International Symposium

Formation of Tribal Communities

Integrated Research in the Middle Euphrates, Syria

November 21- 23, 2009

ABSTRACTS

Front cover: Bronze Age grave called Tell Shabout looking down the site of Tell Ghanem Al-Ali.

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Published by the Supervising Team of the Research Project "Formation of Tribal Communities in the Bishri Mountains, Middle Eupphrates" (Grant-in-Aid for Scientific Research on Priority Area (2005-2009), the Ministry of Education, Culture, Sports, Science and Technology, Japan)

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Abstracts

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International Symposium

Formation of Tribal Communities
- Integrated Research in the Middle Euphrates, Syria -

Date: 21- 23, November, 2009
Place: Grand Hall, 7th Floor of Sunshine-City Bunka-Kaikan,
3-1-4 Higashi-Ikebukuro, Toshima-Ku, Tokyo, Japan
Organizing committee: Supervising team of the Research Project
"Formation of Tribal Communites in the Bishri Mountains, Middle Euphrates" (Grant-in-Aid for Scientific Research on Priority Area (2005-2009), the Ministry of Education, Culture, Sports, Science and Technology, Japan)
Subsidizing organization: The Japan Foundation

1st Day: November 21 (Saturday)

Morning

9:00-10:00 Registration

Chairperson: Katsuhiko Ohnuma

10:05-10:25 "Syria-Japan Cultural Cooperation: Past, Present and Future" Riad Nassan Agha (Minister of Culture, Syria)

10:30-11:00 "Archaological Works in Syria Today" Bassam Jamous (Director General, Directorate General of Antiquities and Museums, Syria)

11:00-11:10 *Break*

Section 1【Integrated Research in the Bishri Region, the Middle Euphrates】

Chairperson: Yoshihiro Nishiaki

11:10-11:40 "Integrated Research in the Bishri Region" Katsuhiko Ohnuma (Professor, Kokushikan University, Japan) and Anas Al-Khabour (Directorate General of Antiquities and Museums, Syria)

11:40-12:10 "Geological and Chronological Study in the Bishri Region" Mitsuo Hoshino (Professor *Emeritus,* Nagoya University, Japan) *et al.*

12:10-13:10 *Lunch*

Afternoon

13:10-13:40 "Social Complexity and Organization in Paleolithic of Eurasia" Hiroyuki Sato (Professor, University of Tokyo, Japan)

13:40-14:10 "Sondage at the Site of Tell Ghanem al-Ali" Atsunori Hasegawa (Ph.D. Student, University of Tsukuba, Japan)

14:10-14:25 *Break*

Chairperson: Saeko Miyashita

14:25-14:55 "Archaeological Surveys of Bronze Age and Earlier Settlements around Tell Ghanem al-Ali" Yoshihiro Nishiaki (Professor, University of Tokyo, Japan)

14:55-15:25 "Surveys and Sondage at the Grave Complexes near the Site of Tell Ghanem al-Ali" Hirotoshi Numoto (Professor, Kokushikan University, Japan) and Shogo Kume (Research Fellow, Kokushikan University, Japan)

15:25-15:40 *Break*

15:40-16:10 "Archaeological Investigations of Bronze Age Cairn Fields on the Northwestern Flank of Mt. Bishri" Sumio Fujii (Professor, Kanazawa University, Japan) and Takuro Adachi (Middle Eastern Culture Center in Japan)

16:10-16:40 "Ethno-Archaeological Research on the Modern Cemeteries of Ghanem al-Ali Village" Akira Tsuneki (Professor, University of Tsukuba, Japan)

16:40-16:55 *Break*

Chairperson: Sumio Fujii

16:55-17:25 "Zooarchaeology and Ethnoarchaeobotany at Tell Ghanem al-Ali" Hitomi Hongo (Associate Professor, Graduate University for Advanced Studies, Japan)

17:25-17:55 "Human remains from the Bronze Age sites in Bishri Region" Yoshihiko Nakano (Associate professor, Osaka University, Japan) and Hidemi Ishida (Professor, University of Shiga Prefecture, Japan)

2nd Day: November 22 (Sunday)

Morning

Chairperson: Akira Tsuneki

10:00-10:30 "Preliminary Anthropological Survey in the Villages in the Area around Tell Ghanem al-Ali and Wadi al-Rahum" Masayuki Akahori (Professor, Sophia University, Japan)

Section 2【Bronze Age Sites of Syria】

10:30-11:00 "The Early Bronze Age Chronology based on 14C Ages of Charcoal Remains from Tell Ghanem al-Ali" Toshio Nakamura (Professor, Nagoya University, Japan)

11:00-11:15 *Break*

11:15-11:45 "Urban Planning in Syria during the Second Urban Revolution (Mid-third Millennium BC)" Michel Al-Maqdissi (Director of Excavations and Research, Directorate General of Antiquities and Museums, Syria)

11:45-12:15 "Bronze Age Sites around Al-Raqqa" Ahmad Sultan (Directorate General of Antiquities and Museums, Syria)

12:15-13:15 *Lunch*

Afternoon

Chairperson: Katsuhiko Ohnuma

13:15-13:45 "Tracing Tribal Implications among the Bronze Age Tomb Types in the Region of Jebel Bishri in Syria" Minna Lönnqvist (Adjunct Professor, Universities of Helsinki and Oulu, Finland)

13:45-14:15 "Abrupt Climate and Social Change 4.2-3.9 kaBP at the Riparian and Karst Aquifer Refugia of Syria" Harvey Weiss (Professor, Yale University, U.S.A.)

14:15-14:30 *Break*

Section 3【History of Tribal Communities in Syria: Citizens and Nomads Viewed from Archaeological Sites】

Chairperson: Hiroyuki Sato

14:30-15:00 "Urban Elements in Early Bronze Age Settlements of the Middle Euphrates" Elisabeth N. Cooper (Associate Professor, University of British Columbia, Canada)

15:00-15:30 "Social Structures and Interaction at Tall Bazi and the Middle Euphrates"

Berthold Einwag (Institut fur Vorderasiatische Archaologie der Ludwig-Maximilians-Universitat, Germany)

15:30-15:45 *Break*

15:45-16:15 "Tribal and State: The Changement of Settlements and Settlement Pattern in Uppermesopotamia during the 3rd and 2nd Millenium B.C. A Re-Evaluation" Jan-Waalke Meyer (Professor, Goethe-University, Frankfurt, Germany)

18:00-20:00 *Welcome Party* Greeting speech: Jean-Marie Durand

3rd Day: November 23 (Monday)

Morning

Section 4【History of Tribal Communities in Syria: Citizens and Nomads Viewed from Philological Evidences】

Chairperson: Shigeo Yamada

10:00-10:30 "Rod and Ring": Insignias of Foreign Rule in the Ur Ⅲ- OB Periods" Kazuya Maekawa (Professor, Kokushikan University, Japan)

10:30-11:00 "Nomads and Farmers in the Orbit of Mari Kingdom in the 18th Century (B.C.E.) Syria: A Few Observations on *Merhûm*-officials and their Roles" Ichiro Nakata (Professor *Emeritus*, Chuo University, Japan)

11:00-11:15 *Break*

11:15-11:45 "The Desert Routes across the Djebel Bishri and the Sutean Nomads according to the Mari Archives" Dominique Charpin (Professor, Sorbonne University, France)

11:45-12:45 *Lunch*

Afternoon

Chairperson: Kazuya Maekawa

12:45-13:15 "Amorite Societies along the Lower Habur according to the Tell Taban Tablets" Shigeo Yamada (Professor, University of Tsukuba, Japan)

13:15-13:45 "Between Djebel Bishri and Euphrates River: Nomads and Settled People" Jean-Marie Durand (Professor, Collège de France, France)

13:45-14:00 *Break*

Section 5【Comprehensive Discussion】

14:00-16:00 Chairpersons: Katsuhiko Ohnuma and Michel Al-Maqdissi

16:00 *Closing*

Members of the Symposium Organizing Committee

Katsuhiko Ohnuma (Kokushikan University), Sumio Fujii (Kanazawa University), Yoshihiro Nishiaki (University of Tokyo), Akira Tsuneki (University of Tsukuba), Saeko Miyashita (Ancient Orient Museum), Hiroyuki Sato (University of Tokyo)

Section 1

Integrated Research in the Bishri Region, the Middle Euphrates

Integrated Research in the Bishri Region

Katsuhiko Ohnuma (Professor, Kokushikan University, Japan) ・
Anas Al-Khabour (Directorate General of Antiquities and Museums, Syria)

In February of 2007, the Syria-Japan Archaeological Joint Research in the Bishri Region started the field works in the region of Ar-Raqqa. Since then, twelve times of the joint works in the field were carried out until November of 2009 as follows:

The 1st season of field works: February to March, 2007.
The 2nd season of field works: May, 2007.
The 3rd season of field works: August, 2007.
The 4th season of field works: November to December, 2007.
The 5th season of field works: March to April, 2008.
The 6th season of field works: April to June, 2008.
The 7th season of field works: October to December, 2008.
The 8th season of field works: February to March, 2009.
The 9th season of field works: April to June, 2009.
The10th season of field works: July to September, 2009.
The11th season of field works: October, 2009.
The12th season of field works: November, 2009.

Composed of 18 research teams specialized in natural and cultural sciences, this multi-diciplinary Syria-Japan Archaeological Joint Research aims to clarify, through harmonized cooperative field works in the Bishri region south of Ar-Raqqa, changes of natural environment, patterns of settlement, subsistence patterns, architectural styles, artistic styles and social relationship, thereby clarifying how ancient pastoral nomadic tribes contributed to the formation of agriculture-based urban societies along the Middle Euphrates, North-East Syria.

