the Early Bronze Age.

On the riverside plain of the Euphrates near the city of Raqqa, there are many sites that can be dated back to the Early Broze Age such as Tell Bia'a and Tell Thadin, in addition to Tell Ghanem al-Ali and Tell Hammadin.

As just mentioned, the aim of this Syria/Japan joint research is to clarify the process how agriculture-based city-state societies appeared in the area between the city of Raqqa and the northern edge of the Mount Bishri.

In order to attain this aim, it is indispensable to proceed the research by means of three methods as follows.

1) Excavation at a site, such as Tell Ghanem al-Ali and Tell Hammadin, located on the Euphrates riverside plain
2) Excavation at the site of Ghanem al-Ali A-E, located on the Euphrates plateau near to its northern edge
3) Survey on the Euphrates plateau in order to trace movements of nomadic tribes in archaeological context


Al-Raqqa
Mansura
Barayt tell Hammam
Al-Hura
Bir Kredi
Hauijt Shnnan
Qala't Safin
Nakhila
Tell Ghanem al-Ali
Ghanem al-Ali
Ghanem al-Ali A–E
Tell Hammadin
Tell Muheir East
Tell Muheir
Al-Qabu al-Saghir
Shwihan East
Rasafa North
Habit al-Nuq
Rasafa
Kherbet al-Halul
JABAL BISHRI
Map 1
N
0
10
20km


N
Tell Hammadin
Tell Ghanem al-Ali
Ghanem al-Ali
Bir Khatun
Bir Ali al-Mazyd
Jlib al-Hardan
Bir Bueidan
Map 2
0
5km

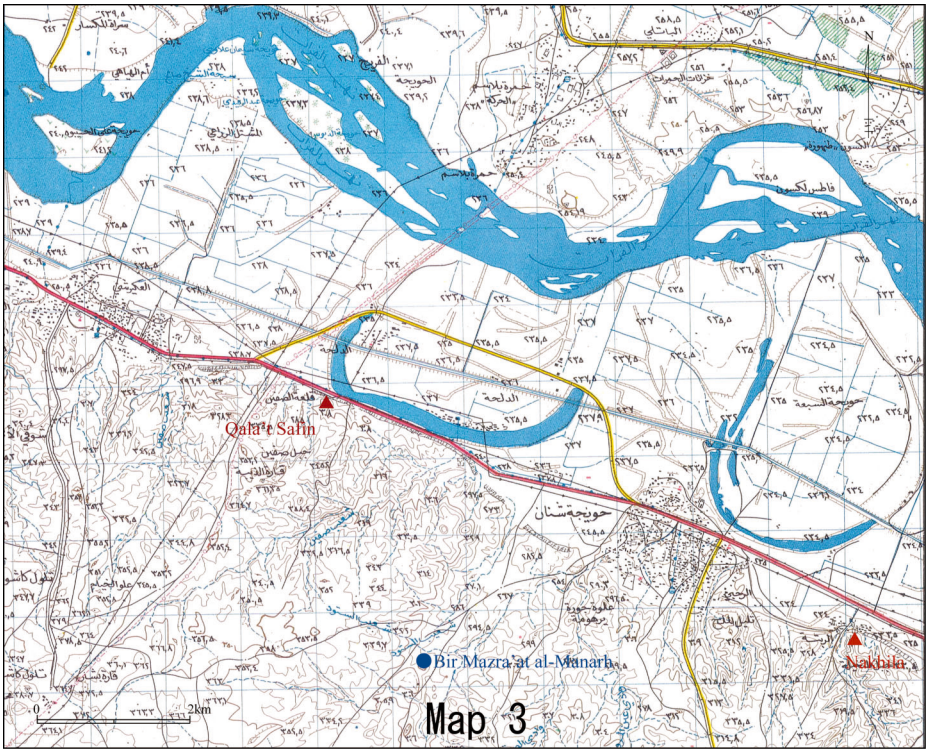

Fig. 1 View of Site GCHSC

Fig. 2 View of Site al-Hura

Fig. 3 Bir Kredy

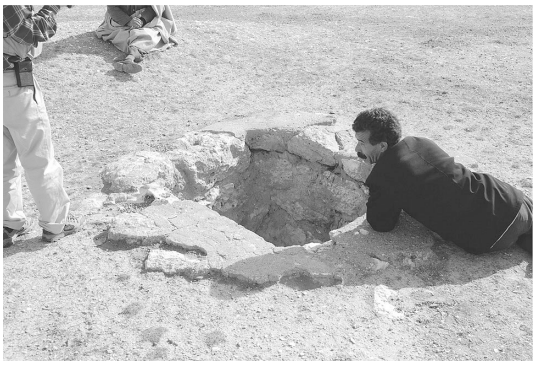

Fig. 4 Bir at al-Qabu al-Saghir

Fig. 5 View of Tell Muheir

Fig. 6 View of Tell Hammadin

Fig. 7 View of Bir Bueidan

Fig. 8 Well of Bir Bueidan

Fig. 9 View of Jlib al-Hardan

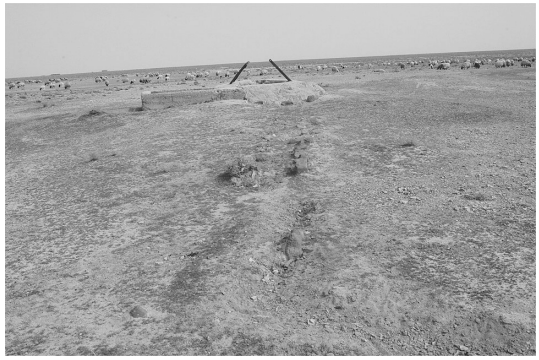

Fig. 10 Broken waterway made from basalt

Fig. 11 View of Bir Khatun

Fig. 12 View of Bir Ali al-Mazyd

Fig. 13 View of Mazra' at al-Manarh

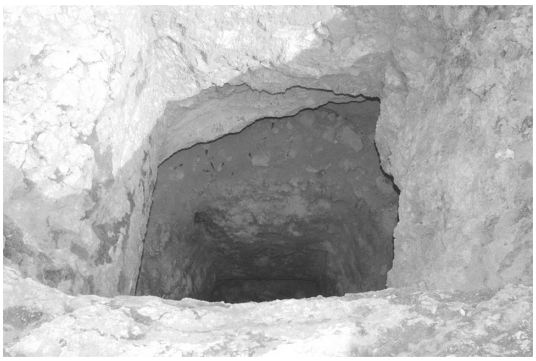

Fig. 14 Well of Mazra' at al-Manarh

Fig. 15 Probable water-supply system

Fig. 16 View of Nakhila

Fig. 17 View of Nakhila

Fig. 18 Northern corner of Nakhila

Fig. 19 South wall and gate of Nakhila

Fig. 20 View of Qala't Safin

Fig. 21 Room in the south-east part

Fig. 22 Room sticking out

Fig. 23 View of cairn from north

Fig. 24 View of cairn from west

Fig. 25 Center of cairn (Shallow hollow)

Fig. 26 Another cairn

Fig. 27 View of Ghanem al-Ali A

Fig. 28 Remarkable looting at Ghanem al-Ali A

Photo 1 Potsherds and glass objects from Rasafa North

Photo 2 Potsherds from Kherbet al-Halul

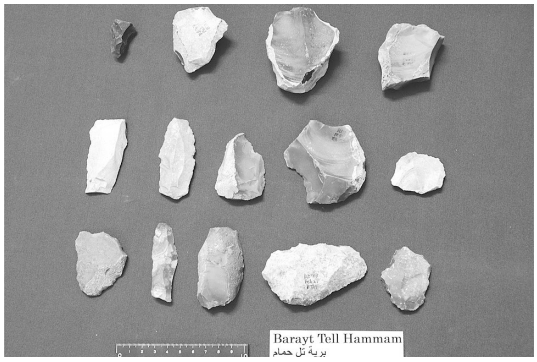

Photo 3 Lithic artifacts from Barayt Tell Hammam

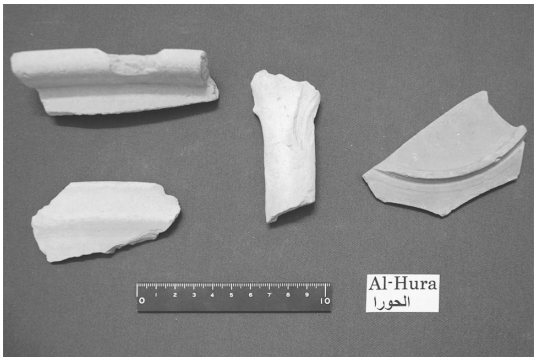

Photo 4 Potsherds from Al-Hura

Photo 5 Potsherds from Bir Kredy

Photo 6 Potsherds from Al-Qabu al-Saghir

Photo 7 Lithic artifacts from Tell Muheir East

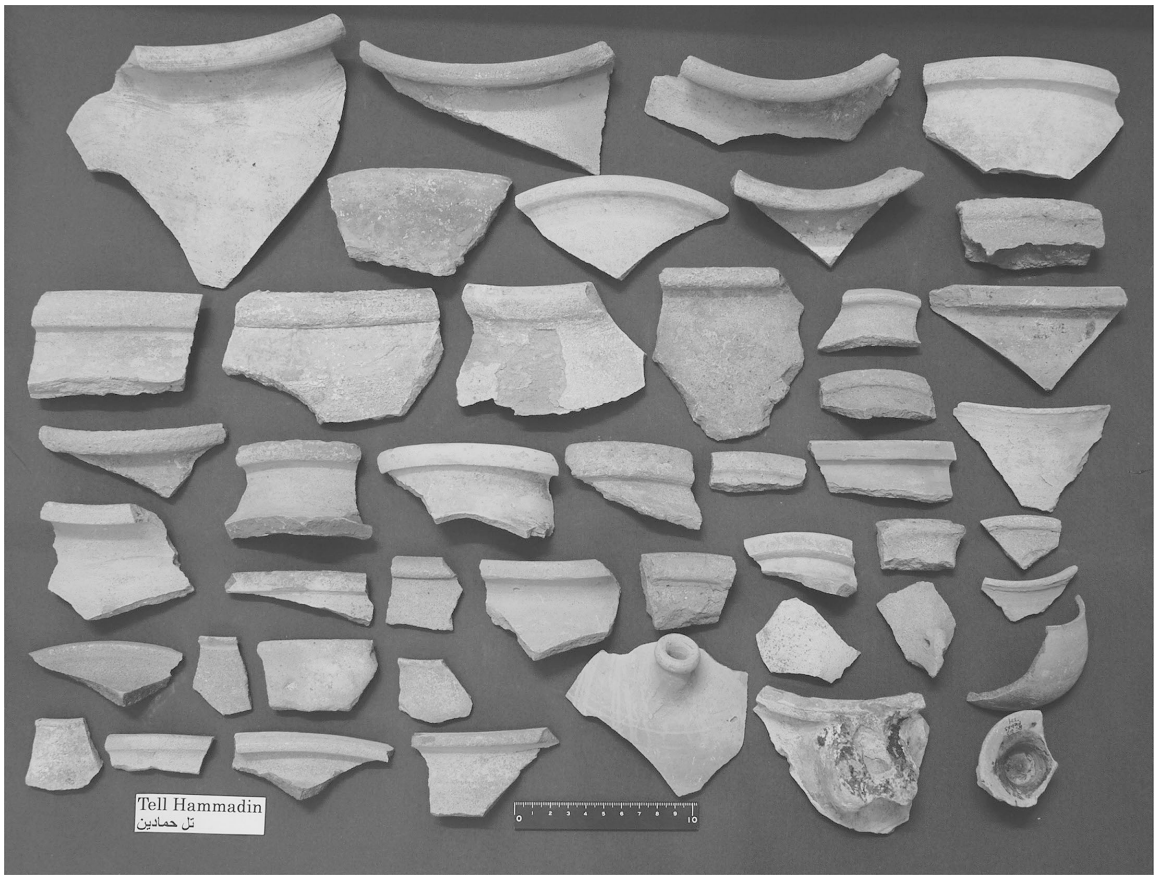

Photo 8 Potsherds from Tell Hammadin

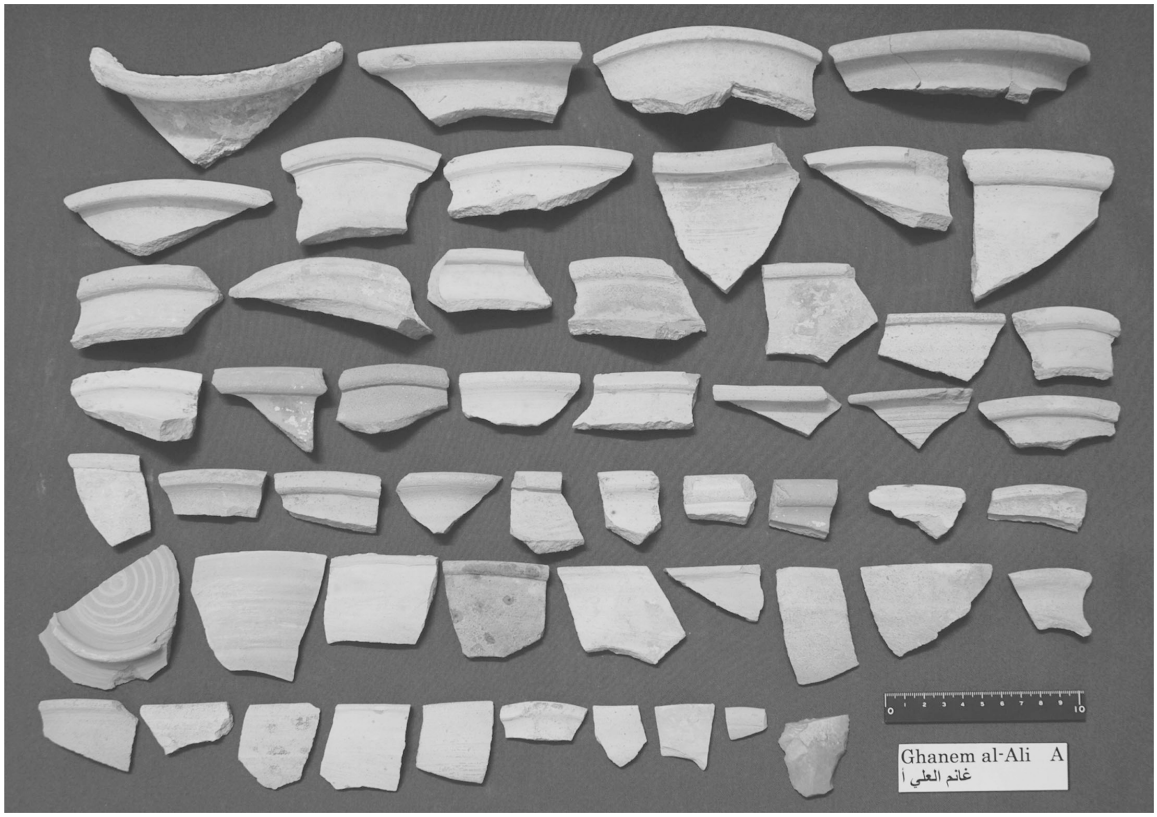

Photo 9 Potsherds from Ghanem al-Ali A

Photo 10 Potsherds from Ghanem al-Ali B

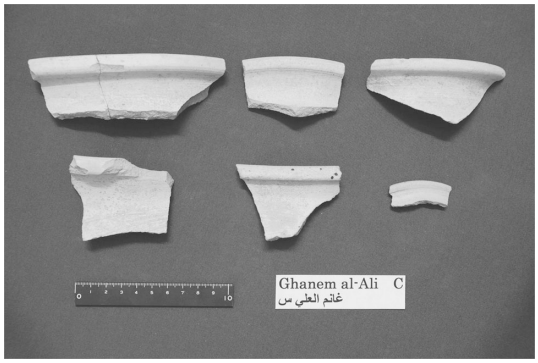

Photo 11 Potsherds from Ghanem al-Ali C

Photo 12 Potsherds and lithic artifacts from Ghanem al-Ali D

Photo 13 Potsherds from Nakhila

تقرير عن إعمال البعثة الأثرية السورية اليابانية المشتركة في البشري الموسم الأول 2007

عنوان البحث : (تشكيلات المجتمعات القبلية في منطقة جبل البشري و الفرات الأوسط)

بدأت البعثة الأثرية السورية اليابانية المشتركة أعمالها في المسح الأثري لمنطقة جبل البشري بتاريخ 15-1-2007 و لغاية 3-3-2007 .

تألفت البعثة من (16) عضوا من كلا الفريقين السوري و الياباني , يدير الجانب السوري انس الخابور و الجانب الياباني كاتسوهيكو اونوما .

قسم العمل من وجهة نظر جيومورفولوجية الى ثلاث مناطق :

1- المنطقة الأولى : منطقة السهل النهري ، باتجاه شرق غرب بعرض يتراوح بين (1-4) كم على طول نهر الفرات .
2- المنطقة الثانية : ضفة النهر أو المصطبة النهرية ، و تمتد بين السهل النهري و جبل البشري جنوبا.
3- المنطقة الثالثة : منطقة جبل البشري الذي يبلغ ارتفاعه (800) متر تقريبا.

المناطق و المواقع و الآبار الممسوحة:

تم تنفيذ نوعين من المسوحات خلال العمل الحقلي لهذا الموسم ، امتدت بين مدينة الرقة و الحافة الشمالية لجبل البشري ، لتأخذ هذه المنطقة شكل مثلث حددته البلدات التالية : المنصورة – الرصافة – غانم العلي – و حويجة شنان .

المسح الأول : تم تتبع خريطة المواقع و البقايا المعمارية الأثرية ، و شمل مناطق تعود للفترة البيزنطية و الإسلامية مثل : الرصافة الشمالية – خربة الحالول – تل مهيرا – نخيلة

و للفترة البيزنطية و الرومانية : الحورا – القبو الصغير

كما عثرنا على مواقع تعود من خلال اللقى الصوانية إلى العصر النيوليتي.

المسح الثاني : مسح الآبار الأثرية :

تم مسح كامل الأماكن التي حملت اسم بئر و لوحظ توزع الآبار في القسم الشرقي ضم اكبر عدد من الآبار الموجودة في الجزء الغربي .

و في هذا الموسم قمنا بمسح خمسة آبار هي : بئر بويضان – جليب الحردان – بير علي المزيد – بير خاتون – بير مزرعة المنارة

نتائج البحث :

أعمال المسوحات أكدت وجود توازي في الفترات التاريخية التي تعود إليها المواقع بين بلدتي المنصورة و غانم العلي حيث تعود لفترات رومانية ،بيزنطية ،إسلامية

أما مواقع الجزء الشرقي و في معظمها مواقع صغيرة أرخت على فترة البرونز المبكر

خطة العمل المستقبلية :

يهدف المشروع عن طريق الاستعانة بتقنيات و علوم مختلفة لتوضيح فكرة : (كيف ساهمت المجتمعات القبلية المستقرة و المتنقلة بتشكيل البنى الزراعية لمجتمعات الفرات الأوسط)

و سيتم التنقيب في احد التلال مثل تل غانم العلي و التلال المجاورة و مسح الهضبة لتتبع آثار حركة القبائل الرحل ضمن هذا المحتوى الأثري.

ARCHAEOLOGICAL RESEARCH IN THE BISHRI REGION — REPORT OF THE SECOND WORKING SEASON —

Katsuhiko OHNUMA*
Anas Al-KHABOUR**
(30/May/2007)

The second working season of the Syria-Japan Archaeological Joint Research in the Bishri Region started on May 6th and ended on May 30th, 2007.

The members of the joint research who participated from the Syrian and Japanese missions are as follows.

Syrian mission: Anas Al-Khabour (Director), Ayham Al-Fahry and Mahmmod Al-Hassan.

Japanese mission: Katsuhiko Ohnuma (Director), Hirotoshi Numoto, Tomoyasu Kiuchi, Atsunori Hasegawa, Chie Akashi, Sumio Fujii, Saeko Miyashita, Takuro Adachi, Kae Suzuki, Lubna Omar and Kenichi Tanno.

In this working season, we undertook two kinds of research: 1) making of an overall plan of the site of Tell Ghanem al-Ali and 2) survey of cairns in the area between the city of Raqqa and the northern edge of the Mount Bishri (Map 1).

Dr. Bassam Jamous, Director General of the Syrian Directorate General of Antiquities and Musems and Dr. Michel Al-Maqdissi, Director of Archaeological Excavations and Research at the Syrian Directorate General of Antiquities and Musems and the Syrian Supervising Adviser for this joint research, kindly helped us towards the success of this second season of work. We express our sincerest gratitudes to them for their warm-hearted cooperation.

1) Mapping of an overall plan of the site of Tell Ghanem al-Ali

(Completed overall plan is attached to this working report) (Fig. 1)

Tell Ghanem al-Ali is located some 500 m north from the Raqqa/Deir-ez-zor road near the town of Ghanem al-Ali (Map 2). Located on the southern riverside plain of the Euphrates, at the hight of 10 m above the river surface, this site measures some 400 m in the east-west direction and 300 m in the north-south direction (Photo 1). The bench-mark constructed on the top of this site reads 238.958 m above the sea (Photo 2).

Although many graves related to the nearby-village people are built on the top surface of this tell, many archaeological rooms constructed with local rocks are remaining in almost all the site area (Photo 3).

Judging from the potsherds collected during the first Syria-Japan Archaeological Joint Research carried out in February to March this year, this site dates back to the Early Bronze Age in the main (Photo 4).

On the riverside plain of the Euphrates near the city of Raqqa, there are a considerable number of sites that can be dated back to the Early Broze Age, such as Tell Bia'a and Tell Thadin, in addition to Tell Ghanem al-Ali and Tell Hammadin.

