

The Conservation of Cultural Heritage in Central Asia Volume 13

Protection and Research on Cultural Heritage
in the Chuy Valley, the Kyrgyz Republic
Ak-Beshim and Ken Bulun

Institute of History and Cultural Heritage of the National Academy of Sciences of the Kyrgyz Republic
Tokyo National Research Institute for Cultural Properties

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Foreword

The Kyrgyz Republic is located at the center of the Silk Road, and rich in archaeological sites and heritage. However, since the collapse of the Soviet Union, the lack of opportunities for young specialists to join excavations and conservation projects, because of funding hardships and an absence of leading experts, has become a serious problem in Central Asia.

In response, the Japan Center for International Cooperation in Conservation, the Tokyo National Research Institute for Cultural Properties conducted the “Training Workshops for the Protection of Cultural Heritage in Central Asia” , funded by the “Networking Core Centers for International Cooperation on Conservation of Cultural Heritage Project” of the Agency for Cultural Affairs in Japan, and “UNESCO/Japan Funds-in-Trust Project: Support for Documentation Standards and Procedures of the Silk Roads World Heritage Serial and Transnational Nominantion in Central Asia” .

These projects aimed to train young experts in the protection of cultural heritage in Central Asia. As part of these two projects, a series of workshops covering documentation, excavation, conservation and site presentation were conducted.

This report provides the results of protection and research projects conducted at Ak-Beshim and Ken Bulun in the Kyrgyz Republic. Ak-Beshim is included as one of the main sites of the “Silk Roads: the Routes Network of Chang’ an-Tianshan Corridor” , which was recommended by China, the Kyrgyz Republic and Republic of Kazakhstan, and registered as a World Cultural Heritage Site at the 38th Session of the World Heritage Committee in Doha, Qatar, in June 2014. It is hoped that this report will help the research and protection of cultural heritage in Central Asia.

Finally, we would like to gratefully acknowledge the unfailing support of numerous individuals, institutions and organizations, including the Agency for Cultural Affairs in Japan, UNESCO, the Ministry of Foreign Affairs of Japan, and Embassy of Japan in the Kyrgyz Republic.

Nobuo KAMEI

Director-General

The Tokyo National Research Institute for Cultural Properties

Explanatory Notes

1. This is the report of the protection and research projects at Ak-Beshim and Ken Bulun, Kyrgyz Republic, conducted by the Japan Center for International Cooperation in Conservation, the Tokyo National Research Institute for Cultural Properties (hereafter, TNRICP), as part of the the “Training Workshops for the Protection of Cultural Heritage in Central Asia” , funded by the “Networking Core Centers for International Cooperation on Conservation of Cultural Heritage Project” of the Agency for Cultural Affairs in Japan and “UNESCO/Japan Funds-in-Trust Project: Support for Documentation Standards and Procedures of the Silk Roads World Heritage Serial and Transnational Nominantion in Central Asia” . For details of the the “Training Workshops for the Protection of Cultural Heritage in Central Asia” , funded by the “Networking Core Centers for International Cooperation on Conservation of Cultural Heritage Project” , see TNRICP (2012, 2013, 2014 and 2015), and for those of “UNESCO/Japan Funds-in-Trust Project: Support for Documentation Standards and Procedures of the Silk Roads World Heritage Serial and Transnational Nominantion in Central Asia” , see Lin, et al. (2014) and Yamauchi, et al. (2015) (see Appendix 4).

2. The projects were conducted on the basis of an agreement between TNRICP and the Institute of History and Cultural Heritage of the National Academy of Sciences of Kyrgyz Republic and jointly undertaken by these institutes and the Nara National Research Institute for Cultural Properties.

3. The schedules and participants of the projects are listed in Section 1.1.3.

4. The radiocarbon dating was conducted by Prof. Toshio NAKAMURA (Division for Chronological Research, Institute for Space-Earth Environmental Research, Nagoya University) (see Section 4.2.5).

5. Topographic mapping of Ken Bulun were undertaken by Prof. Hiroomi TSUMURA (Faculty of Culture and Information Science, Doshisha University) in 2011, and by the Institute of History and Cultural Heritage of the National Academy of Sciences of Kyrgyz Republic in 2013. It was partially funded by the Foundation for Cultural Heritage and Art Research (see Section 5.3).

6. Contributors to this volume are listed below:

Chapter 1

1.1. Shogo KUME and Masashi ABE

1.2. Hidehiro SOHMA, Kazuya YAMAUCHI, Masatoshi YAMAFUJI, Masashi ABE, Valentina SANKOVA, Valey KOLCHENKO, Jumpei KUBOTA and Mitsuko WATANABE

Chapter 2 Bakit AMANBAEVA and Aidai SULAIMANOVA (translated by Masaki NAGANUMA)

Chapter 3 Valery KOLCHENKO (translated by Kenzo KAWASAKI)

Chapter 4

4.1. Masashi ABE

4.2.1. Masashi ABE

4.2.2.1. Hiroo KANSHA, Shogo KUME and Masatoshi YAMAFUJI

4.2.2.2. Masashi ABE, Hiroo KANSHA and Shogo KUME

4.2.3. Saiji ARAI

4.2.4. Chie AKASHI

4.2.5. Toshio NAKAMURA

Chapter 5

5.1. Masashi ABE

5.2. Masashi ABE

5.3. Masashi ABE

5.4. Masatoshi YAMAFUJI

5.5. Kazuya YAMAUCHI

Chapter 6 Kazuya YAMAUCHI

Appendix 1 Shigeo SAITO

Appendix 4 Masashi ABE and Shogo KUME

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[Organizations]

The Agency for Cultural Affairs in Japan, Doshisha University, Embassy of Japan in the Kyrgyz Republic, Foundation for Cultural Heritage and Art Research, Hyogo Prefectural Museum of Archaeology, ICOMOS Kyrgyzstan, Kyrgyz-Russian Slavic University, Kyrgyz-Turkish Manas University, Mukogawa Women' s University, Nara Women' s University, Osaka Museum of History, PASCO Corporation, The Research Institute for Humanity and Nature, UNESCO Almaty Cluster Office and Yoshinogari Historical Park.

[Individuals]

Ainura Kyzy ULANBEK, Ainura TENTIEVA, Akira FUJISAWA, Alisher ARTIKBAEV, Alisher BEGMATOV, Asuka SAKAINO, Cholpon SBANBEKOVA, Djenish DJUNUSHALIEV, Ermek DOSALIEV, George BRILEVSKI, Hiroaki FURUSHO, Hiroomi TSUMURA, Hiroki YAMADA, Hiroshi KIGUCHI, Hiroshi KONDO, Izumi NAKAI, Jianlin ZHANG, Kazuto INOUE, Kazuyuki YANO, Kenkichi ONO, Kenzo KAWASAKI, Kiyohide SAITO, Kojiro SHIBA, Kubatbek TABALDIEV, Mariya KOBIJAEVA, Masaki NAGANUMA, Mirlan VEKTORSULNOV, Nuriya ARBAEVA, Rei HARADA, Sadamichi FUKUSHIMA, Sanae SOHMA, Shigeyuki OKAZAKI, Shingo HIDAHA, Shunsuke WATANABE, Susumu MORIMOTO, Takaji NISHIO, Tappei MORIMOTO, Tsuyoshi OZAWA, Valentina GORYACHEVA and Yasuyoshi OKADA

8. All material excavated and collected from Ak-Beshim and Ken Bulun is stored by the Institute of History and Cultural Heritage of the National Academy of Sciences of Kyrgyz Republic.

Table of Contents

Foreword	i
Explanatory Notes	iii
Table of Contents	v
List of Figures	vi
List of Tables	viii
1. Introduction	1
1.1. Mission Outline	1
1.1.1. Backgrounds	1
1.1.2. Ak-Beshim and Ken Bulun	2
1.1.3. Terms and Members	2
1.1.3.1. 1st Mission to Ak-Beshim	2
1.1.3.2. 1st Mission to Ken Bulun	3
1.1.3.3. 2nd Mission to Ak-Beshim	3
1.1.3.4. 3rd Mission to Ak-Beshim	4
1.1.3.5. 2nd Mission to Ken Bulun	4
1.2. Geographical Location of Ak-Beshim and Other Sites in the Chuy Valley	5
1.2.1. Introduction	5
1.2.2. Satellite Archeological Geography	6
1.2.3. The Geographical Location of Ak-Beshim and Other Sites	6
1.2.4. Rabad in Ak Beshim	8
1.2.5. Concluding Remarks	8
2. Archaeological Heritage in Kyrgyz: Research and Conservation	11
3. Medieval Towns in the Chuy Valley	17
3.1. Introduction	17
3.2. Burana	17
3.3. Ak-Beshim	19
3.4. Krasnaya Rechka	23
4. Archaeological Investigations at Ak Beshim	31
4.1. Introduction	31
4.2. Archaeological Investigations	35
4.2.1. Archaeological Features	35
4.2.2. Artefacts	40
4.2.2.1. Pottery Sherds	40
4.2.2.2. Other Materials	54
4.2.3. Faunal Remains	59
4.2.3.1. Domestic	59
4.2.3.2. Wild Species	60
4.2.4. Macrobotanical Study	60

4.2.5. Radiocarbon Dating on Charcoal excavated from Ak-Beshim	61
4.2.5.1. Introduction.....	61
4.2.5.2. The Basic Principles of ¹⁴ C Dating	61
4.2.5.3. ¹⁴ C Dating on the Charcoal Samples	62
4.2.5.3.1. The Charcoal Samples	62
4.2.5.3.2. The Sample Preparation for ¹⁴ C dating.....	64
4.2.5.3.3. Synthetic Graphite	64
4.2.5.3.4. Calibration to a Calendar year by Accelerator Mass Spectrometry (AMS).....	64
4.2.5.4. Conclusion	65
5. Archaeological Investigations at Ken Bulun.....	67
5.1. Introduction	67
5.2. Research History of Ken Bulun	67
5.3. The Results of the Topographic Mapping.....	68
5.4. Results of the Surface Collection.....	72
5.4.1. Method and Results	72
5.4.2. Collected Artefacts from Ken Bulun.....	74
5.5. Ken Bulun and Banjikat/Mi guó	80
6. Summary	83
Bibliography	85
Appendix 1 Suiye (碎葉) and Ak-Beshim: a Historical Development at the Western Tien-shan in the 7th to the First Half of the 8th Centuries	91
Appendix 2 AK-Beshim Excavation Contexts	109
Appendix 3 Measurement Values of Animal Bones Excavated from Ak-Beshim	113
Appendix 4 Networking Core Centers for International Cooperation on Conservation of Cultural Heritage Project “Training Workshop for the Protection of Cultural Heritage I Central Asia” and “UNESCO/ Japan Funds-in-Trust Project: Support for Documentation Standards and Procedures of the Silk Roads World Heritage Serial and Transnational Nomination in Central Asia”	119

List of Figures

Figure 1.1	The research area (Red Relief Image Map on GoogleEarth ©ASIA AIR SURVEY CO., LTD.)	5
Figure 1.2	Image of Satellite Archeological Geography (SAHiG) (Sohma et al. 2011)	6
Figure 1.3	Conceptual diagram of the site of Ak Beshim (referred to Kato 1997)	6
Figure 1.4	Corona Satellite Image of the site of Ak Beshim (about 300 m per scale) (November 10th in 1967 Data available from U. S. Geological Survey)	6
Figure 1.5	Corona Satellite Image of the site of Burana (about 300 m per scale) (November 10th in 1967 Data available from U. S. Geological Survey)	6
Figure 1.6	Corona Satellite Image of the site of Ken-Bulu (about 300 m per scale) (November 10th in 1967 Data available from U. S. Geological Survey)	6
Figure 1.7	Corona Satellite Image of the site of Kalikanov (tentative name) (about 300 m per scale) (November 10th in 1967 Data available from U. S. Geological Survey)	7
Figure 1.8	Corona Satellite Image of the site of Toritokuri (Sohma 1999)	7
Figure 1.9	The sites in Ak Beshim on Red Relief Image Map (©ASIA AIR SURVEY CO., LTD.)	7
Figure 1.10	Corona Satellite Image of the site of Ak Beshim (enlarged view of Fig. 3). A: Suyab; B: Rabad according to Kato (1997); SG: Southern Gate of Suyab; NG: Northern Gate of Suyab	7
Figure 4.1	A satellite photo of the site of Ak Beshim (from Google earth)	31
Figure 4.2	A satellite photo of Shakhristan of Ak Beshim (from Google earth)	32
Figure 4.3	Corona image taken in the 1960s (Data available from U.S. Geological Survey, EROS Data Center, Sioux Falls, SD)	32
Figure 4.4	Topographic map of Ak Beshim	33
Figure 4.5	Citadel (from south)	33
Figure 4.6	Location of Ak Beshim (1) (from Google Earth)	34
Figure 4.7	Location of Ak Beshim (2) (from Google Earth)	34
Figure 4.8	Nestorian church (from north)	35
Figure 4.9	Topographic map of the central part of Shakhristan (a) and excavation squares (b)	36
Figure 4.10	North and south sections of excavation squares	36-37
Figure 4.11	Large street (A2-32, B2-101) (from northeast)	37
Figure 4.12	A part of large street (from west. The right side is unexcavated. The street is paved with river cobbles and iron slag)	37
Figure 4.13	Alley excavated in the square of B1 (B1-104) (from west)	37
Figure 4.14	Alley excavated in the square of A3 (from east)	37
Figure 4.15	Unit 1, west (A1-201) and central rooms (A1-202) (from north)	37
Figure 4.16	Unit 1, east room (A2-201) (from north)	37
Figure 4.17	Unit 2 and western alley (from west)	38
Figure 4.18	Oven (A1-205) discovered in a subsidiary room of Unit 2 (from north)	38
Figure 4.19	The main room of Unit 3 (from west. The inside of benches were excavated)	38
Figure 4.20	Unit 4 (from northwest. The inside of benches were excavated)	38
Figure 4.21	Subsidiary room of Unit 4 (from north)	38

Figure 4.22	The main room and subsidiary room of Unit 5 (from south)	38
Figure 4.23	Unit 6 (from south).....	39
Figure 4.24	Oven discovered in the subsidiary room of Unit 6 (from east)	39
Figure 4.25	Cooking pot (1)	41
Figure 4.26	Cooking pot (2)	43
Figure 4.27	Plain ware (1)	45
Figure 4.28	Plain ware (2)	47
Figure 4.29	Plain ware and Burnished ware	49
Figure 4.30	Glazed ware.....	51
Figure 4.31	Other clay objects	52
Figure 4.32	Rim sherd with an inscription.....	55
Figure 4.33	Body sherd with an inscription.....	55
Figure 4.34	Roof tiles, clay objects, astragali and coins	55
Figure 4.35	Iron objects	55
Figure 4.36	Bronze objects, glasses, pearl and carnelian beads.....	56
Figure 4.37	The culling profile of sheep/goats	57
Figure 4.38	Comparison with other equid on the basis of measurements of the third metacarpal bones.....	58
Figure 4.39	Comparison with other equid on basis of measurements of the third metatarsal bones.....	58
Figure 4.40	Pig skull.....	59
Figure 4.41	Upper jaw of roe deer	59
Figure 4.42	Grape pips excavated from Ak-Beshim (Scale : 1mm)	60
Figure 4.43	The charcoal sample (A1-8) for ¹⁴ C dating unearthed from Ak-Beshim, the Kyrgyz Republic.....	61
Figure 4.44	The five charcoal samples for ¹⁴ C dating unearthed from Ak-Beshim, the Kyrgyz Republic	61
Figure 4.45	The result of calibration to calendar age from the 14C age (1096±19 BP) of sample A1-48 by OxCal4.2.3 The range of possibility based on 2 standard deviation (94.5%) is distributed AD894-991 in the probability density distribution from calibration.	62
Figure 4.46	The concise result in the probability density distribution of calibrated ages from the five charcoal samples.....	63
Figure 4.47	The comparison between the probability density distribution of both 14C ages and calibrated ages from the five charcoal samples and IntCal13 calibration curve	63
Figure 5.1	The Location of Ken Bulun	67
Figure 5.2	The Location of Ken Bulun (Google Earth)	68
Figure 5.3	Ken Bulun (from the northwest)	69
Figure 5.4	Satellite Image of ken Bulun (Google Earth)	70
Figure 5.5	1960s Corona Image of Ken Bulun (Data available from U.S. Geological Survey, EROS Data Center, Sioux Falls, SD)	70
Figure 5.6	Topographic Map of Ken Bulun (Created by the Institute of History and Cultural Heritage, National Academy of Sciences, Kyrgyz Republic).....	71
Figure 5.7	Three Dimensional Ortho Map of Shakhristan (by Doshisha University)	71
Figure 5.8	Southern ditch of Rabad (from east)	72
Figure 5.9	Shakhristan (from east)	72
Figure 5.10	Western gate of Shakhristan (from west)	72
Figure 5.11	Citadel (from south)	72

Figure 5.12	Grid systems in the Shakhristan of Ken Bulun site.....	73
Figure 5.13	Pottery sherds of the Pre-Kala-Khanid period (before the ninth century AD)	74
Figure 5.14	Collected pottery of the Kala-Khanid period.....	75
Figure 5.15	Collected pottery of the Post Qalaxhanid period	78
Figure 5.16	Collected coin of the Qalaxhanid period	79

List of Tables

Table 4.1	Islamization during Qara Khan dynasty	31
Table 4.2	Faunal remains excavated from Ak-Beshimin 2012 and 2013.....	53
Table 4.3	¹⁴ C dating and calibrated age ranges for the charcoal samples unearthed from Ak-Beshim in the Kyrgyz Republic	58
Table 5.1	List of collected artifacts	67

1. Introduction

1.1. Mission Outline

1.1.1. Backgrounds

The headwaters of the Chuy River are located in the Tien-Shan Mountains in the Kyrgyz Republic. After the river crosses the northern part of Kyrgyz from east to west, passing northeast of Bishkek, the modern capital of Kyrgyz, it flows into Kazakhstan. The Chuy Valley consists of a vast area of flat land and fertile soils. For this reason, the valley is a valuable agricultural zone, as well as a strategic point of east-west interactions along the Silk Road, which has connected China, India and Iran since antiquity. The predominant sites along the Silk Road during the period from the 5th century to the 13th century, including Balasagun/Burana, Navikat/Krasnaya Rechka and Suyab/Ak-Beshim, are located in the Chuy Valley. All three sites were added to the World Heritage list in 2014.