In the field works realized so far, we have carried out archaeological surveys and sondage, with cooperation of specialists in various sciences, such as geologists, zoo-archaeologists, botano-archaeologists and physical anthropologists, in the region covering the site of Tell Ghanem al-Ali located on the south bank of the Euphrates, grave complexes at Wadis Shabbout and Daba near Tell Ghanem al-Ali and cairn graves at Hedaja and Rahum in the northwestern flank of Mt. Bishri.

Features of the objects from these series of surveys and sondage demonstrate that the site of Tell Ghanem al-Ali and the grave complexes at Wadis Shabbout and Daba are dated within time-range of the Early Bronze Age, whereas the cairn graves at Hedaja and Rahum are dated to the Middle Bronze Age.

This leads us to suppose that the research to continue will prove our hypothesis that the ancient Amorite communities, supposedly to have formed in the Neolithic or the older period in

the region, repeated separation and re-unification through history as agriculturists and pastoral nomads.

MEMO

Geological and Chronological Study in the Bishri Region

Mitsuo Hoshino (Professor *Emeritus*, Nagoya University, Japan) ・
Tsuyoshi Tanaka (Professor, Nagoya University, Japan) ・
Toshio Nakamura (Professor, Nagoya University, Japan) ・
Hidekazu Yoshida (Associate Professor, Nagoya University, Japan) ・
Takeshi Saito (Associate Professor, Meijo University, Japan) ・
Kazuhiro Tsukada (Assistant Professor, Nagoya University, Japan) ・
Yusuke Katsurada (Nagoya University, Japan) ・
Yoshiyuki Aoki (Ph.D. Student, Nagoya University, Japan) ・
Suguru Oho (Ph.D. Student, Nagoya University, Japan)

The Syria-Japan multidisciplinary archaeological joint research entitled "Formation of Tribal Communities in the Bishri Region, Middle Euphrates" started in 2007 spring. Since then, our geological team has carried out detailed field survey in and around Tell Ghanem al-Ali excavation site, in order to understand the environmental changes of the area since prehistoric times by using geological, geochemical, geochronological and remote sensing methods.

Basement rocks are well exposed at the northern edge of the Bishri Mountains. They consist primarily of gypsum with acidic tuff intercalations. Their bedding planes are generally horizontal at the south of Ghanem al-Ali, however the bedding at the south of Hawijat Shunan is folded with vertical axial planes. The tuff layers include poor preserved fossils such as smaller foraminifera and bivalve. Although the sedimentary rocks were assigned to middle Miocene by previous study, it is hard to estimate an actual age of their deposition from the fossils. In places, basanite lava flows and pyroclastics cover the basement rocks. Three basanite specimens yielded K-Ar ages of 1.38±0.08 Ma B.P., 2.60±0.08 Ma B.P. and 2.72±0.09 Ma B.P., respectively.

Five levels of river terrace, I, II, III, IV and V in descending order and a flood plain of the Euphrates are recognizable. Elevation of the terrace V is around 230 m a.s.l., and 1-2 m higher than the flood plain which includes modern channels, oxbow lakes, banks and marshes. Tell Ghanem al-Ali is located on the lowermost terrace V. The ^{14}C ages of the carbonaceous remains embedded in the terrace V sediments ranged widely from 4500 to 900 y. B.P. Elevations of the terraces I, II, III, and IV are 250 m, 242-245 m, 237-240 m, and 233-234 m a.s.l., respectively. Geological observation suggests that the terraces I, II, III, and IV may be erosional in origin.

We found many types of gypsum concretions in the soft terrace sediments. The size of concretion is about 1~2 cm diameter with several cm long. The occurrence suggests that the concretion has been formed as following steps. First of all, the terrace sediments deposited about several Ka ago. After the deposition, sediments still has certain about of pore-water that composition is presumably becoming very high contents of Ca. During the compaction of continuing terrace deposition, pore-water has been isolated and concentrated beyond the solubility limit of Ca. On the other hand, sediments contain also sulfate from the organic

matters. Under such geochemical setting, hydrous calcium sulfate has been precipitated and the concretion has been formed. However, the shape of concretion is quite unique, i.e. similar to the root plaque of plant growing in the flood plane.

Onsite radioactivity measurements of gamma-rays of ^{40}K, ^{214}Bi and ^{208}Tl were performed using InSpector 1000 portable gamma-ray spectrometer of CANBERRA Co. We obtained the relative elemental abundances of potassium, uranium and thorium from these measurements. Thirty points were selected to cover the Squares 1 and 2 excavation sites at Tell Ghanem al-Ali. Radio-activities were also measured in the surrounding wheat field and the river-terrace along Wadi el-Kharar for comparison. At 30 points on the surface of Tell Ghanem al-Ali, radio-activities for potassium were higher than 3000 counts per 600 seconds. Whereas at 3 points on the surrounding wheat field and 7 points on the river-terrace along Wadi el-Kharar, radio-activities were less than 3000 counts per 600 seconds. There were no significant differences between the tell and other places as to the radio-activities indicating uranium and thorium contents. Based on the radioactivity data described above, origin of the tell sediments was discussed.

As a means to abstracting geological settings, six locations were selected out of the three remotely sensed images that were obtained by Advanced Spaceborne Thermal Emission and Reflection radiometer (ASTER) in August 2004, May 2005, and July 2005. Miocene gypsum deposits were indicated with SWIR (R, G, B = bands 6, 5, 4) and TIR (R, G, B = bands 11, 10 ,12). Minerals shown in different colours in SWIR (R, G, B = 7, 8, 9) were not identified. Asphalt and/or Eocene volcanic tuff may, however, be indicated besides gypsum and limestone in the Bishri mountainous region. Basalts were indicated in every set of band zones.

The ^{14}C chronology of Tell Ghanem al-Ali excavation site will be separately presented in detail.

MEMO

Social Complexity and Organization in Paleolithic of Eurasia

Hiroyuki Sato (Professor, University of Tokyo, Japan)

One biggest change of human societies in Eurasian Paleolithic is recognized in the dawn of *Homo Sapience* out of Africa. According to archaeological evidences, dramatic increase of the number of sites, structural alteration of lithic production and utilization, and legitimate manifestation of mental activities, such as effigies and ornaments, emerged in the first stage of early Upper Paleolithic. Moreover, industries of the same stage possessed local characters for the first time.

Homo Sapience who dispersed over the Eurasia became the first people to inhabit local areas by means of technologies well-adaptive to local environments and ecosystems. Soon, they could organize local societies to build the historical bases for future cultural developments. Although the Upper Paleolithic society was basically of mobile hunter-gatherer, it is highly possible that people could achieve the social integration and organization by developing the kinship and ritual activities chiefly. That led to the social foundations for the forthcoming emergence of tribe society.

MEMO

Sondage at the Site of Tell Ghanem al-Ali

Atsunori Hasegawa (Ph.D. Student, University of Tsukuba, Japan)

Tell Ghanem al-Ali is located 50 km east of the city of Ar-Raqqa and 2.5 km south from the Euphrates. This tell has an irregular oval plan with maximum width of ca. 400m (west-east) and ca. 300m (north-south). It measures ca.10m in height. Associated with this tell are some sites with cultural layers belonging to the Early Bronze Age.

Although the top surface of the mound is covered with the modern graves of the local villagers, surface topography elsewhere on the tell revealed a considerable number of buildings.

Ever since 2007 when the Syria-Japan Archaeological Joint Research in the Bishri Region began fieldwork, we have carried out trench excavations (sondage) at six squares at Tell Ghanem al-Ali. The results of the sondage accumulated up to present are discussed here.

The main objective of the sondage was two-fold. The first was to confirm the chronological sequence of Tell Ghanem al-Ali. The second was to investigate the architecture of the buildings, visible from the surface of the tell, determining the period to which they are dated.

For the first objective, we selected the eastern slope of the mound where many ruins had been located. Thus, Square 1 was set on the eastern slope containing structural remains forming the shape of square, measuring 10m (east-west) × 10m (north-south).

For the second objective, we set a step trench, Square 2, on the northern slope of the mound, measuring 4m (east-west) × 27m (north-south) .

In Square 1 of Tell Ghanem al-Ali, three main structures were unearthed. They were constructed of stones and mud-bricks. The architectural foundations of these structures were identified as basic walls, running along the north-south and east-west axes. Some areas of the walls showed signs of reuse and reconstruction. Unearthed from these structures were pits, door sockets, and hearths. Pottery recovered from the structures suggests that they date to the Early Bronze Age III period.

In Square 2, we reached the “virgin soil” of the mound and identified several building levels. It is possible to classify them into three phases on the basis of analysis of the features of these structures.

The third phase consists of dwellings constructed of stones. It is likely that the structures founded here were contemporaneous with those uncovered in Square1. They are rectangular and the orientation of the walls was mainly along the north-south axis. In some rooms, we found evidence of plaster floors. Some hearths, such as tannors, were unearthed. The potsherds unearthed within the structures included Plain Simple Ware, as well as a few fragments of the Euphrates Fine Ware. In addition, several anthropomorphic and animal clay figurines and clay wheels were identified.

In the second phase, one thick wall of large stones was identified. The axis of the wall is oriented from the southeast to the northwest. Both of the size and the orientation of wall are

quite different from those of the third phase. Almost all of the potsherds recovered from the second phase are typical forms of Plain Simple Ware. In addition, many sherds of Cooking Pot Ware with everted rims were unearthed.