The aim of this Syria-Japan Archaeological Joint Research is to clarify how agriculture-based

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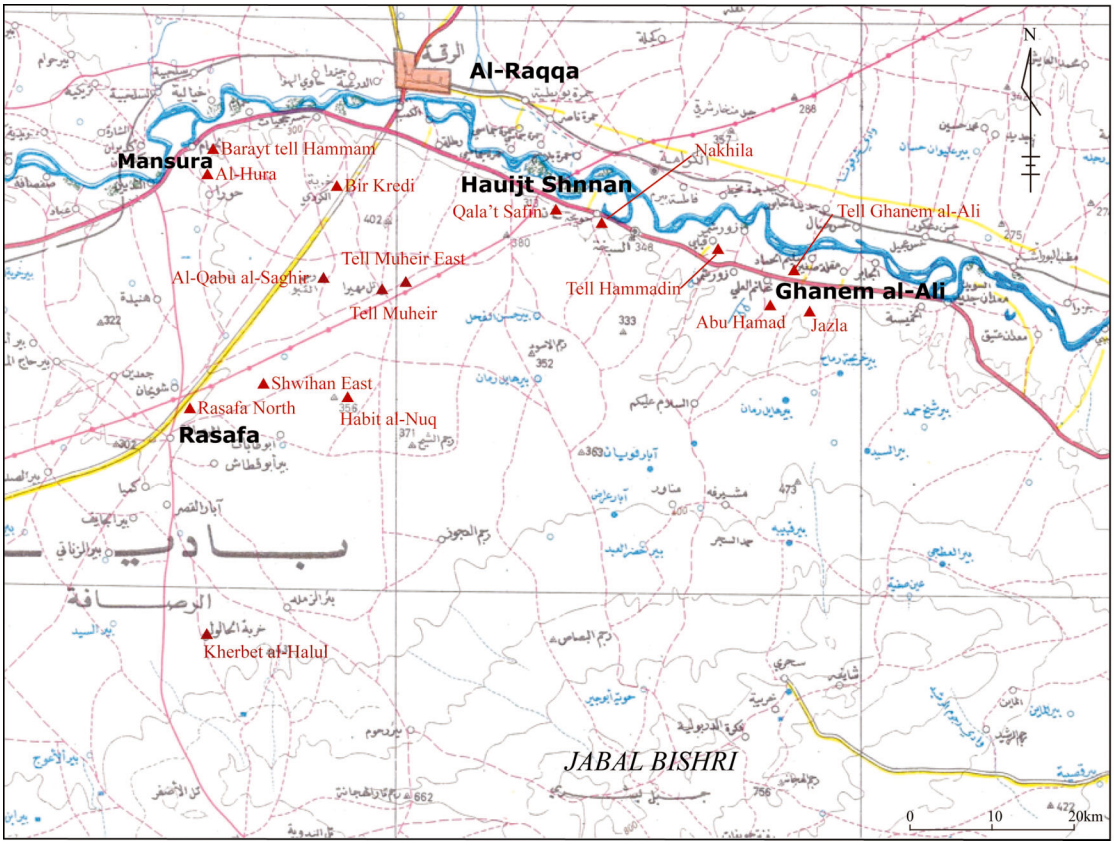
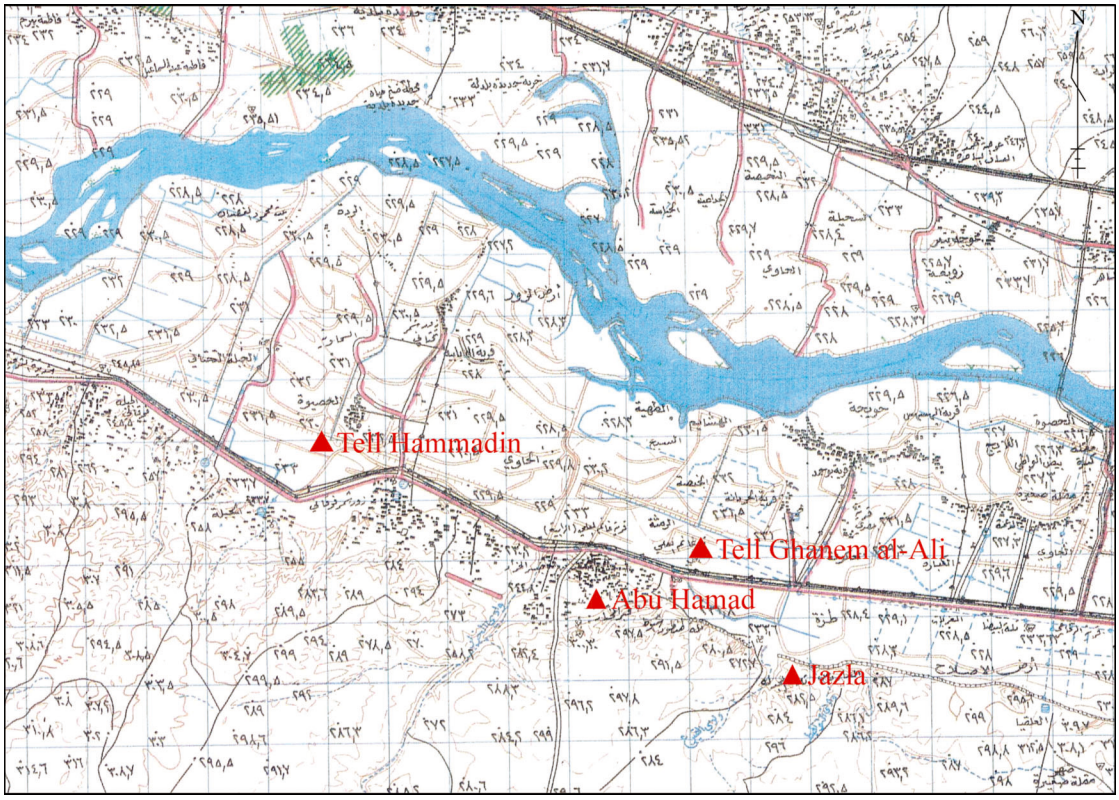


Map 1 Locations of sites included in the Syria/Japan Archaeological Joint Research



Map 2 Locations of the sites of Tell Ghanem al-Ali and Tell Hammadin and related sites of Abu Hamad and probable graves at Jazla

city-state societies appeared in the Middle Euphrates region around the city of Raqqa.

In order to attain this aim, it is indispensable to proceed the research by means of the following methods.

1) Excavations at the sites of Tell Ghanem al-Ali and Tell Hammadin, located on the Euphrates riverside plain.
2) Sounding research at nearby sites of the periods concerned, located near to the northern edge of the Euphrates plateau between the Euphrates riverside plain and the Mount Bishri.
3) Surveys including date-confirming soundings at cairn sites on the Euphrates plateau to trace movements of nomadic tribes in archaeological contexts. These surveys are essentially important to clarify how nomadic tribes represented by the Amorite contributed to the formation of agriculture-based city-state societies in the Middle Euphrates region around the city of Raqqa.

In connection with the research proceeding methods above, there are two sites that are indispensable to enrich the Syria-Japan Archaeological Joint Research.

One of them is the grave site of Abu Hamad dated to the Early Bronze Age in the main (Maps 1 and 2, Photos 5 and 6), located some 800 m east from the Ghanem al-Ali/Jabal Bishri road, at the spot 3 km south from the Raqqa/Deir-ez-zor road.

Another is a series of probable graves of the Early Bronze Age (Photo 7) distributed near the fortress of Jazla (Maps 1 and 2, Photo 8), some 2 km south-east from Tell Ghanem al-Ali along the escarpment between the Euphrates riverside plain and the Euphrates plateau.

In this working season, we completed the making of an overall plan of the site of Tell Ghanem al-Ali on May 25th. Taking into consideration the richness of the site of Tell Ghanem al-Ali itself and the abundance of the related sites in the surrounding area, we are quite certain that excavational works at Tell Ghanem al-Ali and Tell Hammadin, altogether with surveys in the surrounding area, will contribute a great deal to the clarification of unknown historical aspects of the Early Bronze Age in the Middle Euphrates region.

(Katsuhiko Ohnuma)

2) The General Survey of Pre-Islamic Burial Cairns in the Northern Flank of Jabal Bishri

A brief general survey focusing on pre-Islamic burial cairns (or stone-piled tombs) was conducted from May 22 to 29, partly in parallel with the main operation at Tell Ghanam Ali. This survey forms a part of the mother project headed by Prof. Katsuhiko Ohnuma and Dr. Anas Al-Khabour, and is intended to explore the socio-economical correlation between pastoral communities in the northern flank of Jabal Bishri and the urban-farming societies in the middle Euphrates river basin.

The reason why we focused on burial cairns is that, because of their high mobility and simple way of life, prehistoric herders generally leave no clear archaeological evidence other than their tombs. It is our primary goal to trace their social dynamics focusing on the tombs, the only key they left, and, in so doing, contribute to a more comprehensive understanding of the social diversity and complexity that underlay the early urban civilization in the middle Euphrates river basin.

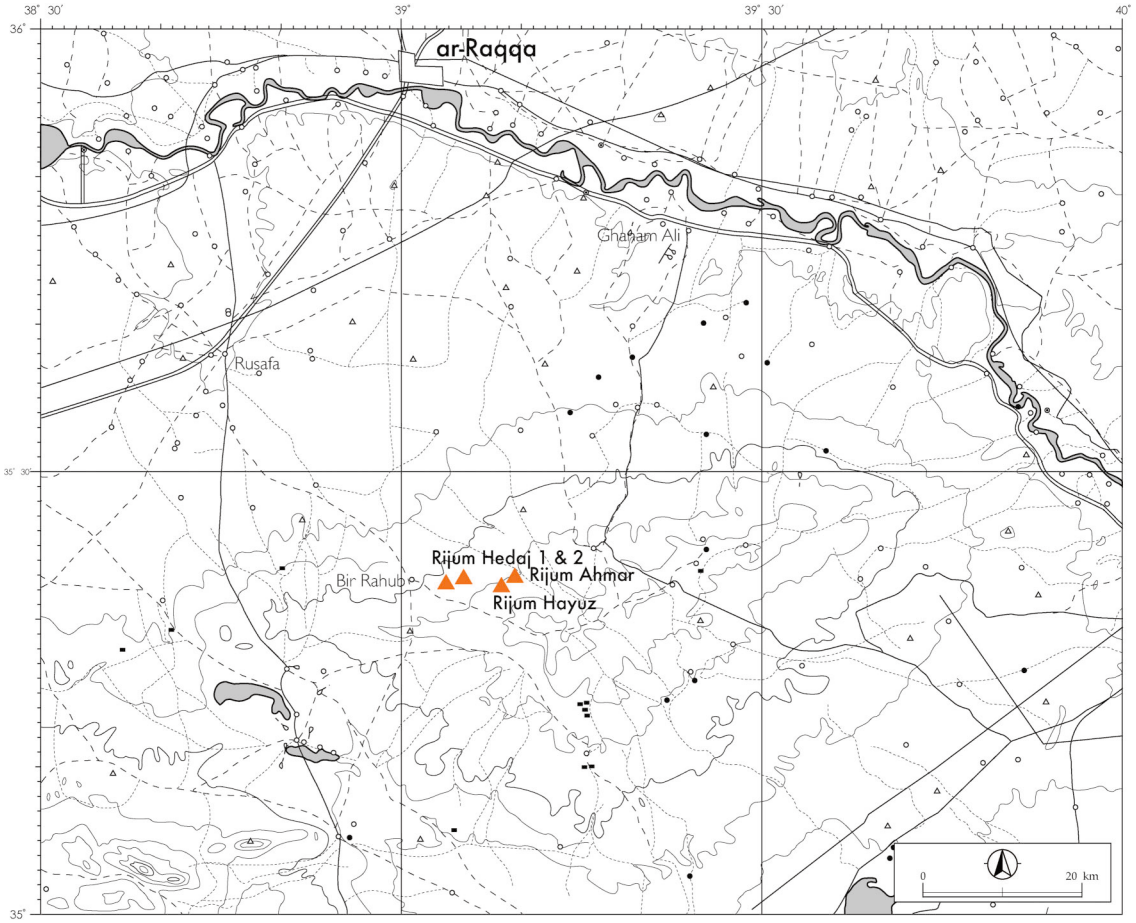
The Survey Staff

To ensure the mobility in desert, the survey staff was kept to the minimum. Sumio Fujii (Prof. of Kanazwa University, Kanazawa, Japan) headed the team; Takuro Adachi (Research Fellow of the Middle Eastern Cultural Center, Tokyo, Japan) and Kae Suzuki (BA Student of Kanazawa University) constituted it. In addition, Mahmmod Al-Hassan (the Department of Antiquities of Syria, Raqqa office) also joined the team as a representative of the Syrian mission.

The Operations

Since the research area defined by the contract was too large to be covered within a limited term, and since we are still inexperienced in this area, we adopted the following simple and easy approach. To begin with, we investigated a few dozen locations that were referred to as *rujm* (cairn) or *rijum* (cairns) in the 1/50,000 maps published in Syria. As a result, it has proved that most, if not all, of the locations dotted in the northern half of the survey area were either simple landmarks or stone triangulation markers, both built apparently in the recent past. No clear evidence for burial cairns was attested in this area.

Thus the second half of the survey was focused on the southern half, namely, the northern flank of Jabal Bishri, where several burial cairn fields (or clusters of burial cairns) probably dated to pre-Islamic times were located. Due to time constraints, they were not thoroughly investigated, but four of them — Rijum Hedaj 1 (BS-0701), Rijum Hedaj 2 (BS-0702), Rijum Hayuz (BS-0703), and Rijum Ahmar (BS-0704) — were recorded in some detail (Map 3).



Map 3 Cairn Fields located during the Survey

The Survey Results

The survey results of this field season can be summarized as follows:

1) The burial cairns in the northern flank of Jabal Bishri are round to slightly oblong in general plan, measuring ca. 5-15 m in diameter and 0.5-2.0 m in relative height. They were constructed with undressed limestone cobbles ca. 20-50 cm long easily available around the site.
2) Although they seemingly look like simple stone piles, some of them exposed circular foundations or a ring wall at their fringe (Photo 9) and/or an oblong cist in their center (Photo 10). It is

therefore evident that they represent burial cairns rather than simple landmarks.

3) They are often accompanied with a rectangular structure and a freestanding wall, thus forming a small structural complex (Photo 11). This also argues for the functional identification suggested above.
4) Since no reliable evidence is available, nothing specific can be said about their date. Nevertheless, the occurrence of red-slipped coarse ware sherds (Photo 12) and the general similarities to EB cist tombs in the Golan Height and southern Jordan seem to suggest an EB date for them. Given this, it might follow that they represent tombs of *Martu or Amurru*, large nomadic groups that Sumerian and Akkadian texts referred to as having infiltrated to their homeland from the Bishri (Basa'al) area.
5) This type of cairns are concentrated on the northern flank of Jabal Bishri. No parallel examples are attested in the northern plateau, to say nothing of the Euphrates river basin. In light of archaeological evidence from the site of Abu Hamad, a large cemetery behind Ghanam Ali, it appears that shaft tombs were the norm of the latter areas.
6) This probably means that the burial cairns belong to pastoral nomads to the south, and that the shaft tombs are unique to farmers to the north. The total absence of settlement sites in the Bishri northern flanks, together with the harsh environmental conditions, is consistent with this assumption.
7) The difference between the two types of tombs is not limited to their distribution and typology. While the Bishri cairns are usually oriented north-south, the shaft tombs at Abu Hamad are generally oriented east-west. Furthermore, while the former type of tombs are aligned along a ridge overlooking a major wadi system with keeping a substantial (more than 50-100 m) interval between any two examples (Photo 13), the latter occupies the flat terrain in the northern plateau and are closely-spaced with each other (Photo 14). Such contrasts also highlight the difference in socio-cultural background of both burial practices.
8) Thus the comparative study of the Bishri cairns and the Abu Hamad shaft tombs, for example, may provide a key to exploring the social diversity and complexity that underlay the early urban civilization in the middle Euphrates river basin.

Concluding Remarks

Due to time constraints, the survey itself was neither systematic nor comprehensive. Nevertheless, the finding of several cairn fields has enabled us to realize the archaeological potential of the Bishri area, which has long been regarded as an empty hinterland of the early urban civilization in the middle Euphrates river basin. The existence of probably coeval burial cairn fields in the northern flank of Jabal Bishri may lead to a reassessment of this traditional perspective.

What most interested us was the contrast between the Bishri cairns and the shaft tombs at Abu Hamad. This is interesting all the more because the latter may have served as a cemetery for Tell Ghanam Ali, the main concern of the mother project. Further investigation will hopefully provide insights into another aspect of the Early Bronze Age of this area. It seems that such a far-reaching paradigm shift is essential to an in-depth discussion on the social diversity of the early urban civilization in the middle Euphrates river basin.

(Sumio Fujii)

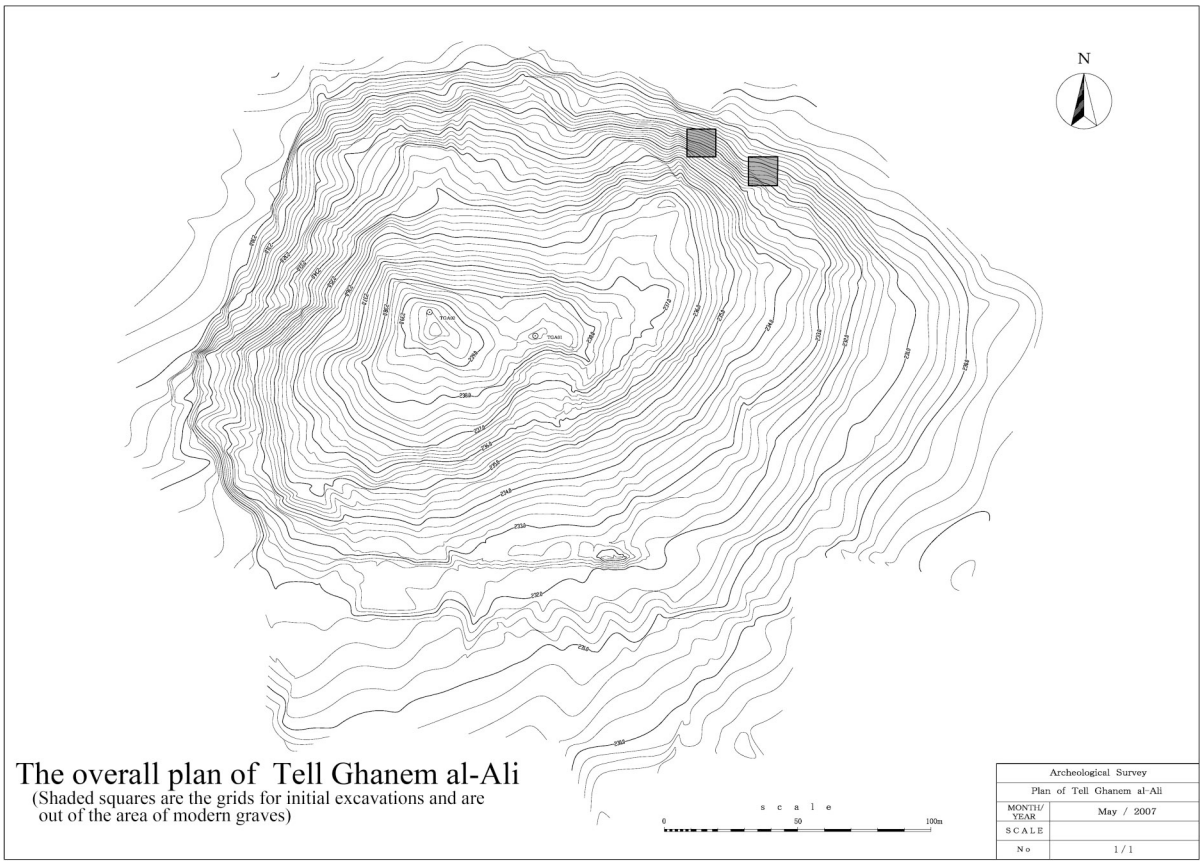


Fig. 1 Overall plan of Tell Ghanem al-Ali

Photo 1 Tell Ghanem al-Ali seen from the east

Photo 2 Bench-mark on the top of Tell Ghanem al-Ali

Photo 3 Remains of archaeological rooms on Tell Ghanem al-Ali

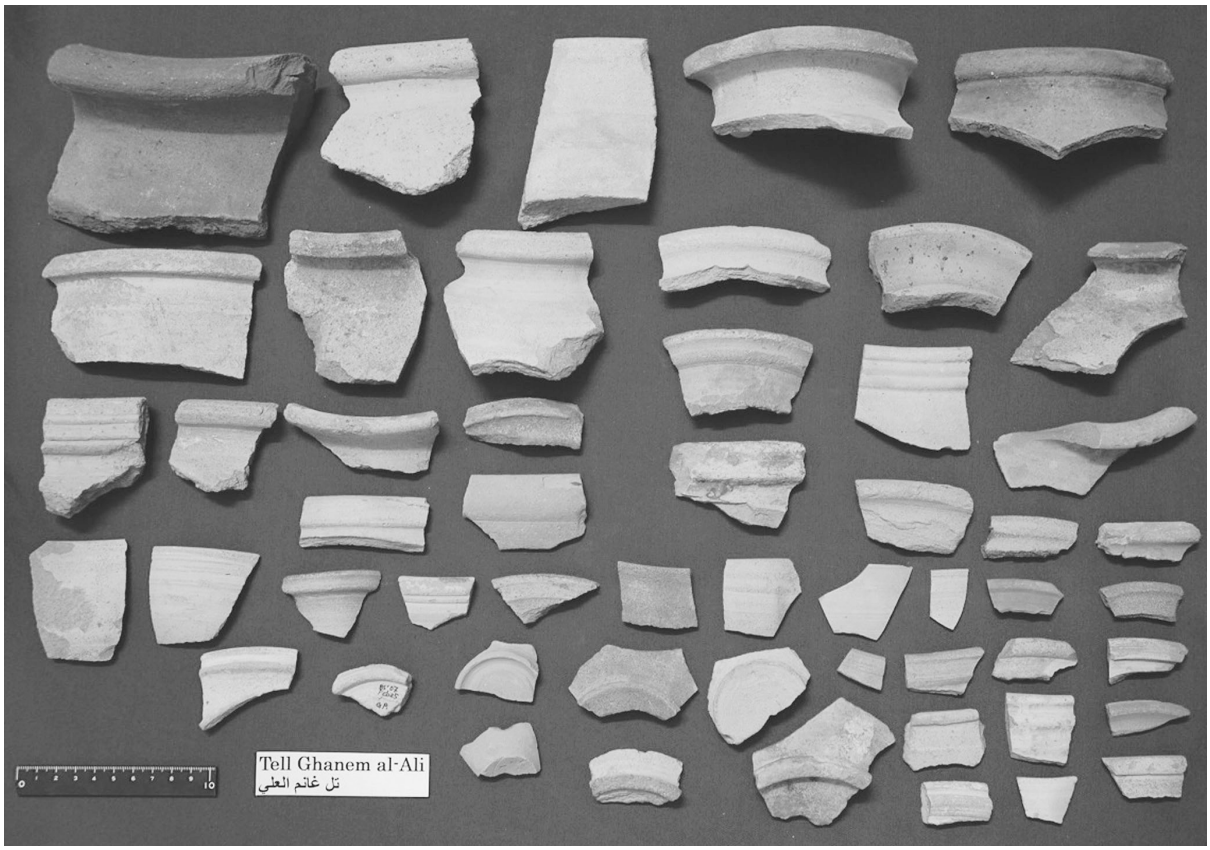


Photo 4 Potsherds collected from Tell Ghanem al-Ali in the 1st Syria/Japan Archaeological Joint Research in February to March, 2007