The Tokyo National Research Institute for Cultural Properties (hereafter TNRICP) has conducted archaeological investigations of the two Medieval cities of Ak-Beshim and Ken Bulun in the Chuy Valley since 2011. The investigations at the two sites are part of human resource development and technological transfer programs conducted by TNRICP in the field of safeguarding cultural heritage in Kyrgyz (the “Training Workshops for the Protection of Cultural Heritage in Central Asia”, funded by the “Networking Core Centers for International Cooperation on Conservation of Cultural Heritage Project” of the Agency for Cultural Affairs in Japan; “UNESCO/Japan Funds-in-Trust Project: Support for Documentation Standards and Procedures of the Silk Roads World Heritage Serial and Transnational Nominations in Central Asia. (For the details of the two projects, see Appendix 4).

In the academic sphere, it has long been required to return study outcomes to communities. Various outreach efforts have been made in the field of

archaeology throughout the world (Fagan 2010). In contrast to general scientific investigations, the primary aims of archaeological activities conducted by TNRICP were international cooperation for cultural heritage protection and returning study outcomes to the local communities in which archaeological sites are situated, including human resource development of young local archaeologists and technological transfer toward the inscription of sites along the Silk Road on the World Heritage List. It is expected that the sharing of research outcomes between foreign researchers, local researchers, and communities will become increasingly significant in the future (Seki 2014). The archaeological investigations in Kyrgyz undertaken in these projects were experiments in sustainable archaeological fieldwork abroad, striking a balance between cooperation with local researchers and communities and archaeological results.

As described above, the aims of these projects included the development of surveying/excavation skills and transfer of advanced documentation technology of cultural heritage. To make an agreement with the projects’ counterpart, the Institute of History and Cultural Heritage of the National Academy of Sciences of the Kyrgyz Republic, and to select archaeological sites for on-site training, Nobuo Kamei, Kazuya Yamauchi, Masashi Abe, and Masatoshi Yamafuji from TNRICP and Susumu Morimoto from the Nara National Research Institute for Cultural Properties (hereafter NNRICP) visited the Kyrgyz Republic for project meetings and surveyed the archaeological sites along the Chuy River from 25th July to 29th July, 2011.

At that time, Kyrgyz colleagues had prepared for the inscription of archaeological sites along the Silk Road on the World Heritage List in collaboration with Kazakhstan and China. For this reason, they requested to select candidate sites for the inscription as on-site training locations for the projects.

Accordingly, Ak-Beshim was selected as the site for surveying/excavation training. In 2014, the site was inscribed on the World Heritage List as “Silk Roads: The Routes Network of Chang'an-Tianshan Corridor.” During 2011, we visited the site of Ken Bulun, located between Ak-Behim and Krasnaya Rechka. So far, no investigation including survey or surface collection of artefacts, has been conducted at the site. For this reason, it was determined that measurements and a surface survey of the site would be conducted to acquire basic data on the structure of the city and dating of the site. As a result, Japanese and Kyrgyz collaborators agreed to conduct joint research at Ak-Beshim and Ken Bulun.

1.1.2. Ak-Beshim and Ken Bulun

The site of Ak-Beshim is located 45 km east of Bishkek, the modern capital of the Kyrgyz Republic. Ak-Beshim is identified as Suyab in Chinese sources and Kubal/Saghur Kubal in Islamic sources (for more details of the historical and archaeological background of the site, see Chapter 3 and Appendix 1) (Kato 1997; Kenjeahmet 2009).

The history of Ak-Beshim (Suyab) begins at least in the 5th century. At that time, many settlements in the area were founded by Sogdian immigrants from the west, and it is generally believed that Ak-Beshim was founded by these groups. Since then, the settlement grew into a political center along the Tian-Shan corridor of the Silk Roads (Kenjeahmet 2009).

In the 7th century, Ak-Beshim became a political center of the Western Turkic Khaganate. *Suyab* is mentioned in the famous Chinese texts, “Great Tang Records on the Western Regions” and “A Biography of the Tripitaka Master of the Great Ci’ en Monastery of the Great Tang Dynasty” . According to these texts, Xuanzang, a Chinese monk, stopped at Suyab on his journey to India and met Yabghu Qaghan, a qaghan of the Western Turkic Khaganate (Kato 1997). It is also argued that Li Po, a famous

Chinese poet, was born in Suyab.

Soon after Xuanzang left Suyab, the Chinese Tang Dynasty sent armies to Central Asia and attacked the Western Turkic Khaganate. One of the main Tang military bases called Suyab Zhen was located at Suyab. The Tang and Western Turkic Khaganate battled over Suyab many times. Even after Tang left Suyab, it continued to be a main political center of the Qarluq and Qara Khan Dynasties. The latter was the first Turkic Islamic dynasty in Central Asia. Subsequently, the capital of the Qara Khan Dynasties was relocated to Balasagun (modern Burana), which resulted in a decline in the status of Suyab. It seems that Ak-Beshim was abandoned by the beginning of the 13th century (Kenjeahmet 2009).

The site of Ken Bulun is located 40 km east of Bishkek. The details of the site are explained in Chapter 5. The site was first described by A. I. Terenozhkin in the 1920s. Since then, no archaeological investigations have been conducted at the site. However, the site was recently rediscovered through the identification of a Buddha statue on the black market, which is believed to have been looted from the site. Ken Bulun can possibly be identified as Banjikat/Panjikat in Islamic sources or Miguo in Chinese sources (Mori 1993; Yoshida 2002). Future excavations and analyses of artefacts and features will shed new light on the archaeology and history of the region.

1.1.3. Terms and Members

1.1.3.1. 1st Mission to Ak-Beshim

(6-17 October, 2011)

Japan:

Kazuya Yamauchi (TNRICP)

Masashi Abe (TNICP)

Masatoshi Yamafuji (TNRICP)

Takeshi Ozawa (NNRICP)

Susumu Morimoto (NNRICP)

Kojiro Shiba (NNRICP)

Hidehiro Soma (Nara Women’s University)

Kyrgyz:

Bakit Amanbaeva
(Institute of History and Cultural Heritage)
Aidai Sulaimanova
(Institute of History and Cultural Heritage)
Valery Kolchenko
(Institute of History and Cultural Heritage)
Aida Abykanova (American University, Central Asia)
Azimjan Kasymov
(Shakh Fazil Historical Archaeological Museum Complex)
Eldar Medetov (Kyrgyz-Turkish Manas University)
Orozbek uulu Mirlanbek (Kazakmys Gold Kyrgyzstan)
Kunbolt Akmatov (Kyrgyz State Museum)
Dmitry Lujanskiy
(Museum of the Kyrgyz Russian Slavic University)
Hairullo Habibullaevich Ibaydullaev
(Sulaiman Too Museum, Osh)
Maksat Sandybaev (State School 63, Kyrgyzstan)
Uzbekistan:
Izzat Umurzakov (Ministry of Culture and Sports)
Kazakhstan:
Meiram Seitkaliyev (Archaeological Expertise)
Tajikistan:
Bobomullo Bobomulloev
(National Museum of Antiquities of Tajikistan)
Turkmenistan:
Bagtiyar Jumayev
(State Historical and Cultural Park of Serakhs)

1.1.3.2. 1st Mission to Ken Bulun (18-27 October, 2011)

Japan:
Kazuya Yamauchi (TNRICP),
Masashi Abe (TNRICP)
Masatoshi Yamafuji (TNRICP)
Hiroomi Tsumura (Doshisha University)
Shunsuke Watanabe (Doshisha University)
Tappei Morimoto (Doshisha University)
Alisher Begmatov (Doshisha University)
Kyrgyz:
Bakit Amanbaeva
(Institute of History and Cultural Heritage)
Aidai Sulaimanova

(Institute of History and Cultural Heritage)
Valery Kolchenko
(Institute of History and Cultural Heritage)
Aida Abykanova (American University, Central Asia)
Azimjan Kasymov
(Shakh Fazil Historical Archaeological Museum Complex)
Eldar Medetov (Kyrgyz-Turkish Manas University)
Orozbek uulu Mirlanbek (Kazakmys Gold Kyrgyzstan)
Kunbolt Akmatov (Kyrgyz State Museum)
Dmitry Lujanskiy
(Museum of the Kyrgyz Russian Slavic University)
Hairullo Habibullaevich Ibaydullaev
(Sulaiman Too Museum, Osh)
Maksat Sandybaev (State School 63, Kyrgyzstan)

1.1.3.3. 2nd Mission to Ak-Beshim (September 1-17, 2012)

Japan:
Kazuya Yamauchi (TNRICP)
Masashi Abe (TNRICP)
Shogo Kume (TNRICP)
Susumu Morimoto (NNRICP)
Kyrgyz:
Bakit Amanbaeva
(Institute of History and Cultural Heritage)
Aidai Sulaimanova
(Institute of History and Cultural Heritage)
Valery Kolchenko
(Institute of History and Cultural Heritage)
Aida Abdykanova
(American University, Central Asia)
Adilet Yrysbekov
(Kyrgyz National University of J. Balasagyn)
Alisher kyzy Saltanat
(Kyrgyz-Turkish Manas University)
Eldar Medetov (Kyrgyz-Turkish Manas University)
Orozbek uulu Mirlanbek (Kazakmys Gold Kyrgyzstan)
Dmitry Lujanskiy
(Museum of the Kyrgyz Russian Slavic University)
Chynarbek Zholdoshev
(Sulaiman Too Museum, Osh)
Rashit uulu Nurzhigit (Osh State University)

Afghanistan:

Abdul Khalid Khursheed (Institute of Archaeology)

Abdul Qadir Timori (Institute of Archaeology)

Armenia:

Karen Azatyan (Yerevan State University)

Kazakhstan:

Mikhail Gurulyov (Archaeological Expertise)

Tajikistan:

Bobomullo Bobomulloev

(National Museum of Antiquities of Tajikistan)

Turkmenistan:

Maksat Amanov (Archaeological Park, Ancient Merv)

1.1.3.4. 3rd Mission to Ak-Beshim

(27 August-12 September, 2013)

Japan:

Kazuya Yamauchi (TNRICP)

Masashi Abe (TNRICP)

Hiroaki Furusho (Komazawa University)

Kyrgyz:

Bakit Amanbaeva

(Institute of History and Cultural Heritage)

Aidai Sulaimanova

(Institute of History and Cultural Heritage)

Valery Kolchenko

(Institute of History and Cultural Heritage)

Kunbolot Akmatov

(Novosibirsk State University)

Adilet Yrysbekov

(Kyrgyz National University of J. Balasagyn)

Alisher kyzy Saltanat

(Kyrgyz-Turkish Manas University)

Bakchiev Dastan

(Kyrgyz National University of J. Balasagyn)

Karimzhan kyzy Altynai

(Kyrgyz-Turkish Manas University)

Dmitry Lujanskiy

(Museum of the Kyrgyz Russian Slavic University)

Chynarbek Zholdoshov

(Sulaiman Too Museum, Osh)

Rashit uulu Nurzhigit (Osh State University)

Afghanistan:

Abdul Khalid Khursheed (Institute of Archaeology)

Azizuddin Wafa (Institute of Archaeology)

Armenia:

Karen Azatyan (Yerevan State University)

Kazakhstan:

Mikhail Gurulyov (Archaeological Expertise)

Tajikistan:

Bobomullo Bobomulloev

(National Museum of Antiquities of Tajikistan)

Turkmenistan:

Maksat Amanov (Archaeological Park, Ancient Merv)

1.1.3.5. 2nd Mission to Ken Bulun

(November 2013)

Kyrgyz:

Bakit Amanbaeva

(Institute of History and Cultural Heritage)

Aidai Sulaimanova

(Institute of History and Cultural Heritage)

Valery Kolchenko

(Institute of History and Cultural Heritage)

Dmitry Lujanskiy

(Museum of the Kyrgyz Russian Slavic University)

Chynarbek Zholdoshov

(Sulaiman Too Museum, Osh)

1.2. Geographical Location of Ak-Beshim and Other Sites in the Chuy Valley¹⁾

1.2.1. Introduction

During the Tang Dynasty, the northern Tianshan route of the Silk Road passed along the northern foothills of Western Tianshan Mountains (Kyrgyz Mountains). Nurlan (2009) described the history of Ak-Beshim as follows. After Sogdian merchants settled in Ak-Beshim in the 5th or 6th century, the site flourished with trade growth. In the 7th century, it became a political center (Suyab) of the Western Turkic Khaganate, where Xuanzang, a Chinese Buddhist monk is known to have stayed. After 657, Ak-Beshim was intermittently ruled by the Tang Dynasty, the Western Turkic Khaganate and the Tibetan Empire. The monument of Du Huanbao was made in 682 by a Tang Dynasty official. Although Ak-Beshim began to decline when the Tang army destroyed the fortification in 748. But Tang army withdrew after the Battle of Talas in 751 and Ak-Beshim continued to be inhabited until the

beginning of the 13th century as an important fortified town of the Qarluq and Qara Khan Dynasties. Excavation revealed that the site has four distinct cultural strata, including the Sogdian cultural stratum (from the 5th to the 7th century), Turkic Khaganate-Tang cultural stratum (from the 7th to 8th century) and Qarakhanid cultural stratum. In addition, the remains of several Buddhist temples and Nestorian church have been found at the site.

While previous excavations since the 19th century revealed the general characteristics of Ak-Beshim, fundamental questions still remain unsolved. For example, the reason why Ak-Beshim was built in this area has not been studied. Although a number of archaeological sites have been discovered around Ak-Beshim (Fig. 1.1), the geographical location of these sites also has not been investigated yet. The primary purpose of this paper is to study the geographical location of the archaeological sites through high-resolution satellite images and field surveys.



Figure 1.1 The research area (Red relief image map on GoogleEarth ©ASIA AIR SURVEY CO., LTD.)

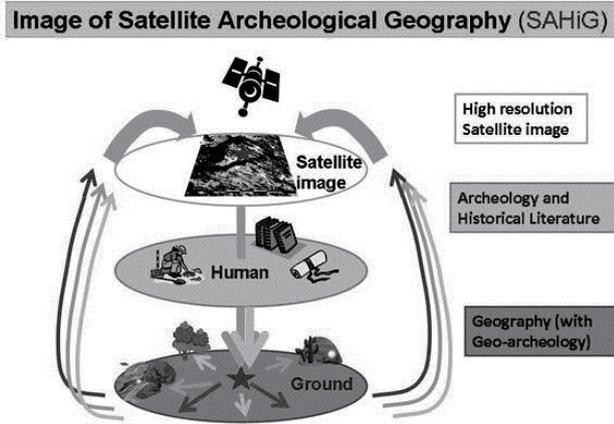


Figure 1.2 Image of Satellite Archaeological Geography (SAHiG) (Sohma et al. 2011)

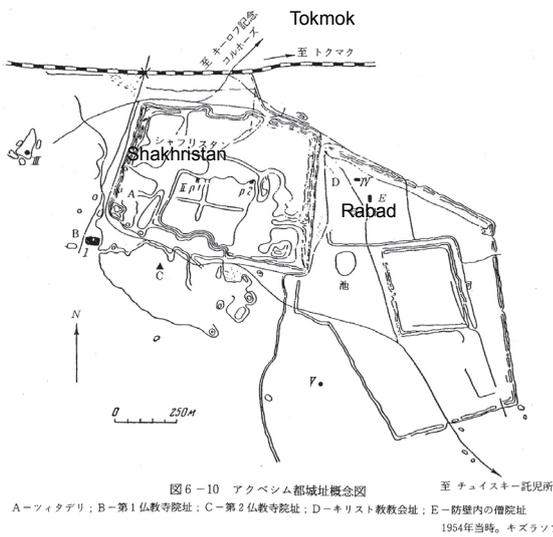


Figure 1.3 Conceptual diagram of Ak-Beshim (referred to Kato 1997)



Figure 1.4 Corona satellite image of Ak-Beshim (about 300 m scale) (10 November, 1967, data available from U. S. Geological Survey)



Figure 1.5 Corona satellite image of Burana (↓) (about 300 m scale) (November 10, 1967, data available from U. S. Geological Survey)

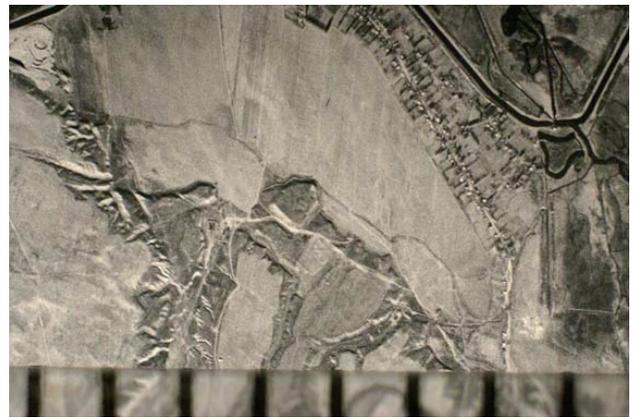


Figure 1.6 Corona satellite image of the site of Ken-Bulu (about 300 m scale) (10 November, 1967, data available from U. S. Geological Survey)

1.2.2. Satellite Archaeological Geography

The satellite archaeological geography is a method for studying archaeological sites through satellite images supported by archaeological and geographical field surveys and the study on historical documents (Sohma et al. 2011; Fig. 1.2). This study used Corona satellite images (about 3 m resolution, hereafter Corona) taken in 1967 and Quick Bird Images (0.6 m resolution) taken in 2007.