Concerning the first phase, three rooms divided by walls were identified. The walls were constructed using mud-bricks, measuring ca. 30cm × 60cm. Each wall was ca. 60cm wide, running north-west and south-east. In contrast to the walls of upper levels, they did not have stone foundations. Unlike most examples of Plain Simple Ware lacking decoration, however, the pottery found here has circular designs or nail impressions incised on their bodies.

Below the first phase, we encountered the "virgin soil" of Tell Ghanem al-Ali. It is 3.4m deep from the mound surface at the northern end of Square 2.

Potsherds obtained from this site during the surface collection survey in the first field season included a few specimens dating to the Middle Bronze Age period, interestingly leading us to expect to find the related cultural layers within our sondage areas. However, neither Square 1 nor Square 2 contained evidence of Middle Bronze Age habitation or activity. It was only during the sondage in Square 6, located in the northwestern part of the mound, that we unearthed a small pit grave with potsherds dating to this later period, providing evidence of at least limited site use during the Middle Bronze Age.

The results of our sondage strongly suggest that Tell Ghanem al-Ali was occupied during the Early Bronze Age III to IVa periods in the main, after which it was abandoned. Later use appears to have been restricted to small burials.

MEMO

Archaeological Surveys of Bronze Age and Earlier Settlements around Tell Ghanem al-Ali

Yoshihiro Nishiaki(Professor, University of Tokyo, Japan)

The Japanese research in the Bishri region included an archaeological survey that covered an area of 10 km radius around Tell Ghanem al-Ali, the main site for excavations in this project. Targeting the right bank of the Euphrates river in this area, an intensive reconnaissance survey of the archaeological sites was conducted in order to investigate the settlement and land-use patterns in the past, particularly in the Early Bronze Age (EBA).

Earlier archaeological investigations in the middle Euphrates indicated that the lowlands along the Euphrates were the central loci of tell-based communities including the EBA settlements such as Tell Ghanem al-Ali and Tell Hammadin. On the other hand, the northern edges of the Bishri plateau, which overlook the Euphrates lowlands, contain areas that are densely distributed with tombs belonging to the EBA. Drawing on these earlier insights into the contrasting use of the Euphrates lowlands and uplands during the EBA, our survey aimed to examine the land-use patterns during this period by recording the locations and the nature of settlements, activity areas, and tombs in this region. The survey also aimed to document all the recognizable archaeological sites since the Palaeolithic period in order to provide the basic information on the historical background of the EBA communities in this region.

The three seasons of the survey conducted between 2008 and 2009 allowed us to identify more than 100 archaeological sites covering the Palaeolithic to the Islamic periods. The sharp rise in the number of the EBA sites, which shows a marked contrast to the rather rare occurrences of the Neolithic and Chalcolithic sites, is of particular interest to the research around the Bronze Age. This suggests that the intensive exploitation of the upland steppe started during the EBA. There were at least four types of EBA sites: long-term occupations or tells, cemeteries, temporary camps, and flint quarry sites. The long-term occupations in the lowland (Tell Ghanem al-Ali, Tell Hammadin, Tell Mugla as-Sagir, and Jezla) were clearly associated with the distribution of cemeteries at the edge of the upland. This spatial clustering occurs at an interval of a few kilometres from each other, quite possibly reflecting the territories of the local communities. One notable exception is a grave area near Wadi Beilune, which is at the northern edge of the upland but not close to any of the long-term occupations. In fact, it is a cairn type of cemetery common in the steppic Bishri mountains. This should be evidence of the penetration of the nomadic communities in the study region. The sites referred to as temporary camps consist only of flaked stone scatters of the Shaboutian industry without architecture or pottery. These sites, as well as the flint quarry sites, were probably abandoned as a result of periodical activities such as livestock herding that were performed on the plateau at some distance from the sedentary settlements. The array of these observations should facilitate our understanding of a wide range of issues including the nature of the land-use patterns of the sedentary communities in the

Euphrates lowlands and their interaction with the nomadic communities in the upland.

MEMO

Surveys and Sondage at the Grave Complexes near the Site of Tell Ghanem al-Ali

Hirotoshi Numoto (Professor, Kokushikan University, Japan) ・
Shogo Kume (Research Fellow, Kokushikan University, Japan)

Immense extramural cemeteries are distinctive mortuary practices during the Third millennium BC on the middle Euphrates, but they have frequently been plundered in modern and antiquity. Recent Syro-Japanese archaeological investigations in the surroundings of Tell Ghanem al-Ali also attested several massive Third millennium BC cemeteries which seriously disturbed by robbers. One approach to such damaged mortuary data is to extensively collect available common attributes through the graves, which also allows us to demonstrate a facet of the massive cemeteries in a relatively short time. For example, examination of types of graves is a considerable candidate of modes of the investigations, since plundered graves currently allow us to recognize their types to a great extent. In this paper, we present the results of 2008-2009 field seasons at Wadi Shabout and Wadi Daba cemeteries adjacent to Tell Ghanem al-Ali. Through the examination of types of graves, we demonstrate that four unique associations of different types of graves are defined at the cemeteries, and that those associations or grave-clusters contain particular land-use pattern. Based upon the results combined with other courses of resources, we attempt to argue that the individual grave-clusters represent political units like decent groups, suggesting that the associations of different types of graves and the distribution of the grave-clusters across the landscape illustrate changing relationships between the living and the ancestors and diverse group identities in time and space.

MEMO

An Archaeological Investigation of Bronze Age Cairn Fields in the Northwestern Flank of Mt. Bishri

Sumio Fujii (Professor, Kanazawa University, Japan) ・
Takuro Adachi (Middle Eastern Culture Center in Japan)

It is commonly accepted that a large palaeo-Semitic group, *Mar-tu* or *Amurru*, holds a key to understanding the socio-cultural dynamics of Syro-Mesopotamia in the 3rd and 2nd millennium B.C. Nevertheless, little is known about their real image before they penetrated into sedentary communities. This is precisely because relevant studies have centered on their projected image on Sumerian and Akkadian cuneiform texts and, aside from only a few exceptions, no full-scale archaeological investigations have taken place in the Bishri region referred to as their original base.

Our investigation aimed to shed light on their specific footprints in the supposed homeland. What we focused on was their tombs. In contrast to sedentary populations, pastoral nomads are small in group size, high in mobility, and poor in material culture. This makes their archaeological traces less discernible. However, they often construct burial cairns, which must be visible in some way. Given this, we might catch a glimpse of their real image through their funerary practice.

With such a methodological prospect, we conducted a series of surveys and soundings of burial cairns in the northwestern flank of Mt. Bishri. As a result, several hundred pre-Islamic cairns were located and dated, on the basis of diagnostic finds such as a bronze dagger and a toggle pin, to a period from the end of the Early Bronze Age to the beginning of the Middle Bronze Age. It follows that the Bishri region, as a whole, comprises thousands of contemporary burial cairns. Seeing that no coeval farming settlements have been found in the area, there is little doubt that pastoral nomads were concerned with their construction. A large group of pastoral nomads who based themselves in the Bishri region around B.C. 2000 – they may be defined as a branch of *Mar-tu/Amurru* who remained in their homeland. Our presentation briefly reviews these investigation results and, on this base, offers a new perspective on the traditional issue.

MEMO

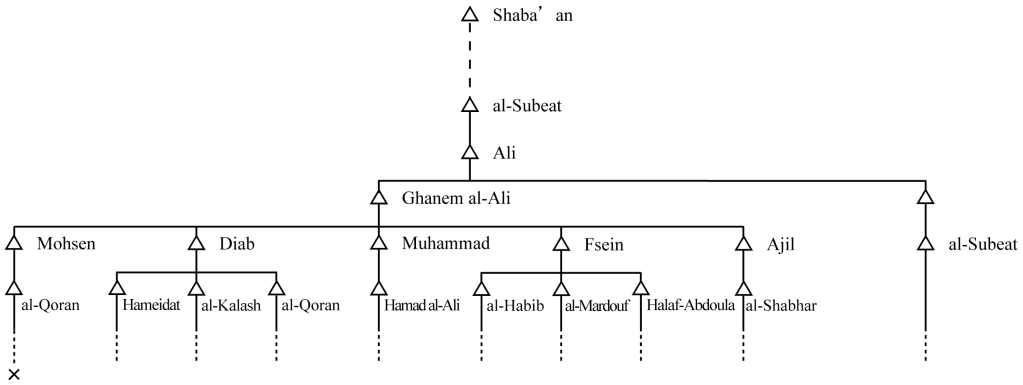
Ethno-Archaeological Research on the Modern Cemeteries of Ghanem al-Ali Village

Akira Tsuneki (Professor, University of Tsukuba, Japan)

Tell Ghanem al-Ali has been one of the focuses of the Syro-Japanese archaeological project in Jabal Bishri since 2007. This Early Bronze Age settlement is located just northeast of a modern village of the same name, and the top of the mound is covered with modern Islamic graves of the villagers. In addition to the mound top cemetery, the Ghanem al-Ali villagers have other four cemeteries within the village itself. As these modern cemeteries provide information about material culture and human groups, I carried out an ethno-archaeological study there. This presentation is a study of these modern cemeteries.

Human Groups of Ghanem al-Ali Village

The present villagers of Ghanem al-Ali number around 10,000, and all of the villagers belong to Bu-Shaba'an *Qabila* and al-Subeat *Ashira*. Therefore, they belong to the same human group at a tribal level. However, Ashira can be divided into ten *Ailas* based on lineages. The following diagram shows the lineages of the modern Ghanem al-Ali villagers.