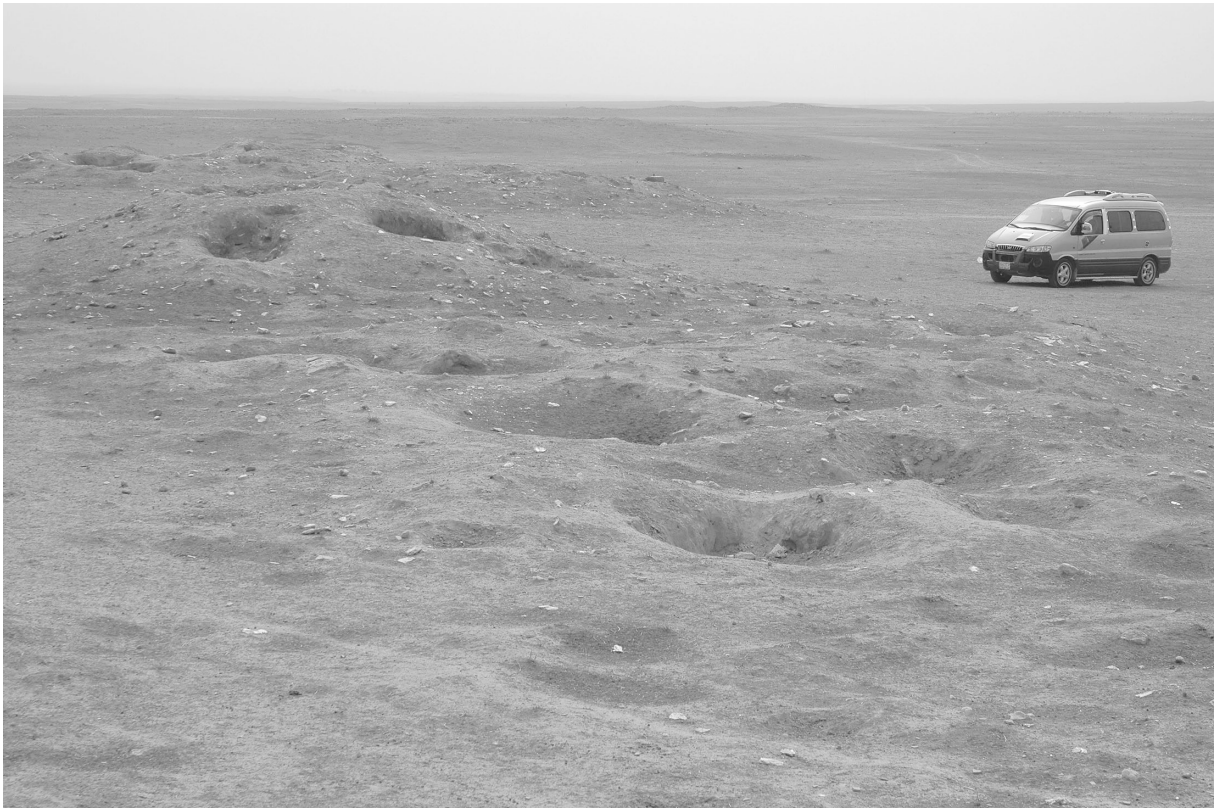


Photo 5 Site of Abu Hamad

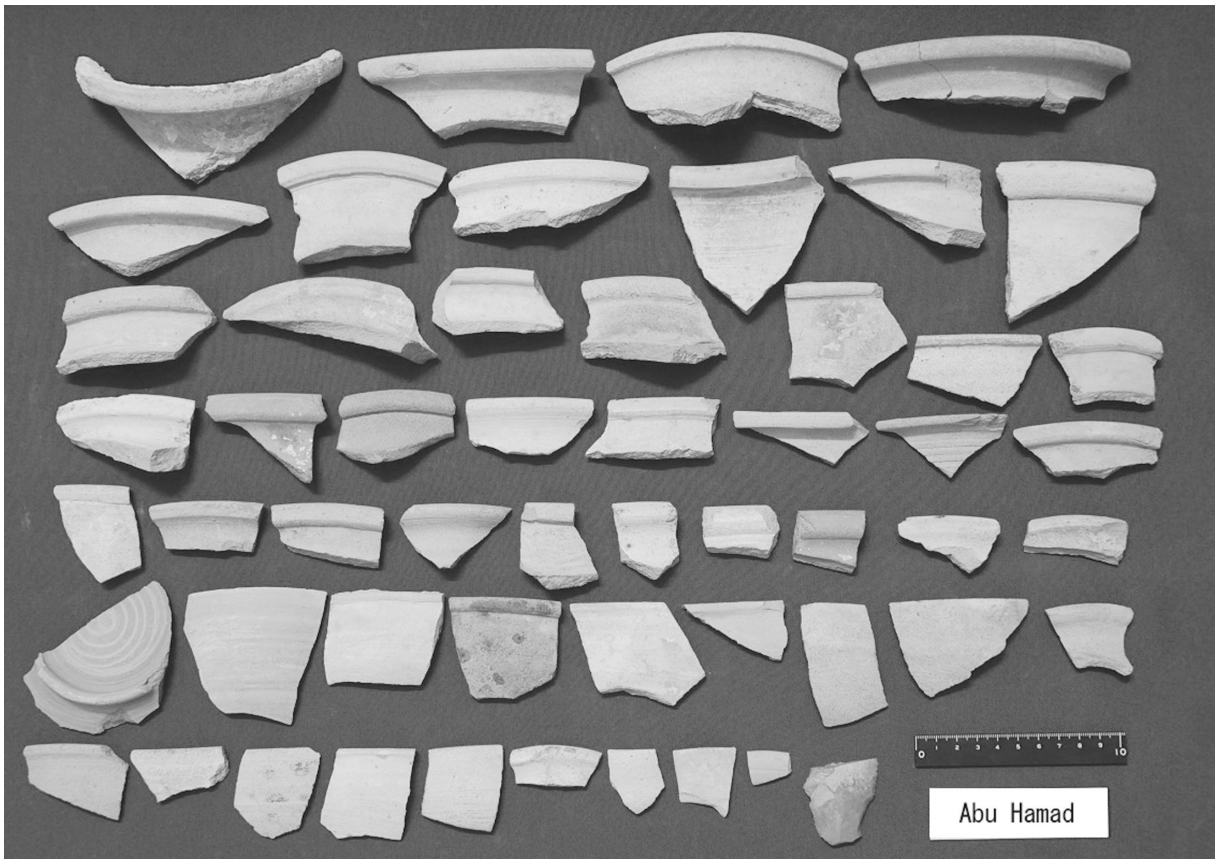


Photo 6 Potsherds from the site of Abu Hamad

Photo 7 Probable grave of the Early Bronze Age near the fortress of Jazla

Photo 8 Fortress of Jazla

Photo 9 Rijum Hedaj 1: Close-up View of Cairn No. 10 (note the foundation stone alignment)

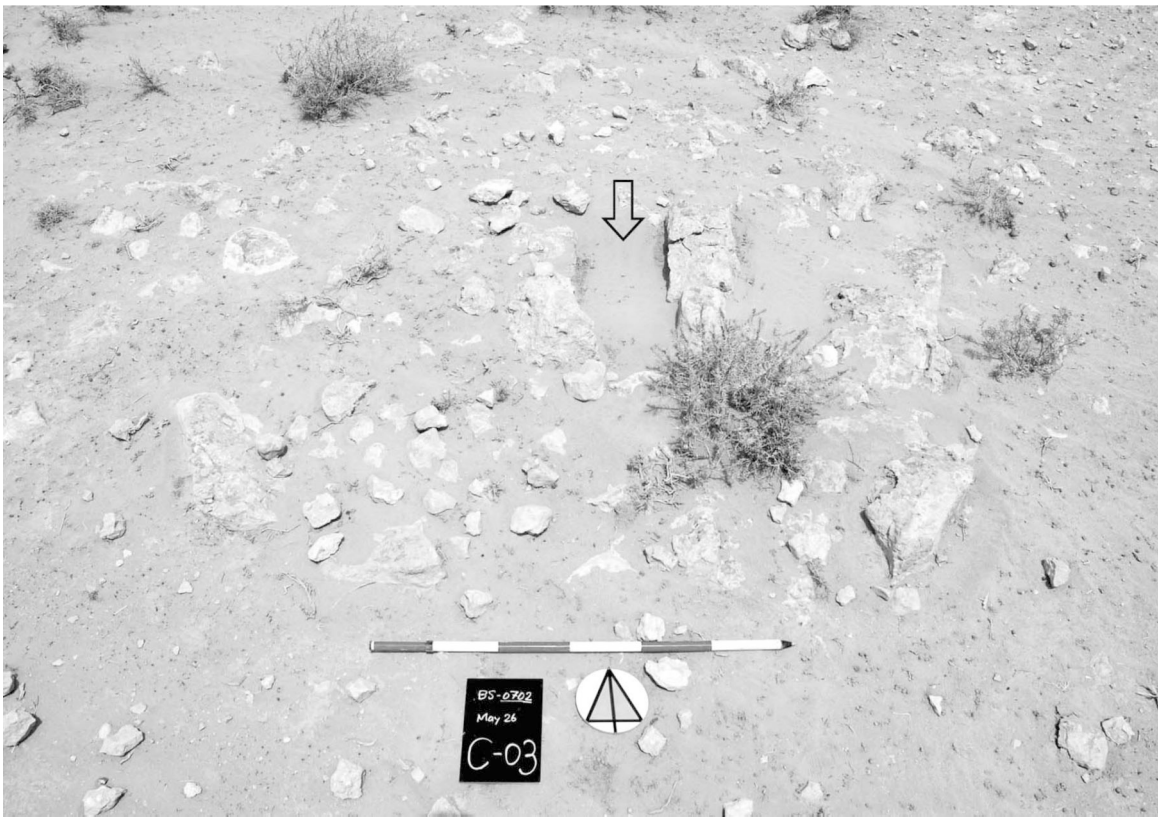


Photo 10 Rijum Hedaj 2: Close-up View of Cairn No. 3 (note an oblong cist exposed in the center of the erased mound)

Photo 11 Rijum Ahmar: A Structural Complex of Cairn No. 1

Photo 12 Rijum Hedaj 1: Surface Finds from Cairn No. 10

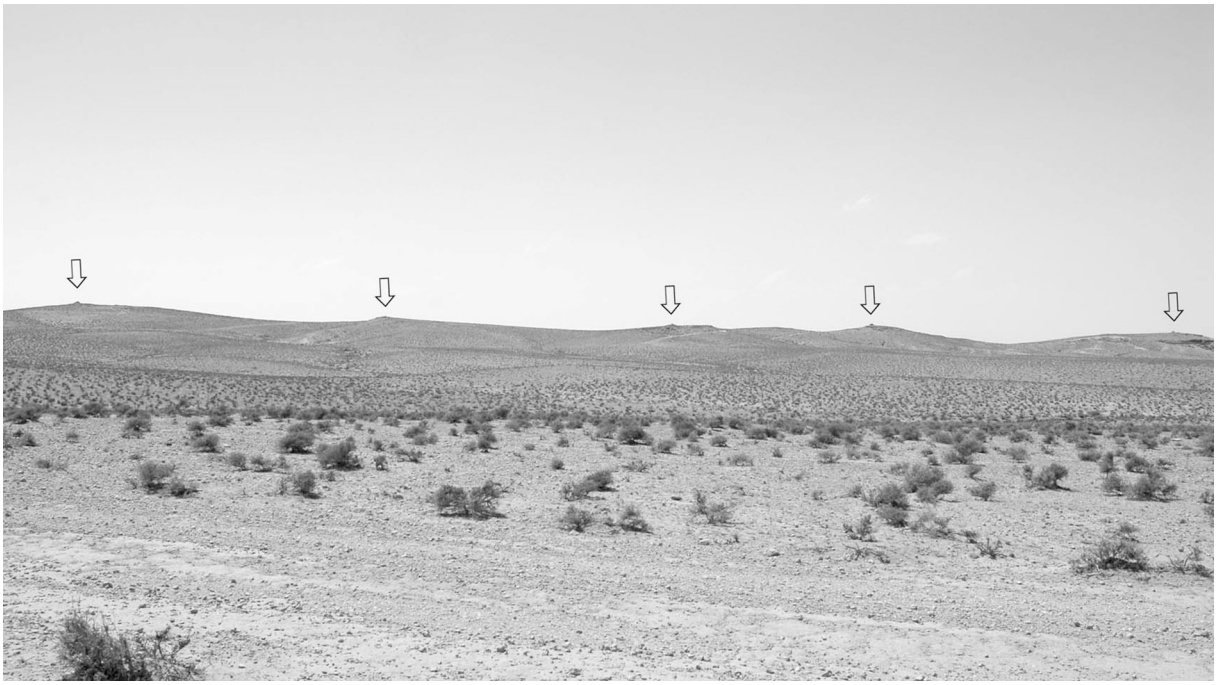


Photo 13 Rijum Hayuz: General View

Photo 14 Abu Hamad: General View

تقرير موسم العمل الثاني للبحث الأثري لمنطقة جبل البشري:

بدأ موسم العمل الثاني للبحث الأثرى السوري الياباني المشترك لموقع البشري في السادس من أيار 2007 ، و انتهى في 30 أيار 2007 .

ونشكر الدكتور بسام جاموس المدير العام للآثار و المتاحف ، و الدكتور ميشيل مقدسي مدير التنقيب و البحث في المديرية العامة للآثار و المتاحف و المشرف المستشار لهذا البحث المشترك ما قدموه لإنجاح هذا الموسم الثاني من العمل

الجانب السوري :انس الخابور (مديرا) أيهم آل فخري -محمود الحسن

الجانب الياباني: كاتسوهيكو اونوما (مديرا) – هيروتوشي نوموتو- توموياسو كيوتشي- اتسونوري هاسيكاوا – تشي اكاشي – سوميو فوجي – سايكو مياشيتا- تاكورو اداتشي – كاي سوزوكي- لبنى عمر- كينيتشي تانو.

في موسم العمل هذا باشرنا العمل بنوعين من البحث :

الأول : وضع خارطة شاملة لموقع غانم العلي

الثاني : مسح الرجوم في المنطقة الممتدة بين مدينة الرقة و الحافة الشمالية لجبل البشري .

1 – وضع خريطة شاملة لموقع تل غانم العلي:

يقع تل غانم العلي شمال طريق الرقة دير الزور ب /500/ م جانب قرية غانم العلي على الضفة الغربية لنهر الفرات على ارتفاع /10/ أمتار عن مستوى النهر ، أبعاد الموقع حوالي 400 م شرق غرب ، و 300 شمال جنوب و تشير نقطة العلام التي وضعت على قمة التل الى ارتفاع 238.958 متر عن سطح البحر

توضعت العديد من القبور التي تعود لسكان القرية المجاورة على قمة التل ، والعديد من الغرف الأثرية أنشئت من الصخور المحلية الموجودة بالموقع.

بالعودة الى الكسر الخزفية التي جمعت خلال موسم البحث الأثرى السوري الياباني الأول ، الذي حصل من شباط الى آذار 2007 ، يمكن تأريخ الموقع في فترة البرونز المبكر على الأغلب

هناك عدد كبير من المواقع على ضفة نهر الفرات بالقرب من مدينة الرقة ،التي يمكن ان تؤرخ على فترة البرونز المبكر مثل تل البيعة و تل ثديين بالإضافة الى تل غانم العلي و تل حمادين .

و يهدف العمل الأثرى للبعثة السورية اليابانية المشتركة الى توضيح ان مجتمعات دول المدن زراعية الأساس في منطقة الفرات الأوسط حول مدينة الرقة ،ولأجل تحقيق هذه الغاية ، لا غنى عن استكمال البحث بالطرق التالية :

1- التنقيب في تل غانم العلي و تل حمادين الواقعان على ضفة الفرات
2- الأسبار في المواقع القريبة من الحافة الشمالية من سهل الفرات بين ضفة الفرات و جبل البشري
3- مسوحات تتضمن اسبار تأكيدية لتأريخ مواقع الرجوم في سهل الفرات لتقصي حركة القبائل البدوية المذكورة في النصوص الأثرية.

بالتواصل مع طرق البحث المحققة أعلاه، هناك موقعين لابد من إغناء البحث الأثرى السوري الياباني المشترك بهما،أحدهما موقع مقابر أبو حمد المؤرخة على فترة البرونز المبكر بشكل أساسي ، الذي يقع على بعد 800 متر شرق طريق غانم العلي/ جبل البشري ، على بعد 3 كم من طريق دير الزور الرقة.
هناك أيضا سلسة من القبور التي محتمل تعود لعصر البرونز المبكر ، المقامة قرب قلعة جزلة ، جنوب شرق غانم العلي 2 كم ، على طول الجرف بين ضفة الفرات و سهل الفرات.
في موسم العمل هذا أتممنا إنجاز خريطة شاملة لموقع تل غانم العلي في 25 من أيار ،و نحن متأكدين تماما ان الأعمال التنقيبية في موقع غانم العلي و تل حمادين ، إجمالا مع المسوحات للمنطقة المحيطة ستقدم مقدار ضخم من التوضيح للمظاهر التاريخية الغامضة في عصر البرونز المبكر في منطقة الفرات الأوسط.

2- مسح رجوم الدفن ما قبل الإسلامية :

كخلاصة عامة للمسح الذي تم في أيار اعتبارا من 22 الى 29 في رجوم الدفن ما قبل الإسلامية (أو المقابر الحجرية المتكومة) ، و التي توازت مع الأعمال الرئيسية للبعثة في تل غانم العلي،المسح يشكل جزء من العمل الرئيسي الذي يترأسه انس الخابور من الجانب السوري والبروفيسور أو نوما من الجانب الياباني ،و الذي يسعى لاكتشاف العلاقة الاجتماعية الاقتصادية بين المجتمعات الرعوية في السفح الشمالي لجبل البشري و المجتمعات الزراعية على طول حوض الفرات الأوسط .
السبب في التركيز على تلك الرجوم هو رحيلهم المتكرر و نمط الحياة البسيط لديهم ، عموما رعاة ما قبل التاريخ لم يتركوا شواهد أثرية واضحة ما عدا القبور، التي نركز على دراستها و هي هدفنا الأول ،ونلاحق تطور مجتمعاتهم من خلالها.

المسح :

مراعاة لضيق الوقت و أننا لإنزال في تجربة مع المنطقة ، لذلك انتهجنا منهجا بسيط ، في البداية بحثنا في عشرات الأماكن المسماة (الرجوم) في الخرائط السورية مقياس 50.000/1 و كنتيجة أثبتت أن اغلب و ليس كل الأماكن الموجودة في النصف الثاني من منطقة المسح كانت نقاط علام أو نقاط مساحية ، بنيت في الوقت الحاضر ، أي لا يوجد دلائل واضحة على رجوم الدفن في تلك المنطقة .
النصف الاول من منطقة المسح تركز في السفح الشمالي لجبل البشري ،حيث توضعت رجوم دفن عديدة ربما يمكن ان تؤرخ على الفترة ما قبل الإسلامية ، أربعة منها تمكنا من تمييزها و هي : رجوم هداج 1 ، BS-0701 ،رجوم هداج 2 BS0702 ، رجوم حيوز BS0703 ، و رجم احمر BS0704.

نتائج المسح :

1- تتوزع رجوم الدفن كمخطط عام بشكل اهليلجي في السفح الشمالي لجبل البشري، بقطر 5-15 متر و ارتفاع 0.5 – 2 م .، مبنية بحجارة كلسية طبيعية أبعادها 20-50 سم مكومة عشوائيا .

2- على الرغم من كونها تشبه كومة بسيطة فان البعض منها يشكل دائرة في حافتها(الصورة 9) و غرف اهليلجية في مركزها (الصورة 10) تشير أنها رجوم دفن اكثر من كونها نقاط علام بسيطة .
3- غالبا ما تشكل مستطيلا و جدار مرافق لها، مشكلة مجموعة بنائية صغيرة(الصورة 11) مما يدل على ما اعتبرناه رجوما
4- و لعدم وجود الدلائل لا يمكن التأريخ بدقة ، على أية حال يبدو ان الشرائح المدهونة بالأحمر(الصورة 12) عموما يوجد ما يشابهها من مقابر في الجولان و جنوب الأردن اعتبر تاريخه برونز مبكر ، إذا ربما تكون مقابر امورية من القبائل القادمة من جبل البشري التي ذكرتها النصوص السومرية والأكادية.
5- هذا النمط من الرجوم يتركز في السفح الشمالي من جبل البشري و لا نماذج مشابهة في السهل الشمالي من حوض الفرات ، و على ضوء الدلائل الأثرية من موقع أبو حمد المقبرة الكبيرة خلف موقع غانم العلي تظهر أن المقابر العلوية المدخل كانت النمط السائد في تلك المناطق .
6- لذا فالرجوم الدفن تلك تعود لقبائل الرعاة ، و المدافن العلوية المدخل تعود للمزارعين ،و يؤكد ذلك الغياب الكامل للمستوطنات في سفح البشري.
7- الاختلاف بين النوعين من المقابر لا يحدده التوزع و الشكل ، فرجوم البشري موجهة للشمال جنوب ، و مقابر أبو حمد عموما موجهة شرق غرب ، بالإضافة إلى نمط مقابر المزارعين تتوزع على طول هضبة مطلة على وادي كبير محتفظة بمسافة أكثر من 50-100 متر بين كل رجمين بينما المقابر الزراعية تشغل السهل و تتقارب مع بعضها هذا الاختلاف يدل بوضوح أيضا على الاختلاف الثقافي لكلا الموقعين .
8- كلا الدراستين لرجوم البشري و مقابر أبو حمد مثلا يمكن أن تقدم توضيحا للاختلاف الاجتماعي الأساسي للمجتمعات المبكرة في حوض الفرات الأوسط .