1.2.3. The Geographical Location of Ak-Beshim and Other Sites

In addition to Ak-Beshim, Minor Ak-Beshim, Burana, Ken Bulun, Kegeti, Kalinovka and kurgans, are located in the research area (Nurlan 2009).

The geographical location of these sites can be



Figure 1.7 Corona satellite image of Kalikanov (tentative name) (about 300 m scale) (10 November, 1967, data available from U. S. Geological Survey)

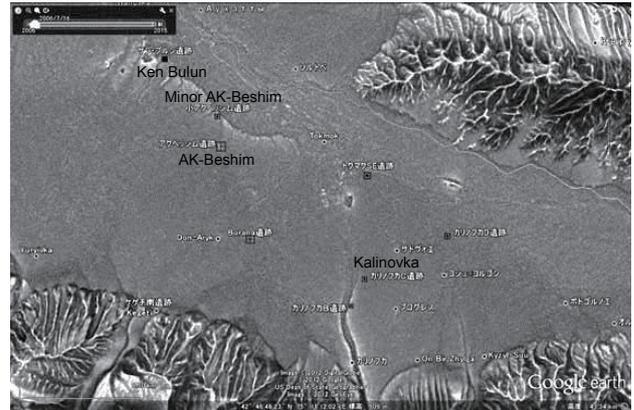


Figure 1.9 Ak Beshim on red relief image map (©ASIA AIR SURVEY CO., LTD.)



Figure 1.8 Corona satellite image of Toritokuri (Sohma 1999)

divided into four categories: a) edge of alluvial fan (Ak-Beshim: Figs. 1.3 and 1.4), b) alluvial lowland (Burana: Fig. 1.5), c) edge of river terrace (Ken-Bulun : Fig. 1.6 ; Kalinovka : Fig. 7 ; Kegeti, Minor Ak-Beshim) and d) river terrace.

Corona (Fig. 1.4) and a 1/50,000 scale topographical map show that Ak-Beshim is situated at the juncture of edges of two dissected alluvial fans which stretch from south to the Chuy Valley. Among the sites in the research area, this location is the most accessible to underground water and the safest from possible river flooding on both sides.

The site of Burana, which might have become the central fortified town in the research area after the decline of Ak-Beshim, is situated in the alluvial plain of a stream flowing between two alluvial fans.

As the upper reaches of this area is officially

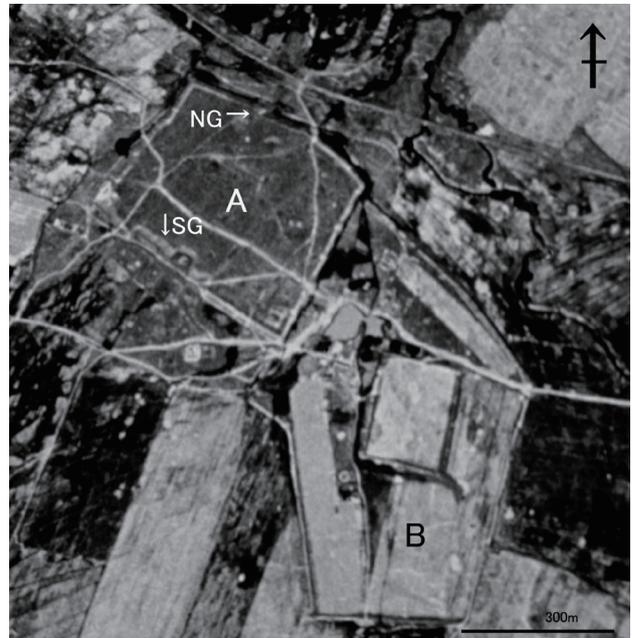


Figure 1.10 Corona satellite image of Ak Beshim (enlarged view of Fig. 3). A: Suyab; B: Rabad according to Kato (1997); SG: southern gate of *Suyab*; NG: northern Gate of *Suyab*

designated as a landslide disaster area today, Burana likely would have been vulnerable to flood damages. As mentioned above, because Ak-Beshim was intentionally built in an area that provides flood resistance, Burana seems to have been constructed for a different purpose. Was the construction near a stream a kind of a measure to flood, or was the flood frequency different from the frequency when Ak-Beshim was built? To answer these questions, the area should be studied further.

The sites in category c (Ken-Bulun, Kalinovka and Minor Ak-Beshim) were small fortified towns. The length of the fortification wall is around 100 m and the terrace scarp was used for fortification. And some of them were protected by 10 m wide ditches. These indicate that their locations were chosen for defence purposes. A similar fortified town is also found on the southern shore of Lake Issyk-Kul (Fig. 1.8).

The sites in category d include walled structures. The structures could be fire beacon stands because of their small size and relatively intermittent distribution. Kurgans are also located on the terrace.

1.2.4. Rabad in Ak-Beshim

In 1982, the excavation team at Ak-Beshim uncovered the Monument of Du Huanbao, made in 682 by Du Huanbao, the assistant protector of Pacify the West, to commemorate his deceased mother (Naito 1997). Following Naito (1997) and in accordance with Chinese texts, mainly *Da Tang Xiyu Ji* (Great Tang Records on the Western Regions), Saito (2011) identified Ak-Beshim as Suyab, a city once Du Huanbao guarded. Suyab was a western political and commercial center of the Tang Dynasty. Saito (2011) also mentioned “four faced citadel in Suyab were furnished with twelve bent gates constructed for hiding sally and retreat (of soldiers” and he concludes that this quadrangular Suyab can be identified as Rabad.

On the other hand, Kato (1997) and Nurlan (2009) thought that Rabad was the hexagonal area adjacent to the southeastern corner of the quadrangle site.

Fig. 1.10 shows an enlarged portion of the Corona satellite image of Ak-Beshim already seen in Fig. 1.4. Kato and Nurlan identified the area indicated with B as Rabad and the area indicated with A as Suyab. Slightly west of the center of the southern wall of Suyab, the South Gate (SG in Fig. 1.10), the biggest gate of this site, is located. Around the gate, the southern wall is inflected. Although it is less clear,

the northern wall around the northern gate is also inflected (NG in Fig.1.10). These characteristics can also be observed on site. Today, a street runs inside of Suyab approximately parallel to the southern wall. The street begins slightly south of the center of the eastern wall. Where this street passes through the eastern wall, a trace of a barbican is observed as it projects outward. The wider portion of the western wall of Suyab slightly projects outwards around the area where the street passes through the wall to northwest.

The conditions of these walls correspond to the remarks by Saito (2011) mentioned above. The dark area in Fig. 1.10 shows the bodies of water that extend parallel to the outside of the walls of Suyab. Even though its size decreased over the course of fieldwork in October 2011, the water area seen in Fig. 1.10 was observed to have depressions. Along the northern wall, there is a narrow depression which stretch from east to west. In addition, another short depression was observed to the north of the northern wall. Although it is not clear in Fig. 1.10, a depression stretches along the southern wall as well.

In summary, although different conclusions can be formed concerning the location of *Rabad*, the theory stated by Saito (2011) is considered reasonable based on the descriptions in the Chinese texts, the interpretation of Corona satellite images, and the result of the fieldwork presented here.

1.2.5. Concluding Remarks

The results of this research combining philological study, interpretation of high-resolution satellite images (Corona), and field survey can be summarized as follows:

- 1) The geographical location of the archaeological sites can be divided into four categories: a) edge of alluvial fan (Ak-Beshim: Figs. 1.3 and 1.4), b) alluvial lowland (Burana: Fig. 1.5), c) edge of river terrace (Ken-Bulun : Fig. 1.6 ; Kalinovka : Fig. 1.7 ; Kegeti, Minor Ak-Beshim) and d) river terrace (small walled structures).

2) Ak-Beshim is situated at the juncture of edges of two dissected alluvial fans which run from south to the Chuy Valley. Among the sites in the research area, the location is the most accessible to underground water and the safest from possible river floodings on both sides. The fact that the site was constructed in the most ideal location in the area explains the long history of Ak-Beshim as a political and commercial center.

3) Two possibilities for the location of Rabad in Ak-Beshim have been suggested. Through the detailed interpretation of Corona and fieldwork, it is clear that a number of gates were furnished at Shakristan as Kato (1997) has remarked previously. Therefore, the Shakristan that Kato (1997) identified with is Rabad³.

Acknowledgements

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Notes by Editors

1) This paper is a reprint of Sohma, H., Yamauchi, K., Yamafuji, M., Abe, M., Sankova, V., Valery, K., Kubota, J., Watanabe, M. "Characteristics of fortified town of Ak-Beshim and surrounding ruins in the Chuy valley of the Kyrgyz Republic, based on the Satellite Archaeological Geography (SAHiG)" in *Project Report on an Oasis-region*, Vol 9, No.1, 2012/3 in Japanese (editor: Kubota Jumpei, issued by Ili Project, published by Research Institute for Humanity and Nature in March 2012.). Except for the correction of minor typographical errors, the author has not changed the original manuscript.

This is a report of the research in the Kyrgyz Republic in October 2011 led by Sohma Hidehiro (former professor at Nara Woman' s University), who passed away at the age of 62 on 11 August, 2012. He was active in research until he passed away. I would like to express my deep respect for his great contributions to the development of geography and archaeology and offer my deepest sympathy.

I am grateful to Sanae Sohma, his wife, for her consideration for the reprint. I would also like to thank Kubota Jumpei (Research Institute for Humanity and Nature), Watanabe Mitsuko (associate fellow in Nara Women' s University), and other co-authors for their assistance and agreement.

2) Rabad is a settlement outside of the city wall, whose concept is opposite to Shakhristan (a

settlement inside of city wall). These terms are often used to distinguish upper and lower towns of a site in the study of Central Asian archaeology. At the site of Ak-Beshim, the area with trapezoidal walls is called a Shakristan (A in Fig. 1.10) and its southeastern area with pentagonal walls is called a Rabad (B in Fig. 1.10).

As Saito points out in Appendix 1, the Old Book of Tang records that Wang Fangyi reconstructed Suyab in 679. The text states that he built four faced walls with twelve gates and the gates were inflected to hide sally and retreat of soldiers. Generally, it has been thought that Wang Fangyi extended the new city walls in the area called *Rabad* for the construction of Buddhist temples and settlements for people from China, including monks (Goryacheva and Peregudova 1996: 186; Kato 1997: 148-149). However, Corona Satellite Images indicate that the shape of the walls in the area, now called Shakristan, correspond to the description in the Old Book of Tang. Thus, this paper suggests that the Wang Fangyi' s city wall was constructed in Shakristan, not in Rabad.

The existence of the city walls in Shakristan is almost certain because Xuanzang, who visited there in 630, recorded the city walls and their size (Kato 1997: 148). His description suggests the possibility that Wang Fangyi' s work was not only the construction of Rabad as previously thought, but also the reconstruction of the city walls and gates in Shakristan. Dating of the city walls both in Shakristan and Rabad is needed.

3) See Note 2.

2. Archaeological Heritage in Kyrgyz: Research and Conservation

A significant part of the cultural heritage of Kyrgyz is comprised of archaeological sites. In 2002, 371 archaeological sites were registered on the official list of monuments of national importance, making a total of 583.

The study of the archaeological heritage in Kyrgyz began in the middle of the 19th century. The relationship between settled agricultural and nomadic communities has been studied traditionally, because of the historical process in Kyrgyz, which has provided an arena of interaction and mutual adaptation of agricultural and nomadic cultures since the Bronze Age. Based this interaction, typical and valuable monuments in Kyrgyzstan have been explained. On the other hand, studies of the Stone Age are addressed from other viewpoints.

New materials acquired from archaeological research conducted after independence, are helping to elaborate the rich historical sources of Kyrgyz.

The results of previous studies of the Bronze Age and archaeological sites belonging to each stage of the Stone Age, conducted throughout the country, have allowed for the continuous study of new and known objects. In 2000, the Kyrgyz-Russian international archaeological expedition to Palaeolithic sites resumed, based on the agreement of cooperation between the Institute of History and Cultural Heritage of the National Academy of Sciences of Kyrgyz Republic (hereafter IHCH) and the Institute of Archaeology and Ethnography of the Siberian Branch of the Russian Academy of Sciences (Chargynov 2010: 10).

This expedition discovered the Kapchigay II site in the Yutash Sai Region (Kadamzhai District in Batken). As the result of the excavation conducted in 2002–2004, 30 archaeological strata were revealed. More than 36,000 artefacts were found. Those uncovered from the lower strata were assumed to belong to the Middle Palaeolithic (Sultanov 2005:

3-6; Chargynov 2010).

In 2007, archaeologists from the Kyrgyz-Turkish Manas University, Kyrgyz National University named after Jusup Balasagyn (hereafter Kyrgyz National University) and the American University of Central Asia conducted archaeological surveys at At-Bashy District in Naryn to identify the locations of the Stone Age sites.

As a result, new Palaeolithic sites were discovered in the Kochkor Valley: Kalmak-Tash near Cholpon V, Sary-Jaz in the upstream region of the Naryn River (central and inner region of Tienshan Mountains), Besh-Belchir, Chatyr-Kul' , Ak-Sai and Arpa in the At-Bashy District. Similar research was carried out in the Issyk-Kul Region. Particularly in the alpine region, the origins of stone materials suitable for manufacture of stone tools (silica, chalcedony, jasperoid hornfels, schist and porphyry) were found near archaeological sites. The collection of tools is represented by the following instances: massive instruments with the “nose,” chopping tools, prism-shape cores, massive debris with processed traces, and flakes with minute ablation. Some of them date to the Neolithic and Mesolithic, while forms that originate in older periods, such as the Upper and Middle Palaeolithic are also included (Abdykanova et al. 2008: 3-9).

Thus, the Palaeolithic sites found in the At-Bashi District, suggest regional differences in Kyrgyzs, and local variation in “high-mountain Asia” during the Stone Age.

Excavation works at Shagym necropolis (Uzgen District, Osh) in 2005 and 2006, generated much excitement among archaeologists. The discovered artefacts included jewellery, household items, weapons and tools, which are similar to the material culture of Northern Bactria in the Bronze Age. The excavations were conducted by ICIH together with the Kazakhstan Research Institute on the Cultural

Heritage of Nomads (in Almaty, Kazakhstan) (Amanbaeva et al. 2005: 256-265).

These artefacts excavated from Shagym are very valuable and share characteristics with those of the early stage of Sapalli Culture in the southern Uzbekistan, as well as the Dashlinskogo Oasis and Shortugay in northern Afghanistan. On the other hand, it is noteworthy that they also have common characteristics with the materials used in Zamanbaba (Uzbekistan), the burial sites of Zardcha Khalifa, and the late settlement layer of Sarazm (Tajikistan). Based on these analogies, the burials at Shagym can be dated to the first half of the second millennium B. C., although radiocarbon dating has not been performed. Thus, the necropolis of Shagym is now the most northeastern instance of the Northern Bactrian culture which spread as the early agricultural culture in Central Asia. This fact indicates that the Early Bronze culture in the Ferghana Valley corresponds to a period of development, and was older than the Chust culture.

In 2004, archaeologists of the Kyrgyz National University discovered burial mounds at Bel-Saz in the Kochkor Valley, also belonging to the Bronze Age. According to the study of the burials, two types of funeral customs were used in northern Kyrgyzs during the Bronze Age: cremation, and inhumation (Tabaldiev 2011: 28).

Studies of archaeological sites belonging to the later periods continue, and medieval settlements in the Chuy Valley are also being studied.

A complicated Christian building complex was excavated in the south-eastern part of the Shakhristan 1 at Ak-Beshim (Suyab) from 1996 to 1998. A significant number of the objects were unearthed by experts of IHCH and the State Hermitage Museum, Russia and, the unearthed monuments are under conservation. According to experts, this complex is the largest known religious buildings relating to Christianity in Central Asia (Semenov 2008: 46).

Furthermore, excavations were conducted at

other parts of Ak-Beshim in a joint expedition of the Kyrgyz Republic and Japan in 2006–2007, and several dwellings and materials including fragments of Buddha statues and decorations, were discovered (Kurimoto and Vedutova 2007).

Archaeological researches at Novopokrovka 2 located 10 km east of Bishkek, was conducted by the IHCH and the University of Bonn (Germany) from 2004 to 2010.