Ghanem al-Ali, the original ancestor of the villagers, had five sons; Mohsen, Diab, Mohamad, Fsein, and Ajil. Each son had his own sons. The descendants of eight sons, without those of al-Qoran of Mohsen, have continued to live together and consist of the basic principal families (*aila*), in the former and present Ghanem al-Ali village. The previous village of the same name was located along the Euphrates River, about 2km north of the modern village, and the villagers utilized Tell Ghanem Ali as a graveyard during their former village residency. This former riverside village was severely damaged by flood in 1947, and the people decided to move to the present position near a river terrace cliff. Therefore, the modern Ghanem al-Ali village has been inhabited since 1947. The people of Al-Subeat, another principal family, started to inhabit the village from that time. Prior to 1947 they inhabited another small riverside village set apart from

the former Ghanem al-Ali village. They are not the direct descendants of Ghanem al-Ali, although their ancestor was a brother of Ghanem al-Al. Therefore, we can recognize nine principal families in the present Ghanem al-Ali village. The distinction of principal families may affect the daily life of the villagers, i.e., residential areas, marital relations, and location of cemeteries.

Modern Cemeteries

Five cemeteries have been used by the Ghanem al-Ali villagers. I used a Quick Bird space image taken on April 28, 2009 to analyze the location of each grave in the cemeteries.

Cemetery 1 is constructed on the surface of Tell Ghanem al-Ali, and it is the largest and oldest cemetery of the villagers, consisting of over one thousand graves. Based on the epitaphs of the gravestones and villagers' information, principal families (*ailas*) shared the different areas of the Cemetery 1. The location of the graves for each principal family has been regulated since the beginning of the cemetery.

Cemetery 2 is located on the right bank of Wadi Harar, west of the al-Subeat residential area. It was constructed for the al-Subeat *aila* in the beginning of the 1970s. There are about one hundred burials in this cemetery.

Cemetery 3, consisting of about 150 graves, is located in the western part of the village. It was constructed on a small natural hill for the descendants of Fsein, i.e., al-Habib, Halaf-Abdoula and Mardouf *ailas*, and has been used since the middle of 1970s. The very close relationship between these three *ailas* can be seen not only in the residential localities, but also in the cemetery system.

Cemetery 4 is located below the cliff of the Euphrates river bank, at the southern junction of Hameidat and al-Qoran residential areas. It has been used by these two principal families. About 300 people were consigned in this cemetery. The graveyard locality of each *aila* is relatively well defined.

Cemetery 5 is also located below the cliff of the Euphrates river bank near Wadi Ges, at the junction of Hamad al-Ali and al-Kalash *ailas*' residential areas. This cemetery has been for these two *ailas*. However, these two big families do not belong to the same supra-*aila*, and this division clearly defines the cemetery structure.

Some Remarks

Ethno-archaeological study on the modern cemeteries of Ghanem al-Ali village gives us a chance to consider the relationship between material culture and human groups. In general, we can suggest that grave location reflects the relationship of human groups relatively well. We can observe a strict space division system based on *ailas* in Cemetery 1. This system is very similar to that of residential areas. The peripheric character of the location of Cemetery 2 directly reflects the situation of the al-Subeat *aila*, i.e. non direct descendants of Ghanem al-Ali. The intermixed character of Cemetery 3 reflects the close kinship and immediate relations between the three *ailas*, which have the same supra-*aila*. The reason for such close relations is probably due to the small population size of these *ailas*. They have tried to maintain close contact through marriages within their supra-*aila* to manage an appropriate population size. Cemetery 4 reflects the relatively large-sized *aila* groups. Two *ailas*, having the same supra-*aila*, in this cemetery

can survive through marriages within its own *aila*. They constructed the cemetery together, but the locations of each big family's graves have not been much intermixed. Cemetery 5 reflects two independent *ailas*. Their supra-*ailas* are different, and their graveyards have never been intermixed.

Though the location of graves and cemeteries reflect the relationships of human groups well, the typologies of grave or gravestone do not reflect the differences in human groups. Various types of graves and gravestones are used by the same *aila* in the same cemetery. The typological differences among them tend to reflect generation, economic and social disparities rather than human group differences.

The state of each cemetery reflects various relationships within the human groups. If we study archaeological remains from this viewpoint, we may find some hints about ancient human relationships.

MEMO

Zooarchaeology and Ethnoarchaeobotany at Tell Ghanem al-Ali

Hitomi Hongo
(Associate Professor, Graduate University for Advanced Studies, Japan)

During the past five years, our team has conducted extensive study of faunal and floral remains from archaeological sites mainly in northern Syria and southeastern Turkey as well as in Iran and Jordan. Faunal and botanical remains have been collected from sites whose time periods range from Epipalaeolithic to Early Bronze Age. The primary aim of the research is to trace changes in subsistence from the time of domestication of plants and animals through the formation of agricultural village and urbanization. Beginning of nomadic pastoralism in the arid region in the south is investigated through the faunal and botanical remains from Wadi Abu Tulayha in Jordan, which was occupied in late PPNB. The role of nomadic pastoralists in the formation of urban site in Bishri Mountain region is still difficult to test through subsistence economy, but comparison of Zooarchaeological and archaeoethnobotanical evidence from Tell Ghanem al-Ali with those from contemporary urban sites in the region, such as Tell Bderi, Tell Mozan and Kerkh might shed some light on this question.

MEMO

Human Remains from the Bronze Age Sites in Bishri Region

Yoshihiko Nakano (Associate Professor, Osaka University, Japan) ・
Hidemi Ishida (Professor, University of Shiga Prefecture, Japan)

We had the morphological study of the human remains from Bishri area. The archeological survey performed by Syria-Japan joint expedition project found human remains from burial cairns at the site of Rujum Hedaja (RHD-1, TRH-1) in Jabal Bishri, and the graves in Wadi Shabbout (WS-1) and Tell Ghanem al-Ali (TGA). Especially, some burial cairns of TRH-1 yielded many specimens through the survey performed by Prof. Fujii and his colleagues. The burial cairns with human remains in TRH-1 consist of BC-117, BC-118, BC-123, BC-127, BC-130, BC131 and BC-133. Total number of human remains was more than 500 pieces. However almost of the specimens were fragments and it was difficult to use for the precise studies. Some small bones like finger bones, carpal and tarsal bones showed the complete form. And many fragments of limb bones had the traces of physical traits. These limited specimens were useful for the morphological studies. They also included some human skulls, but they were not complete and did not show enough information.

The human bones from one burial cairn did not always belong to one individual. The human remains from BC-130 should be including the bones from several individuals. The specimens from other burial cairns might be including more than two individuals. In these cases, some of the bones might show the difference of age by the condition of epiphysis or the deformation of the bone, others might have no clear traits.

Most abundant supply of human bones was brought from BC-130. There were many postcranial bones and 2 incomplete skulls. One skull had the braincase without facial part. The inside of the brain case was filled with matrix. The frontal and parietal bones remained. The lower parts of the temporal and occipital bones were lacked and the foramen magnum was missing. The suture line was clear and the closure was not strong, and the bulge of the frontal bone was not so large. These features might show that it was the remains of young female. The skull was so fragile. Therefore, we need so much care of handling for further studies.

Another skull had only skull cap without temporal bones and lower part of occipital bone. The sagittal suture was disappeared in the dorsal area and it showed that the individual were not so young.

Many postcranial bones were also excavated, and they were including plural bones from same skeletal part, as femurs or scapulas. There were especially many tarsal bones that were 2 left tali, 6 right tali, 5 left calcanei and 8 right calcanei.

The epiphyses of some limb bones were not fused with the shafts and some bones had clear epiphyseal lines. These traits showed that the bones belonged to young individuals. There were few bones with traits of the aged individuals that were the outstanding deformation of the bones. We need more precise studies to clear this point.

Other burial cairns in TRH-1 were not so rich in bones as BC-130, but yet BC-117 yielded more than 50 specimens from at least 3 individuals and the number of the specimens from BC-118 was almost same.

The large size limb bones were excavated from WS-1 by Prof. Numoto and Mr. Kume. All of the bones should be from one individual. He might be a Roman Era people in the view of Mr. Kume. It was pity that many bones were fragile because the condition of the soil was not suitable for the preservation. The size of the tibia and fibula showed that the individual were tall and robust, and might be male.

The site of TGA was excavated by Prof. Ohnuma and his colleagues, and there were two groups of specimens. One group consisted of the bones of baby. All of the specimens were fragments. It was difficult to gain the more information. Another group was found from sq.6 including limb bones. All of the bones had no epiphysis. Therefore, the specimens were from young people and the sex was unknown.

In the result of the observation on morphological features, there were few specimens from the person of old age. The bones of old person were easy to break, but the reason of the tendency might be found from other factors, as the life span in that age or cultural bias.

The development of muscles was traced on the surface of the bones that each muscle attached. The enlargement or deformation of the attached area showed the development of muscles. It was quite different between the upper limbs and lower limbs. It showed the tendency that the muscles in the lower limbs were well-developed but the one in the upper limbs were not so much. However, the muscles for the power of grip were developed relatively. These features might be related to the life style. The moving on foot might occupy the high percentage of the life in those days.

Some specimens should be used for the age determination with carbon 14 dating method. We will add the result in this presentation if the analysis is over.

MEMO

Preliminary Anthropological Survey in the Villages in the Area around Tell Ghanem al-Ali and Wadi al-Rahum

Masayuki Akahori (Professor, Sophia University, Japan)

The paper is based mainly on anthropological survey attempted in the 8th working season of the project. Although the research period was rather short, it tried to examine present-day interrelationship between nomads and sedentaries so that it can serve archaeological findings in some complementary manner. Attention is paid to the areas around two archaeological sites; Ghanem al-Ali, and Bi'r Rahum in Wadi Rahum.