نتائج :

بسبب قلة الوقت لم يكن البحث شاملا ولم يتم العثور على عدة مواقع في منطقة البشري ، التي لوقت طويل اعتبرت ارض صيادين فارغة للمجتمعات المبكرة في حوض الفرات ، وجود احتمال رجوم دفن معاصرة في السفح الشمالي لجبل البشري يمكن ان يدل على اعتبار الرأي التقليدي ذلك.

ما يهمنا اكثر هو الاختلاف الكبير بين رجوم البشري و مقابر أبو حمد ، هذا يهمنا لان الأخرى من الممكن ان تكون مقبرة لغانم العلي ، موقعنا الأساسي ، لذا فالبحث الأبعد سيوضح بعدا آخر لعصر البرونز المبكر في هذه المنطقة و ومعنى ذلك يقدم فهم اشمل للمجتمعات الحضارية المبكرة في حوض الفرات الأوسط.

سوميو فوجي
مدير الجانب الياباني
كاتسوهيكو اونوما
مدير الجانب السوري
أنس الخابور

ARCHAEOLOGICAL RESEARCH IN THE BISHRI REGION — REPORT OF THE THIRD WORKING SEASON —

Katsuhiko OHNUMA*
Anas Al-KHABOUR**
(30/August/2007)

The third working season of the Syria-Japan Archaeological Joint Research in the Bishri Region was started on August 1st, 2007 and was completed on August 29th, 2007.

The members of this joint research from the Syrian and Japanese missions are as follows.

Syrian mission: Anas Al-Khabour (Director), Ayham Al-Fahry and Mahmmod Al-Hassan.

Japanese mission: Katsuhiko Ohnuma (Director), Hirotoshi Numoto, Hiroyuki Sato, Masanobu Tachibana, Yoshihiro Nishiaki, Atsunori Hasegawa, Tomoyasu Kiuchi, Kenichi Tanno, Hitoshi Hasegawa, Tomoya Goto, Haider Urebi, Ryuichi Yoshitake, Lubna Omar, Chie Akashi, Mitsuo Hoshino, Naoko Fukami, Harumi Horioka, Shouko Ueda, Natsuko Fujikawa, Shu Takahama, Toshio Hayashi, Ryuji Matsubara and Toshiki Yagyu.

Dr. Bassam Jamous, Director General of the Syrian Directorate General of Antiquities and Musems and Dr. Michel Al-Maqdissi, Director of Archaeological Excavations and Research at the Syrian Directorate General of Antiquities and Musems and the Syrian Supervising Adviser for this joint research, kindly helped us towards the success of this third season of work, and we express our sincerest gratitudes to them for their warm-hearted cooperation.

In this working season, we started trench excavations in two squares (1 and 2) at the site of Tell Ghanem al-Ali. We also undertook several surveys (Fig. 1), the results of which are briefly described below.

1. Trench excavations at Tell Ghanem al-Ali

Katsuhiko Ohnuma (Professor,
Kokushikan University, Tokyo) and
Tomoyasu Kiuchi (Graduate School of
Humanities and Sociology, the University of Tokyo, Tokyo)

We started trench excavations in two squares at Tell Ghanem al-Ali (Fig. 2) on August 11th (Figs. 3 and 4), and completed the work on August 27th (Fig. 5).

The works in the two squares (Fig. 6) yielded stone-walled structures and structures walled with mud bricks, as well as pits, door sockets, pottery, hearth, *tannor*, gravel floor, etc (Figs. 7 to 24).

Although exact dates of these structures are now under study, it is strongly demonstrated that they date to the EB Ⅲ Period on the basis of features of the pottery unearthed from them.

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* Director of the Japanese Archaeological Mission to Bishri (Professor, Kokushikan University, Tokyo, JAPAN)
** Director of the Syrian Archaeological Mission to Bishri (Director, Department of Antiquities and Museums, Raqqa, SYRIA)

2. Geography and Geology of Tell Ghanem al-Ali

Mitsuo Hoshino (Professor, Graduate School of
Environmental Studies, Nagoya University, Nagoya)

1. Topography

Tell Ghanem al-Ali has an elliptical shape with the long-axis with c.400 m stretching into NNE-SSW direction (Fig. 25). The highest point of the Tell is 241.5 m above sea level, rising 12.5 m from the base level 229 m (Fig. 26). The upper part of the Tell is recently used as a cemetery for the local people. Access from the highway to the Tell by vehicle is possible through the farming road.

2. Natural Vegetation

Precipitation of the area is almost 0 mm and the temperature sometimes attains up to 40 degrees centigrade during the summer season. Even under these hyper-arid conditions, natural vegetation can be observed at the hillside of the Tell. Herbaceous plant communities are vegetated in places lower than 232 m level (Fig. 27-A). A group of tree, *tiliaceae* is conserved close to a branch of irrigation canal (Fig. 27-B). These indicate that the water supplied by the extensive irrigation system permeates up to the hillside of the Tell.

3. Geological Consideration

Figure 28 shows the geological outcrop found at the base-level of the Tell. At first, its stratified structure seemed to be a fluviatile sediments, but it was later identified to be sun-dried bricks of an ancient structure.

We made a correlation of the topographic level between the Tell and the Bishri Mountain-side using a surveying level. As shown in Fig. 29, the base-level of the Tell is correlated to the lower terrace-surface of the Bishri Mountainside. Detailed stratigraphic correlations and geological survey of the river-terraces in the area will be emphasized in the next field work in November, 2007.

3. Palaeolithic survey

Hiroyuki Sato (Professor, Graduate School of
Humanities and Sociology, the University of Tokyo, Tokyo)

A survey of Palaeolithic sites distribution was undertaken in the area between the city of Raqqa and the northern edge of the Mount Bishri. As the result of this survey, we confirmed that the site of *Barayt Tell Hammam*, where Mousterian lithic artifacts are distributed in a considerable amount, is on a Pleistocene river terrace of the Euphrates (Figs.1 and 30). We also confirmed that Mousterian lithic artifacts are distributed around the rock shelter called *Metbaa*, some 2 km east of *Barayt Tell Hammam*. We think that this rock shelter may have been visited and inhabited by people who made the Mousterian lithic artifacts (Fig. 31).

4. Prehistoric survey at the northern edge of Jebel Bishri, Raqqa

Yoshihiro Nishiaki (Professor, the University of Tokyo, Tokyo)

As part of the integrated archaeological research program led by Professor Katsuhiko Ohnuma for the Raqqa-Bishri region, a quick prehistoric survey was conducted along the northern edge of

Jebel Bishri. The main objective of this survey was to locate Neolithic sites as well as the ones of the adjacent period so that the importance of this arid region for understanding the origins of nomadic pastoralism is highlighted. Two areas were visited during the short period of survey (August 4 to 6): the *Wadi Aabeid* valley and the *Jebel Tbouq* area.

Wadi Aabeid is located approximately 15 to 30km to the south of Tell Hammadin, forming one of the major valleys at the northern edge of Jebel Bishri. It runs from the area of *Tall Aabeid* northwards with hilly banks on both sides. A few flint-scattered spots were noted within the *wadi* beds and along the banks, but no in-situ sites were identified in this season, most likely due to the short period of survey.

More promising results were obtained from the area around *Jebel Tbouq*. This east-west running mountain range is situated at the north-western edge of *Jebel Bishri*, roughly 60km south of Raqqa. In an area cut by *Wadi er-Rhoum*, a PPNB station with a distribution of Naviform cores and their products was discovered on its left bank (Figs. 32 and 33). In addition, a series of huge flint workshops were encountered further deep in the mountain along the wadi. The workshops, clearly located on the outcrops of high quality flint, extend to the south and the east in the basin. They seem to continue intermittently to the *Tar al-Sbai* area that was investigated by the Finnish mission, and the *El Kowm* basin intensively studied by the Syro-French missions.

The surface sampling indicates that the workshops in the basin were derived from the Palaeolithic and Neolithic periods. The Palaeolithic artifacts were best represented by well-made Levallois cores and flakes of the Middle Palaeolithic. All the stages of the core reduction process took place in the workshops. On the other hand, the identified Neolithic pieces were PPNB core-preforms and their preparation by-products only. The workshops were obviously utilized for the initial stage of core preparation during the Neolithic period, and further reduction must have been made at other spots.

As a matter of fact, such spots were located a few hundred meters to the north along the southern cliff of the mountain, where completely reduced PPNB Naviform cores and blades from them were distributed.

Careful investigation of these different types of sites is to provide us with insight into behavioral patterns of the PPNB communities, who probably haunted in this area to cross *Jebel Bishri* towards north and south as well as to procure flint raw material. The complete absence of farming tools such as sickle elements and ground stones in the flint samples suggests that they were either pastoralists or groups dispatched from home villages located in more favorable environments.

5. Faunal analysis of the site of Tell Ghanem al-Ali

Lubna Omar (Graduate school, Kyoto University, Kyoto)

The analysis of the faunal remains retrieved through trench excavations shows that the current bone assemblage consists of approximately 860 specimens. More than half of the specimens belong to medium size mammals, sheep and goat in particular. At the same time, *Equid* remains are abundant in Square 1, as are cattle. The species less represented are gazelle, birds and rodents. Cut marks are observed on two fragments, and some of the bones are burnt. Two *Bos's* phalanges have gnawing traces made by canine.

6. Botanical research

Kenichi Tanno (Research Institute for
Humanity and Nature, Kyoto) and Chie Akashi
(Graduate school of Literature and Art, Waseda University, Tokyo)

Botanical remains from archaeological sites often give us solid answer against our questions of the subsistence such as what food ancient man ate and how was the vegetation around the site? To clarify these issues as for plant utilization in Tell Ghanam-alli, we collected charred plant remains using a water-floatation system (Fig. 34). The soils taken in the present year are most presumably belonging to the Early Bronze Age: the period of flourishing the early agriculture and beginning of irrigation farming.

So far 6 samples of about 55 litters of soil (Table 1) were processed, and water-floatation using 1mm-mesh sieve yielded rich charcoal remains as well as seed remains in less quantity. They need further investigation with microscope for identification, so we represent a preliminary data ovserved in the field by naked eyes only.

Some large cereal grains are visible, at least barley (*Hordeum vulgare*) seeds and a few emmer/einkorn wheat seeds. One of Graminosae weeds, *Lolium* sp. was included as well. Some large seeded legumes were also seen, probably faba beans (*Vicia faba*).

Barley is quite common among the other Bronze Age sites in this area, and thought to be staple crop. Some of the barley were found in spikelet. Some pulses are extremely well-preserved, and seed coat, so fragile and usually lost during charred, was observed still attached to seeds. From charcoal fragments, some were collected large enough for identification. Most of the other seeds and fruit remains are not identifiable without microscope, so they will be sent to Japan for the further analysis.

We found that the ashy soil sampled during the trench excavations includes rich plant remains, though only restricted area was investigated. This ashy layers cover large part of the sounding area, so we consider that more systematic and detailed sampling is necessary.

Consideration of the distribution of plants will make clarify the use of the houses, rooms or other contexts.

Botanical data of the historical era is still scarce, and the diet and the vegetation has been discussed on the bases of the literatures only so far. Collaboration of archaeological and histological studies, therefore, is greatly needed.

7. Tells distribution survey using satellite photos

Hitoshi Hasegawa (Professor, Department
of Literature, Kokushikan University, Tokyo) and
Tomoya Goto (Graduate School of Human Sciences,
Kokushikan University, Tokyo)

From 12th to 16th of August of 2007, we undertook tells distribution survey along the River Euphrates around the city of Raqqa by means of Russian-made maps, correlating the legends on the maps (cemetery) with archaeological sites. The area which our survey covered was Spot Image Full Scene (72km × 60km) including the Middle Euphrates and the Mount Bishri.

Of the 21 cemeteries we surveyed along both banks of the Euphrates, 12 were identified to be archaeological sites on the basis of presence or absence of potsherd (Fig. 35).

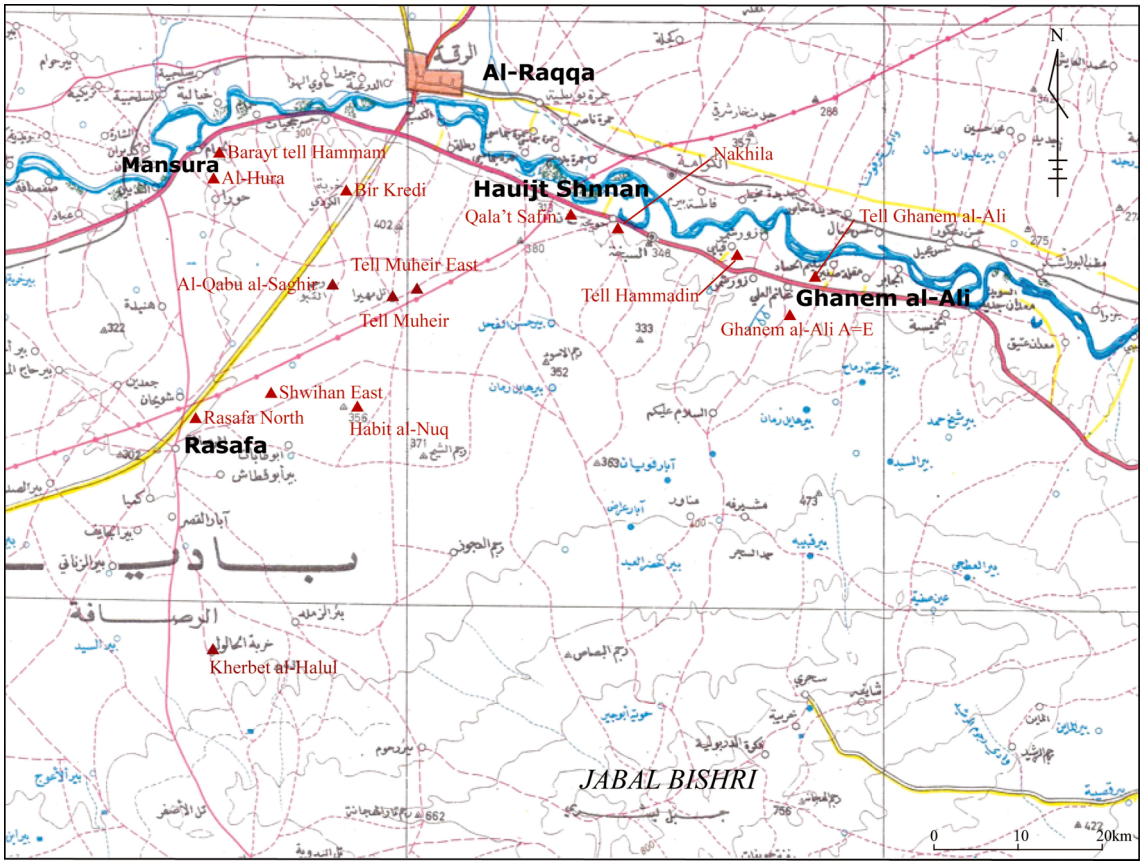


Fig. 1 Location of archaeological sites around the city of Raqqa including Tell Ghanem al-Ali where the Syria/Japan Joint Mission undertook trench excavations in this working season

Fig. 2 Tell Ghanem al-Ali seen from south-east.

Fig. 3 Ceremony to start trench excavations at Tell Ghanem al-Ali (Ohnuma: left, Al-Khabour: right).

Fig. 4 Memory photo on the start of trench excavations at Tell Ghanem al-Ali.

Fig. 5 Memory photo on the completion of trench excavations at Tell Ghanem al-Ali.

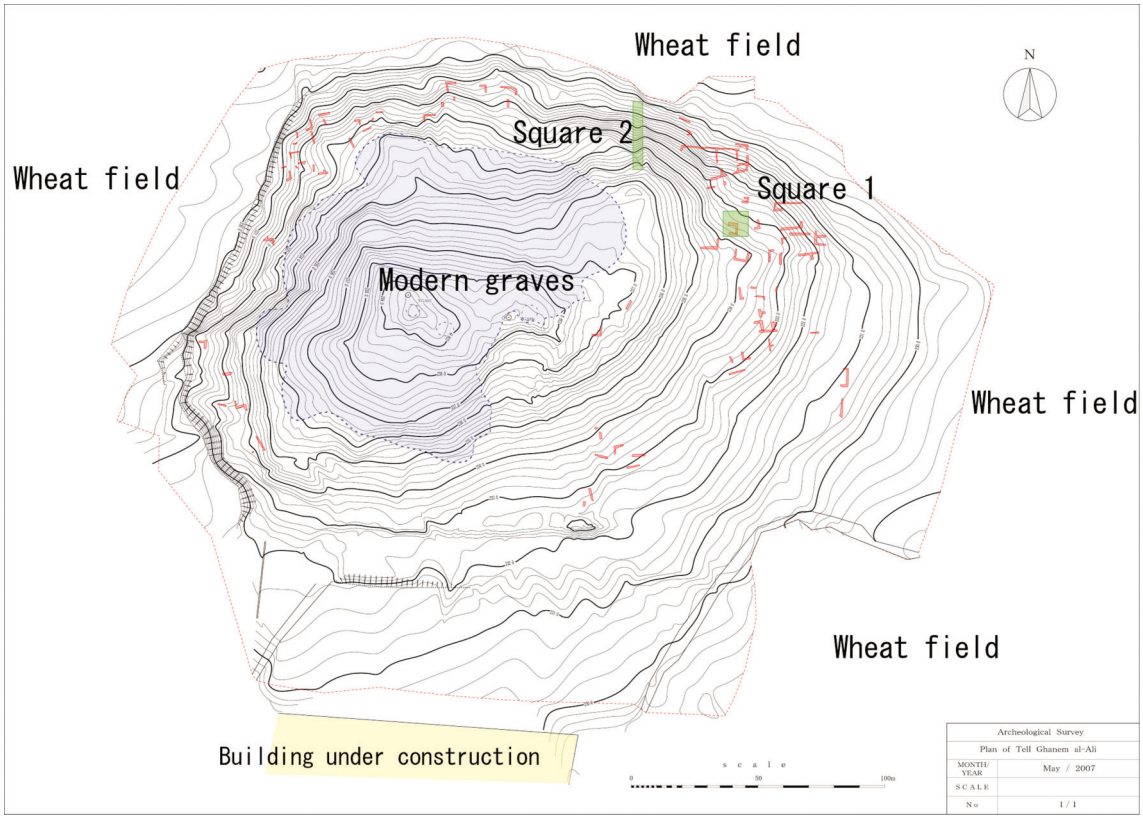


Fig. 6 Squares 1 and 2 (shaded green) for trench excavations.

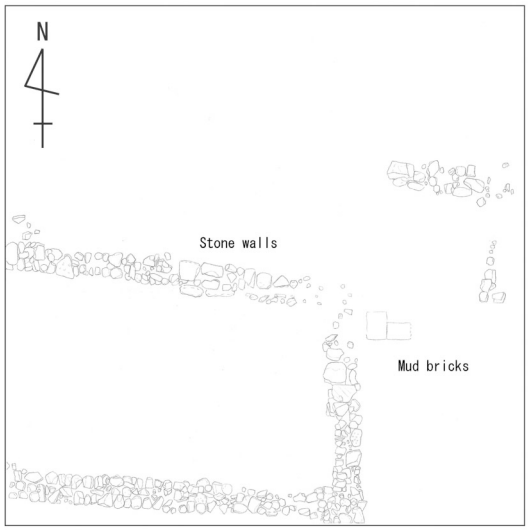


Fig. 7 Plan of Level 1 in Square 1.

Fig. 8 Stone walls of Level 1, Square 1.

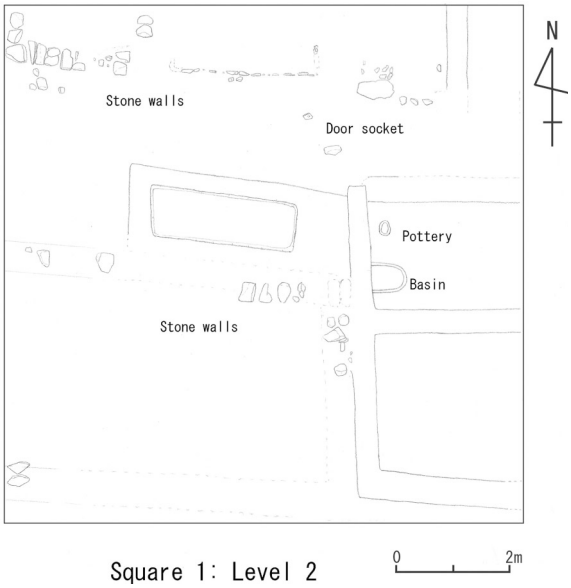


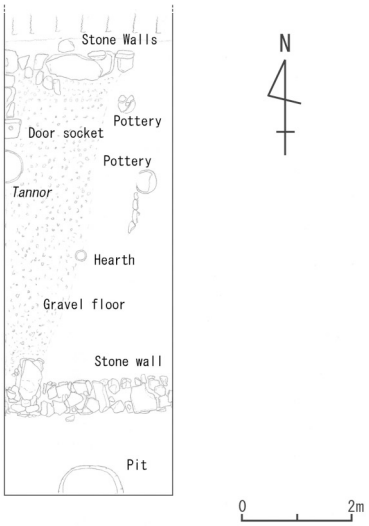
Fig. 9 Plan of Level 2, Square 1.

Fig. 10 Mud-brick walls of Level 2, Square 1.

Fig. 11 Pit before digging: Level 2, Square 1.

Fig. 12 Basin and pottery of Level 2, Square 1.

Fig. 13 Door socket of Level 2, Square 1.



Square 2: Level 1

Fig. 14 Plan of Level 1, Square 2.

Fig. 15 Stone wall of Level 1, Square 2 (seen from east).

Fig. 16 Stone wall of Level 1, Square 2 (seen from north).

Fig. 17 Pottery concentration in Level 1, Square 2.

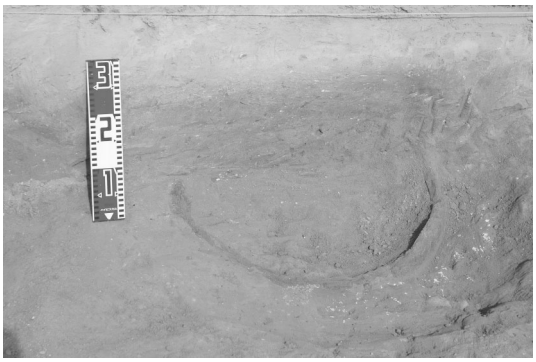


Fig. 18 *Tannor* in Level 1, Square 2.