Before the joint excavation, part of the fortress wall, corner tower, and the adjacent living quarters had been excavated at the southeastern corner of the fort. The results of the joint excavation indicated that the site had three cultural strata. During the last stratum belonging to the 11th and early 12th centuries, the fortifications were no longer functional, and dwellings were built just above the wall. Although a series of pottery was revealed in the lower stratum dating to the 7th and early 8th centuries, its cultural origin has not been clearly confirmed (Kolchenko and Rott 2005: 75–81).

Archaeological research at Krasnaya Rechka has been conducted since 2007. The excavations were carried out by Kyrgyz-Russian Slavic University until 2009, and by IHCH and the State Hermitage Museum from 2010. The locations of the excavation were selected where destructions by modern development was a concern: the necropolis, sections of walls of Shakhristan 1 and 2, and settlements of the northwestern corner of the city. In 2010, an emergency excavation was carried out on the hill at the western part of the Rabat, because the upper part of the hill had collapsed. As a result, remains of the “third” Buddhist temple and the lower torso of a clay Buddha statue seated on a rectangular pedestal, dating the 7th or 8th was discovered. The excavation continues now (Torgoev et al. 2012). These materials not only complement prior data, but also allow for the re-consideration of the stages of settlement formation.

Underwater archaeological research along Issyk-Kul Lake has been carried out by the historical and

archaeological expedition of Kyrgyz-Russian Slavic University with the active cooperation of divers from Moscow. Moreover, in contrast to other regions of the country, researches in this region is conducted continuously.

They studied various sites of different periods and regions, among which the research at a stationary settlement, Kurmentin, should be mentioned specially. The site, located at the bottom of the Gulf of Tyup, belongs to the ancient and the medieval periods. The materials collected from this site have become the basis for a new interpretation of certain issues related to the process of urbanization, as well as the dispersion of some of the historical sites in the Issyk-Kul Region (Ploskikh and Ploskikh 2008).

Archaeological research at Osh and its surroundings in the Fergana Region was carried out from 1997 to 2000, as parts of the national project of “Osh-3000.” During the project, excavation of the medieval bath at the eastern foot of Sulaiman-Too Mountain was completed, and the excavations at Ak-Buurin were continued. This site could be identified as the ruins of the ancient and medieval Osh (Amanbaeva and Abdulloev 2000: 4–5).

Systematic surveys were conducted in the inner Tianshan-Kochkor Valley (Naryn Region) from 1998 to 2006, during which a landmark discovery in the study of ancient Turkic culture was published by archaeologists of the Kyrgyz National University and the Kyrgyz-Turkish Manas University: the buffer zone of the Turkic Khaganate as mentioned in early medieval documents. In the southeastern part of the valley, warriors on horseback with birds of prey, ancient Turkic inscriptions (30 words) and tamga (emblem) were depicted on large boulders in the Kara-Too Mountains. Furthermore, a significant number of burial sites, funeral monuments, stone sculptures and balbals (Kurgan stelae: human statues) were also discovered (Tabaldiev and Soltobaev 2001).

From 2004 to 2006, the Kyrgyz National University renewed the excavation of the medieval fort at

Koshoi-Korogon in At-Bashi (Naryn Region). The main purpose of the research had been to collect materials for the exhibition of the History Museum adjacent to the site. These materials were put into displayed in 2008 (Moskalev et al. 2007).

During the preparation for work in the national history reserve area of “Manas-Ordo” in Talas from 2002 to 2004, IHCH staff carried out the emergency excavation of the Kenkol cemetery dating to the Hun period, where A. N. Bernshtam had surveyed in 1939. As a result, new data concerning the catacomb culture, and in particular, funerary structures and rites was collected in addition to, various archaeological materials (Amanbaeva et al. 2002).

Rock art, another important component of the archaeological heritage of Kyrgyz, have also been studied continuously. For instance, Saimaly-Tash, Jaltyrak-Tash, Chiyim-Tash (Ur-Maral), Kenkol, Orno, Sulaiman-Too, Ayrymach-Too, and Duldul-Ata are well-known sites (Tashbaeva 2004, 2005; Amanbaeva et al. 2006, 2007, 2009).

It should be noted that the archaeological works carried out in the last few decades, were not conducted to obtain scientific results, but were parts of the integrated programs combining documentation, research, and practical components, implemented within the framework of national and international projects. In particular, UNESCO played an important role in programs such as the “Preservation of Silk Roads sites in the Upper Chuy Valley in Kyrgyzstan: Navikat (Krasnaya Rechka), Suyab (Ak-Beshim) and Balasagyn (Burana)” (from 2004 to 2008, funded by the Japanese Funds-in-Trust for the Preservation of the World Cultural Heritage), and the “Central Asian Rock Art Database (CARAD)” (from 2003 to 2005). The former project gave scientists and engineers in Kyrgyz opportunities to increase their experience through practical excavation and preservation, as well as through training and collaboration with international experts. At these sites, various types of preservation were

applied: simple filling of exposed structures (the ruins of the medieval Christian complex in Ak-Beshim, and Areas P-1 and P-7 in Krasnaya Rechka) to the construction of ceilings over the parts of the site (the citadel and the Buddhist temple in Krasnaya Rechka). Covering the ancient walls with modern masonry and partial reconstruction of the devastated points are a promising and effective method for preservation (Mausoleum 4 in Burana).

Basic documentation methods, such as preparing topographical maps, photography, aerial photography, preparing reports on collected and analysed items, and archiving documentation of previous seasons were implemented. As a result, it has become possible to achieve the following important tasks: definition of protected zones, as a means to ensure effective legal and physical protection of facilities, development of special structures for management and utilization, and preparation for joint nomination of these sites for the UNESCO World Natural and Cultural Heritage list, in the framework of the Great Silk Road. The preparatory phase of this transnational project, began in 2006 to create nomination dossier with the input of five state parties (China, Kyrgyz, Kazakhstan, Uzbekistan and Tajikistan), and ended in January 2013 with a presentation to the UNESCO World Heritage Centre in Paris. Kyrgyz presented three sites as the prioritized candidates of a series of sites along the “Tien-Shan corridor” : Krasnaya Rechka (Navikat), Ak-Beshim (Suyab) and Burana (Balasagun). Currently, the nomination dossier is under review and evaluation. A preliminary decision is expected to be completed in the next year.

The tentative list drafted in 2001 and the inventory of Kyrgyz cultural heritage made in 2006 and 2007, show that many objects are related to the Silk Road. Under the conditions of the preparation of a serial nomination, six domestic (national) monuments were registered, including those of different periods and types, reflecting their specificity and role in the Great Silk Road. These consisted of various

monuments, that characterise the various branches of the Silk Road during antiquity and the Middle Ages, and had general and specific roles nationally and regionally, in the context of the Great Silk Road.

Thus, the following objects relating to the Silk Road have been registered in the updated preliminary list of Kyrgyz in 2011: “Monuments of Nomads of Inner Tien-Shan,” “Monuments of the Southern Coast of Issyk-Kul,” “Medieval Fortress in the Upper Chui Valley,” “the Cultural Space of Manas-Ordo,” “Mounds of Uzgen and Shorobashat” and “the Cultural Landscape of Safed-Bulan.”

On the other hand, CARAD provided an opportunity for experts in various fields to study together and document the most important and interesting clusters of rock arts: Cholpon-Ata and Ornok on the northern coast of Issyk-Kul, Zhaltyrak-Tash (Ur-Maral) and Kenkol in Talas, and Saimaly-Tash and monuments of the Osh Oasis. These clusters became the basis for the preparation of another UNESCO serial nomination “Central Asian Rock Art” whose first phase began in 2006. According to location mapping, rock art is distributed in all regions of the country. Total number of registered rock art sites in Kyrgyzstan is not known, because each specialist provides a different number. However, it can be concluded that there are more than 100. In the inventory of the national objects in 2002, 24 rock art sites were included.

According to the degree of concentration and the study of rock art, three major historical and geographical regions are identified: Issyk-Kul in the north, the Talas Valley in the northwest and the Kyrgyz part of the Fergana Valley in the south.

Currently, the inventory and selection of candidate sites of this serial nomination continue. These activities will characterise the phenomenon of rock art in Central Asia as a whole, and in Kyrgyz in particular.

Another UNESCO project implemented by IHCH, the Ministry of Culture and the National

Commission for UNESCO was to prepare the nomination documents for inclusion of the sacred mountain of the Sulaiman-Too on the World Natural and Cultural Heritage List. The dossier was prepared for three years (2004–2007). Because of the primary consideration at the 31st Session of the World Heritage Committee held in New Zealand in the summer of 2007, resubmission was requested after the finalisation and amendment of the dossier.

From the end of 2007 to the beginning of 2008, the recommended work completed, such as the establishment of a management plan with two sub-plans, and development of a new concept of extending the buffer zone.

All of the above projects have enabled ICOMOS to recommend Sulaiman-Too to the Committee for inclusion on the list. As a result, at the 32nd Session of the World Heritage Committee held in Spain on 26 June 2009, it was decided unanimously to include Sulaiman-Too on the prestigious list of the best sites in the world. Thus, Sulaiman-Too became the first historical site of our country to be honoured.

Furthermore, epigraphy has recently received considerable attention. Researchers of Kyrgyz-Turkish Manas University began cataloguing objects of epigraphic heritage funded by UNESCO (Tabaldiev and Belek 2008).

From 2008 to the present, on the southern coast of Issyk-Kul, specialists of the same university conducted survey of funeral and memorial buildings of early and medieval nomads, monuments of rock art and epigraphy, and the ruins of the medieval fortress Kahn Dobe, and the site was identified as the historic city of Tung (Dung). The epigraphic works contributed not only to the archaeological information base in the Kyrgyz Republic, but also to confirm the view of some experts that the ancient nomadic settlements and the existence of the local tradition of sedentary culture should be investigated (Ataoglu et al. 2010: 10).

The Kyrgyz-Japan joint project on the study,

preservation, and management of cultural heritage of the Chuy Valley (IHCH and the Tokyo National Research Institute for Cultural Properties) began in 2012, and the excavation was carried out in the central part of Shakhristan I of Ak-Beshim. As a result, remnants of buildings and some parts of the town's main street dating to the Qarakhanid period were revealed. The work continued in 2013 and 2014 seasons.

The implementation of the above projects has not only allowed experts to address individual research, documentation, practical works, and educational tasks, but also has established the foundation for an integrated and multi-disciplinary approach to archaeological heritage, and contributed to strengthening regional and international cooperation.

As an effective measure for protection of the archaeological heritage in the recent years, it is now considered that protective zoning of the monuments should be implemented in accordance with their historical and cultural significance. This method was applied first to monuments registered on the UNESCO list and, those that would potentially be included in future serial nominations. Currently, the plans for protection zones have been designed for four sites, Krasnaya Rechka, Burana, Ak-Beshim and the sacred mountain Sulaiman-Too. These concepts were discussed and approved by the Methodological Council of the Ministry of Culture, and their detailed plans are to be developed.

Concerning Sulaiman-Too, which had the first prepared management plan in Kyrgyz in 2008, medium and long-term plans were developed, and all fields were covered, from legal measures and physical protection to information and education programs and development of tourism strategies. The same kind of work is being carried out for Krasnaya Rechka, Bulana and Ak-Beshim which are to be nominated serially as the “Monuments of the Great Silk Road.” In the near future, the same work will be applied to other archaeological sites, and it

is likely that some of them will be nominated for inclusion the World Heritage list.

This paper provides an overview of the archaeological research carried out in Kyrgyz after independence. Despite the political, social and economic difficulties accompanying the formation of a young state, this work has shown that Kyrgyz has emphasised cultural heritage. This gives hope that the stabilisation of social life will come in the future. Archaeological sites will become even more noticeable as an important part of the historical and cultural heritage of the country.

3. Medieval Towns in the Chuy Valley

3.1. Introduction

The Chuy Valley is located in northern Kyrgyz and southern Kazakhstan, and the Chuy River runs through its center for about 250 km. The elevation of the bottom of the valley is 500–1300 m above sea level. The valley is surrounded by the Kyrgyz Ala-Too Range to the south and Chuy-Ili Mountains to the northeast, while the wilderness Moyun Kum is to the west and northwest. The eastern part of the valley is narrow, 10–12 km, and the western part is open and 90–100 km wide. Many small rivers run through the Chuy Valley from the northern Kyrgyz Ridge, which often have a seasonal nature. Today, the Chuy Valley is under the temperate continental conditions of an arid steppe character, with a vegetative season that lasts for 9–10 months.

During the Middle Age, the Chuy Valley was one of the most urbanised areas in northern Kyrgyz.

In the beginning of the Middle Age, a series of settlements emerged suddenly in the Chuy Valley. From the 10th to 11th centuries, some of them grew into large towns with single or double walls of up to 5–8 km in diameter. Such fortified cities were distributed throughout the Chuy Valley. Thus far, 18–20 towns have been identified and recorded. They were located at intervals of 15–20 km, and indicate the route of the Great Silk Road.

A second group of smaller settlements were formed around these central towns, and some had fortifications on a similar scale to the towns. According to a survey conducted in the 1950s, these settlements had various thicknesses of cultural strata, from 0.5–0.8 m to 6.5–7 m, and were formed in the different periods (Kozhemyako 1959: 131–153). Apparently, these settlements had different functions: fortress, Rabat, shelter, caravanserais, or temple-monastery complex. Large-scale excavations have not been conducted at these settlements, with the exception of Novopokrovka 2 where regular

research has been carried out since 2004.

Settlements of the third group are located in the gorges of the valley, and sometimes two or three settlements have been identified in the same valley. Excavation has not been carried out at any of the sites in this group (Kozhemyako 1959: 153–166). These settlements can be assumed to have functioned as fortresses that blocked the mountain passes, and guarded water drainage and distribution systems.

There were also unfortified settlements. Unfortified settlements such as Kara-Zhygach, Kok-Zhara and Ak-Orgo are located near Bishkek. At the sites any remains of fortification cannot be observed. Large quantities of pottery sherds and coins are the only indications of their presence. Moreover, these settlements belong to the relatively later periods—Mongol and post-Mongol periods. However, precise dating of these settlements requires additional information.

Among all of these groups, the sites that have been studied in most detailed are Burana, Ak-Beshim and Krasnaya Rechka.

3.2. Burana

Burana is located in the eastern part of the Chuy Valley, in Chuy District, Chuy Oblast, Kyrgyz Republic, 51 km east of Bishkek as the crow flies, and 12 km south of the district center of Tokmak, between the modern villages of Burana and Don-Aryk. It is believed that the settlement was founded at the end of the 8th century or the beginning of the 9th century, and continued until the 13th or 14th century.

Over the past few years, the site has been associated with well-known towns in the historical sources, such as Saryg (Bartol' d 1996: 273, 402), Navikat (Masson 1956; Goryacheva 2007), and Kirmirau (Bernshtam 1941: 76). However today, almost all researchers accept it as Balasagun (Goryacheva 1970; Baypakov 1976).

Shakhristan, the central part of the settlement, is in the form an irregular quadrangle, with each side facing a cardinal direction. The lengths of the sides are, 570 m, 500 m, 600 m, 570 m (clockwise from the northern side). The straight fortification walls, which are now buried, are 4 m high at the most preserved point and 20 m wide at its foundations (Kozhemyako 1959: 126). Although there are towers attached to the walls, they were not particularly large. The entirety of the east wall has been washed away by the Burana River, leaving only a small section of the northern corner where the Citadel is presumed to have been placed based on the remains of the monumental buildings. The eastern section of the south wall has not been preserved. However, the Burana River flowed along a different path when the site was inhabited.

The medieval minaret of baked bricks (now partially destroyed), known as the “Burana Tower” is located near the center of the east wall. To the east and the northeast of the tower, the necropolis was formed, and the foundations of a series of three mausoleums and burial grounds remain. Furthermore, another brick building, Mausoleum 4, has been excavated in the northwestern section of the settlement (Vinnik 1975; Goryacheva 2010: 138–140).

There are two large mounds measuring 15 m high about 60–70 m northwest of the minaret. This area forms a single complex of 100 m by 100 m, with an adjoining fenced area located to the southwest (Kozhemyako 1959: 126). As the result of excavations conducted under the direction of L. M. Vedotova intermittently from 1984–1990, the ruins of a castle with interdigitated corridors, typical of 8th-9th century Central Asian architecture, were revealed on the western mound (Semonov 2000).

In the Rabat, 300–400 m southeast to the Shakhristan, the remains of medieval bath built with baked bricks were found and studied. Furthermore, a facility of municipal water supply was revealed from about 10 m west of the bath. It consisted of

connected two ceramic pipes, and one of which was to supply water to the bath.

Several mounds of 30–50 m in diameter and 1.5–2 m high are located around the central ruins and adjacent buildings, consisting of two concentric rings of walls (so-called long wall) surrounding the Rabat. Although P. N. Kozhemyako recognized the partially preserved walls in the 1950s, those in the southwestern section were already lost. Furthermore, he could not locate the western part of the inner wall. The total length of the preserved outer wall (in the 1950s) was 11 km (Kozhemyako 1959: 127–128). It is assumed that its original length was about 17–20 km.