The village of Ghanem al-Ali is relatively large in size and its number of residents is estimated some thousands. Most of the residents are descendants of Ghanem al-Ali, from whom the village name is originated. The lineage Ghanem al-Ali is a part of the tribe Bu Sha'ban which traces ancestry to Zubayda. Bu Sha'ban occupies the area along the Euphrates between Raqqa and Deir al-Zur. Their residential zone extends along the river but often keeping some distance from it. It is partially because they were sedentarized mainly in the Ottoman era, while the river-side areas of the Euphrates had been already occupied by other people.

Degree of sedentarization of people in Ghanem al-Ali is high. They identify themselves as traditional farmers, Rifi. The area around the Ghanem al-Ali barely has direct contacts with nomads today. Instead of water wells, villages have plentiful water from the Euphrates and can provide the nomads rich grassland after cultivation, but the nomads today do not seem to reach this area.

Bi'r Rahum is on the extreme end of the road south from the town of Mansuriyya. Its estimated population is about 300 and almost all of them consider themselves belonging to the lineage of al-Tushush, a part of the Fad'an tribe of the Anaza. The Anaza is one of the largest tribal groups in the eastern part of the Arab world.

They used to be nomads in the old times but now live their sedentary life in the village. Though residents of neighboring villages regard them as nomads or Bedouins, they themselves do not accept that idea. It is a fact that most of them have sheep and goats, but only a small part of dwellers have tents and make periodical movements between the village and camps.

A part of the village name "bi'r" means well and that term is coming from the fact the village place have many wells. Some of the wells were dug after people settled in the village, but many have been there since before the foundation of the village and have been traditionally used by nomads.

More than 10 extended families can be found, each of which, roughly saying, forming its own compound in the village. Each well also belongs to one of those compounds, but usually usage of other families is not rejected.

The villagers have regular contacts with the nomads in the summer time. In most cases, visiting nomadic people are said to belong to Anaza who come from the Gulf area, but recently

those belonging to other groups like Shammar appear to feed their livestock. Village men of Bi'r Rahum say that nomads can use wells of the village as they like, but in some cases they may be charged for usage of wells.

No other people in the neighboring villages situated between Bi'r Rahum and Mansuriyya belong to Anaza. Almost all of them identify themselves as Bu Khamis, a part of the tribal aggregate called Idlim. Bu Sha'ban, Anaza and Idlim all trace their blood line to Zubayda. In the villages belonging to Bu Khamis, contacts with nomads are said to be very rare nowadays.

In that sense, Bi'r Rahum is an exceptional case in this area. It is a village in the bordering area where nomads and sedentary people meet each other and exchange. Its dwellers are relatively newly settled ones and therefore socially marginal both for nomads and sedentary people. It makes them possible to bridge smoothly two types of people whose livelihood are based on different conditions.

If we believe the villagers' folk knowledge about their history, people living around two archaeological sites, Ghanem al-Ali and Wadi Rahum, were originally nomads. In the meantime of sedentarization, they lost identity as nomads and became to consider themselves as merely Arab or even Rifi.

Regular contacts with nomadic people are found only in the village of Bi'r Rahum in summer. It seems to mean that such kind of contacts is mainly established in the fringe area of sedentary zones. In the Ottoman era and before, contacts may have been seen in the nearer area to the Euphrates, but as the sedentarization was accelerated in the modern times, the place of contacts took distance from the river-side area.

If this hypothetical understanding is applicable, the historical development of sedentarization can be said that newly comers always make their place of residence in the peripheral area of agricultural zone along the Euphrates and thus expand the zone to outwards from the river. In the case of this survey, people of Ghanem al-Ali and its neighbors were the first comers, then people of Bu Khamis were the second, and people of Bi'r Rahum were the last ones to settle down in the region. In the process of sedentarization, newly settled ex-nomads took a role to mediate nomads and sedentaries, which is now taken by those of Bi'r Rahum.

Still the analysis of collected historical documents is untouched and further detailed research based on interviews would be required in the future. However, if we presume that the basic geographical setting, environmental conditions and forms of both of nomadism and agriculture have been preserved ever since the oldest times, the above mentioned tentative overview of the system of contacts between nomads and sedentary people can be applied to the explanatory works in archaeological studies now underway in this project.

MEMO

Section 2

Bronze Age Sites of Syria

The Early Bronze Age Chronology Based on ^{14}C Ages of Charcoal Remains from Tell Ghanem al-Ali"

Toshio Nakamura (Professor, Nagoya University, Japan)

We have conducted a field survey on archeological sites along the middle Euphrates River, as well as geographical and geological environment in the Bishri region, southeast of Raqqa, Syria, and in the Near East and Middle East. The aim of this study is to conduct a chronological analysis of the archeological sites, in particular, to establish chronology of the Tell Ghanem al-Ali site, by radiocarbon (^{14}C) dating on carbonaceous remains from the site with the accelerator mass spectrometry facility of Nagoya University in Japan.

During the survey, we visited the Tell Ghanem al-Ali site that is located on the lowest terrace of Euphrates River, where extensive archeological excavations were performed at two trenches, Square-1 (9x9 m^2) and Square-2 (3x15 m^2 and separated into eight sedimentary layers) in the northeast side of the Tell. We detected several fragments of pottery as well as black layers composed of charred soil and/or charcoal fragments. The layers were quite clear and we believed that these layers had resulted from human activities at the site. We collected totally 31 charcoal samples such as charcoal and wood fragments from Square-1 and Square-2 as well as adjacent outcrops to the site.

The calendar dates calibrated from ^{14}C ages obtained by the present study range from 3100-2900 cal BC at the oldest level to 2250-2050 cal BC at the youngest level of the Tell Ghanem al-Ali site, concentrated to the period from 2650-2450 cal BC. Since the pottery fragments collected on the surface of the Tell before the excavation was started, as well as those collected from the sediments during the excavation, were assigned by their typological analysis to the periods of Early Bronze Age (EB)-IV and EB-III, the archeological chronology is almost consistent with the ^{14}C chronology that is established here. However, the calendar age of the oldest level (level-7 and -8) obtained by the present study dates back to 3100-2900 cal BC, and these figures are older than the oldest limit of the EB period established so far. A new framework of absolute chronology based on ^{14}C dating is required.

MEMO

Urban Planning in Syria during the Second Urban Revolution (Mid-third Millennium BC)

Michel Al-Maqdissi (Director of Excavations and Research,
Directorate General of Antiquities and Museums, Syria)

Présentation d'une synthèse sur le developpement de la ville syrienne aux IIIème et IIème millénaires av. J.-C. avec une analyse de la ville circulaire et la ville octogonale.

La présentation sera orientée sur la présentation de plusieurs exemples fouillés ou prospectés par des missions syriennes à Mishirfeh-Qatna et sa région. En effet, les sites de Mishirfeh, Tell Sh'eirat et Tell es-Sour sont des illustrations éclatentes du passage du plan circulaire au plan octogonal et les sondages profonds réalisés les derniers cinq ans feront l'objet d'une mis en valeur dans un cadre chronologique et startigraphique afin de révéler la nature de l'organisation urbaine de la ville syrienne aux époque historiques pré-classiques.

MEMO

Bronze Age Sites around Al-Raqqa

Ahmad Sultan (Directorate General of Antiquities and Museums, Syria)

Tal Swyehat

Tal Swyehat is located in the middle of an open meadow and it is surrounded by mountain-like hills contrasted to the Euphrates river bed. Around it many important archeological hills are located. The site is on the left bank of al Assad lake just on the administrative point between Aleppo and Rakka. It is 95 km to the north west of Rakka, 110 km to Aleppo and 2 km from Al Assad lake. An American expedition from the University of Pennsylvania has been working in the cite since the beginning of 1990. Historical sources, particularly the archive of the kingdom of Mari, mention that many historical cities, contemporary to the start of Mari's history, are located high on the Euphrates among which are Azo Kingdom (Tal Hadidi) and Akatta Kingdom (Tal Membaka). Among the cities which we could not locate yet is Burman Kingdom. Many archeologists who worked in the area believe that Tal Swyehat had the city of Burman inside it. Historical sources mention that the city of Burman, especially after its king married the famous princes (Zmini Kobar), the daughter of king of Ebla, became the most important city in Syrian Jazeera. The kingdom of Ebla depended on Burman in growing cattle. Tal Swyehat is surrounded with many cemeteries which go back to the 2nd half of the third millennium B.C. In 2008, Swyehat cemeteries which are 200 m to the south of Tal were excavated by a Syrian expedition. Five cemeteries of 4 m depth were discovered. These cemeteries took the shape of shaft tombs. Jewellery made of bone, beads and bronze in addition to more than 175 jars of pottery. Different shapes and sizes which go back to EB4 were discovered. It was found that they were similar to the tile products discovered in many archeological sites in the mid-Euphrates basin.

Tal Al Bai'aa:

Tal Al Bai'aa (Totol) is located to the north of Rakka, 3 km to the north of Euphrates river, and 3 km to the west of Balikh river. An old channel ditch going back to the third millennium B.C. goes through the site. The ruins of Al Tal revealed the features of an old large city consisting of a central hill, surrounded with a wall of 700 x 800 m. A German expedition chiefed by Eva Stromenger excavated Tal Bai'aa since 1980. The text discovered in Tal Bai'aa shows the importance of Totol religiously, economically and politically. Totol had distinguished relationship with the south of Mesopotamia and Ilam. It also had more solid ties with Syria during the era of Oruk. Strong relationships were also noticed with Babylon and Assyria. Totol started to lose its importance gradually since the mid 2nd millennium B.C. It was last mentioned in the twelfth century B.C. as a bordering center between the Hittite Assyrians, and then vanished permanently in the later ages.