Fig. 19 Gravel floor in Level 1, Square 2.

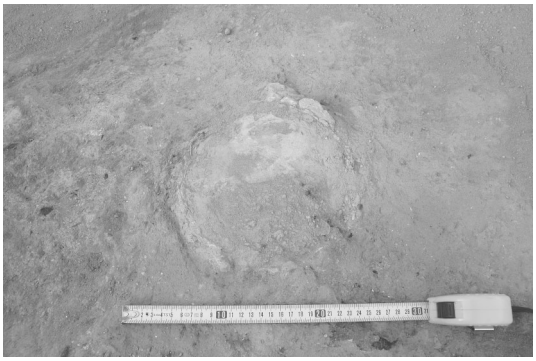
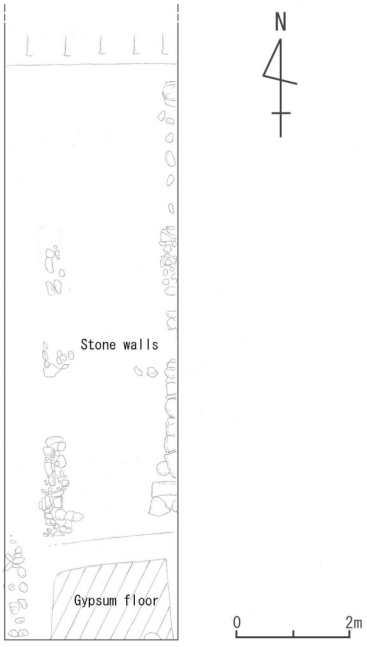


Fig. 20 Hearth in Level 1, Square 2.

Fig. 21 Pit in Level 1, Square 2.



Square 2: Level 2

Fig. 22 Plan of Level 2 in Square 2.

Fig. 23 Stone walls in Level 2, Square 2 (seen from north).

Fig. 24 Stone wall in Level 2, Square 2 (seen from south).

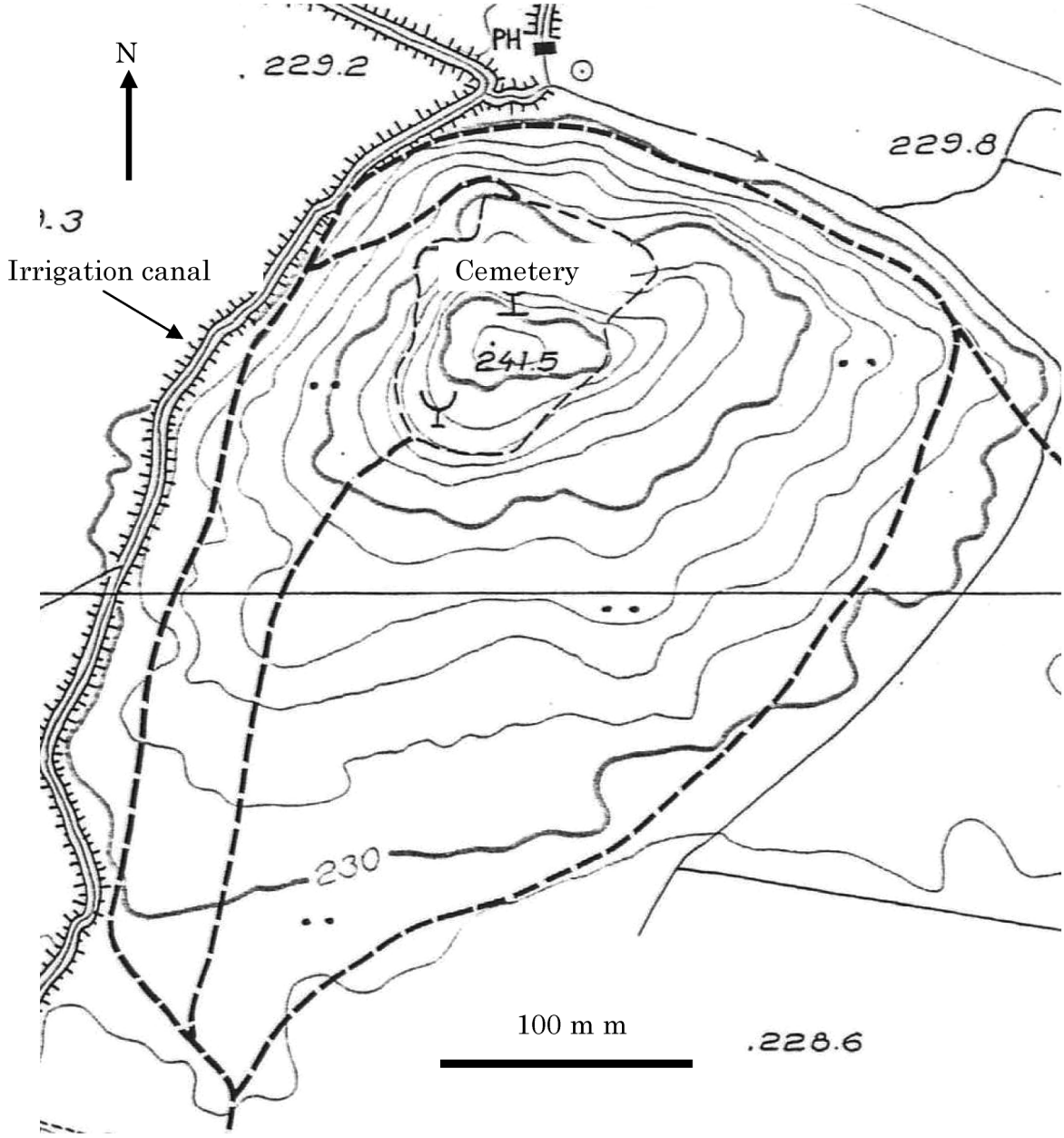


Fig. 25 Topographic map of Tell Ghanem al-Ali reproduced from 1:5,000 topographic sheet U 1143 (1961/62 by Italian Mission).

Fig. 26 A panoramic photograph of Tell Ghanem al-Ali and its base level, viewed from NW direction. Two steps of terrace at the near side are artificially modified fields for irrigation farming, in which cucurbitaceous fruits and sugar canes are cultivated.

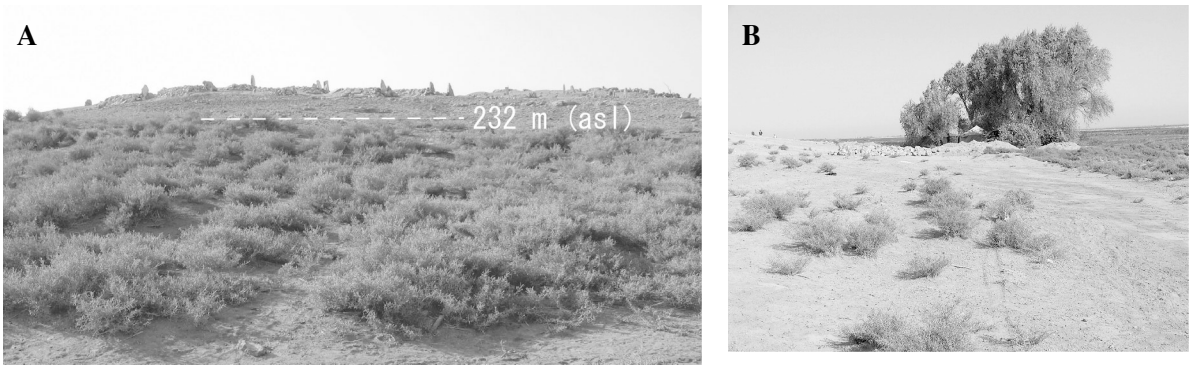


Fig. 27 Natural vegetation observed at the hillside of the Tell.
A: herbaceous plant, B: *tiliaceae*.

Fig. 28 An outcrop at the base-level of the Tell.

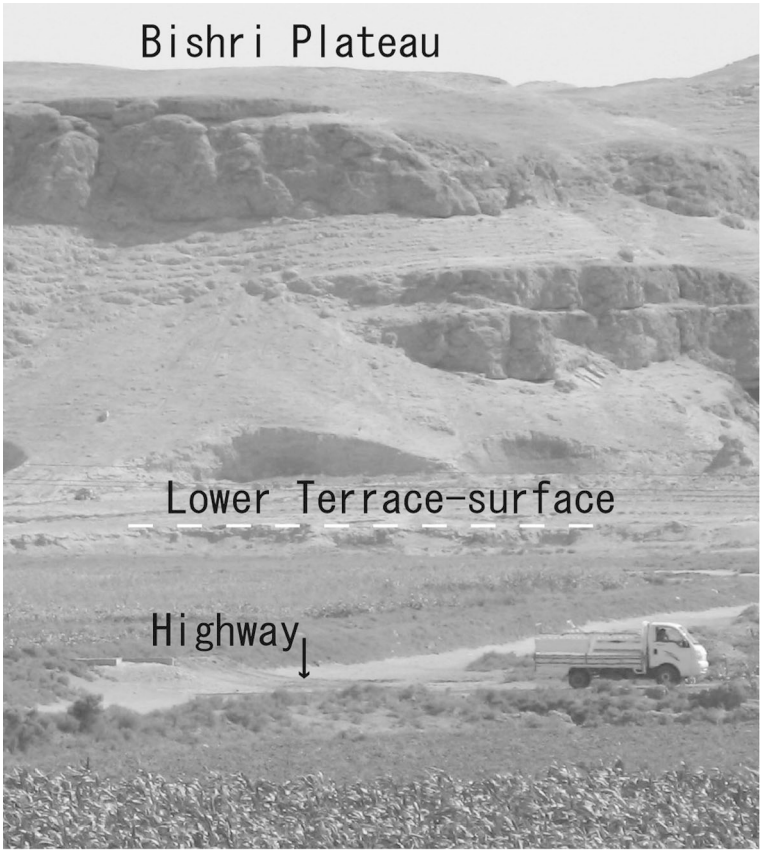


Fig. 29 Correlation between the base-level of the Tell and the lower terrace-surface of the Bishri Mountain-side.

Fig. 30 The site of *Barayt Tell Hammam* where Mousterian lithic Artifacts are distributed.

Fig. 31 Rock shelter called *Metbaa*: Mousterian lithic artifacts are distributed in its front.

Fig. 32 The PPNB flint scatter of Wadi er-Rhoum, Loc. 1, as seen from the east.

Fig. 33 PPNB flint implements from Wadi er-Rhoum, Loc. 1.

Fig. 34 Flotation system.

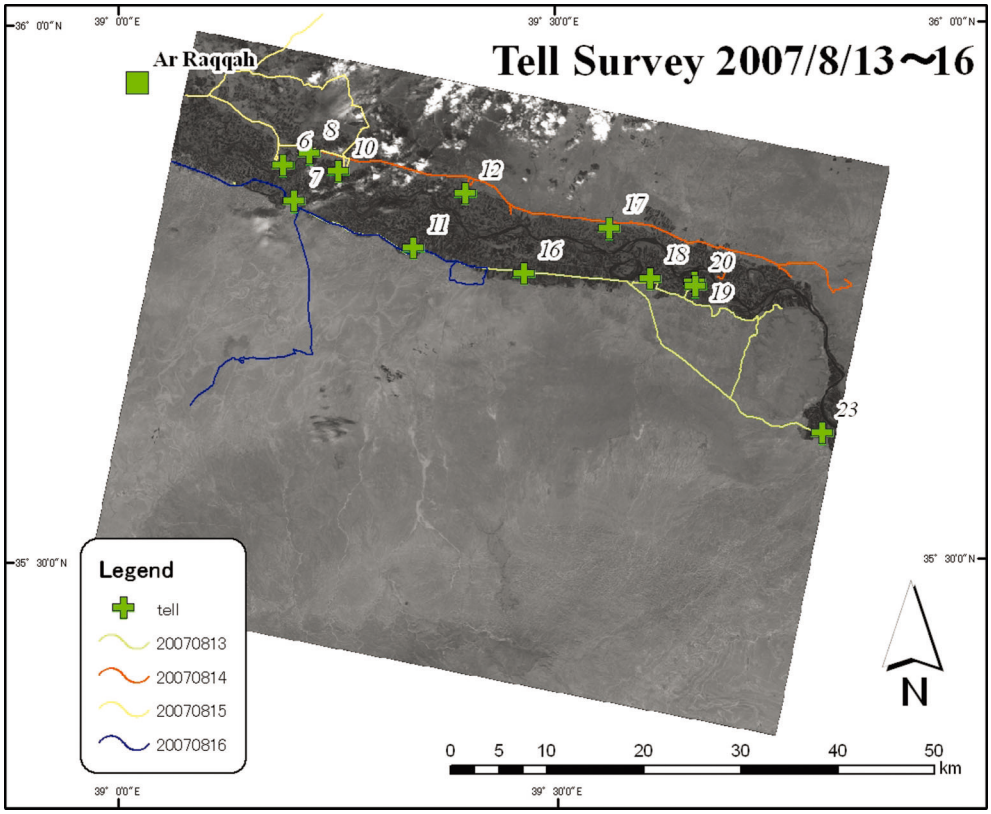


Fig. 35 12 cemeteries identified to be archaeological sites.

Table 1 Flotaion List of Tell Ghanem al-Ali.

Square	Basket No.	Date of sampling	Context	Soil amont
1	15	Aug.21/2007	Ashy layer	13 litre
1	18-01	Aug.21/2007	Unknown	7 litre
1	20	Aug.22/2007	Under stone wall	12.5 litre
1	20'	Aug.22/2007	Under stone wall	4.1 litre
1	20-01	Aug.23/2007	Pit	9.5 litre
1	20-02	Aug.23/2007	Pit	8.8 litre

تقرير العمل النهائي لموسم العمل الثالث للبعثة الأثرية السورية اليابانية المشتركة في البشري :

بدأ موسم العمل الثالث للبعثة الأثرية السورية اليابانية المشتركة في البشري في /1/ آب و انتهى /29/ آب لعام 2007

الجانب السوري كان يديره انس الخابور أما الجانب الياباني فكان كاتسوهيكو اونوما مديرا، و نعبر عن خالص امتناننا للدكتور بسام جاموس المدير العام للآثار و المتاحف في سورية و الدكتور ميشيل مقدسي مدير البحث و التنقيب الأثري في المديرية العامة للآثار و المتاحف و المستشار المشرف لهذا البحث المشترك لتعاونهم للنجاح بموسمنا الثالث.

بدأنا موسمنا هذا بأسبار تركزت في مربعين هما /1/ و /2/ في موقع غانم العلي .

أيضا قمنا بمسوحات متعددة سنقوم بتوضيح نتائجها :

1- أسبار موقع غانم العلي :

(كاتسوهيكو اونوما الأستاذ في جامعة كوكوشيكان ،طوكيو و توموياسو كيوتشي خريج كلية العلوم الإنسانية و الاجتماعية من جامعة طوكيو)

بدأنا الأسبار في مربعين في موقع غانم العلي بتاريخ 11آب الى 27 من شهر آب العمل في المربعين كشف عن تراكيب جدران حجرية مصنعة و تراكيب جدران من الطابوق الطيني ، بالإضافة الى حفر ، مقبسا أبواب ، فخار ،موقد (تنور) ارض من الحصى ، الخ...

على الرغم من انه لا يوجد تاريخ دقيق لهذه التراكيب كونها قيد الدراسة ، لكنها تؤرخ على فترة البرونز المبكر2 ، حسب دلالة ميزات الفخار الذي كشف عنه منها.

2- جغرافية و جيولوجيا تل غانم العلي :

ميتسو هوشينو (أستاذ خريج كلية الدراسات البيئية ، جامعة ناغويا ، ناغويا)

1.2 : الطوبوغرافيا:

يأخذ تل غانم العلي شكلا اهليلجيا و محوره الطويل حوالي /400/ م يضيق في الشمال الشمال الشرقي - الجنوب الجنوب الغربي، النقطة الأعلى من تل غانم العلي هي /241/ مترا فوق مستوى البحر ، يرتفع 12.5 مترا عن القاعدة الأساسية 229م،الجزء الأعلى من التل يستخدم حاليا كمقبرة للأهالي ،يمكن الدخول من الطريق السريع بين الرقة و دير الزور الى غانم العلي بالسيارة من خلال الطريق الزراعي .

2.2 : النباتات الطبيعية:

مطر هذه المنطقة هو تقريبا /0/ مم و درجة الحرارة فوق /40/ درجة مئوية خلال فصل الصيف . حتى تحت هذه الظروف يمكن ملاحظة النباتات الطبيعية في جانب سفح التل .

النباتات العشبية مزروعة في أماكن اخفض من 232 م عن سطح البحر، و ثمة نوع من الأشجار محفوظ بالقرب من فرع من قناة ري هذا يدل على ان الماء يزود به عن طريق نظام الري الشامل الذي يتخلل فوق الى سفح التل.

3.2 : الاعتبار الجيولوجي:

يوجد تفطر جيولوجي في القاعدة الرئيسية من التل ،اعتقدنا في البداية ،بسبب تكوينها المرتب انها رواسب نهرية ، لكنها فيما بعد عرفت أنها طابوق مجفف بالشمس من بناء قديم،قمنا بعملية ربط في المستوي الطبوغرافي بين التل و جانب جبل البشري باستخدام مستوى المسح فوجدنا ان المستوى الرئيسي من التل يرتبط بالسطح الأسفل من سفح جبل البشري .

مسح مواقع العصر الحجري الأول:

هيرويوكي ساتو(أستاذ ، خريج كلية العلوم الإنسانية والاجتماعية ، جامعة طوكيو ، طوكيو)

تركز مسح مواقع العصر الحجري الموزعة في المنطقة بين مدينة الرقة و الحافة الشمالية لجبل البشري، و كنتيجة لهذا المسح ، تأكدنا من موقع برية تل حمام ،حيث توزعت الأدوات الحجرية الموستيرية بكمية كبيرة في الشرفة البليستوسينية من الفرات.

أيضا أكدنا على الأدوات الحجرية الموستيرية الموزعة حول الملجأ الحجري المسمى ميتبا ، على بعد /2/ كم شرقي برية تل حمام ، و نعتقد بان ذلك الملجأ الحجري قد زاره و سكنه الناس الذين صنعوا الأدوات الحجرية الموستيرية اليدوية

3- مسح فترة عصور ما قبل التاريخ في الحافة الشمالية لجبل البشري بالرقة:

يوشيهيرو نيشاكي (أستاذ في جامعة طوكيو)

قمنا بمسح سريع مواقع عصور ما قبل التاريخ على طول الحافة الشمالية لجبل البشري، لتحديد مواقع نيوليتية في هذه المنطقة القاحلة لفهم أصول القبائل الرعوية ، في كل من وادي عبيد و منطقة جبل طبوق.

يقع وادي عبيد حوالي 15-30 كم الى الجنوب من تل حمادين ، مشكلا واحدا من الأودية الكبيرة في الحافة الشمالية لجبل البشري ، و يجري من منطقة تل عبيد باتجاه الشمال بحواف مرتفعة على كلا الجانبين ،لوحظت بضعة بقع صوانية في سريري الوادي و على طول جوانبه .

جبل طبوق المتجه باتجاه شرق غرب في الحافة الشمالية الغربية لجبل البشري بحوالي /60/ كم جنوب الرقة،في منطقة يقطعها وادي رحوم ،وهو محطة تعود لفترة PPNB فيها نصال و نوى متناثرة على الضفة اليسرى ، بالإضافة الى سلسلة من ورشات العمل الضخمة التي وجدت بالعمق باتجاه الجبل .

في النهاية الغربية لحوض جبل سباعي ، كانت ورشات العمل هذه ممتدة نحو جنوب و شرق الحوض ، حيث تبدو مستمرة بشكل متقطع الى منطقة طار سباعي التي بحثت فيها البعثة الفلندية عام 2000 ، لكن البعثة الفلندية أشارت الى ورشات عمل في جرف الجبل فقط.

تشير العينات السطحية الى ان ورشات العمل في الحوض كانت تعود للفترات الباليوليتية و النيوليتية ، الصناعات الباليوليتية كانت ممثلة بشكل جيد بنوى لفلوازية مصنعة جيدا و رقائق من الباليوليت الأوسط.

كانت تتم مراحل إنقاص النوى في ورشات العمل تلك ،أيضا القطع النيوليتية المعروفة كانت من فترة PPNB نوى مشكلة و تحضيرها كان نواتج عرضية فقط .

كان من الواضح ان ورشات العمل تلك استخدمت لمراحل أولية لتحضير النوى خلال فترة النيوليت ، و استكمال الصنع يجب ان يكون في مواقع أخرى .

في واقع الأمر مثل هذه النقاط كانت متوضعة في على بعد عدة مئات من الأمتار الى الشمال على طول الجرف الجنوبي من الجبل ، حيث أنتجت بشكل كامل نوى و أنصال فترة ال PPNB .
البحث المتأني لهذه المواقع المختلفة هو لتزودينا بالأنماط السلوكية لجاليات فترة ال PPNB ،الذين طوردوا ربما الى هذه المنطقة ليعبروا جبل البشري باتجاه الشمال و الجنوب ، بالإضافة الى تحصيل مادة الصوان الخام.
الغياب الكامل لأدوات الزراعة مثل المناجل و الحجارة الأرضية في عينات الصوان تطرح فكرة إما انهم كانوا رعاة ، أو مجموعات مرسلة من المزارع الأم المتوضعة في البيئات المناسبة.

4- التحليل الحيواني موقع غانم العلى:

لبنى عمر (خريجة جامعة طوكيو)

تحليل البقايا الحيوانية التي حصلنا عيها من السبر أظهرت /860/ نموذج تقريبا اكثر من نصف تلك النماذج تعود الى الحجم المتوسط من الثدييات ، بشكل خاص الخراف و العنز،النماذج الأقل تمثيلا كانت الغزلان ، الطيور و القوارض .
آثار قطع لوحظت على قطعتين ، و بعض العظام كانت محروقة .و هناك اثرين صنعتا بواسطة الناب.