The most focal monument of the site is the minaret. Its foundation was solid (5.6 m high) and square (12.3 m by 12.3 m) plan, consisting of paved stone with a baked brick layer. The top of the foundation was paved with baked bricks, while smaller bricks were used at the western side in a herringbone pattern, which indicates it was repaired in the 11th century. Above the foundation, another quadrangular stage was built on which an octagonal podium rests. The minaret slightly tapers off to a point: it is 10.4 m wide at the ground level, and about 6 m wide at a point of the 4 m higher (Goryacheva 1985: 50–51). Each side of the octagonal podium has a portal with a slightly “recessed” lancet niche, as well as framed space filled with a geometric ornament.

The body of the minaret is decorated with horizontal ornamented bands, and six of them are preserved. Today, the tower’s height is about 22 m.

Although there are opinions concerning the original height of the minaret, most researchers think that it was 40 m or more (B. N. Zasytkin), but less than 50 m (A. M. Pribytkova).

All of the decorations are made of standard brickwork, extending 3–4 cm from the surface, creating a light and dark effect. These designs are based on a straight square grid, and the same design is not used on any other part of the building.

It is thought that the Burana minaret is one of the oldest brick minarets in the Central Asia. The point was constructed via a rudimentary method that distributes body pressure to the lower part: at the connecting point of the podium and the body, wooden anchor slots are fixed. Although this method is appropriate for adobe brick architectures, it imposes an excessive load. The construction date of the minaret is considered to be the end of the 15th century, based on the decorative motif (Goryacheva 1985: 32; 2010: 137).

The presences of the minaret and the Muslim cemetery near its base, including three brick mausoleums, have been used to identify the site as the medieval town of Balasagun, one of the capitals of the Qarakhanid Khanate, the first Islamic state that ruled in this region.

On the other hand, this ancient settlement became well-known site when the Christian necropolis of 12th to 14th centuries was discovered to the south of the central ruins. The identity of this necropolis as Christians has been determined according to the gravestones, rather than the funeral rites themselves. On the gravestones, brief epitaphs, names, professions and sometimes dates of burial (in the Seleucid calendar and/or 12-year cyclical calendar) are carved in the Syriac alphabet, and mostly in Turkish. The image of the cross decorates the tops of many of these gravestones. Moreover, pectoral crosses were found in the excavation of the mound and several of them can be viewed in the site museum. They are typologically similar to those found from the settlement of Kara-Zhygach, 12th to 14th century, and Krasnaya Rechka, where layers dating the 13th to the 14th centuries are not known. These facts indicate that the Burana crosses might have been used in the 10th or the 11th centuries.

Even the Muslim and the Christian monuments in Burana are well-known, few know about the presence of the Buddhist monument. The first discovery of Buddhist remains was during the excavations of the western mound by Vedutova

in the 1980s. He found a small statue of the Bodhisattva in the crack of an adobe brick. It was made of bronze and traces of gilding were preserved. Despite its small size, about 5 cm high, its elegance is undeniable.

Another discovery followed at the beginning of the 21st century: a stone sculpture was found at one tepe (an artificial mound) in the Rabat during cultivation. The statue was two-thirds of life size, made of a local red stone, and carved in the image of a character standing frontally in pleated loose garments. The front part had been broken—apparently deliberately—in the Middle Age, and the legs were broken in two. The head is missing. The fact that the statue was revealed near a monumental building indicates the possibility that the remains of Buddhist temple or monastery could be found nearby.

In conclusion, it should be noted that a series of residential structures and the overall plan of Burana remain unstudied. Even the position of the gate cannot be specified. On the other hand, data concerning the material culture of this medieval town collected over many years indicates that handicrafts (pottery, bronze casting, iron industry and jewellery) and coinage were highly developed. Therefore, it is certain that Burana was one of the large and highly developed centers of the Great Silk Road.

3.3. Ak-Beshim

Ak-Beshim is located 8 km to the southwest of Tokmok, the district center of the Chuy Oblast, and 47 km to the east of Bishkek.

The site has been associated with well-known medieval towns in the written sources, such as Navikat (N. F. Petrovski) and Balasagun (V. V. Bartold, A. N. Bernshtam and L. R. Kyzlasov). However, majority of recent researchers accept it as Suyab (G. Clauson, Kozhemyako, G. I. Semonov and V. D. Goryacheva).

The site display several traditional medieval urban

planning concepts of the region.

The main part of the town, Shakhristan 1, is an irregular quadrangle of about 35 ha. The principal axis of the city inclines 15 degrees from north to south. The lengths of the surrounding walls are 600 m, 500 m, 700 m and 400 m (clockwise from the northern side).¹⁾ The city walls which are now buried, with the exception of the eastern one, are curved and protruding. While this observation has led to the hypothesis that the fortification walls of the Shakhristan were constructed in different periods, it might have resulted from the integration of the walls of each building into one system. Traces of 34 towers can be observed along the walls.

A rectangular Citadel (Area 7), surrounded by small yard, is located on the southwestern corner of the Shakhristan 1. It was stated in 1938 and 1950s that it was “heavily collapsed and some parts were destroyed by previous excavations” (CHD: 10; Kozhemyako 1959: 72). The Citadel is 60 by 60 m at the base of the collapsed mound, and 30 by 30 m at the summit. The Citadel rises about 8 m higher than the surface of the settlements. According to observations by Bernshtam and Kozhemyako, it had a strong tower at each corner. One of them, located at the southwestern corner, which was excavated in 1997–1998, had a large wall of piled pakhsy (kneaded clay) blocks and a teardrop shape (Semonov 2002: 11).

The top layer of the Citadel was investigated almost entirely, and the construction of a palace-type structure of “courtyard surrounded by rooms” was revealed. The size of the courtyard is 21.5 by 21.5 m. The middle of each side had a terrace (aivan) which had corridor connecting a number of chambers. Its entrance was divided into two steps (Semonov 2002: 21; Amanbaeva et al. 2013).

According to the findings, which included coins, the author of the excavation report indicates that the palace was used during 10th and 11th centuries (Semonov 2002: 11–43).

The earliest stratum of the Citadel was revealed

at the corner of the vaulted chamber. According to the pottery assemblage, it dates no earlier than the 7th–8th century. Moreover, a proviso was attached to the report to indicate that this stratum did not lie on the bedrock (Semonov 2002: 69).

The surface of the Shakhristan 1 was rugged and significantly raised in relation to its surroundings. The thickness of the cultural layer was 7.5 m. The point with the thickest cultural layer is found at the center of the Shakhristan, where a square area occupying a large part of the settlement is distinguishable. It seems that the settlement developed from this area outward. Kozhemyako carried out stratigraphic excavations here in 1953–1954. Since 2012, further excavations have been conducted at the site by the joint expedition of the Kyrgyz and Japan.

The northwestern part of the settlement only had a thin cultural layer; nevertheless, it was defined as a provisional layer. In Shakhristan 1, only the southeast corner (the Area 8) has been thoroughly studied. About 60 chambers were revealed in the 4 seasons of excavation in the 20th and 21st centuries. After the results of the analyses were obtained, archaeologists concluded that this area was the largest Christian church complex in the 10th and 11th (12th) centuries in the Central Asia. Four chambers with altars were found in a line along the eastern wall of the Shakhristan. In front of them, to the west, there was a large hallway or outdoor courtyard along the north-south axis. In the northern part of the complex, there were household domestic structures. In one of them, a few Qarakhanid coins were found under the plaster floor. Qarakhanid coins and glazed pottery were also found on the floor of Temple A, which is considered to be the oldest building. These materials make it possible to date the entire complex to the 10th–11th century.

Among other findings, images of the cross on terracotta plaques were recognized. Some of the images were copied from “negatives,” namely,

casting moulds. The casting moulds seem to have been made of bronze. Bronze foundries were also revealed during the excavations of this area. Other artefacts relating to Christianity, including a cross with Sogdian inscriptions, were found.

It is necessary to mention the wine-press installations revealed in the southeast corner of the complex and the adjacent storage room—Khumkhane—with eight large storage jars having 150–200 liter capacity.

Shakhristan 2 is adjacent to the eastern side of Shakhristan 1, and is referred to as the “abandoned area,” “Rabat,” or “the second part of the central ruin” by researchers. This area is pentagonal in plan with collapsed tower walls. The lengths of the sides are 900 m, 850 m, 500 m, 850 m and 870 m,²⁾ and measures more than 600 ha.

At the center of this Shakhristan 2, a Tortkul’ (rectangle) is located measuring 200 m by 300m. To its west, there are a series of walls that Bernshtam studied in 1939–1940 (Area 0). The revealed materials indicate that this structure was a Buddhist monastery, initially dated to the 11th–12th century (CHD: 29–30), and later to the 9th–10th century (Bernshtam 1954). Fragments of terracotta and stone Buddhist statues, architectural ornaments, and a small amounts of pottery sherds were found in this area.

Area 4 was excavated by Kyzlasov in 1954 in the northwestern part of Shakhristan 2, about 165 m east of Shakhristan 1. Before excavation, the area was thought to be one of the highest hills in this part of the settlement. Beneath the surface, a monumental structure extending from east to west and measuring 36 m long by 15 m wide was revealed. It was interpreted as a Christian church with a cemetery. In the first publication, small fragments of chipped plaster walls with traces of frescoes with bright colours were recorded.

Inside and around the church, 23 burials in different forms but predominantly oriented to the west, were found. A pectoral cross was found in

one of these burials, which was used to define the structural features and the character of the structure. Kyzlasov concluded that the structure dated to the 8th century (Kyzlasov 1959: 231–233). Later, other dating hypotheses have been proposed, including the mid-7th to the early 8th century (A. M. Vysotskiy), and the 8th to 10th century (V. A. Kolchenko).

Today, the surface of Shakhristan 2 is heavily deformed from the effects of cultivating machines and ploughing over the course of many years. As a result, the structure of the medieval ruins, including the walls, have not been confirmed. According to the observations by Kozhemyako, the cultural layer was much thinner than that in the Shakhristan 1, while Kyzlasov denied the presence of any cultural layers.

Rabat surrounds two Shakhristans and it has a radius of more than 1.5 km, and surrounded by long walls on three sides. The length of outer walls and moat is about 16 km.

According to observations in the 1930s–1950s, free-standing buildings with different functions were distributed across the entire Rabat. Mounds of 8 m by 10 m to 40 m by 50 m are located in intervals of 15–20 m (Kozhemyako 1959: 74; Kyzlasov 1959: 155–156). Among the investigated structures, the funerary complex with ossuaries on an altar (Area 5) (Kyzlasov 1958), a cemetery attributed to the Manichaeism (Area 3) (Kyzlasov 1959: 230–231), and the two Buddhist temples that made the name of Ak-Beshim famous worldwide, are included.

The first Buddhist temple (Area 1) of Ak-Beshim is located about 100 m to the southwest of the Citadel. This area was excavated by the Chuy detachment of the Kyrgyz archaeological and ethnographic expedition in 1953–1954 (Kyzlasov 1959: 231–233). The excavated mound is a rectangular hill with soft and crumbling sand. It is located on the western end of a line of similar mounds along the southern wall of Shakhristan 1. The dimensions of the mound are about 85 m from east to west, and about 35 m from

north to south. The summit of the mound is located on the western side. It raised 4.2 m from the present surrounding surface, and 8 m from the eastern floor of the area. The eastern part of the summit has a narrow platform with a recess in the center.

Excavations revealed that the mound contained the ruins of large buildings with three phases. The first phase of the structure was interpreted as a Buddhist temple. After destruction and partial collapse, some of the walls and rooms were used as private dwellings in the second phase. During the final stage, a new settlement was according to different construction method on in the eastern part of the mound, while the western part was arranged for used as a stable.

The first phase of the structure was rectangular measuring 76 m long and 22 m wide. It oriented from east to west, and was clearly divided into three parts: private chambers to the east, a spacious courtyard in the center (lobby) and the sanctuary with corridor around it to the west.

The structure was interpreted as the Buddhist temple, based on the discovery of Buddha statues, wall paintings, and the architectural characteristics. Moreover, a series of bronze plates with gold gild should be mentioned.

Kyzlasov dated the temple to the 7th–8th century and the settlements and the stable to the end of the 8th to the early 9th century or or the 9th–10th century.

The second Buddhist temple (Area 6) is located 250 m to the east of one described previously and about 100 m to the south of Shakhristan 1. It was identified during the excavations by the Soviet archaeologist L. P. Zyablin in 1955–1958. The site was originally a well-preserved mound with a square base and measuring 50–55 m high. After removing soils, a structure of 38.4 m by 38 m was revealed. The main entrance was located on the northern side, emphasized by decorated large pillars.

The center of the building is an altar room (sanctuary) constructed in a cruciform plan with

a single entrance on the northern side. The other three sides were encircled by a double corridor, and covered with an arched ceiling. The northern side has a “lobby” , which is assumed to have had a wooden ceiling, because layers containing charcoal were found there (Zyablin 1961: fig. 15).

From the deposit above the floor, a large number of fragments of a life sized clay sculpture (now kept in the State Historical Museum in Moscow), a pedestal on which the sculpture was rested, and fragments of polychrome paintings fallen from the walls and ceilings were revealed.

The temple was used for a short period, and quickly abandoned. The authors of the excavation report thought that the temple was built in the 6th to 7th century, and destroyed at the end of the 7th to early 8th century (Zyablin 1961: 67–69). However, the artefacts found in the fill were dated to the 8th–10th century by Zyablin, and two Qarakhanid coins can be dated to the 10th to 11th century (Zyablin 1961: 60–62, figs. 21, 22).

From the above mentioned results from the research areas of the the Ak-Beshim, the impression can be formed that the site was a town with temples and funerary complexes of several religions: Manichaeism, Zoroastrianism, Buddhism and Christianity. However, further study on the residential areas, especially those of Shakhristan 1 are necessary in the future. Some surveys were conducted at Shakhristan 1 under the direction of Vedutova. Materials from the small areas of Shakhristan indicated residential and industrial purposes, and they belonged to the Qarakhanid period (Vedutova and Kurimoto 2014). Therefore, Kyzlasov’ s hypothesis that the city had been abandoned in the 10th century (Kyzlasov 1959: 235) has been completely refuted. Ak-Beshim and almost all of the settlements in the Chuy Valley persisted until the Mongol period.

Finally, it should be noted that even relatively small archaeological excavations carried out at Ak-Beshim in the 20th to the early 21st century, can

clearly show the value of the site to the cultural history of Kyrgyzstan, as well as its importance on the Silk Road along which silk and other goods were traded, and pilgrims and preachers traversed, preaching their world view. Simultaneously, it should be emphasized that the tradition of religious tolerance, present more than 1000 years ago, continues in the region today.

3.4. Krasnaya Rechka

This site is located on the road between Bishkek and Balychy, 33–38 km east to the capital of Kyrgyz.

Although it had been identified as Suyab or Saryg, the well-known medieval towns referenced in historical sources (Bartol'd and Bernshtam), a majority of modern researchers accept its identification as Navikat in the Arab-Persian sources or Xinchéng in the Chinese documents (e.g. Goryacheva).

Krasnaya Rechka displays traditional medieval urban planning characteristics of the region: Citadel, Shakhristan and Rabat (however, this is not understood in the historical and cultural sense, but in an archaeological one).

The Shakhristan and Citadel, the central ruins, are located on the first terrace above the floodplain of the Chuy District, and on a small inselberg between floodplains of a stream that flowed from north to south in antiquity.

They have complex structures and topography, and occupy an area of 700 m from north to south by 1200 m from east to west.³⁾

The site is usually described starting from the Small Shakhristan.⁴⁾ This area is almost square in shape with an elongation from north to south, and covers an area of 435 m by 350 m at the head of the walls, which are buried. The most recent excavation (the 15th season) confirmed previous data concerning the structure of the walls (Goryacheva and Baypakov 1989: 72; Baypakov 1998: 140). The walls had two construction periods. The original wall had a foundation of 8.5 m wide made of a

large 1 m thick pakhsy layer without block-like joints, and is preserved to 6.5 m high. On the other hand, another wall of 2.5 m thick was attached to the outside of the wall in a later period, which was made of elongate (8–15 cm long) pakhsy blocks. The original wall was built no earlier than the mid to the late 8th century (Torgoev and Kolchenko 2010). 14 large hillocks can be observed on the walls, below which towers seem to have been located. The walls were surrounded with a large moat filled with spring water.

Excavations at the Small Shakhristan were carried out in two central areas in 1939⁵⁾ (Area VI⁶⁾ (CHD: 19), then the Area III defined in 1961–1962 by extending the areas (Kozhemyako 1989a: 9–16; 1989b: 40–51), and the wall was cut and investigated near the northwestern corner (Area 15) (Torgoyev and Kolchenko 2010). The excavations indicate that the site has three or four architectural layers, and the last of which was destroyed by a large fire in the 12th century. Traces of the later period remain only fragmentally (Kolchenko and Torgoyev 2015).

The southern and western walls of the Small Shakhristan abut the space surrounded by zigzag walls, namely the Large Shakhristan.⁷⁾ The Small Shakhristan seems to form the northwestern part of the Large Shakhristan. The walls of this area contained 25 projected towers (Baypakov 1998: 140).