MEMO

Tracing Tribal Implications among the Bronze Age Tomb Types in the Region of Jebel Bishri in Syrla

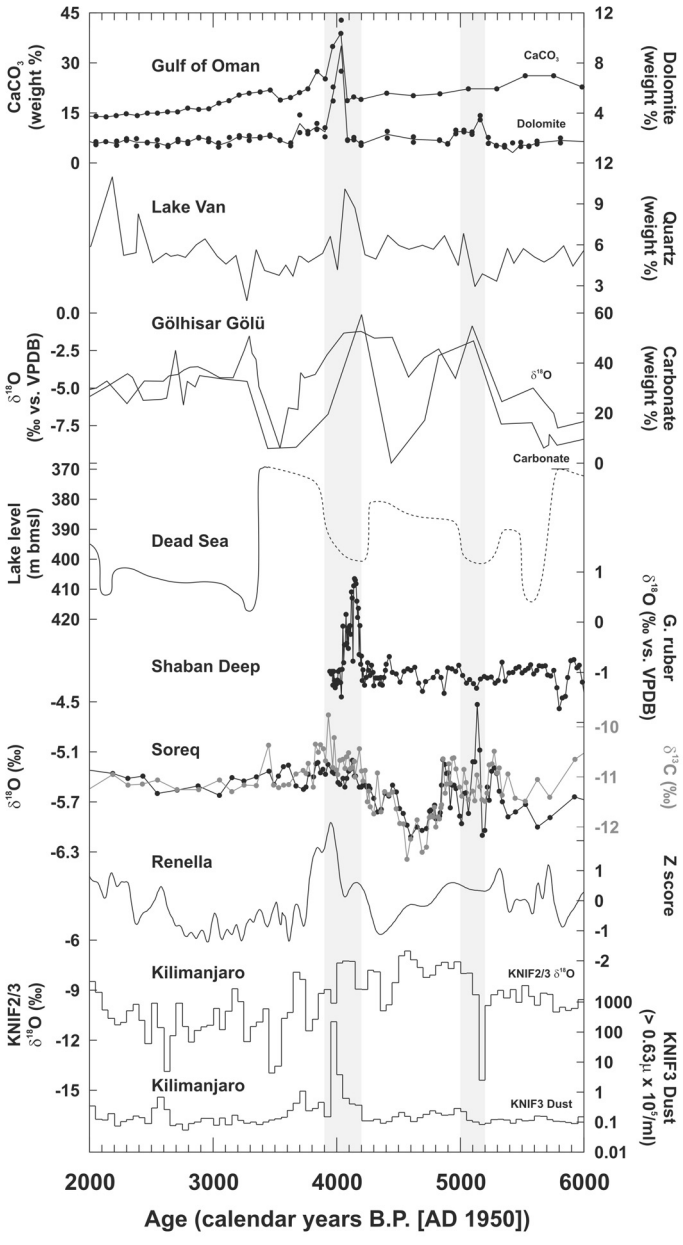
Minna Lönnqvist(Adjunct Professor, Universities of Helsinki and Oulu, Finland)

Cairn/*tumulus* tombs beside stone rings including corrals form the most common structural archaeological remain types on Jebel Bishri in Central Syria. They are long-term fixtures in the pastoral landscape of this desert-steppe region between the Syrian Desert and the Euphrates river. The area has always been populated by mobile people from hunter-gatherers to pastoral nomads, whose social organisation is based on kinship ties. In this paper an assessment of typology of the tomb types – grave fields, their allocation and function in the landscape of Jebel Bishri will serve as a basis in suggesting types of social complexity and cults as well as rituals among the pastoral nomads in the region. As we know, many of the cairns/*tumuli* in the region date to the Bronze Age, but also more recent Bedouin have used such tomb forms in the area. Apart from the most common tomb type namely cairn/*tumulus* encountered on Jebel Bishri, cists and shaft graves appear in the Bronze Age tomb types in the neighbourhood as well. We may venture to ask, whether the tomb types were used by the Amorites living in the region and whether the differences in the tomb types indicate tribal differences among them.

MEMO

Abrupt Climate and Social Change 4.2-3.9 kaBP at the Riparian and Karst Aquifer Refugia of Syria

Harvey Weiss (Professor, Yale University, U.S.A.)



The multi-proxy paleoclimate stack for the Eastern Mediterranean and West Asia documents the double-spike abrupt climate change events at 5.2-5.0 kaBP and 4.2-3.9 kaBP. The 5.2-5.0 kaBP abrupt aridification and cooling event was coincident with the Late Uruk collapse in southern Mesopotamia and across northern Mesopotamia, and the consolidation of state power along the Nile. The 4.2-3.9 kaB abrupt aridification and cooling event initiated the century-scale agro-production failure that generated Akkadian and Old Kingdom collapses, as well as the first stage of tribal-pastoral Amoritization and habitat-tracking from dry-farming to irrigation agriculture terrains in Mesopotamia and Syria-Palestine. The termination of the 4.2-3.9 kaBP event was coincident with the second stage of Amoritization: the re-settlement and political re-organization of dry-farming domains and the agro-territorial conflicts with riverine polities. High precision dating of both paleoclimate events and regional settlement processes is needed to illuminate the details of 4.2-3.9 kaBP adaptations along the Euphrates and Orontes Rivers.

MEMO

Section 3

History of Tribal Communities in Syria: Citizens and Nomads Viewed from Archaeological Sites

Urban Elements in Early Bronze Age Settlements of the Middle Euphrates

Elisabeth N. Cooper (Associate Professor, University of British Columbia, Canada)

This paper focuses on the nature of settlement in the Middle Euphrates River Valley of Syria during the Early Bronze Age, c. 2600-2100 BCE. In this region, several settlements developed features commonly associated with cities: monumental religious buildings, densely spaced residential neighborhoods, some of which appear to have been pre-planned, monumental defensive works such as city walls, ramparts and towers, large-scale secular buildings and the specialized production of pottery, textiles and metallurgy. The appropriation of wealth, attested by the monumentality of some Euphrates graves as well as the frequency of exotic, valuable objects that accompanied these interments also underlies the urban character of this region.

In spite of these urban features, however, Euphrates settlements differ in many ways, not only from contemporary cities of southern Mesopotamia, but from other urban settlements elsewhere in Syria, both to the west and to the east. Nothing in the Euphrates Valley matches, for example, the size and grandeur of the palace at the site of Ebla, which dominated that city from its elevated position on the central acropolis mound. Moreover, Ebla's palace institution, which appears to have employed hundreds of people to work its royal estates and to produce goods for its officials and retainers, finds no parallel in the Euphrates Valley. In terms of physical size, no Euphrates' settlement matches that of sites to the east such as Tell Leilan and Tell Taya in the Early Bronze Age, which grew to 90-100 ha during their fluorescence. In terms of economic organization, one cannot observe among Euphrates settlements the presence of effective strategies by which the agro-pastoral products of the settlements' hinterlands were efficiently extracted and funneled into the warehouses and redistributive apparatus of the cities' administration, as one might see at a site such as Tell Leilan. Nor was pottery mass-produced in order to be used for taxation and redistributive purposes. In all, while the urban features observed at the Euphrates Valley sites indicates a development in socio-economic complexity from what existed before, they still do not approach the scale of urban intensity that evolved in other parts of Syria.

Some effort will be made to explain why the Euphrates Valley retained its uniquely decentralized character through this period of the Early Bronze Age at the same time as adopting features that are strongly urban in character. Part of the explanation almost certainly lies with the landscape and climate of the region. The narrow and segmented landscape of the river valley and its climate of limited rainfall, meant that settlements could only expand to a certain size before running out of physical space in which to grow, and before exhausting their local resources. Another factor may have to do with the persistent tribal character of the population of the Euphrates, which was composed of loosely organized confederacies of both agrarian and pastoral nomadic kin-groups. In this type of society, political power may have been shared more

evenly across different groups and sectors of society. Under such conditions, the growth of highly centralized urban polities characterized by ruling dynasties and rigid social hierarchies was probably greatly hindered.

A recent proposal argues that we should see in the urban settlements of Northern Mesopotamia arrangements of nested households, in which social and political relationships were framed in terms of kinship. In this system, akin to Schloen's "patrimonial model" much emphasis is placed upon the maintenance of good relations between households, and it argues that positive networks among households could have as effectively fuelled agricultural and pastoral intensification and long-distance trade as the coercive activities of a powerful state. This compelling model's applicability to the Syrian Euphrates Valley of the Early Bronze Age will be explored at the end of this paper, along with suggestions as to further avenues of inquiry based on alternative interpretations of the archaeological and textual record.

MEMO

Social Structures and Interaction at Tall Bazi and the Middle Euphrates

Berthold Einwag(Institut fur Vorderasiatische
Archaologie der Ludwig-aximilians-Universitat, Germany)

The Euphrates region between Karkemish and Emar may be considered as a well investigated area. Initiated by two dam projects in the 1970th and 1990th, numerous excavations took place and revealed an abundance of informations for a better understanding of the regional history.

The climatic conditions are characterized by a transitional zone. Sufficient annual rainfall allows rain-fed agriculture in the north. Towards the south the area of cultivable land is confined to the river valley with its irrigation systems due to the arid conditions. Outside the Euphrates valley only a nomadic way of life is possible. The natural conditions create a constant platform of exchange between sedentary and nomadic living forms with varying borders and balances of power.