5- البحث النباتي:

كينيشي تاننو (معهد البحوث الانسانية و الطبيعية ، كويوتو) و تشي اكاشي (خريج كلية الآداب و الفن ، جامعة واسيدا ، طوكيو)

البقايا النباتية من المواقع الأثرية عادة تعطينا أجوبة عن أسئلتنا حول العيش مثل ماذا أكل الإنسان القديم و كيف كان الوسط النباتي حول الموقع .
جمعنا بقايا النباتات المتفحمة باستخدام نظام التعويم المائي ، التراب الذي جمعناه في الموسم الحالي من المفترض انه يعود لفترة البرونز المبكر، فترة ازدهار الزراعة المبكرة و بداية الري الزراعي .
بعض الحبوب الكبيرة كانت مرئية ، على الأقل بذور الشعير و الحنطة، و أحد أنواع الأعشاب الضارة كانت أيضا موجودة ، و بذور نباتات على شكل القرون ربما تكون الفاصولياء، كما ان الشعير كان شائعا تماما في مواقع عصر البرونز المبكر في المنطقة ، و يعتقد انه كان المحصول الرئيسي ، وبعض هذا الشعير وجد محفوظا بشكل جيد ، و كساء البذرة هش و فقد اغلبه أثناء عملية التفحم

6- مسح التلال الموزعة باستخدام الصور الجوية :

هيتوشي هاسيكاوا (أستاذ ، قسم الآداب ، جامعة كوكوشيكان ، طوكيو) و توموبا غوتو (خريج كلية العلوم الإنسانية ، جامعة كوكوشيكان ، طوكيو)

قمنا بمسح التلال المتوزعة على طول نهر الفرات حول مدينة الرقة باستخدام خرائط روسية الصنع ، من المقابر التي قمنا بمسحها على كلا الجانبين للفرات و التي بلغ عددها /21/ ، ميزنا/12/ منها أنها مواقع أثرية على ضوء القطع الخزفية .

مدير الجانب الياباني — **مدير الجانب السوري**
كاتسوهيكو اونوما — **انس الخابور**

ARCHAEOLOGICAL RESEARCH IN THE BISHRI REGION — REPORT OF THE FOURTH WORKING SEASON —

Katsuhiko OHNUMA*
Anas Al-KHABOUR**
(13/December/2007)

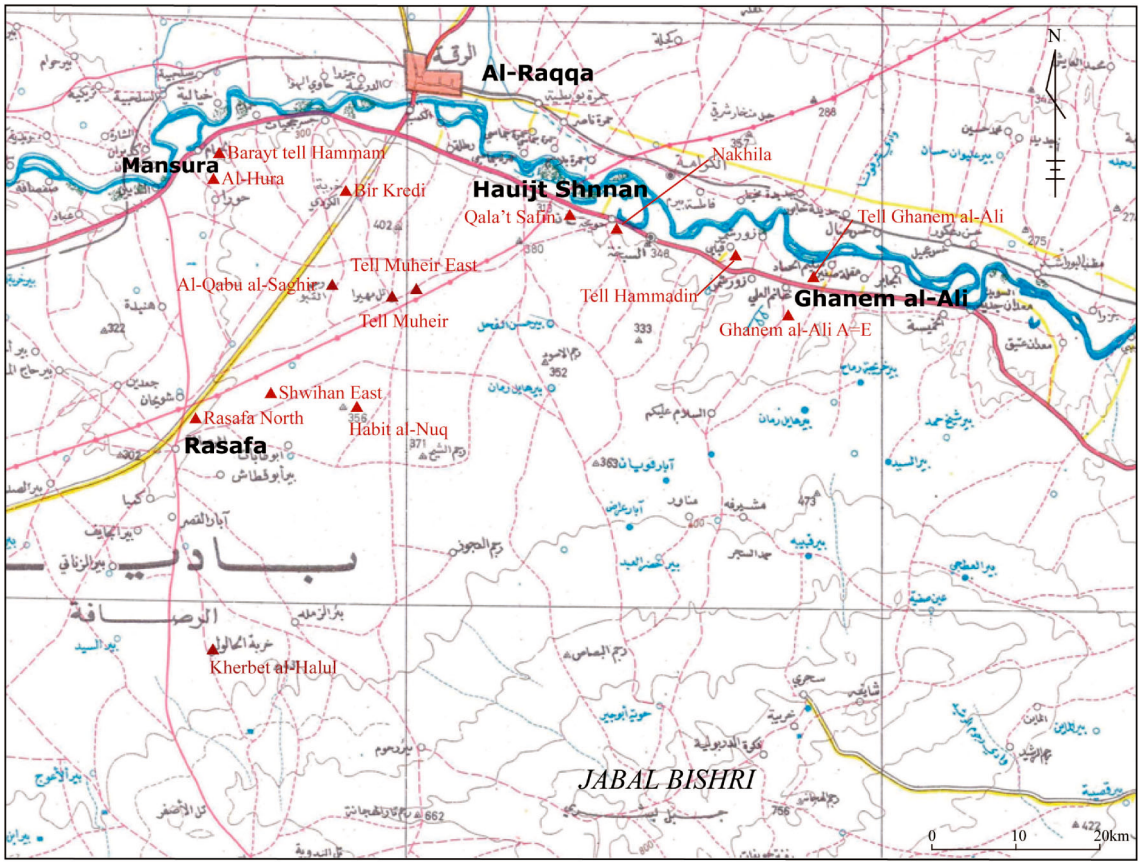
The fourth working season of the Syria-Japan Archaeological Joint Mission to the Bishri Region was started on the 8th of November of 2007, and was completed on the 12th of December, 2007.

The members of the joint mission from the Syrian and Japanese parties are as follows.

Syrian party: Anas Al-Khabour (Director), Ayham Al-Fahry, Mohamad Ali Jajan and Mohamad Ibrahim.

Japanese party: Katsuhiko Ohnuma (Director), Mitsuo Hoshino, Akira Tsuneki, Tomoyasu Kiuchi, Atsunori Hasegawa, Yo Negishi, Tsuyoshi Tanaka, Toshio Nakamura, Hidekazu Yoshida, Takeshi Saito, Kazuhiro Tsukada, Yusuke Katsurada and Ken-ichi Tanno.

We express our sincerest gratitudes to Dr. Bassam Jamous, the Director General of the Syrian



Map 1 Location of archaeological sites around the city of Raqqa including Tell Ghanem al-Ali where the Syria/Japan Joint Mission undertook trench excavations in this working season

* Director of the Japanese Archaeological Mission to Bishri (Kokushikan University, Tokyo, JAPAN)
** Director of the Syrian Archaeological Mission to Bishri (Director, Department of Antiquities and Museums, Raqqa, SYRIA)

Directorate General of Antiquities and Musems, and Dr. Michel Al-Maqdissi, the Syrian Supervising Adviser for this joint mission and the Director of Archaeological Excavations and Research at the Syrian Directorate General of Antiquities and Musems, who warm-heartedly cooperated with us towards the success of this fourth season of work.

In this working season, we continued the trench excavations in Squares 1 and 2 at the site of Tell Ghanem al-Ali, where we initiated excavational works in the third working season in August this year, and newly started trench excavations at Squares 3 to 5 to know the archaeological stratigraphy at the site in more details. Our geolo-geographical team undertook field survey in their research specilities, yielding fruitful results. The village of Ghanem al-Ali was researched in its history, the result of this research undoubtedly providing us with valuable information on the history of the site of Ghanem al-Ali itself. We also undertook a brief botano-archaeological research at the site of Ghanem al-Ali to tell what kinds of cereals the ancient inhabitants at Ghanem al-Ali lived on (Map 1).

The sections which follow are the preliminary results of the series of works we undertook in this working season.

1. Geological and Geographical Field Survey

Mitsuo Hoshino (Professor, Nagoya University),
Tsuyoshi Tanaka (Professor, Nagoya University),
Toshio Nakamura (Professor, Nagoya University),
Hidekazu Yoshida (Associate Professor, Nagoya University),
Takeshi Saito (Associate Professor, Meijo University),
Kazuhiro Tsukada (Assistant Professor, Nagoya University)
and Yusuke Katsurada (Research Fellow, Nagoya University)

In the forth working season in November 2007, our geological and environmental research team carried out various kinds of field survey in the Bishri Region. We would like to report here on the following four selected topics.

Prospect of the basement of Tell Ghanem al-Ali

We newly dug down 1×1 m area into 1.5 m depth at the western foot of Tell Ghanem al-Ali, in order to confirm the basement on which the Tell has been constructed. At least five stratigraphic layers were distinguished on the wall, as shown in Fig. 1, i.e. surface soil, sun-dried brick, well-stratified sand/silt, loose sand and silt from top to bottom. The well-stratified sand/silt layer is characterised by numerous white spots of gypsum aggregate. This layer also contains potsherds and charcoal fragments. From the loose sand layer, a flint core and charcoal fragments are found. Charcoal fragments are also found even in the lowermost silt layer.

As described above, charcoal fragments are commonly contained in the lower three layers, which suggests the inhabitancy evidence of them. The basement of the Tell may have been under the bottom of the dug pit of this time. Drilling is the effective method to prospect the basement level of Tell Ghanem al-Ali.

River-Terraces and Their Sediments

We recognized four or more river-terraces based on field observation and topographic map: 1st, 2nd, 2.5th, 3rd and 4th from lower to higher elevation (Fig. 2). These terraces are well developed from Zor Shammar to Wadi el Kharar area. Tell Hammadin and Tell Ghanem al-Ali are located on the 1st terrace. The sediments of these terraces are of fluvial and presumably Pleistocene in age.

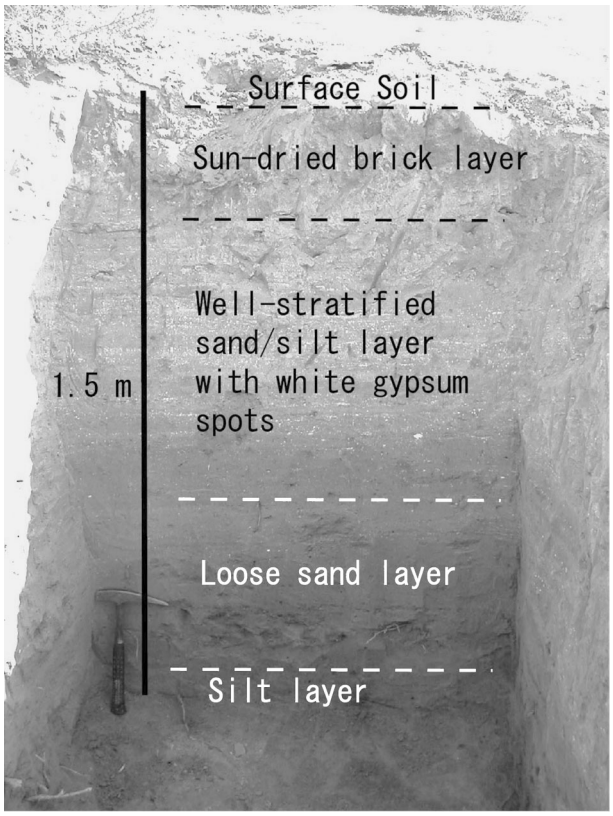


Fig. 1 Geologic profile in a newly dug prospecting pit at the western foot of Tell Ghanem al-Ali

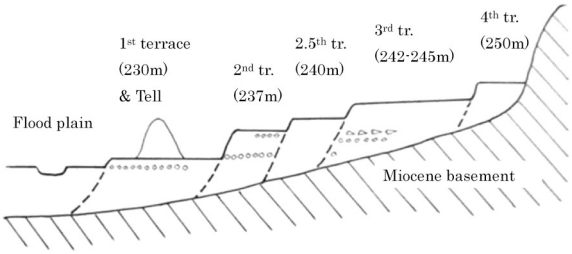


Fig. 2 Schematic diagram of river terraces of the study area

Fig. 3 Sediments of the 1st terrace

The height of the 1st terrace is ca. 230 m above sea level (a.s.l.), and 1-2 m higher than the flood plain composed of modern channels, crescent lakes, banks and marshes. We confirmed the sediments of the 1st terrace at two localities along the Euphrates River. They consist of sand, gravel and sandy mud (Fig. 3). Sand and sandy mud occasionally yield trace fossils of reed roots, indicating that the sediments and/or upper ones were deposited in reed marsh.

We found a charcoal-bearing layer (Fig. 4) in the 1st terrace sediments and collected some charcoal samples for ^{14}C dating. The age of the sediments is important to know the dawning period of the sites of Tells Hammadin and Ghanem al-Ali.

Crescent mounds, ca. 1 m height, can be recognized on the 1st terrace based on the 1:5,000 topographic maps (1961/62 by Italian Mission). The mounds are most likely banks and/or natural

Fig. 4 Charcoal-bearing layer in the 1st terrace sediments

Fig. 5 Asphalt in the 2nd terrace sediments

levees of palaeo-Euphrates River. Present small villages on the 1st terraces seem to be located on the crescent or long narrow mounds. Tells Hammadin and Ghanem al-Ali might have been constructed on the mounds.

The level of the 2nd terrace is ca. 237 m (a.s.l.), and 7 m higher than that of the 1st terraces. The sediments of the 2nd terraces are well outcropped along the highway, consisting mostly of gravel and sand. Gravel in the lower part is tightly cemented with carbonaceous matter. Large amounts of gypsum crystals are often found in the sandy sediments. The trace fossils of reed roots occasionally occur in the sandy sediments. Asphalt-containing stratum was found in gravel of the upper part (Fig. 5).

Fig. 6 Sediments of the 3rd terrace

The level of the 2.5th terrace is ca. 240 m (a.s.l.), and 3 m higher than that of 2nd terraces. This terrace is indistinctive, and may belong to the 2nd terrace. The sediments of the 2.5th terrace are composed of sand.

The level of the 3rd terraces is 242-245 m (a.s.l.), and 2-5 m higher than the 2.5th terrace. The sediments of the 3rd terraces are sand and gravel (Fig. 6). A gravel layer with sub-angular cobbles of gypsum is intercalated.

The 4th terraces are the highest and oldest in the study area. The level of them is ca. 250 m (a.s.l.), and 5-8 m higher than that of 3rd terraces. The sediments of these terraces have not been studied yet.

We distinguish four or more terraces, but some of them might be artificial planes. River-terraces and surrounding area are generally utilized by human, and have been changed their topography. In this area, the 1st terraces are used as cropland and small villages, and the 2nd and the higher terraces locating at the foot of the Bishri Plateau are used as towns.

It is important to clarify the stratigraphic disconformity between terrace deposits indicated by broken lines in Fig. 2. More detailed study is needed in and around the study area.

Sampling for ^{14}C Dating

(1) Tell Ghanem al-Ali Site

11th November: Square 1 (4 samples)

One charcoal sample was collected from the charcoal layer on the right side of the west wall. In addition, one sample was collected from the lowest visible charcoal layer and two samples were collected from the 2nd lowest charcoal layer, on the south wall of the Square 1 excavation area. These samples may provide the age of habitancy at this site.

(2) Samples from the Terraces of Euphrates

a) 10th November

Two charcoal layers were observed on the upper part (down to 50 cm from the surface) of the road-side terrace (2.5th terrace in Fig. 7). A charred wood of 5 cm diameter and 5 cm length was successfully collected from the centre of the upper charcoal layer. ^{14}C age of this sample may provide us the formation age or, at least, the age of the upper limit of the 2.5th terrace.

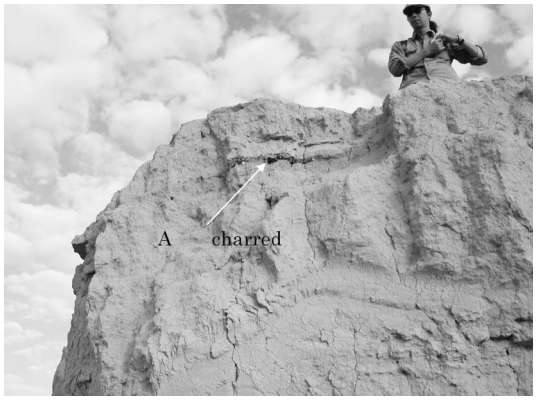


Fig. 7 The 2.5th terrace and a charred wood

b) 11th November

Two charcoal fragment samples were collected from one of the 5m-high terraces facing the Euphrates River (1st terrace in Fig. 4). About 3.5 m deep from the surface of the terrace, a layer, a bit more brown than other part of the wall, was observed. In the layer, small fragments of charcoal (≤ a few mm) were distributed 10 m wide of the terrace wall. One charcoal sample was collected as the gathering of charcoal fragments. Another charcoal sample was collected from the part 50 cm upper than the charcoal layer mentioned above. A charcoal fragment of 7-8 mm in diameter was dug out from the wall. These samples will provide us the formational age of the lowest terrace located nearest the Euphrates River.

Occurrence of 'Asphalt rock'

'Asphalt rock' is distributed almost likely as sedimentary strata in Tertiary sandy and/or tuffaceous sandstone (Fig. 8), located at 45 km south of the town of Ghanem Ali. The thickness is about a few to 10 meters and is distributed more than several km^2, as far as the field observation is concerned. The rock colour is of black to dark brown, containing probably fine- to medium-sized quartz grains. Greyish silty layer is also observed within the 'Asphalt rock' (Fig. 9), including shell fossils showing the silty layer deposited at the shallow seabed. This occurrence suggests that the two types of formation of 'Asphalt rock' as follows.

(1) Case 1: Deposition type formation

This is due to the sequential occurrence of Asphalt rock (strata) and surrounding formation. In particular, we can observe intercalated silty layer with shell fossil suggesting the sequential deposition of asphalt and silty layer within asphalt at the seabed. In case, it is reasonable to consider that the source of asphalt was from subsurface to spread the seabed and silty layer, shell having been covered thereafter. This might be happened due to differences of density of asphalt (or asphalt containing sandstone) and lack of asphalt sediments in surrounding deposits.

(2) Case 2: Intrusion type formation

Another possible case of formation is probably by the asphalt intrusion after all sediments have

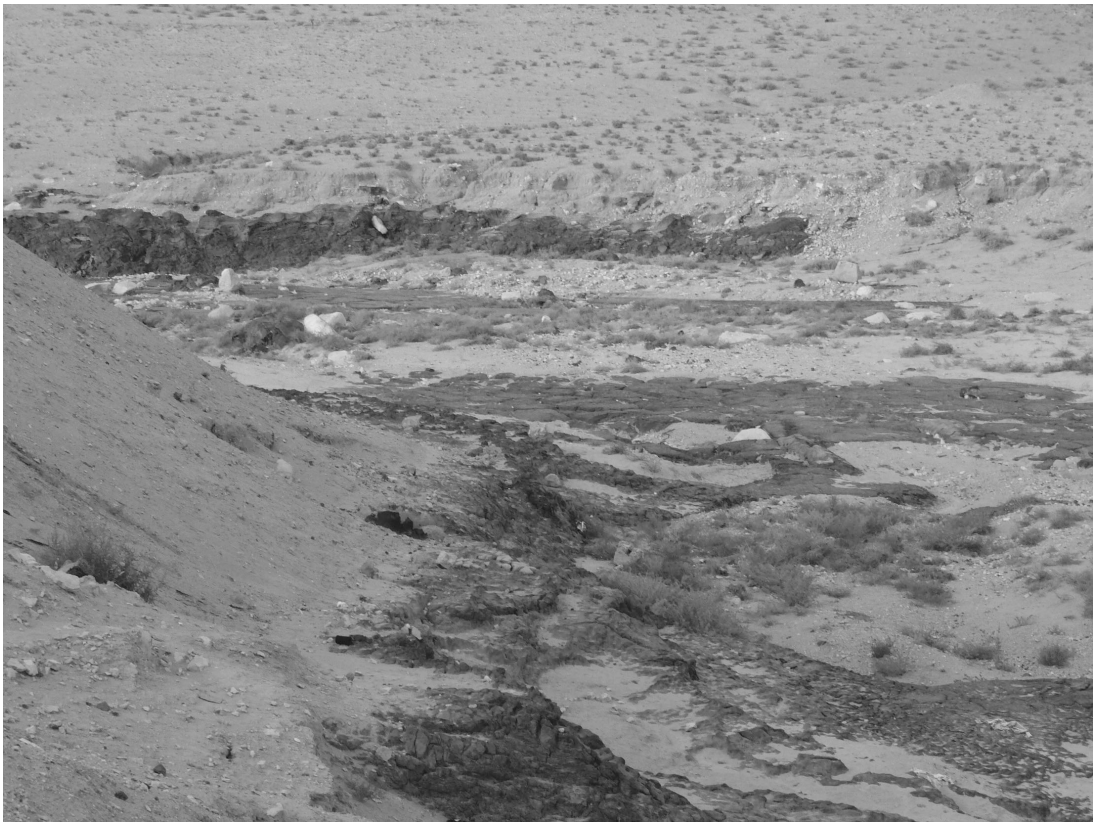


Fig. 8 Asphalt deposit

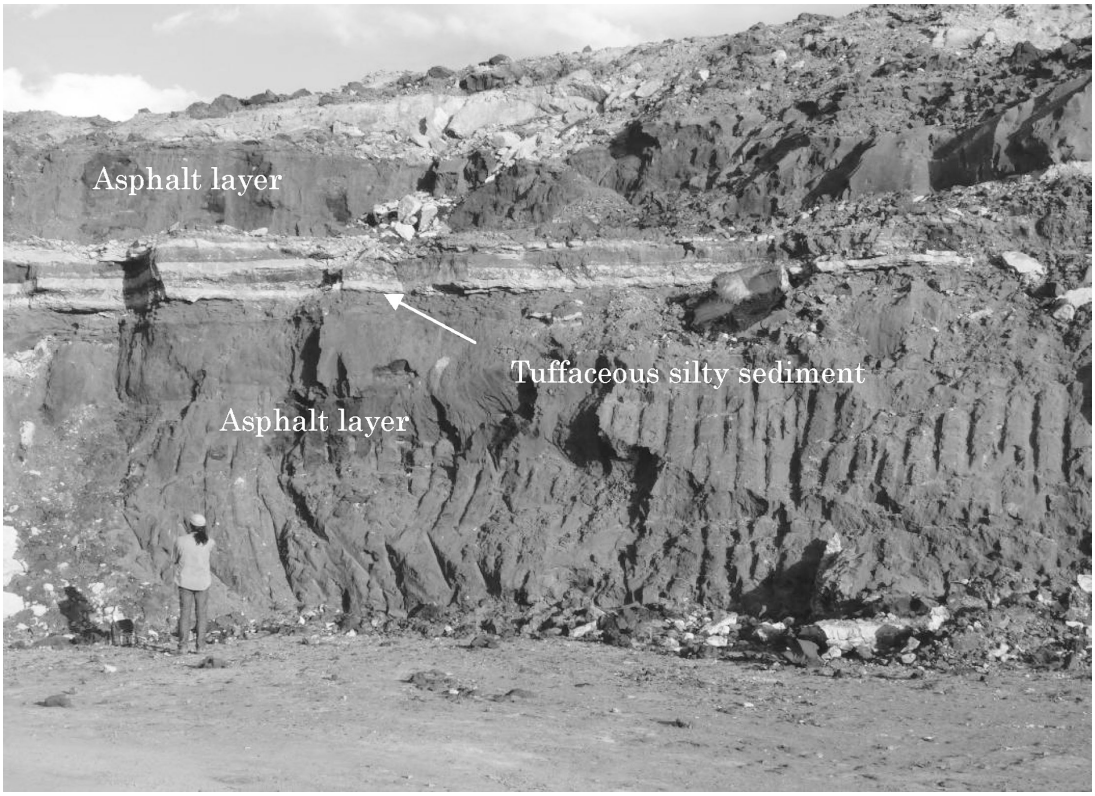


Fig. 9 'Asphalt layer' with tuffaceous silty sediments

been settled. In case, however, it is necessary to expect the high porosity sediments (e.g. sandstone) which behaves as a host rock absorbing penetrating 'asphalt', and high intrusion pressure and/or compaction pressure leading to distribution like a layer in such wide square areas. It is rather difficult, however, to estimate the high compaction pressure in terms of the covered sediments in the situation of present occurrence, i.e. the distribution very near to the surface — Is there enough to supply high compaction pressure by such a thin covered layer, or was it already eroded after intrusion?. Another question arises also. Is there possible to form relatively sharp boundary with intercalated and covered sediments by intrusion? These questions can be solved by ordinary geological mapping and observation of thin-section, etc.