At the Citadel, located near the southeastern corner of the Large Shakhristan, three excavation areas were set, two of which (Areas P-II and P-IV) were excavated by L. G. Rozinoy under the direction of Bernshtam in 1939–1940 (CHD: 17–19, 28, 37–38), and the other (P-VIII) by Amanbaeva in 1981 (Amanbaeva 1989). In two of them, only the top structural layer was revealed (P-II-1939 and P-VIII-1981). Qarakhanid materials were found, including fragments of carved ornaments characteristic of the 12–13 century settlement. The third area, P-IV-1939-1940, was set “on the raised place of the west of the Citadel,” where the

top structural layer was revealed, and fragments of carved ganch (gypsum) and wall paintings were unearthed. Moreover, a small trench was used to determine the entire depth of the cultural layers. It reached 5.5 m deep, and two layers were found: the lower one was called the “Sogdian” layer, while the upper one was the layer formed by the buildings destroyed in the Mongol Period (CHD: 18, 38).

The Citadel is located on the southeastern corner of the Large Shakhristan. According to the tachometer measurements taken in 2004, the dimensions of the base are 85 m (north–south) by 105 m (east–west), which is situated at 10–11 m above the surface of the modern Shakhristan, and 20–24 m above the area adjacent to the southern and the western edge of the Shakhristan. The Citadel appears to have had a small courtyard fortified by towers on the corners. The results of the topographic analysis of the mounds on the southern wall and 80 m north of it (where the area P-VIII was set in 1981) allow the conclusion.

Excavations at the Citadel (P-VI) carried out by K. M. Baypakov in 1979–1983, and by A. I. Torgoyev under the direction of Goryacheva in 1999 (Goryacheva and Torgoyev 2000: 84–85), indicate that it was built on the natural bedrock, and had three structural layers. From the lowest layer, a narrow room with vaulted ceiling was revealed, which was dated to the 6th (Goryacheva and Baypakov 1989: 72) or 7th century (Goryacheva 1988: 16). From the middle layer, 7–10 rooms with a courtyard were unearthed, belonging to the 9th–10th century. The first layer, as reported, was excavated entirely, and a residence was revealed. According to the revealed materials studied by the authors of the excavation report, it functioned until the mid-12th century.

Another structural part of the settlement is located to the west of the Small Shakhristan, called the western annex. This area has ramparts of at least 6.6 m wide made of 10–17 cm long pakhsy blocks (Torgoyev 2014). The dimensions of this area are 440

m (north–south) and 150 m (east–west), according to Bernshtam (CHD: 12).

The original function of the western annex is unclear. However soon after the walls were constructed, the northwestern part was reused as a necropolis where various burial rites can be observed, including pits, shaft tombs, catacombs of various designs, naos (family grave), ossuaries, and jar-coffin burials, some of which contained horse bones or large quantities of purified bones. When considering the complexity and diversity of the numerous pits and grooves for funerary rites, it is unlikely that all of the strata containing these different burials were cleared completely. Construction dates of the burials are problematic, and further arguments are necessary.

The southern annex is located to the south of the western annex at the edge of the central ruins (CHD: 12). The entire structural character is shown with accuracy in the plan drawn by Bernshtam (Bernshtam 1941: Table 28; CHD: Table VIII). The eastern section of the wall between the western and the southern annex was demolished in the 1950' s, which is reflected in the plans and descriptions of Kozhemyako (Kozhemyako 1959: 67, Fig. 1). The eastern part of the southern wall of this part of the settlement was measured in the 1970' s (Goryacheva 1988: fig. 2).

All researchers studying Krasnay Rechka pay attention to the mound located on the northeastern part of the southern annex, and interpret it as a large building complex. The dimensions of the complex are 105 m by 100 m. It is a cone-shaped mound of 12 m high, and is surrounded by buildings and thick walls. To the east, there are two outstanding large mounds of 25–30 m in diameter and 3–4 m high. According to Bernshtam, this complex is the “Citadel of 40 m by 30 m” (CHD: 12). Kozhemyako also initially believed that this “cone-shaped mound is the remains of the Citadel (8 m high and ca. 50 m in diameter)” (Kozhemyako 1959: 67). However after a survey in 1972, he accepted

the idea it was a Buddhist stupa (Goryacheva 1988). Goryacheva who had taken over the Kozhemyako' s excavation, and extended several areas, mentioned the possibility to interpret it as a Zoroastrian fire temple (Goryacheva 2010: 69–97). In 2010–2015, the Russian-Kyrgyz joint expedition of the Hermitage Museum and National Academy of Sciences of the Kyrgyz Republic directed by Torgoev and Kolchenko , excavated the more northerly mound (Area 5-a) of two mounds on the eastern edge of the complex. As a result, the remains of the front gate of the complex were revealed in the lower stratum, and the Buddhist temple was found above it with partial remains of a terracotta Buddha statue sitting in a lotus on a pedestal (Torgoev et al 2012). Therefore, this large mound of the complex has been newly interpreted as a Buddhist stupa or a whole complex such as a monastery (Torgoev et al. 2014).

In the area of less than 20 km² surrounded by the double-ring wall, the so-called “long wall,” located to the west, south and east of the central ruins, several mounds of various shapes and sizes are distributed, which are assumed to be medieval buildings. They are concentrated near the walls of the central ruins, and disperse toward the periphery. Although it is difficult to judge the functional of this periphery as the commercial or manufactural settlements of suburb, it is preferable to keep the designation of “Rabat,” the traditional name used in the Central Asian archaeology.

In the Rabat, located to the south of the central ruins, the remains of 11th-12th century settlements , “the detached palace,” two Buddhist temples and other buildings were found.

The castles were excavated by I. A. Benediktov under the direction of Bernshtam (P-I 1939–1940) (CHD: 15–16, 27–28, 30–36) and Kozhemyako (P-I and P-VII 1961–1963) (Kozhemyako 1989b: 36–38, 66–68). To construct these buildings, topographical characteristics were utilized as fortifications: buildings were established on the natural hill. All buildings share a common layout of comb-

shape corridors, having one narrow axial corridor connecting to other long narrow rooms. Dimensions of unearthed castles were 25 m by 15 m, 33 m by 30 m and 29 m by 24 m, with thick walls of adobe brick, or pakhsy blocks in the case that adobe brick lines were divided. The castles were used from not earlier than the mid-7th century (Semenov 2000) to the 8th century (Kozhemyako 1989b: 38, 68).

The large building located 1 km to the south of the Citadel, which was revealed by Goryacheva in the 1970s and the 1980s, was named as the detached palace by authors of the report (Goryacheva and Berenaliyev 1979; Goryacheva and Peregudova 1989). The structure formed almost a square of 33.7 m by 31.8 m, and the principal axis inclined 27 degrees to the east, similar to other structures excavated at this site. It had two entrances, one of which is wide in the south wall, and another is narrow in the center of the north wall, forming the building' s principal axis. A large courtyard (16 m by 16.5 m) was set in the center and the chambers were arranged around it: one chamber was attached to each of the northern, western and southern walls, and three chambers connected by a corridor were attached to the eastern wall. In the courtyard, four symmetrical postholes were found 4 m from the northern wall, which would mean eaves were constructed up to this point of the courtyard.

The walls of the several chambers were decorated with carved terracotta panels and monochrome paintings. One of the largest fragments was decorated with low reliefs depicting outlines of epigraphic or vegetative patterns.

Based on the location, size and decorations, this structure can be interpreted as a caravanseraï.

According to the archaeological data, this structure was built in the 10th to the 11th century, and used until the 12th century with three separate reconstructions. This building was established on top of an earlier one, constructed according to a different method.

Other residences were excavated by Kozhemyako

in 1961–1963 (Kozhemyako 1967), and by Goryacheva in the 1980' s. All of them belong to the same period of the 11th–12th century. The outlines of these residences formed monumental constructions with an average of 15–20 m square plan. The entrance was located in the middle of one of the walls and decorated with protruding pillars. The corners of the walls were reinforced with decorated towers.

Most residences have a similar typical plan: large square hall (with a side length of 6.5–7.8 m) located on the principal axis,⁸⁾ and chambers set around it. However, in most cases, builders departed from the ideal, and the central halls deviated from the principal axis. This deviating indicates a priority of the daily life got priority over builders' expression.

The hall had an entrance to a wide corridor, whose similarity with an iwan in Islamic architecture was insisted by S. Khmelnitsky (Khmelnitsky 1997: 109). Exact regularities were not seen in the arrangements of entrances in other chambers: some chambers had entrances connected to the central hall directly, others had communicating rooms to the hall, and still others had entrances to the corridor. These chambers were often arranged along a wall.

In one instance, the reconstruction plan proposed by Khmelnitsky⁹⁾ shows a different layout with trilobated chambers (Khmelnitsky 1997: 146–148, fig. 133).

Incidentally, in one of these residences, some of the most highly artistic and well-preserved decorations found in archaeological sites in Kyrgyzstan have been unearthed. Alabaster panels decorated with coloured low reliefs were revealed in situ above the floor on the southwestern corner of the chamber. Moreover, a terracotta frieze with reliefs was uncovered from the fill above the floor, which originally would have been set under the ceiling.

Krasnaya Rechka has become famous with the

excavations of its two Buddhist temples.

The first Buddhist temple of Krasnaya Rechka is located in the Rabat, outside of the depression and the moat near the south wall of the Shakhristan. The excavation began in 1940 under the direction of Bernshtam (Area P-VIII) (CHD: 28–29, 38–42), and was completed by Kozhemyako in 1961–1962 (Area P-I) (Kozhemyako 1989a: 17–21; 1989b: 34–36).

The temple buildings were established as the second structural layer of the area with each side facing the cardinal points and in consideration of the topography. The temple had a courtyard surrounded by well-defined almost square walls (57 m, 60.5 m, 64 m and 57 m, clockwise from the northern side), and had a building in the northern corner, occupying about 20–25% of the entire structure. The oldest layer of the area corresponds to a palace, excavated by Kozhemyako from 1962 to 1963. The last layer corresponds to residences of the 10th–13th century, fully revealed by Bernshtam in 1940.

The temple consisted of two parts. In the northeastern part, a sanctuary (3.2 m × 3.2 m) was located, with a corridor (2.3 m wide on the side wall and 2.7 m on the back), a chamber with an entrance on the southeastern side, a courtyard, and a hall with benches along the walls.

Two chambers were unearthed in the southwestern corner. The northern one was 9.3 m by 8.7 m in size, with benches along the three walls. The southern one was the same width (8.7 m) and the southeastern side was opened (or, the wall was not preserved, as in the first part).

These rooms were connected by a 1.4 m wide corridor along the northwestern wall. Next to this wall, there was another corridor of 1.55 m.

In the limited excavation of the second layer of the area in 1940, fragments of wall paintings were found. “A bouquet of flowers, aster, was depicted” in the one of them, which Bernshtam characterized as the manner of writing of the “Manichaeen school.” He also reported fragments of a Buddha statue “made

in the same method” by Chinese craftsmen (CHD: 29). Collating the revealed plan and data obtained later, it is possible to assume they were found in the fill above the sanctuary. Kozhemyako also recorded small fragments of wall painting in the sanctuary and a corridor (Kozhemyako 1989a: 18).

Based on the character of the architectural plan and the fragments of the wall paintings, Kozhemyako interpreted the structure as a Buddhist temple (Kozhemyako 1989a: 18–19). On the other hand, Goryacheva suggested the possibility that it had been the public building of the local Manicheans (Goryacheva 2010: 117).

According to Kozhemyako, the temple was built not earlier than the 720s, and continued “after the first half of the 10th century” (Kozhemyako 1989a: 21; 1989b: 35–36).

The second Buddhist temple of Krasnaya Rechka was also located on the Rabat, 240 m southeast of the Citadel on the terrace above the floodplain.

The excavation of the second temple was launched in 1940 under the direction of Bernshtam, and was continued in 1961–1962 by Kozhemyako. The excavations were finalized by Goryacheva in 1980–1998 (with some interruptions) (Goryacheva and Peregudova 1996: 172–180; Goryacheva 2010: 110–114).

Each side of the temple faced the cardinal points. Furthermore, it was established on top of another large building with a different orientation. Therefore, researchers think this area had two distinct construction periods (Goryacheva and Peregudova 1996: 172).

The basic structure of the temple was a square sanctuary (6 m by 6 m) with a dome ceiling, and an entrance on the eastern side. Although the northern outer wall was not preserved on the edge of the mound, it is possible to assume the entire building was originally horizontally symmetrical.

According to the researchers, the first period of the temple consisted of corridors with four pillars. The eastern (front) corridor was 2.5 m wide, and

in the center, the opposite to the entrance of the sanctuary, there was another corridor to the east, which should be considered as the entrance to the temple.¹⁰⁾ The southern and the western corridors were 2.8 m wide. On the western side of the sanctuary, a bench of 1.7 m wide was attached to the wall, and a statue of the Reclining Buddha was set along the entire length of the wall, leaving a passage of only 1.1 m wide (Kozhemyako 1989a: 22).

In the second period, the eastern outer wall was dismantled, and the northern and the southern walls were extended eastward. In this way, the hall opened to the east and was established in front of the sanctuary. The entrance of the sanctuary was emphasized by a five-step staircase in the frame of the “pishtaq (a formal gateway of Islamic architectures) with a vaulted niche” and a standing statue of the Bodhisattva of 2.5 m high (Goryacheva and Peregudova 1996: 173–174; Goryacheva 2010: 112).

In consideration of the construction history of the temple, some researchers have insisted that it has full similarity to the first Buddhist temple at Ak-Beshim, and have suggested the presence of the main gate at the eastern mound (Goryacheva and Peregudova 1996: 172–174). However, excavations of the entire mound conducted by Goryacheva and K. Kato in the second half of the 1990s refuted this conclusion as a residence with two structural layers dating to the 11th–12th century was revealed there, and did not have any relationship to the temple. On the other hand, a small excavation was carried out in an area abutting the southern wall of the temple where some household products were found, but little has been published about them.¹¹⁾

Since 1940, excavations of this area has revealed remains of wall paintings and terracotta statues belonging to the first and the second periods.

The remains were identified as a Buddhist temple by Kozhemyako (Kozhemyako 1989a: 22). Goryacheva, the authority on the study of the

temple, considered that it was built in the 7th century,¹²⁾ rebuilt in the mid-8th century (Goryacheva and Peregudova 1996: 173–174; Goryacheva 2010: 112), and destroyed by “Turks and barbarians (in not later than the 9th century)” (Goryacheva 1988: 54).

In 2004–2007, documentation and conservation of the archaeological site were carried out under the framework of “Preservation of Silk Roads sites in the Upper Chuy Valley in Kyrgyzstan” supported by UNESCO and funded by the Japanese Funds-in-Trust for the Preservation of the World Cultural Heritage. During the project, small trenches were set in the sanctuary, and fragments of terracotta statues (ringlet curls of Buddha) and wall paintings were revealed. These suggest that the structure of the lower stratum is also associated with the Buddhism.

Notes

1) Bernshtam insists on other dimensions: 826 m by 580 m (CHD: 11).

2) Bernshtam insists on other dimensions: 310 m, 310 m, 210 m, 240 m, 70 m, 60 m (CHD: 11), which is clearly wrong. The comparison of the dimensions of abandoned area (Table XVIII) with the Tortkul’ (305 m by 380 m) indicates his inaccuracy.

3) These dimensions are according to the measurement taken in 2004. The measurements were taken between the Citadel and the top of the hill in the “southern annex,” so-called the Zoroastrian “Fire temple” (east–west), and between the northwestern corner of the Small Shakhristan and the southern wall of the Large Shakhristan (north–south), with the laser theodolite Leica-403.

4) The name of the area varies depending on the researchers: “Tortkul’” (CHD: 12), “the central Tortkul’” (Kozhemyako 1959: 66), “Shakhristan 1” (Goryacheva 1988: 13–15; 2010: 42), “the central quadrangle (Shakhristan 2)” (Goryacheva and Baypakov 1989: 70) or “Shakhristan 2.” Local people call it the “fortress.” The term “Tortkul’” (meaning of the word: rectangle) does not seem to be appropriate in this context, because it means cultural monument surrounded by four walls with separate single layer and a sub-layer. Rather, the area is undoubtedly Shakhristan from the scale of the fortification and the cultural layers. However, the use of numbering for its designation in the traditional way is problematic, since one researcher calls it the “Shakhristan 1,” while another calls it the “Shakhristan 2.”

5) Excavations were conducted at this “main settlement” (three trenches of 12 m by 2 m) probably in 1930. However the results were not published and the archival manuscripts were scattered, so that even the locations of the trenches

cannot be specified.

6) The numbering of the excavation areas is not sequential. Although excavations were carried out at the same site in 1939–1940 by Bernshtam, in 1961–1963 by Kozhemyako and since 1978 by Goryacheva, the areas were numbered according to different systems. The joint expedition of the Hermitage Museum and Kyrgyz-Russian Slavic University (2007–2009) and the excavation by the Institute of History and Cultural Heritage, National Academy of Sciences of Kyrgyz Republic (since 2010) continue the numbering system used by Goryacheva.

7) This space has been called the “Shakhristan 1” (Goryacheva and Baypakov 1989: 70; Baypakov 1998: 139–140) or “Shakhristan 2” (Goryacheva 1988: 13–15; 2010: 42). On the other hand, Bernshtam insists it is a single structure consisting of two parts, “the eastern annex” and “the south of the central part of ... the deformation quadrangular structure...of 300 m (north–south) by 100 m (east–west).” Another name is suggested here by the author to avoid confusion.

8) The residence of Krasnaya Rechka, referred to as Building 7a excavated by Goryacheva in 1996–1999, has two construction periods (Goryacheva et al. 2009: Fig. 2.2). The structure was destroyed at the end of the period.