In the Late Bronze age (LBA) a remarkable phaenomenon can be noticed. Despite large scale excavations in various places no palace-like building has been uncovered so far. The excavations in Meskene/Emar and Tall Munbaqa/Ekalte revealed only houses, domestic buildings and tempels. On the other hand, palaces are known from Alalakh, Ugarit, Tall Braq or Nuzi. The results of the excavations at Tall Bazi, which have been conducted since 1993, are equally negative. The so called “Weststadt” or western lower town of Tall Bazi, a planned settlement extension on virgin soil, was excavated over more than 10.000 sqm showing an elaborate town planning system with large streets and highly standardized domestic buildings. The houses follow a uniform groundplan, consisting of a large rectangular main room and a row of usually 3-5 small square secondary rooms on one side.

After a short period of existence, a violent destruction brought a sudden end to the western lower town. In the burnt debris of the houses a large part of the inventory was preserved which allows to reconstruct the living conditions and the activities of the inhabitants. The houses served not only for domestic purposes but at the same time as production areas for various goods. In several houses metal was processed, in others tools, adornment or weights were produced.

The production of these goods exceeded the demand of the local settlement, and was presumably intended for trade and sale with external consumers. Due to the location of Tall Bazi at the border zone between the fertile valley and the steppe, it is not too far-fetched to suppose that the nomads supplied themselves with the necessary goods in this zone of contact. Presumably they returned their main products derived from sheep and goats. This is further corroborated by the fact that the houses in urban settlements like Bazi or Ekalte had no space for the keeping of animals. However, the palaeozoological analysis of the remains of meals in the houses of these sites shows a large amount of sheep/goat, which exceeds distinctly the amount

of other domesticated animals (cattle, donkey, pig and dog) and wild animals (e.g. stag, gazelle, birds, fish). Because the Euphrates valley was certainly intensively used for fields, orchards and vineyards, there cannot have been enough space left for large flocks. Therefore it can be supposed that the zone of the pastoral nomads began immediately outside the fertile valley already in the Bronze age, as it does today.

The two other parts of the settlement of Bazi were the Nordstadt and the Citadel. In the "Nordstadt", the oldest part of the lower town (MBA - LBA), domestic quarters were excavated.

The Citadel, situated on a natural hill 60 m above the valley, clearly served as the centre of the settlement. It differs significantly from the lower town. In the middle of the plateau a single large building was erected in the Middle Bronze Age (MBA) and remained in use in the LBA until the violent end of Tall Bazi. The groundplan of this temple was altered several times. In its last phase the entrance was transferred to the eastern side and was adorned with two lion orthostats. Inside room A there were several installations along the sides and an altarlike installation opposite the entrance.

For Tall Bazi and Tall Munbaqa it can be postulated that there existed no large administrative or residencelike building during the Middle and Late Bronze age. The textual evidence, mainly dereived from the tablets found at Emar, Ekalte, and to a lesser amount at Hadidi/Azu, Tall Fray, Tall Qitar and Tall Bazi, often mentions collective groups of persons, called the "Elders" and the "Brothers". At Emar and Ekalte a king is mentioned, but he does not seem to have had the dominant function, which is usually implied with a king. The "Elders" together with the city god collectively governed the city, made contracts or sold land. The presence of the city god - whatever this means - suggests, that their meetings took place in the temple.

The large temple ontop of the Citadel of Tall Bazi seems to have served not only as a religious building, but also as a place for assemblies. The remaining inventory, consisting of dozens of drinking, eating vessels and remains of meals suggests that people consumed meals and drinks here.

Between the sherds two royal documents of the Mittannian kings Saushtatar and Artatama were found. They document the donation of two sites by the kings. The receiver is not the local king, but a group of persons: the "sons of Baziru", which means the "Elders of Bazi" in the king's view. This proves that at Tall Bazi a group of persons (together with the city god) collectively governed the city. If the temple indeed served as a collectively used place for administrative purposes, there would have been no need for other administrative buildings in the settlement.

It can be stated that this collective governmental system existed in several settlements in the Euphrates valley during the LBA. Possibly this phaenomenon can be traced back to the MBA. The temple of Tall Bazi, which was founded in the MBA, and the MBA settlements of Emar and of Tall Halawa could hint to it. At Tall Halawa A, Bauschicht 2 (MBA I) the remains of planned house quarters were found on a surface of appr. 5000 sqm. Public buildings and fortifications seem to be missing. The high uniformity of form and inventory of the houses was attributed to a socially little differentiated population of dependent workmen, but it could also be a hint that a low degree of hierarchy and strong collective governance was already present in MBA.

The origin of this peculiar social system has been debated. Its existence in this area, a contact zone between nomads and citizens, could hint to a tribal form of organization. However,

economic, historical or political reasons have also to be taken into consideration.

MEMO

Tribal and State: The Changement of Settlements and Settlement Pattern in Uppermesopotamia during the 3rd and 2nd Millenium B.C. : A Re-Evalution

Jan-Waalke Meyer(Professor, Goethe-University, Frankfurt, Germany)

Until the late twentieth century archaeologists have centered their activity mostly on Southern Mesopotamia and besides, the interest has almost exclusively been focused on the big cities, whereas ordinary towns, villages and hamlets have only occasionally been excavated. The situation has now changed, due to a big number of excavations and surveys, even in other regions of the Ancient Near East as well. We are now able to reconstruct the history of complete regions as well as the economic conditions and social developments that may have involved the rise of urban cultures and their rural hinterland.

The timespan here treated comprehends the third millenium, the beginning of urbanisation in Northern Syria with the special type of settlements, called “Kranzhügel”, a period of big changements in the settlement pattern and the socio-economic structure, mostly dependending on external influences.

On occasion of the ICAANE 2000 in Copenhagen I still stated that the origin of Tell Chuera and the other settlements of the so called “Kranzhügel”-culture might be explained by the sedentarisation of tribal nomadic groups – a view that has to be changed according to the latest excavation results.

The basis of the paper are the results of the recent excavations and a first evaluation of a survey in the aerea of Tell Chuera. In principal the main topics are urbanisation and the internal structure of the settlement, the distribution of settlements in the surrounding, the impact of agriculture and the transformation of the inhabitants of that aerea, belonging either to tribal or to state communities.

MEMO

Section 4

History of Tribal Communities in Syria: Citizens and Nomads Viewed from Philological Evidences

“Rod and Ring”: Insignias of Foreign Rule in the Ur Ⅲ and OB Periods

Kazuya Maekawa (Professor, Kokushikan University, Japan)

The origin of the “rod and ring” motif, found in Old Babylonian artistic representations such as the Hammurabi Law Code stela and the “investiture” scene drawn on the Mari palace wall, can be traced back to the relief of the “Good Face”, Register II of the Ur-Namma stela, which dates back to the very first of the 21st century B.C. A prevailing interpretation has been that the Ur-Namma stela represents God Nanna holding the measuring tools (a measuring pole and a roll of rope looped at the end) in his right hand.

However, I conclude that Nanna actually intended to entrust a pole, a ring and several strands of ropes (not a set of “pole and rope”) to King Ur-Namma. In my opinion, both the ring and the ropes were the tools used to establish foreign rule. Their ropes were affixed to the noses of war captives, and the large ring was used to tie the ropes to a post driven in the earth. (A small nose-ring and a large ring were secured at each ends of a nose-rope.) Nose-ropes were not found in later artistic representations; thus the Sumerian word for “nose-rope” (eškiri, $eš_2$-$kiri_4$) became a reference to the large ring held by the god. The practice of taking war-captives by nose-ropes was possibly introduced into southern Mesopotamia by King Naram-Sin of Akkade.

The “rod”, which was drawn on both the Ur-Namma stela and later representations, may originally have been either a “cultic pole” to be carried by a priest or a “column post” to be built aside the temple gate. In cuneiform sources, it is designated as $šibir_{(2)}$ / *šibirru*.

In either textual or artistic sources, it has been demonstrated that all the three strong rulers who were in conflict with each other in the first half of the18th century B.C. (namely, Rim-Sin of Larsa, Zimri-lim of Mari, and Hammurabi of Babylon) participated in the investiture rite where they received “rod and ring” ($šibir_2$ eškiri in Sumerian) from the god. It appears that the “rod and ring” were entrusted to the king who claimed to rule over the foreign land and their people.

MEMO

Nomads and Farmers in the Orbit of Mari Kingdom in the 18th Century (B.C.E.) Syria: A Few Observations on *Merhûm*-officials and their Roles

Ichiro Nakata (Professor *Emeritus*, Chuo University, Japan)

Zimri-Lim, a king of the 18th century Mari Kingdom on the middle Euphrates region bore the royal title, "king of Mari and the land of hana (lugal *ma-ri*.ki u_3 *ma-a-at ha-na*)" (D. R. Fryane, R.I.M.E. 4, E.4.6.12.4, for example). This title is the same as the one borne by his grand father (or possibly his uncle) and the founder of the "Amorite" dynasty, namely, "king of Mari and the land of hana (lugal *ma-ri*.ki u_3 *ma-a-at ha-na*)" (D. R. Fryane, R.I.M.E. 4, E.4.6.8.2) or very similar to its variant, "king of Mari, Tuttul, and the land of hana (lugal *ma-ri*.ki *tu-ut-tu-ul*.ki u_3 *ma-at ha-na*)" (D. R. Fryane, R.I.M.E. 4, E.4.6.8.1).