2. Trench excavation in Square 1 of Tell Ghanem al-Ali

Atsunori Hasegawa (Doctoral Course, Graduate School of Humanities and Social Sciences, the University of Tsukuba)

We were able to confirm a lot of remains, such as lines of white mud or stones, to observe the surface of Tell Ghanem al-Ali. Some lines had one or two corners, and the other formed the shape of square (Fig. 10). In the field work of the second season, we made a detailed contour map of Tell Ghanem al-Ali and grasped almost all of its plan. As the result of the making of the contour map, it proved that they clustered on the north and east slopes of the tell in particular. At present, the center of the tell is used as a cemetery of modern people who live in the village of Ghanem al-Ali. Though we could not confirm archaeological remains at the center of the tell, it is highly probable

Fig. 10 Archaeological remains on the surface of the tell

Fig. 11 Strs. 2 and 9 in Area 1 (from the east)

Fig. 12 Strs. 10 and 11 in Area 2 (from the west)

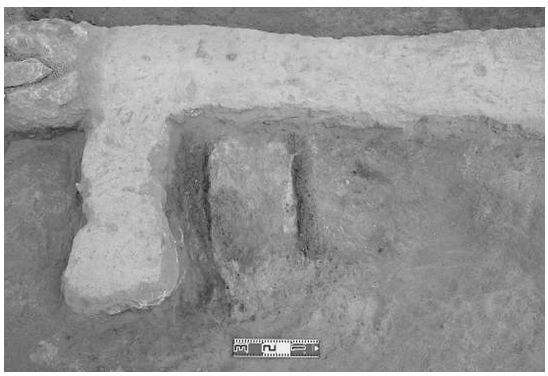


Fig. 13 Hearth in Str. 11 (from the south)

that they existed on the most part of the tell. These remains wait for archaeological investigation.

The objective of excavations in Square 1 is to investigate the construction of remains that were viewed on the surface of the tell and to know the period of the habitation of the tell. To approach this objective, we selected the east slope of the tell where many remains were concentrated. Square 1, 10 m (east-west) × 10 m (north-south), was set on the east slope where we had confirmed a remain square in shape. The trench excavation in this square already started in the third field season in August 2007.

In Square 1, we have revealed three main structure areas as follows:

Area 1: south-west of Square 1 ---- Str. 2 and Str. 9.

Area 2: north-west of Square 1 ---- Str. 3, Str. 10 and Str. 11.

Area 3: south-east of Square 1 ---- Str. 8.

The architectural foundations of these structures were identified with basic walls running along the north-south and east-west axes.

Area 1

It had remains mentioned at the beginning of this report. In the third field season in august 2007, we encountered a stone structure (Str. 2) ca.10 cm below the ground as soon as we removed the surface layer. This structure consisted of three walls of stone. North and South walls extended towards the west. East wall extended towards the north and was combined to other walls at both ends. It had been preserved well, and we confirmed 6 rows of stone at least, continuing some 80 cm from the top row downwards. In this season, we identified new walls of stone which formed the shape of "T" (Str. 9) (Fig, 11) towards the east and under the bottom of the south wall of Str. 2. The south wall was located just inside of the south wall of Str. 2 and extended towards the East wall of Str. 2. Other wall was extended toward the north in the middle of the South wall of Str. 9. This wall was attached to the North wall of Str. 2. It was associated with two small rooms. It seems that Str. 9 reused the East and North walls of Str. 2 jointly. In other words, two small rooms along the east-west axis (Str. 9) were reconstructed into one room, expanding toward the south (Str. 2).

Area 2

This area is directed to the north of Area 1. In the third field season, a small structure was confirmed in the shape of rectangle (Str. 3). It is constructed with tuf wall (Fig. 12). In this season, we confirmed a stone foundation below the west wall of Str. 3. On the same level to the north, another stone foundation was identified in the shape of "L". It appears that these two stone foundations constituted the same structure (Str. 10). Just below the level of Str. 10 on the other hand, the tuf walls of the room shaping regular square were identified (Str. 11), which were close to Str. 10. A part of the east wall and the north wall of Str. 11 had stone foundation, but the east and south walls on the whole did not have it. A small hearth was found in the north-west room attached to the north wall (Fig. 13). It seems that the room in Area 2 was reconstructed twice at least. Firstly, the regular square room (Str. 11) was expanded towards the north. Secondly, the rectangle room (Str. 10) was reduced toward the south.

Area 3

This area is to the east of Area 2. The room in the shape of regular square was identified (Str. 8, Fig. 14). It is important that the walls were mainly constructed with mud-bricks, orange and brown in color. At least 5 rows of mud-bricks were confirmed in well-preserved wall (Fig. 15). Except the east wall, walls had stone foundation. The east sections in Area 3 demonstrates that the wall of mud-bricks had been preserved from the surface downwards. We should have dug very carefully on the surface. Inside this room, we collected a cooking-pot ware which was almost complete (Fig. 16).

It seem that both rooms in Areas 1 and 2 had been reconstructed during a short time. And, some

Fig. 14 Str. 8 in Area 3 (from the east)

Fig. 15 East section of Str. 8 (from the west)

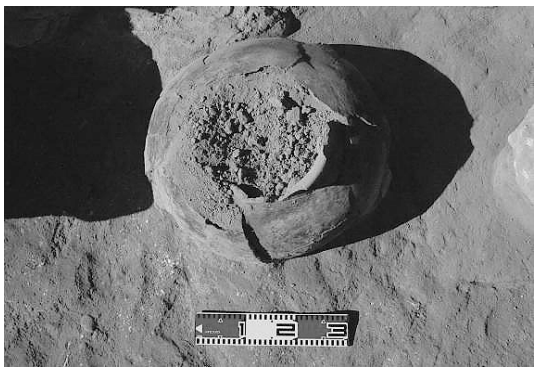


Fig. 16 Cooking-pot ware in Str. 8 (from the east)

parts of the walls were reused after being reconstructed in both areas. All structures mentioned above probably belonged to the Early Bronze Age III. Typical chronological markers in pottery were the metallic ware and the Euphrates ware.

3. Trench excavation in Square 2 of Tell Ghanem al-Ali

Tomoyasu Kiuchi (Doctoral Course, Graduate School of Humanities and Sociology, the University of Tokyo)

Square 2 lies in the northern slope of the *tell*. It measures 4 m by ca. 27 m including 50 cm baulk on each sides. We opened it to see the occupational sequences of the *tell* in the last season, August 2007. In this season, we continued to dig down. To go deeper efficiently, we made this trench stepped. We could identify at least four building levels as below, though it is sometimes difficult to see the building plans because of its narrowness.

Level 1

Last season, we reported two parallel stone walls. This season, we found another parallel wall in the north of these stone walls (Fig. 17). All of them stood in the east-west direction.

The *Tannur* which is also reported in the last season was dug to the bottom. Gravel was paved at the bottom and ash accumulated on it. It was on the west section of the square (Fig. 18).

Level 2

Three adjoining rooms were revealed. Their arrangement is in the north-south direction. All of

Fig. 17 Level 1 wall (left one, other walls are level 2 and 3), from the west (from the south).

Fig. 18 *Tannur* on the west section, from the east

them have entrances facing west. The southernmost and the central rooms have the doorway between them (Fig. 19).

In the south of them, we found another room. It has (a) gypsum floor(s). In part, it sank in a circle (Fig. 20). It sank because it was only 5 mm thick and a *Tannur* existed just beneath it (Fig. 21). This room was built earlier than the three-room building mentioned above and had continued to be used when the three-room building was built (a wall in the east-west direction shared).

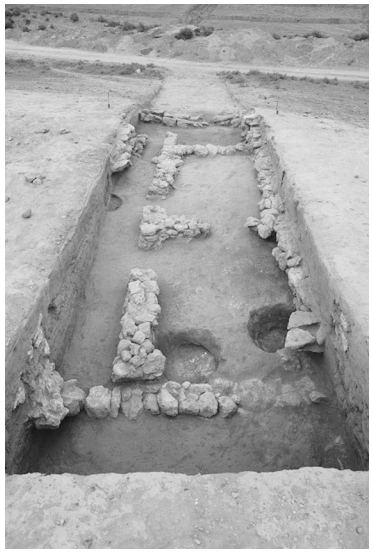


Fig. 19 Three-room building from the south

Level 3

It is very difficult to see the plan of level 3, because some stone walls were reused (and probably removed in part) when the level 2 buildings were built.

The evidence of reuse can be seen on the east section (Fig. 22). The Level 3 wall on the east section in Fig. 22 continues to the north and remains more than 1 m in height. In part, very large stones were used (Fig. 23).

Below the bottom of the southernmost room of the three-room building, level 2, we found two pots (Fig. 24). Inside the one on the west, we found a complete bowl and an animal figurine (Figs. 25 and 26). Below the bottom of the central room, gravel concentration and stones were found (Fig. 27). The former might be the bottom of a *Tannur*, though

Fig. 20 Gypsum floor, from the south. There is a depression in the center

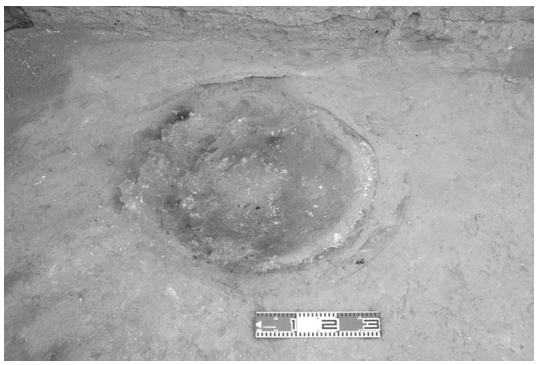


Fig. 21 *Tannur* beneath the gypsum floor, from the south

Fig. 22 East section from the west. Left (lower) one is level 3/2, and right (upper) one is level 2

Fig. 23 Massive wall of level 3/2, from the west

Fig. 24 Two pots below south room of level 2, from the north-west. Inside of right (west) one, we found a complete bowl (Fig.25) and an animal figurine (Fig. 26).

Fig. 25 Complete bowl

Fig. 26 Animal figurine (equid, unbaked)

Fig. 27 Gravel concentration (probably *Tannur*), and Stones below the central room of level 2, from the east

we did not find any upper part of it. The latter might be a pillar or a part of a wall.

Level 4 or lower

We made step at the north of the central room of the three-room building, level 2. As for level 4 or lower, we revealed archaeological traces only in the second step.

Fig. 28 South section of the second step, from the north. The left stone wall is level 3/2 (cf. Fig. 23). The mud brick wall (not removed yet) is on the right side. Every layer is sloping from east (right) to west (left)

Fig. 29 Massive wall (not fully excavated), from the north-east

A mud-brick wall in the north-south direction was found on the south and west sections in the second step (Fig. 28). This wall was surely lower than the bottom of the Level 3 stone-wall and the only feature of level 4 that we found in this season.

Apart from the mud-brick wall, we found another stone wall in the lower part of the trench (Fig. 29). The wall is still to be exposed in the next season. It is, however, difficult to place it in the stratigraphical sequence, even if we reach the bottom of the wall. This is because the wall is buried under surface soil. Its distinctive features are width and direction, with the width measuring more than 2.4 m and lying in the northwest-southeast direction. This wall might have been a part of a city-wall or enclosure for higher part of the *tell*. As mentioned above, all the walls in the upper levels lie in the north-south/east-west direction.

Periods

It is difficult to present the date precisely, because the pottery is still to be studied. Roughly speaking, the four levels range from the Early Bronze (EB) III to EB IVa periods. The upper levels probably date around the early half of the EB IVa, considering the presence of the Black Euphrates Ware and the Smeared Wash Ware as well as the absence of some pottery typical in Squares 3 and 5. The lower levels certainly dates back to the EB III, considering the presence of the Metallic Ware and some typical forms of the pottery of this period (e.g. Vertical-wall with banded rim). In this view, the lower levels probably date to the same period as Square 1.

4. Trench excavation in Squares 3 – 5 of Tell Ghanem al-Ali

Yo Negishi (Doctoral Course, Graduate School of Humanities and Sociology, the University of Tokyo)

Summary of trench excavations of Squares 3 to 5

We started trench excavations in Squares 3-5 at Tell Ghanem al-Ali on November 14th, and completed the works on December 6th. Because they were trial excavations, the size of each trench was planned as 2 × 2.5 m, 2 × 2 m, 1 × 5 m respectively. Squares 3 and 4 were planned to collect the artifacts (esp. ceramics) that were to be dated later than ones from Squares 1 and 2. Excavatiobn in Square 5 was planned to search for the city wall structure in the southern slope of this Tell.

Description of Squares 3 to 5

Square 3

In the first level, we found a pit just under the surface (Fig. 30). A jar found in this pit should be dated to the EB Ⅳ Period based on its features.

In the next level, we found some potteries and other artifacts on the house floor made of plaster (Fig. 31). Among them, the small bottle-like vessel found on the house floor had a zoomorphic feature (Fig. 32). 4 legs and a tail are applied on its side (Fig. 33). This could be an unique example of clay figure in the EB Age. We can expect much more plentiful achievements around this square on the future research.

Fig. 30 Grooved rim jar found in a pit, Square 3

Fig. 31 Pottery fragments scattered on the house floor, Square 3

Fig. 32 Pottery concentration on the house floor, Square 3

Fig. 33 Zoomorphic clay figure from Square 3

Fig. 34 Excavation level reached at 80 cm below the surface, Square 4

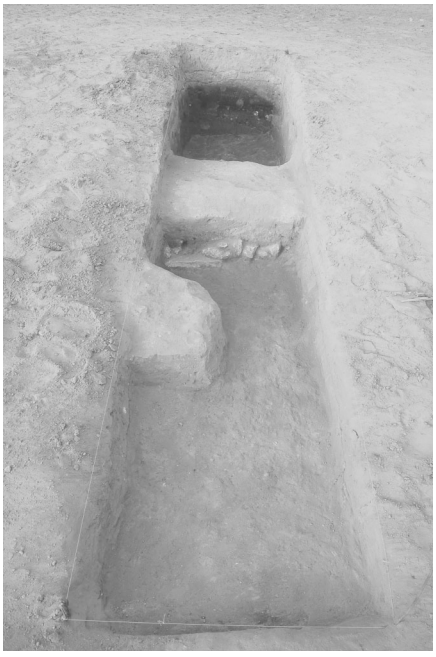


Fig. 35 Level of excavation ultimately reached, Square 5

Fig. 36 Mud wall (*tauf*) and stone walls, Square 5

Square 4

We found thick cultural layers containing ash and animal bones (Fig. 34). Because the typological features of unearthed potteries are a little different from ones of Squares 1 and 2, we can't clarify the detailed archaeological phase which these layers belong to. In result, we couldn't find any structures on the same level, so we decided to stop the excavation on this level.

Square 5

We found some pottery sherds which were dated comparably later than the ones from Squares 1 and 2. At the center of this trench (Fig. 35), we found a probable mud wall structure (*tauf*) and the stone walls just beneath it (Fig. 36). While there is no direct evidence that these structures were related to city wall, we can confirm some structures on the southern slope of this Tell at least. We decided to stop the excavation on this level.

5. Water-floatation of soil samples from Tell Ghanem al-Ali

Ken-ichi Tanno (Research Institute for Humanity and Nature, Kyoto)

Five soil samples were collected this season for water-floatation. Out of them 3 were from potteries, 1 from tanor and a simple ashy soil (listed below).

The samples Sq.2-bask. 25 and Sq. 2-bask. 40, both from pottery and with some visible fragments of charred plants, were used for the water-floatation collecting system. The former shows some large Leguminosae seeds and 5 lower jaws of probably small rodents. The Leguminosae seed may belong to *Prosopis* sp. which is often related to pastoralism due to the toxic nature; animal do not eat this plant. The latter sample includes various sizes of barley seeds, implying variations of its cultivation status. These barleys are most probably cultivated because the natural habitat of this plant is far away from TGA site.

These observations are temporal results, drawn by naked eyes, and further study must be carried out using microscope.

Soils samples corrected in this season are:

1) Square 2-basket 18 (20071114 corrected by Kiuchi), 2.7 littres, ash from bottom of tannor
2) Sq.2-bask.25 (20071114 corrected by Kiuchi), 8.0 littres, inside of a cooking pot
3) Sq.2-bask.40 (20071117 corrected by Kiuchi), 4.5 littres, inside of a pottery
4) Sq.2-bask.43 (20071115 corrected by Kiuchi), 0.5 littres, ash from bottom of a pottery
5) Sq.3-bask.3-Str.1 (20071115 corrected by Negishi), 0.5 littres, ash

6. A Short History of Ganam al-Ali Village

Akira Tsuneki（Graduate School of Humanities and Social Sciences,
the University of Tsukuba)

Tell Ganam al-Ali is located just northeast of a modern village named Ganam al-Ali. The tell surface has been used as a graveyard by the villagers of Ganam al-Ali. The villagers also make other four cemeteries on the slope of the river terrace behind the village. Therefore, the author is interested in the relationship between the cemeteries and the human groups of the village. For understanding this relationship, the author started to gather the information from the villagers about the history of Ganam al-Ali village. This report presents a short history about the Ganam al-Ali Village.

Ganam al-Ali village is located on the right bank of the Euphrates about 50 km downstream from the city of ar-Raqqa. The village is situated under the cliff of the river terrace, three kilometers away from the Euphrates River modern stream. It belongs to *Nahia* Sabha and *Mohafaza* ar-Raqqa.

The village name, Ganam al-Ali, came from a person who lived around two centuries ago in Halabiya Zalabiyah, about 50 km downstream along the Euphrates. The villagers of Ganam al-Ali believed that all of them are the descendants of that man. The story of his descendants will be discussed later. People of Ganam al-Ali belong to Subeat *Ashira*, and Bu-Shaba'an *Qabila*. The present Ganam

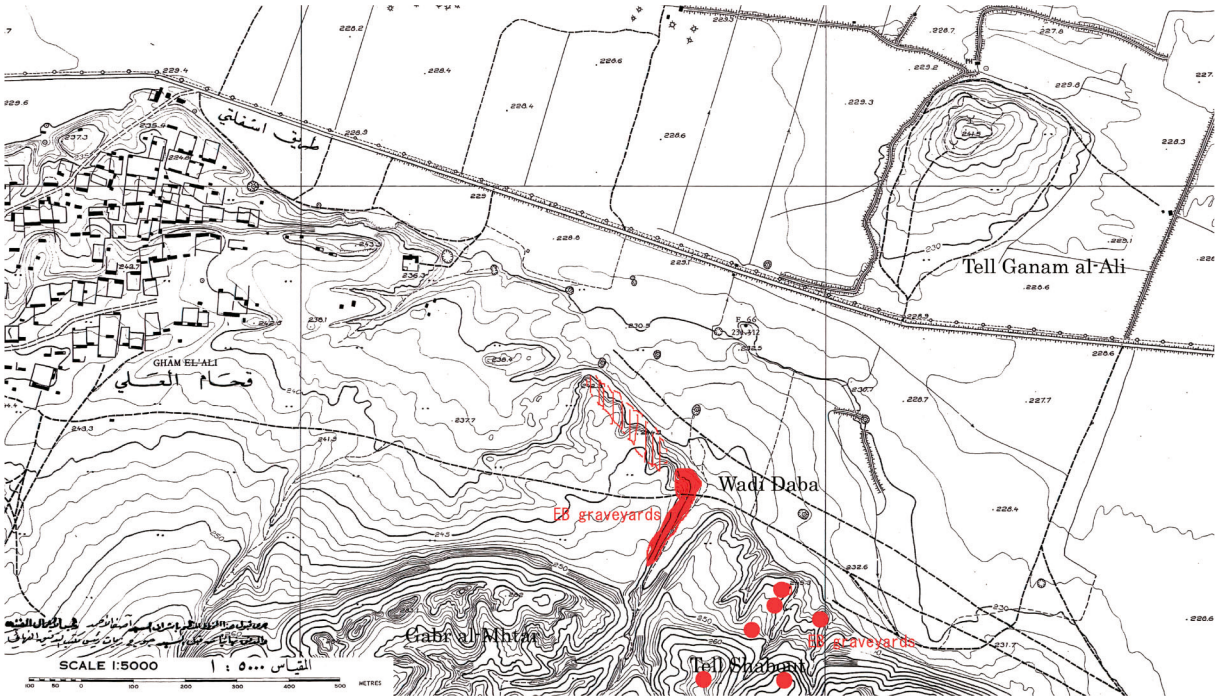


Fig. 37 Tell Ganam al-Ali and the EB cemeteries

al-Ali village has only sixty years history and one of the typical newly established settlements along the Euphrates. There are about 700 households and c.10,000 inhabitants in this village now. The major subsistence of the villagers is agriculture and stock farming. Cotton, wheat, sugar beet and vegetables are the main crops of agriculture. The farmland of the village covers 8,000 donoms (c. 800ha). Sheep pasturage is also important subsistence, and villagers breed about 40,000 sheep in total.