9) Building 5 (Residence 2), revealed by Kozhemyako in 1963, was largely destroyed by excavation activities. From here, the surviving southern wall, abandoned surrounding walls and northeastern corner were found (Kozhemyako 1989a: Figs. 2, 3).

10) Although Goryacheva suggested its width as 3.15 m, this was refuted by Kozhemyako’s study (Kozhemyako 1989: 22) and measurements were taken under the framework of the UNESCO

Japanese Funds-in-Trust for the Preservation of the World Cultural Heritage Project in 2004–2007.

11) This information was taken from field notes.

12) According to the excavation report, the “Reclining Buddha” statue “dated to the 7th century, based on the associated coins.” However, coins from the 7th century are not known in the Chuy Valley. The oldest instance dates to the Türgesh Haganate period, namely not earlier than the beginning of the 8th century. Since the “Reclining Buddha” statue was excavated and removed by Kozhemyako, we have to return to the report that states “the Buddha statue of Krasnaya Rechka dates back to the 7th–8th centuries, based on the associated coins and the analogy of other Buddha statues in the Central Asia” (Kozhemyako 1989: 24). This dating is acceptable in our view.

4. Archaeological Investigations at Ak-Beshim

4.1. Introduction

Ak-Beshim consists of three parts; Citadel, Shakhristan and Rabad. (Figs. 4.1-4.4). The Shakhristan is approximately 35 ha in size and the Citadel, which was the palace of the governor, was located at its south-western corner (Fig. 4.5). The Rabad is located southeast of the Shakhristan and reaches over 60 ha in size. The fortified town of Ak-Beshim was protected by 11 km long earthen walls (Kenjeahamet 2009).

According to H. Sohma, the site of Ak-Beshim is located on the edge of two large alluvial fans which stretches from the south towards the Chuy River. Water is easily accessible at the site and the site is naturally protected from river floods. Therefore the site was an ideal place to construct a town (Figs. 4.6, 4.7) (See Section 1.2 of Chapter 1. Sohma et al. 2012).

Ak-Beshim was first excavated by V. V. Bartold at the end of the 19th century. Since then, the site has been investigated mainly by Russian and Kyrgyz archaeologists. However, most of the excavations have focused on large mounds, representing the remains of monumental buildings, such as the palace (Fig. 4.5), Nestorian church (Fig. 4.8), and Buddhist temples.

In contrast, residential areas have been minimally excavated in the past (Amanbaeva et al. 2013). Therefore a number of archaeological questions concerning the occupants of the site remain unanswered. For this reason, TNRICP decided to focus its excavation on a residential area. In 2011, a topographical map of the central part of Shakhristan was created (Yamauchi et al 2012). The six excavation squares (each measuring 10 m by 10 m) measuring 20 m by 30 m overall were set up in the center of Shakhristan and were excavated over two



Figure 4.1 A satellite photo of Ak-Beshim (from Google Earth)



Figure 4.2 A satellite photo of the Shakhristan of Ak-Beshim (from Google Earth)



Figure 4.3 Corona image taken in the 1960s (Data available from U.S. Geological Survey, EROS Data Center, Sioux Falls, SD)

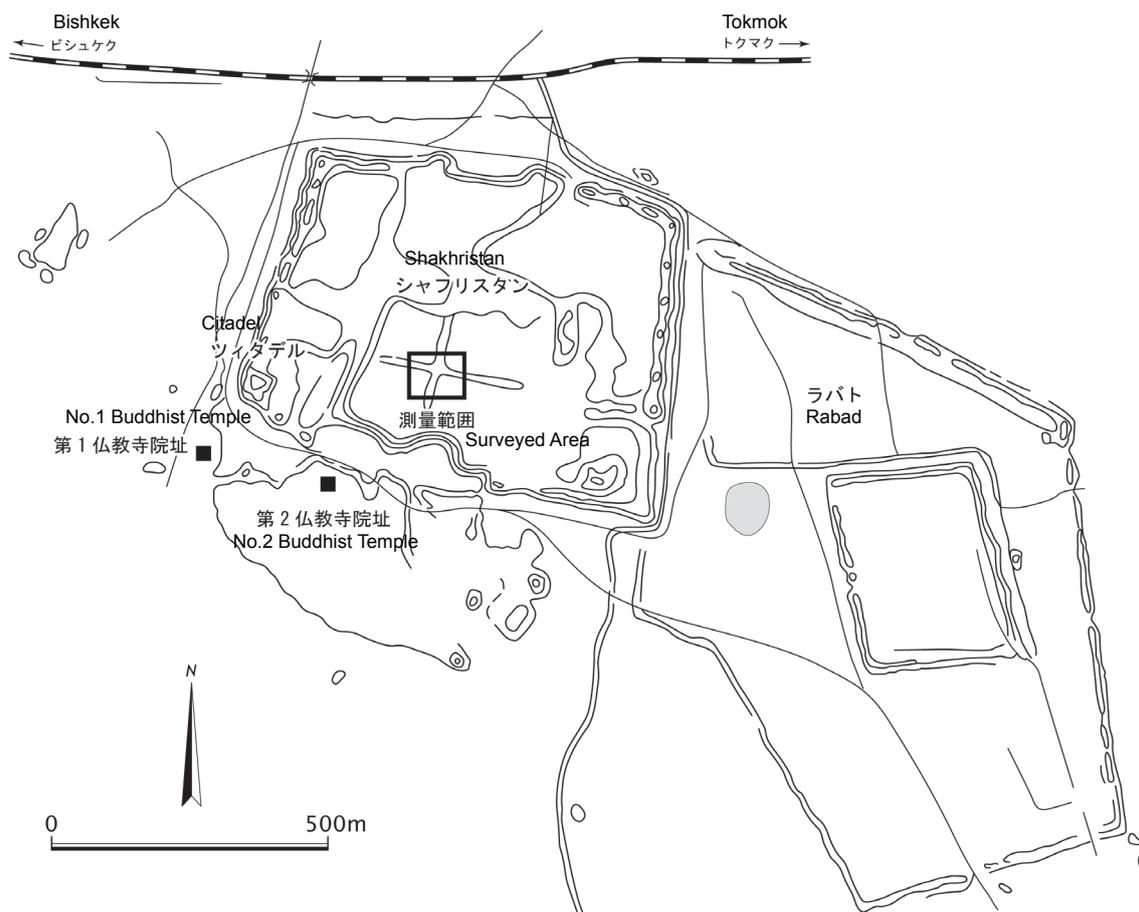


Figure 4.4 Topographic map of Ak-Beshim



Figure 4.5 Citadel (from south)



Figure 4.6 Location of Ak-Beshim (1) (from Google Earth)

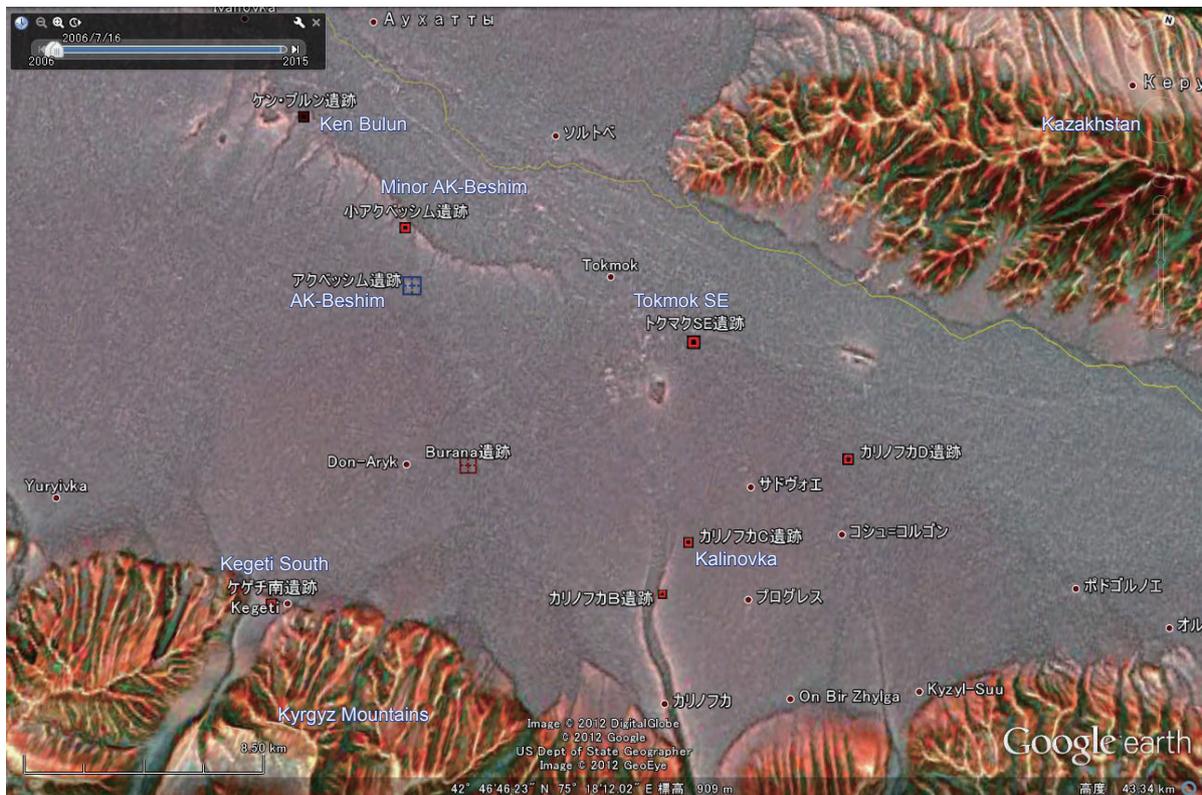


Figure 4.7 Location of Ak-Beshim (2) (from Google Earth)



Figure 4.8 Nestorian church (from north)

seasons in 2012 and 2013 (Yamauchi et al. 2013, 2014; Abe 2014) (Figs. 4.2, 4.4, 4.9a, 4.9b).

As a result, a Qarakhanid main street, running from north to south, two alleys, and several houses along the street were excavated from the top layer (Fig. 4.9b). As will be discussed below, this top layer is dated to the late 10th century (See Section 4.2.5).

The Qara Khan Dynasty was the first Turkish Islamic dynasty in Central Asia. According to historical documents, Islam rapidly spread throughout the realm of the Qara Khan Dynasty in the middle of the 10th century after the convention of Satok Bogura Khan (Table 4.1).

Therefore this top layer was created during the Islamisation period in this region and can provide important material for studying this process in eastern Central Asia.

4.2. Archaeological Investigations

4.2.1. Archaeological Features (Fig. 4.9b)

a) Large Street (A2-32, B2-101)

A large street (A2-32, B2-101) which runs from northeast to southwest was exposed in the center of excavations squares. The street has a width of 6 m (Fig. 4.11). This is one of the main streets at Ak-Beshim. Google Earth satellite images show that this main street runs from the northern gate to the southern gate and is over 450 m in length. The

Table 4.1 Islamisation during the Qara Khan dynasty

Year	Events
902	Satok Bogura Khan converted to Islam at the age of 12.
915	Satok Bogura Khan became the vice Khan of Qara Khan Dynasty at the age of 25. He called to conversion to Islam.
942	Satok Bogura Khan entered Balasugan (Burana) and became the Khan of Qara Khan Dynasty.
955	Musa Abdul al Karim, a son of Satok, succeed to the Khan. He forced conversion and invited Sufi Kalimati from Iran.
960	Because of missionary work by Kalamati, a number of pastoral nomads in the Chuy valley converted into Islam.

images also show that another main street runs from the eastern gate to the western gate. This east-west main street is still used by modern tourists.

The large street was paved with iron slag and river cobbles rather than mud bricks or sands (Fig. 4.12). The iron slag on the street suggests that there may have been blacksmith workshops around the street. Along with iron slag and cobbles, a number of animal bones and pottery sherds were excavated from the street. This suggests that inhabitants probably abandoned their daily refuse on the street.

b) Alleys (B1-104, A3-215)

Two alleys were also excavated. The alleys run perpendicularly to the large street (Figs. 4.13, 4.14). The western alley (B1-104) exposed in square B1 is very narrow at 2 m in width. The alley was also paved with small river cobbles (Fig. 4.13). In addition, a number of pottery sherds and animal bones were abandoned in this alley.

The other alley (A3-215) was excavated in square A3 (Fig. 4.14). The eastern alley has a width of 4 m.

c) Houses

Several houses were also excavated. The houses were constructed of sun dried mud bricks. The houses were badly preserved because this is the top layer of settlement remains. The houses often consisted of a main room and subsidiary room.

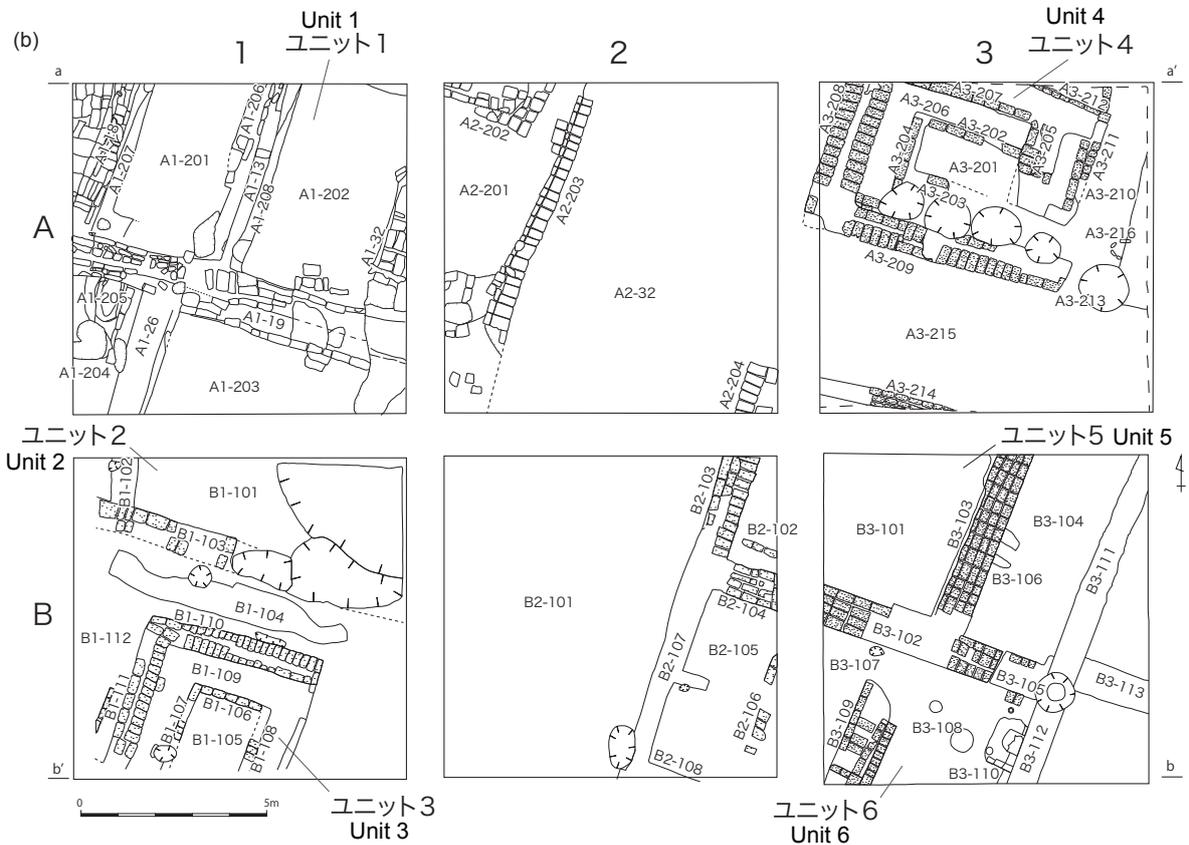
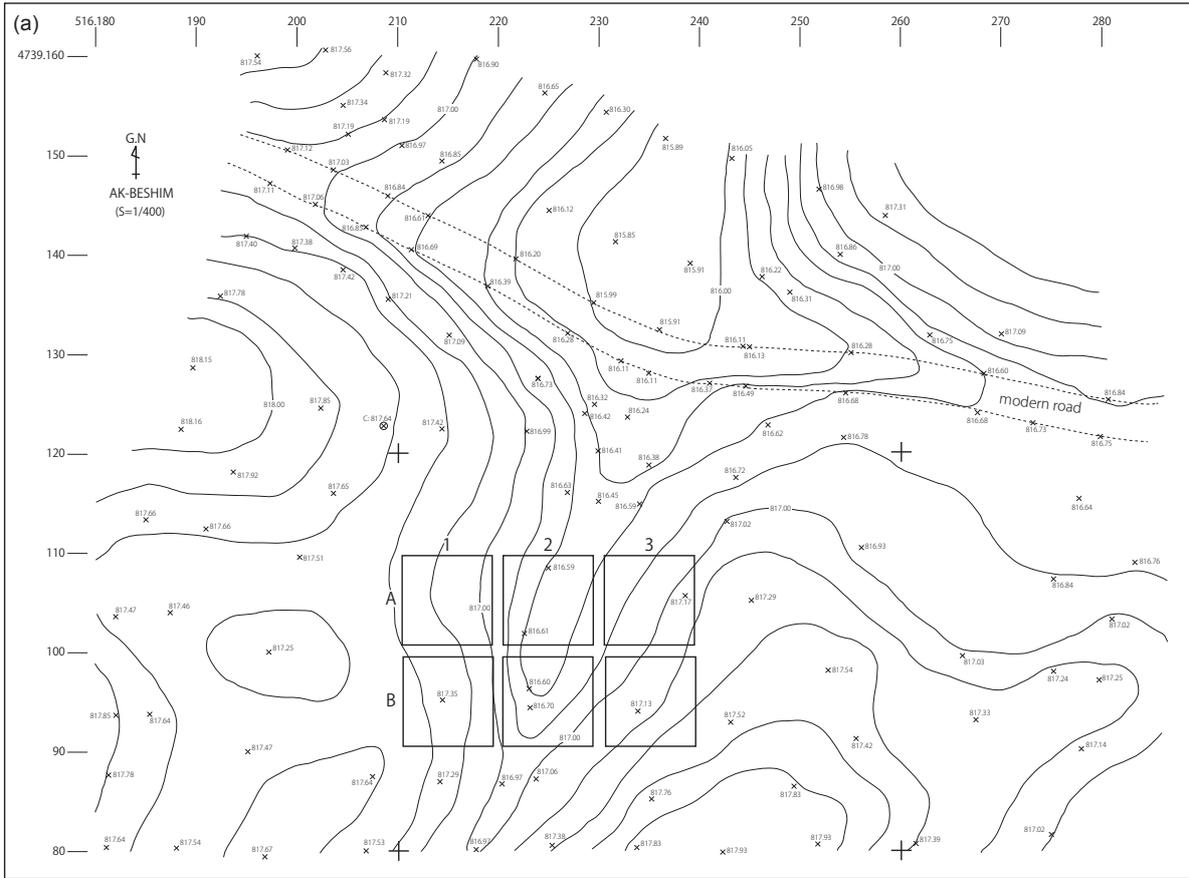