This compound royal title signifies that the area of the exercise of the kingship of Zimri-Lim as well as Yahdun-Lim, his grandfather, was composed of two parts: (1) the territory of the Mari Kingdom = the river banks (Ah Purattim) of the Middle Euphrates River roughly between the city of Tuttul and the city of Mari and (2) the land of hana, namely nomads who practiced transhumance of small cattle. The identity of these nomads is revealed, among others, by the inscription on a seal of a daughter of Yahdun-Lim. The seal inscription reads: [N]agiha[. . .]/ daughter of Yahdun Li[m]/ king of Mari and the land of the Sim'[alites] ([*n*]*a-gi-ha*-[. . .]/ dumu. nunus *ia-ah-du-li*-[*im*]/ lugal *ma-ri*.[ki]/ u_3 *ma-at* dumu *si-im*-[*a-al*]) (R.I.M.E. 4, E.4.6.8.6). The Sim'alites ("Northerners") constituted one of the two confederations of the West Semites at that time, the other being the Yaminites ("Southerners"). Yahdun-Lim and Zimri-Lim were of the Sim'alite origin.

The Ah-Purattim was divided into four administrative districts (the halsum's of Mari, Terqa, Saggaratum and Qattunan), and each district and settlements of varying sizes within it were governed respectively through a governor (sapitum) and mayors (sugagum's), all of whom were appointed directly by the king of the Mari kingdom. According to an estimate by A. Millet Alba (Amurru 3, p. 231), a quarter of the total population of the districts of Mari, Terqa and Saggaratum was Yaminite around the year 5 of Zimri-Lim. There were Yaminites who practiced transhumance away from Ah-Purattim, but they were somehow kept under control of their respective governors and mayors.

On the other hand, hana people, namely nomadic Sim'alites, who practiced transhumance, were found in move with their herds in the vast expanse of grazing land (*nawûm*) in the Habur triangle, called Ida-Maras, and even beyond with an annual precipitation of 250 mm or more (A.3901:6'-7' [= M. Guichard, FM 6, p. 158-161, No. 9]). The exercise of kingship over the land of hana by Yahdun-Lim and Zimri-Lim does not mean the rule over the territory but the person of nomadic Sim'alites. No written sources are available regarding the way Yahdun-Lim exercised his

kingship over them, but we are better informed about Zimri-Lim's reign.

The office indispensable for the exercise of Mari kingship over nomadic Sim'alites was that of *merhûm*. (There existed *merhûm*s among the Yaminites as well, but their administrative roles are not well known.) There probably were two *merhûm*s at work at any one time for the entire population of hana. The *merhûm*s were appointee of the king of Mari and exercised their authority over nomadic Sim'alites in matters of assembling an army for their king and securities of Sim'alites and their herds.

The Habur triangle was a rich farming land where rain-fed agriculture was practiced. Naturally, clashes could easily occur between nomads and farmers in the region(ARM XXVII, 48:3'-7'). So it was vitally important for *merhûm*s to create and keep a mutually beneficial relationship between nomadic Sim'alites and local farming communities on which they depended for grazing land and water for their herds, and cereals, oil, etc. for themselves (ARM II, 37:17-18). The *merhûm*s managed to secure such a mutually beneficial relationship by concluding a treaty with a number of local elders or kings as proxy for Zimri-Lim, the king of Mari(ARM II, 37 and A.2226 [=J.-M. Durand, M.A.R.I., 7, No. 7]. Cf. A.2730:7-8 [D. Charpin, ARM XXVI/2, p. 33 and n. 24]).

MEMO

The desert routes across the Djebel Bishri and the Sutean Nomads according to the Mari Archives

Dominique Charpin (Professor, Sorbonne University, France)

The archives excavated in the palace of Mari by André Parrot between 1934 and 1939 offer a wealth of information about the Ancient Near East in the 18th century B.C. Of some 20,000 tablets and fragments, 8,600 texts (of which 2,500 letters) have been published in full by now. Cities as far as Hattuša in Anatolia, Hazor in Palestine, or Susa in Iran are very well documented; regions closer to Mari are naturally even better attested. Paradoxically, this is not the case with Djebel Bišri: whereas places close to Bišri such as Lasqum or Halabit are documented each by more than a dozen of entries, Bisir is very rarely mentioned in the texts from Mari. Of course, the toponym can be found in personal names such as Mut-Bisir, in adjectives qualifying a divinity such as Eštar-bišra or in a dog race typical of the region; but otherwise, evidence is fairly small for the toponym as such. However, an analysis of several cases shows that the region of Bišri is well documented in the texts from Mari, even if its name is not always explicitly mentioned.

– We shall see first that Djebel Bišri was bypassed by different trade routes leading to Qatna, either from the north (by travelling through Abattum) or from the south (via Tadmer/ Palmyra.) This is what in particular is shown by the famous letter by Samsî-Addu concerning the movement of a big army between the Euphrates and Qatna (ARM 1 85+ = LAPO 17 449).

– Other examples show that, when nomadic groups, Benjaminites as well Bensim'alites, were leaving the banks of the Euphrates with their herds inland in the direction of Bišri, they ran the risk of falling victim to raids. The authorities tried hard to dissuade them from doing so. An unpublished letter by Hali-hadun relates an anecdote noteworthy in this context.

– Several texts show that the population of Bišri was essentially made up of two groups: Benjaminites of the tribe of the Uprapeans, and Suteans. Amongst the latter, some people discovered treasure in the Bišri (ARM 6 44 = LAPO 18 1047). The Suteans knew to guide caravans that preferred not to follow the Euphrates, but their role was ambiguous: they sometimes seem to have attacked messengers travelling through the Bišri. Access to wells and the banks of the Euphrates occasionally caused conflict between the Suteans and other nomads, Benjaminites as well Bensim'alites.

MEMO

Amorite Societies along the Lower Habur according to the Tell Taban Tablets

Shigeo Yamada (Professor, University of Tsukuba, Japan)

25 pieces of Old Babylonian tablets or fragments of various sorts, including lexical, administrative-legal texts and letters, were found in Japanese excavations at Tell Taban during the 2005 and 2006 seasons. Establishing finally the identification of Tell Taban with the Old Babylonian city of Ṭābatum, those tablets shed a new light on the situation in the areas along the Habur river and Middle Euphrates in the Post-Hammurabi period, roughly the second half of the 18th century BC.

This paper takes up several letters found in the summer season of 2005 to examine their contents relating to the administrative-social organization around the city of Ṭābatum. All the letters under discussion are addressed to Yasīm-Mahar, who was apparently a governor (sugāgum) representing the local Amorite society of Ṭābatum under the rule of Iṣi-Sumuabi, probably the king of Terqa.

One of the letters is sent from the overlord Iṣi-Sumuabi. It reveals that Yasīm-Mahar took a full responsibility for the security of the city of Ṭābatum, its surrounding irrigation districts and watches. It also shows that Yasīm-Mahar took a role for the overlord to collect and store the tax-barley in the region and to distribute silver, straws and other agricultural products within the city. Other two letters are sent from a certain Tâṣiannu, apparently a leader of a nearby city, probably located north of Ṭābatum. He appears to be writing the letter as equal of Yasīm-Mahar. One of the Tâṣiannu's letters suggests that he made a loan contract with Yasīm-Mahar, giving the silver to the latter. The other letter from Tâṣiannu also reveals that Tâṣiannu and Yasīm-Mahar were sharing the payment for third parties. The above mentioned letter sent by Iṣi-Sumuabi, however, illustrates that Yasīm-Mahar was ordered by Iṣi-Sumuabi to collect the tax-barley of Tâṣiannu, working together with another person from Ṭâbatum. On the basis of these pieces of information, the following social order may be proposed:

(1) Among the local leaders around Ṭābatum, Yasīm-Mahar seems to have been a part of the collective governance in his city and its surroundings, keeping his social status basically equal with other local leaders, either of his city or other nearby settlements.

(2) Within the larger administrative framework of Iṣi-Sumuabi's kingdom, Yasīm-Mahar may have been given a position more important than Tâṣiannu, taking the responsibility for collecting the tax-barley from the latter. This probably happened because of his geo-political location closer to the royal capital on the Middle Euphrates.

MEMO

Between Djebel Bishri and Euphrates River: Nomads and Settled People

Jean-Marie Durand (Professor, Collège de France, France)

It is a region documented mostly by two classical authors, Ptolemaeus the geographer (Lib. V) and Isidoros of Charax (Mansiones Parthicae), about whom one can still consult with benefit Dussaud's synthesis (Topographie historique de la Syrie…), p. 455 and p. 465. We may now add the numerous toponyms of the cuneiform documentation from Mari texts.

On the Euphrates right bank are located the most part of the downstream cities, from the confluence of Khabur river till the modern Der ez-Zor; on the contrary, the left bank seems to have been rather uninhabited, providing shelter to sedentaries at the time of attacks on the right bank from the Nomads coming from the Palmyra Great Desert. It is also the usual road for those going upstream, out of the Kingdom Borders.

A human concentration is found at the Halebiyeh pass, around the two major citadels of Zenobiya and Zalebiya. The pass is characterised by the fact that the two fluviatil cliffs of the right and left banks meet up at this spot. This is Lasqum. Beyond streches the broad plain of Tuttul (Raqqa). This is an other world upon which Mari Kings tried to extend their power. But it is also where Aleppo's power ends.

My lecture tries to put in order all this kind of information, bringing new interpretation for classical data. The population of this region is of two kinds: towns with sedentary population and areas where Nomads are apparently established.

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Section 5

Comprehensive Discussion

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Back cover: Pasturage of sheep at the village of Ghanem Al-Ali.