Early Bronze Age Cemeteries

Though the history of the present Ganam al-Ali dates back only 60 years, we can observe the archaeological sites in and around the present village. As these archaeological sites date back at least to the Early Bronze Age, it can be said that a history of Ganam al-Ali can date back to the same period at least. One of the EB site is, of course, Tell Ganam al-Ali. The details of the site are discussed in elsewhere of our report. Another EB site is a cemetery near the cliff of the river terrace. The small hills on the river terrace behind the eastern end of the village are called Gabr al-Muftar (Grave of a judge in Arabic) and Tell Tantour Shabout (Shabout is a name of man, but a fish-shaped mound in meaning). Between these hills, a small wadi, named Wadi Daba, flows toward the north. We can observe a large number of shaft graves on the western slope of Wadi Daba (Fig. 37).

The entrance of the shaft graves shows a rough square shape, and a small horizontal chamber connecting with the shaft can be observed in some better preserved graves (Fig. 40). However, almost all of the graves seem to have been robbed seriously. Some EB potsherds, including so-called Euphrates Ware, could be collected in and around the entrance of the shaft graves (Fig. 41). Local people taught us that a cemetery of shaft graves continued from Wadi Daba to the northeastern slope of Gabr al-Muhtar. However, the slope of Gabr al-Muhtar was destroyed by the expansion of the village, and the old graves there were shaved off completely.

A series of the Early Bronze Age graveyards are also observed on the cliff of the river terrace behind Ganam al-Ali Village. The graveyard concentration was observed especially on the river terrace called

Fig. 38 EB graves at Wadi Daba (1)

Fig. 39 EB graves at Wadi Daba (2)

Fig. 40 Entrance of one EB shaft grave

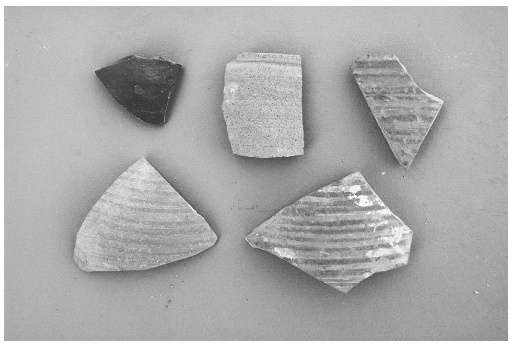


Fig. 41 Potsherds found at Wadi Daba

Tell Shabout (Fig. 42), east of Wadi Daba.

On the flat land behind the cliff, many small hills, originated from the gypsum-based rock and soil, continue to the south. The EB people dug many shafts into such hills for the construction of graves, and each hill has dozens of graves (Fig. 43). Large numbers of graveyards were visible from the cliff of the river terrace to the inside flat land, c.1.5km south of the cliff (Fig. 44). Shaft graves are the major type, and some have a square-shaped entrance (Fig. 45). A stone-chambered type was

Fig. 42 Distant view of Tell Shabout

Fig. 43 One graveyard in Tell Shabout

Fig. 44 Many graveyards visible from the cliff of Tell Shabout

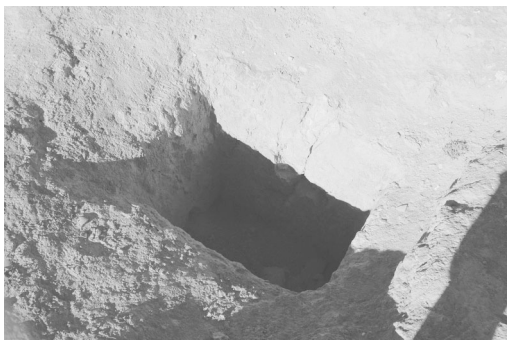


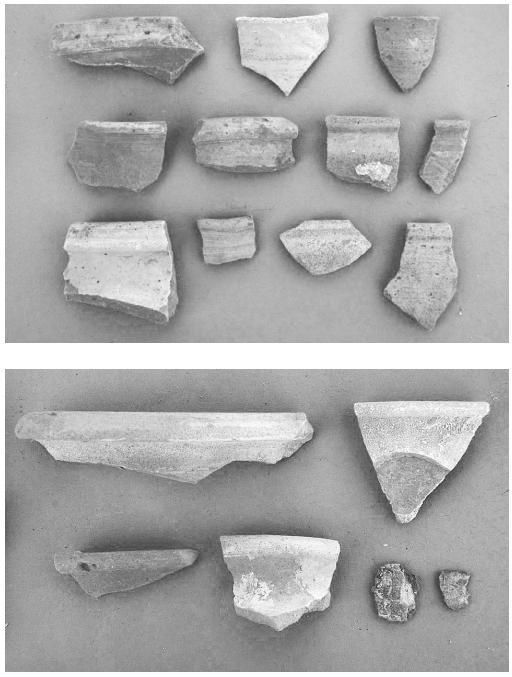
Fig. 45 Shaft grave with a square entrance

Fig. 46 Stone chambered grave

also observed among the graves (Fig. 46). Almost all of the potsherds collected in and around the shaft graves are typical EBIII and EBIV varieties (Figs. 47, 48), and they are very similar to those discovered from the excavations at Tell Ganam al-Ali.

It is supposed that the shape and structure of Tell Shabout graves are similar to those of the shaft type grave, with or without a connecting horizontal chamber, and stone chambered grave, excavated by the German mission at Abu Hamed, c. 1.5 km south of Ganam al-Ali (Falb et al. 2005).

The excavations at Abu Hamed produced a variety of graves, including shaft grave, shaft grave with connecting chamber, stone-chambered grave, and brick-chambered grave, and all of the graves date to EBIII and EBIVA periods. It is quite certain that Tell Shabout graves belong to the same categorical structure in the same period. In fact, the site of Abu Hamed and a series of Tell Shabout graveyards adjoin each other, and we can suppose that Abu Hamed cemetery was the southernmost part of the huge EB memorial park of Tell Shabout.



Figs. 47, 48 Potsherds and bronze fragments collected from Tell Shabout graveyards

It can be also supposed that the EB graveyard of Wadi Daba was the northernmost part of the same memorial park, although the collected potsherds there indicate a little bit different periods within the Early Bronze Age. So, who made a large number of graves in the huge memorial park from Wadi Daba through Tell Shabout to Abu Hamed? The most probable candidate was the inhabitants of Tell Ganam al-Ali. Because our excavations at Tell Ganam al-Ali have so far demonstrated that the EBIII and the EBIVA periods were one of the main occupational layers there. The distance from Tell Ganam al-Ali and Wadi Daba cemetery is less than 500 meters, and Wadi Daba is the nearest river terrace from Tell Ganam al-Ali. Tell Shabout was the next to Wadi Daba, and Abu Hamed was the other next to Tell Shabout. Therefore, it is quite probable that the Early Bronze Age cemetery of these areas had been constructed by the habitants of Tell Ganam al-Ali.

Modern History of Ganam al-Ali Village

As mentioned above, the village name of Ganam al-Ali came from the man's name, who lived in Halabiya Zalabiyah around two centuries ago. It is said that his family met some agricultural land problems and decided to go out from Halabiya Zalabiyah. His five sons, Mohsen, Diab, Mohamad, Fsein, and Ajil, migrated from Halabiya Zalabiyah, through all their fortunes, then they finally settled at the river bank near modern Ganam al-Ali. These five sons had their own sons as follows.

Mohsen; al-Qoran
Diab; Hameidat, al-Kalash, al-Qoran
Mohamad; Hamad al-Ali
Fsein; al-Habib, al-Mardouf, Halaf-Abdoula
Ajil; al-Shabhar

Though the descendants of al-Qoran, the son of Mohsen, left the village about forty years ago, other descendants of eight sons continue to live together and consist of basic families in Ganam

al-Ali village. Another family, al-Subeat, joined them later. Al-Subea was one of nephews of Ganam al-Ali. Therefore, nine basic big families are living in Ganam al-Ali village. The flood of the Euphrates damaged the old Ganam al-Ali village near the Euphrates stream, and the villagers moved the village near to the cliff of the river terrace, i.e. the place of the present Ganam al-Ali village in 1947. It is said that around 100 households moved to the present Ganam al-Ali village. Since then, Ganam

Fig. 49 A view of the present Ganam al-Ali village from the behind cliff

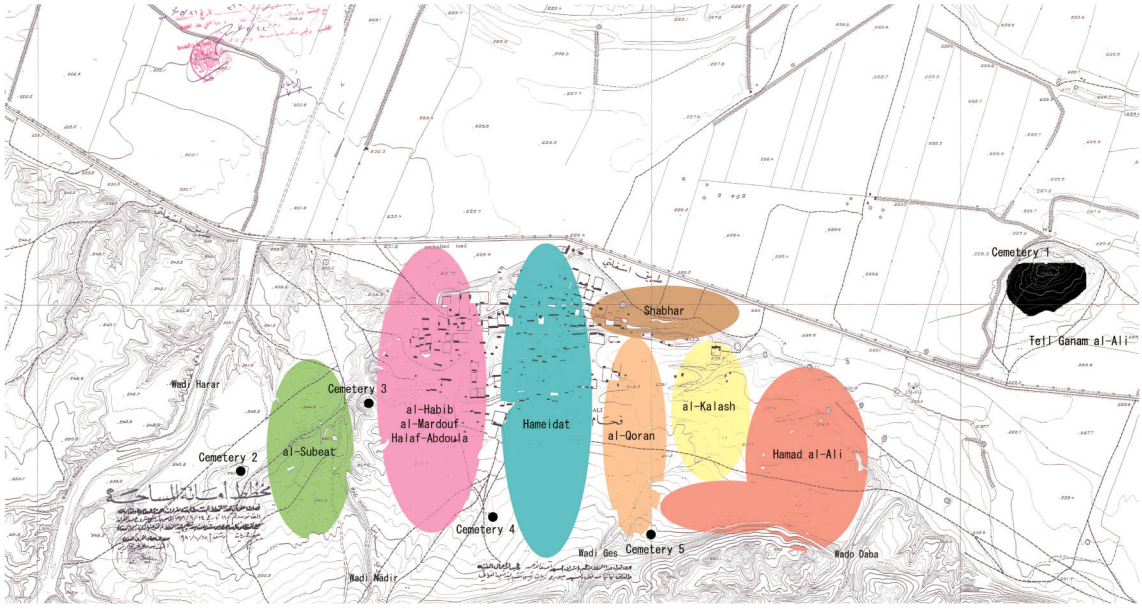


Fig. 50 Location of each big family's habitation area and its cemetery at Ganam al-Ali

al-Ali village has continued to develop, and at present it consists of c.700 households, having c. 10,000 population, as mentioned above (Fig. 49).

Though there are nine big families in the present Ganam al-Ali village, all of the present villagers belong to the same tribal group. *Ashira* is al-Subeat, the name of father of Ganam al-Ali, and he belonged to ninth former generation ascending from the present. *Qabila* is Bu-Shaba'an, following the name of much older ancestor.

The distinction of big families may affect the daily life of the villagers of Ganam al-Ali. For example, the habitation areas have been roughly regulated based on the big families. The biggest family, Hameidat, occupies the central part of the village, and each big family shares different part of the village (Fig. 50). Al-Subeat, a sole big family originated from non-direct brotherly descendants and joined later, shares the edge of the village near Wadi Harar.

The most clear difference can be visible in the location of cemeteries.

The first and sole cemetery for Ganam al-Ali villagers was Tell Ganam al-Ali, located 1 km east of the village beyond the highway (Fig. 51). The surface of the tell have been covered with many modern graves, constructed by villagers of all big families. However, after 40 years from the foundation of the village, some big families began to make their own cemeteries beside their habitation

Fig. 51 Modern cemetery (No.1) on Tell Ganam al-Ali

Fig. 52 Modern cemetery (No.2)

Figs. 53–55 Modern cemeteries (No. 3, No. 4, No. 5)

area in the village. Nowadays, there are five cemeteries, including Tell Ganam al-Ali (no. 1), for Ganam al-Ali villagers. Cemetery near Wadi Harar (no. 2) is for al-Subeat family (Fig. 52). One near Wadi Nadir (No. 3) is for al-Habib, al-Mardouf and Halaf-Abdoula families (Fig. 53). One (No. 4) is for Hameidat and al-Qoran families (Fig. 54). One near Wadi Ges (No. 5) is for Hamad al-Ali and al-Kalash families (Fig. 55). Other families still continue to use Tell Ganam al-Ali as their cemeteries. Based on these occupational and cemetery regulations, we can recognize that the old family kinships roughly survived until today in Ganam al-Ali village.

تقرير موسم العمل الرابع للبحث الأثري للبعثة الأثرية السورية اليابانية العاملة في منطقة جبل البشري:

بدأ موسم العمل الرابع للبحث الأثري السوري الياباني المشترك لموقع البشري في الثامن من تشرين الثاني 2007 ، و انتهى في الثاني عشر من كانون الأول 2007 .

ونشكر الدكتور بسام جاموس المدير العام للآثار و المتاحف ، و الدكتور ميشيل مقدسي مدير التنقيب و البحث في المديرية العامة للآثار و المتاحف و المشرف المستشار لهذا البحث المشترك ما قدموه لإنجاح هذا الموسم الثاني من العمل

يدير الجانب السوري انس الخابور والجانب الياباني: كاتسوهيكو اونوما

في موسم العمل هذا :

تابعنا التنقيب في المربعين (1-2) من تل غانم العلي الذي بدأناه في آب الماضي ، و افتتحنا المربعات (3-4-5) لمعرفة الاستراتيغرافية الأثرية للموقع بشكل مفصل ، كما قدمت أبحاث النبات الأثرية فكرة عن أنواع الحبوب التي عاش عليها السكان القدماء لتل غانم العلي.

و سنوضح النتائج الأولية للأعمال المنجزة خلال هذا الموسم:

1- المسح الجيولوجي و الجغرافي :

(ميتسو هوشينو ، تسويوشي تاناكا ، توشيو ناكامورا ، هيديكازو يوشيدا ، تاكيشي سايتو، كازوهيرو تسوكادا ، يوسوكي كاتسورادا)

تصور عن الجزء القاعدي لتل غانم العلي :

من خلال مربع (1-1) م بعمق (1،5) م في السفح الغربي لتل غانم العلي ، ثبت وجود خمس طبقات استراتيغرافية على الأقل ، احتو طمي ترابي ، تراب متخلخل ، طمي من القاعدة للقمة ، قطع فخار مكسر و أجزاء فحمية من الطبقة الرملية المتخلخلة ، نوى صوانية .

الطبقات الثلاث الأولى عموما احتوت الكسر الفحمية حيث كان الإشغال السكني للتل.

الشرفات النهرية و رواسبها :

تعرفنا على أربع أو أكثر من الشرفات النهرية ، و يتوضع تل غانم العلي و تل حمادين على الشرفة الأولى ، و تشير رواسب الشرفات النهرية إلى أنها تعود إلى عصر البلستوسين، و هذه الشرفات كالآتي :

أ- الشرفة الأولى : ترتفع (230) م عن سطح البحر، و (1-2) م عن السهل المؤلف من قنوات حديثة و بحيرات هلالية و مستنقعات.

رواسبها رمل و حصى و رمل طيني ، كما وجد ت جذور القصب و الفحم فيها المفيد في تأريخ بدايات تل غانم العلي و تل حمادين .

ب-الشرفة الثانية: ترتفع (237) م عن سطح البحر و (7) عن الشرفة الأولى ، رواسبها حصى و رمل و جص صافي ، كما وجد فيها الإسفلت

ت-الشرفة (2،5) : ترتفع (240) م وهي غامضة قد تنتمي للشرفة الثانية و رواسبها من الرمل.

ث-الشرفة الثالثة : ترتفع (242) م و رواسبها رمل و حصى

ج- الشرفة الرابعة : وترتفع (250)م و هي الشرفة الأقدم في منطقة البحث ، رواسبها لم تدرس بعد.

تأريخ العينات بواسطة الكربون 14 :

تم اخذ عينات فحمية من موقع غانم العلي ، و عينات أخرى من شرفات نهر الفرات ستقدم معلومات عن تأريخ الموقع .

حدوث الصخر القيري (الإسفلتي):

يتوزع الصخر الإسفلتي بسماكة حوالي (10) م في عدة كيلومترات مربعة ، و يحتوي على كوارتز متبرغل متوسط الحجم ، بالإضافة إلى طبقات طمي طيني ضمنه ، ووجود أصداف متحجرة .

وحدوث مثل هذا الصخر الإسفلتي يفترض أن يكون :

إما ***ترسب متشكل*** : حيث يلحظ طبقة طمي مع أصداف متحجرة ، مما يدل على أن مصدر الإسفلت هو باطن قاع البحر المتضمن الأصداف .

أو ***ترسب تطفلي*** : بعد استقرار كافة الرواسب لعبت الرواسب العالية المسامية (الحجر الرملي مثلا) دور الصخر المضيف و مع الضغط العالي في مناطق عريضة في مناطق قريبة جدا من السطح حدثت هذه التشكيلات.

و هذا التشكل الإسفلتي ينبغي دراسته بالرجوع إلى الخرائط الجيولوجية .

2- التنقيب الأثري في المربع الأول في تل غانم العلي :

اتسونوري هاسيكاوا

تم وضع خريطة كونتورية للمناسيب مفصلة لتل غانم العلي ، أكدت تمركز البناء في الانحدار الشمالي الشرقي للتل خاصة ، و كانت أبعاد المربع (10*10) م ، وهو استمرار لعمل آب الماضي ، تم تميز ثلاث مناطق بالمربع 1 كالآتي :

الأولى : بناء حجري قريب جدا من السطح على بعد 10 سم

الثانية : إلى الشمال من المنطقة الأولى كشف في الموسم السابق عن بقايا بناء صغير مستطيل من الحجر المسامي ، و موقد صغير

الثالثة : إلى الشرق من الثانية ، بناء مربع نظامي من اللبن ، مؤلف من خمسة مداميك على الأقل ، ما عدا الجدار الشرقي كان من الحجر ، احتوى بداخله على قدر طبخ فخاري بحالة جيدة

كل الدلائل تشير إلى أن الموقع يعود إلى عصر البرونز المبكر 3 من ناحية الفخار المعدني و فخار الفرات.

3- التنقيب بالمربع 2 غانم العلي :

توموياسو كيوتشي

تم فتحه إلى السفح الشمالي للتل ،بأبعاد (4*27) م ، لمعرفة تتابع السكن بالتل، و كان خندقا متدرجا و لم يكن تميز المباني سهلا نظرا لضيقه.

المستوى الأول : في الموسم السابق لحظنا جداران حجرية متوازية و هذا الموسم جدار آخر إلى الشمال منهما ، و التنور المكتشف في الموسم السابق وصلنا حتى قاعدته حيث كانت الأرضية من الحصى و الرماد متكوما عليها.

المستوى الثاني :بناء من ثلاث غرف متصلة باتجاه شمال جنوب ، كلها كان لها مدخل يواجه الغرب ، الغرف الجنوبية و المركزية كان لها أبواب فيما بينها.

إلى الجنوب منها وجدنا غرفة أخرى ذات أرضية جصية فيها بالوعة
المستوى الثالث:استخدمت حجارة ضخمة في بناء جدرانه ، تم العثور على آنيتين بداخل احدهما و جدنا زبدية فخارية و دمية حيوانية .
المستوى الرابع : إلى الشمال من الغرفة المركزية للبناء المكون من ثلاث غرف في المستوى الثاني ، فيها جدار من اللبن و جدار حجري
وهذا قد يكون جزء من سور المدينة كونه اعرض من (2،4) م
الفترات الزمنية :
من الصعب إعطاء تأريخ دقيق كون الفخار لا يزال قيد الدراسة و نرجح انه يعود إلى فترة البرونز المبكر 3-4 ، و ذلك استنادا إلى وجود فخار الفرات الأسود و غياب الفخار التقليدي بالمربع 3 و 5 ، المستويات الأسفل تعود إلى فترة البرونز المبكر 3 لوجود فخار معدني مميز لتلك الفترة .

4- التنقيب بالمربعات 3-4-5 في تل غانم العلي :

يو نيغيشي

بدأنا الحفر بهذه المربعات في 14-11-2007 و لغاية 6-12-2007 و كانت أبعادها كالآتي : 2*2،5 – 2*2 – 1*5 حسب ترتيبها 3-4-5
المربع 3 : وجدنا فيه آنية لها شكل حيواني يؤرخ على فترة البرونز المبكر 4.
المربع 4: عدة سويات حضارية تحوي رماد و عظام حيوانات
المربع 5 : وجدنا قطع فخارية احدث من مكتشفات المربعين 1-2 ، بينما لم يتم العثور على ما يدل انه يعود إلى سور المدينة.

5- لمحة عن تاريخ تل غانم العلي:

اكيرا تسونيكي

يقع إلى الشرق من الرقة ب (50) كم يتبع لناحية السبخة محافظة الرقة، يوجد فيه حوالي (700) عائلة أي حوالي (10000) نسمة يعيشون على الزراعة و تربية الأغنام .
و قد تأسست القرية الحالية عام 1947 و أصول سكانها الحاليين تعود إلى هجرة جدهم منذ قرنين تقريبا من منطقة حلبية و زلبيا مع أولاده الخمسة و تعايشوا مع القبائل المجاورة ، و كان مكان القرية القديمة على الفرات لكن بعد فيضانه انتقلوا إلى الموقع الحالي .
مقابر البرونز القديم :
يجاور موقع غانم العلي مقابر يسود فيها نمط المقابر العلوية المدخل في مواقع وادي دابا و تل شبوط ، و نوع آخر ذات مدخل مربع ، و قد عملت سابقا بعثة أثرية ألمانية في مقابر أبو حمد المجاورة ، و هذا التمركز المجاور لتل غانم العلي لمقابر أبو حمد ووادي دابا و تل شبوط و قبر المختار ربما يشير إلى أنها كانت مدافن لسكان تل غانم العلي القدماء

مدير الجانب الياباني	**مدير الجانب السوري**
كاتسوهيكو اونوما	أنس الخابور