Figure 4.9 Topographic map of the central part of *Shakhristan* (a) and excavation squares (b)



Figure 4.11 Large street (A2-32, B2-101) (from northeast)



Figure 4.12 A part of large street (from west. The right side is unexcavated. The street is paved with river cobbles and iron slag)



Figure 4.13 Alley excavated in the square of B1 (B1-104) (from west)



Figure 4.14 Alley excavated in the square of A3 (from east)



Figure 4.15 Unit 1, west (A1-201) and central rooms (A1-202) (from north)



Figure 4.16 Unit 1, east room (A2-201) (from north)



Figure 4.17 Unit 2 and western alley (from west)



Figure 4.18 Oven (A1-205) discovered in a subsidiary room of Unit 2 (from north)



Figure 4.19 The main room of Unit 3 (from west. The inside of benches was excavated)



Figure 4.20 Unit 4 (from northwest. The inside of benches was excavated)



Figure 4.21 Subsidiary room of Unit 4 (from north)



Figure 4.22 The main room and subsidiary room of Unit 5 (from south)

Unit 1 (Figs. 4.15, 4.16)

Unit 1 was excavated in squares A1 and A2. Unlike other units, this unit consisted of three rectangular rooms. The rooms were almost identical in size and plan. The size of rooms is approximately 3.5 m by 5 m. In the western room (A1-201), there were benches called *Sūfa* along east and west walls (A1-206, A1-207). Furthermore, the middle room (A1-202) also had a bench (A1-208) along the western wall (A1-13).

Unit 2 (Fig. 4.17)

Unit 2 was excavated in squares A1 and B1 and consisted of the main room and subsidiary room. The unit was located to the north of the western alley (B1-104). The main room (A1-203, B1-101) was heavily damaged. In particular most of the southern wall and eastern wall were lost due to the disturbance in later periods. The main room measures 7.5 m by 5.8 m. There was a subsidiary room (A1-204) to the west of the main room. One oven (A1-205) was excavated along the northern wall (A1-19) of the subsidiary room (Fig. 4. 18).

Unit 3 (Fig. 4.19)

The unit was excavated in square B1. The unit was located to the south of the western alley (B1-104) and consisted of a main room and subsidiary room. The main room is well preserved but the eastern wall was damaged. The southern part of main room is outside the excavation squares. There



Figure 4.23 Unit 6 (from south)

were benches (B1-109) along the northern wall (B1-106), western wall (B1-107) and eastern wall (B1-108). The subsidiary room was badly preserved and discovered at the western end of excavation squares.

Unit 4 (Figs 4.20, 4.21)

The unit was excavated in square A3. The unit was on the north of the eastern alley. The unit consisted of a main room and subsidiary room. The main room was badly damaged by disturbances in later periods. The size of the main room was 4 m by 3.5 m. There were benches (A3-206) along the northern wall (A3-102), western wall (A3-204) and southern wall (A3-203) (Fig. 4.19). In addition, the entrance to the main room was discovered at the southeastern corner of the room. The subsidiary room was 1.5 m in width and one oven was excavated along the eastern wall (A3-216). An entrance (A3-210) to the subsidiary room from the alley was discovered at the southeastern corner of the room (Fig. 4.21).

Unit 5 (Fig. 4.22)

Unit 5 was excavated in squares A2, A3, B2 and B3. The unit was located to the south of the eastern alley (A3-215). The unit consisted of a main room and subsidiary room. The main room (B2-102, B3-101) measures 6 m by 5 m. The main room had a subsidiary room (B3-104) to the east. The subsidiary room measured 2.5 m by 5 m. The subsidiary room had a oven (B3-106) along the western wall (B3-103).



Figure 4.24 Oven discovered in the subsidiary room of Unit 6 (from east)

Unit 6 (Fig. 4.23)

This unit was excavated in squares B2 and B3 and consisted of a main room and subsidiary room. The main room (B2-105 and B3-107) was badly preserved and measured 5 m by 5 m. The subsidiary room (B3-108) was attached to the main room and had a width of 3.3 m. There was an oven (B3-110) along the eastern wall (B3-112) of the subsidiary room (Fig. 4.24).

Two seasons of excavations revealed basic characteristics of the Qarakhanid houses, as described below.

1. The houses often consisted of two rooms; a square main room and narrow subsidiary room.
2. The main room was square in plan and measured 4-7.5 m by 3.5-5.8 m. Some main rooms had benches along the walls. Given that no staircases were discovered during the excavation and the walls were narrow, it is likely that the house had only one floor. Despite of a lack of supporting evidence, it appears that the roof was probably flat. Given that several roof tiles were excavated, the possibility that the roof was covered by roof tiles cannot be totally denied.
3. The main room often had a subsidiary room. In that case, the main room was usually on the main street. The subsidiary room was narrow and measures 1.5-3.3 m in width. The subsidiary room was often equipped with an oven, indicating that they were probably used as kitchens. Whether the subsidiary room had a roof remains unknown.
4. The entrance to the house was only excavated in Unit 4. The entrance was open to the alley, rather than to the large street. To enter the main room, the inhabitants had to pass through the subsidiary room.

4.2.2. Artefacts

A total of 13,360 artefacts were revealed during the excavations at Ak-Beshim (7,884 items in 2012 and 5,476 items in 2013). They are mainly pottery sherds, while tiles and baked bricks are included.

Excavated artefacts were sorted into 7 types: pottery rims, pottery bases, pottery bodies, handles, decorated sherds, lids, and others. In this report, they will be sorted again into “pottery sherds” and “other artefacts,” and described in detail.

4.2.2.1. Pottery Sherds

Rims and bases were sorted into 4 types based on inspection of fabric and treatment method: cooking pot, plain ware, burnished ware, and glazed ware. They were found from the stratum belonging to the Qara-Khan period, except glazed ware found in the topsoil. The assemblage of these unglazed sherds is characterised by normal to fine quality ware and small to large in size, which is different from those in the same period revealed from Ken-Bulun (see Chapter 5). Here, each item is described in detail.

a) Cooking Pot (Figs. 4.25, 4.26)

A total of 237 sherds were identified as cooking pots. The pottery of this form is represented by coarse fabric containing a large number of minerals, which probably functioned as heat-resistance. Moreover, adhesion of soot on the surface of some sherds supports the determination of usage. Some sherds contain white minerals, probably calcite, and others contain black minerals. The rim sherds were divided into necked (Fig. 4.25) and un-necked cooking pot (Fig. 4.26).

Necked cooking pots were further divided into four subtypes. The first subtype is characterised by upright rim and curved shoulder (Fig. 4.25: 1-17). Handles were attached to the sherds of Fig. 4.25: 3-5, however, the original function was probably lost especially in sherds 4 and 5, because the projections are too small for a finger to be inserted. Almost all of the sherds are relatively large, being more than 20 cm in diameter. Only a few are less than 10 cm in diameter (Fig. 4.25: 7 and 8). Although the sherds of Fig. 4.25: 9-17 are too small to be restored, they might belong to this subtype based on the shape of the rim.

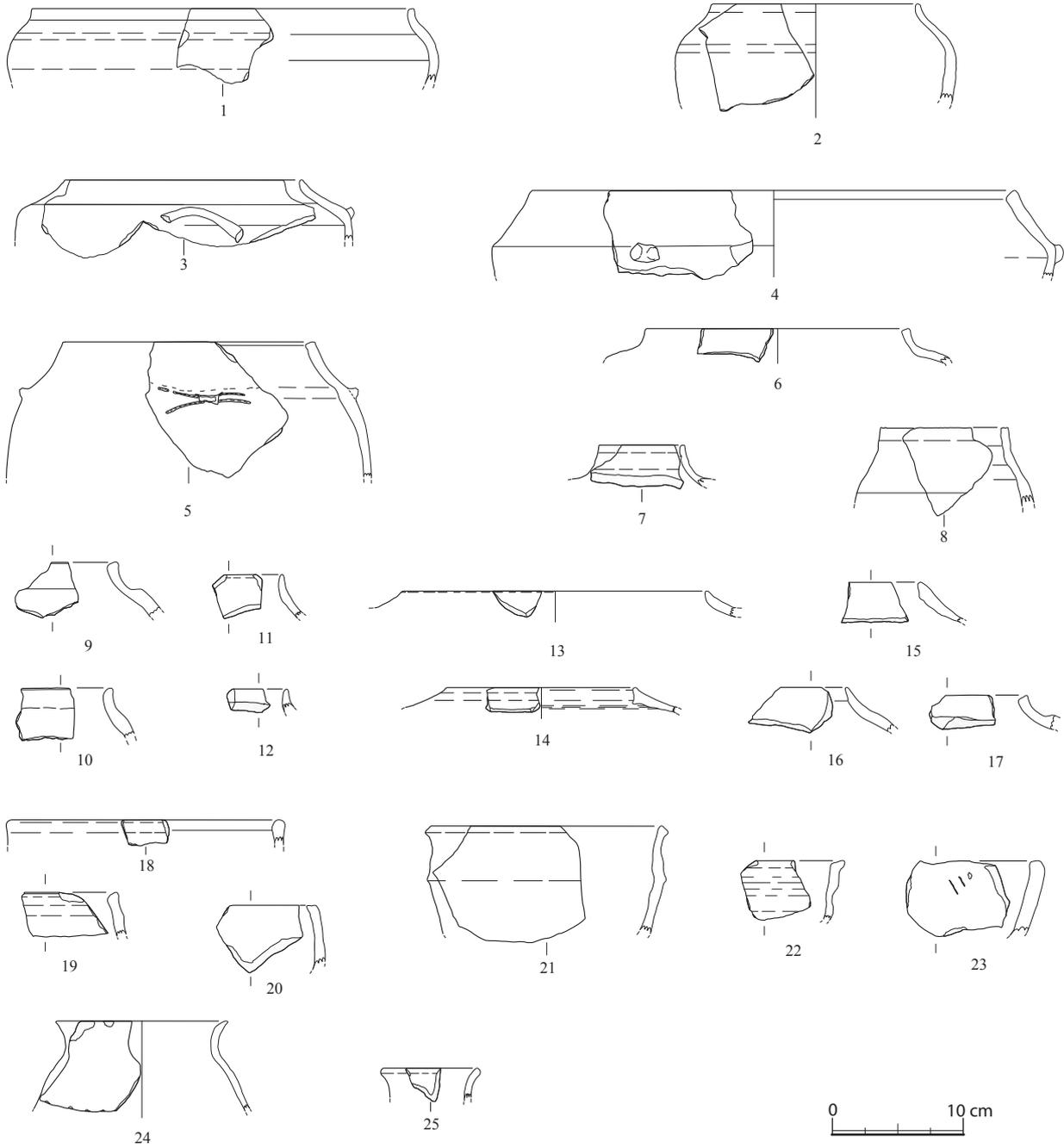


Figure 4.25 Cooking pot (1)

Figure	Context	Type	Inclusions	Colour	Notes
4.25: 1	A1-49	Cooking pot	White minerals (large)	Interior : Dark orange (7.5YR7/4) Exterior : Greyish white (7.5YR8/2) Section : Dark orange (7.5YR7/4)	
4.25: 2	B1-7	Cooking pot	Black minerals (large)	Interior : Orange (5YR7/6) Exterior : Light orange (5YR8/3) Section : Orange (5YR7/6)	Entirely Sooted
4.25: 3	A1-8	Cooking pot	White minerals (large)	Interior : Orange (5YR6/8) Exterior : Orange (5YR6/8) Section : Orange (5YR6/8)	
4.25: 4	A2-19	Cooking pot	White minerals (large)	Interior : Dark orange (2.5YR6/4) Exterior : Orange (2.5YR6/6) Section : Dark orange (2.5YR6/4)	
4.25: 5	A2-26	Cooking pot	White minerals (large)	Interior : Dark yellowish orange (10YR7/2) Exterior : Dark orange (7.5YR7/3) Section : Light reddish brown (5YR5/8)	Smoothed. Soot on the body.
4.25: 6	B2-5	Cooking pot	Black minerals (large)	Interior : Light yellowish orange (7.5YR8/4) Exterior : Greyish white (7.5YR8/1) Section : Greyish white (7.5YR8/1)	
4.25: 7	A2-25	Cooking pot	White minerals (large)	Interior : Dark orange (7.5YR7/4) Exterior : Dark orange (7.5YR7/4) Section : Dark orange (7.5YR7/4)	
4.25: 8	A2-24	Cooking pot	White minerals (large)	Interior : Light yellowish orange (7.5YR8/4) Exterior : Dark orange (7.5YR7/4) Section : Orange (5YR7/8)	
4.25: 9	A3-110	Cooking pot	White minerals (large)	Interior : Orange (5YR6/6) Exterior : Orange (5YR7/6) Section : Orange (5YR6/6)	Smoothed.
4.25: 10	A3-110	Cooking pot	White minerals (large)	Interior : Orange (2.5YR6/6) Exterior : Dark orange (7.5YR7/4) Section : Orange (2.5YR6/6)	Interior: Wet smoothed
4.25: 11	B1-7	Cooking pot	Black minerals (large)	Interior : Orange (5YR7/8) Exterior : Light orange (7.5YR8/3) Section : Orange (5YR7/8)	Sooted
4.25: 12	B1-5	Cooking pot	Black minerals (large)	Interior : Light orange (5YR8/4) Exterior : Light orange (5YR8/4) Section : Light orange (5YR8/4)	
4.25: 13	B1-7	Cooking pot	White minerals (large)	Interior : Light orange (5YR8/4) Exterior : Light yellowish orange (7.5YR8/3) Section : Orange (5YR7/6)	
4.25: 14	A1-8	Cooking pot	Black minerals (large)	Interior : Orange (2.5YR6/8) Exterior : Dark orange (5YR7/4) Section : Orange (2.5YR6/8)	
4.25: 15	B1-5	Cooking pot	White minerals (large)	Interior : Yellowish orange (7.5YR6/8) Exterior : Orange (7.5YR7/8) Section : Yellowish orange (7.5YR6/8)	
4.25: 16	A3-110	Cooking pot	Black minerals (large)	Interior : Orange (7.5YR7/6) Exterior : Orange (7.5YR7/6) Section : Orange (2.5YR6/8)	Smoothed
4.25: 17	A3-110	Cooking pot	White minerals (large)	Interior : Dark orange (2.5YR6/5) Exterior : Dark orange (5YR6/4) Section : Orange (2.5YR6/6)	Smoothed
4.25: 18	A2-11	Cooking pot	White minerals (large)	Interior : Dark orange (5YR7/4) Exterior : Dark orange (5YR7/4) Section : Dark orange (5YR7/4)	
4.25: 19	B2-5	Cooking pot	White minerals (large)	Interior : Light yellowish orange (7.5YR8/6) Exterior : Light yellowish orange (7.5YR8/4) Section : Light yellowish orange (7.5YR8/6)	
4.25: 20	B2-5	Cooking pot	White minerals (large)	Interior : Orange (7.5YR7/6) Exterior : Orange (7.5YR6/8) Section : Orange (7.5YR7/6)	
4.25: 21	B1-7	Cooking pot	White minerals (large)	Interior : Orange (5YR7/8) Exterior : Orange (5YR6/8) Section : Light reddish brown 明赤褐 (5YR5/8)	
4.25: 22	B2-5	Cooking pot	Black minerals (large)	Interior : Orange (7.5YR7/6) Exterior : Orange (7.5YR6/8) Section : Orange (7.5YR7/6)	
4.25: 23	B2-5	Cooking pot	White minerals (large)	Interior : Light yellowish orange (7.5YR8/4) Exterior : Light yellowish orange (7.5YR8/3) Section : Yellowish orange (7.5YR7/8)	Roughly shaped
4.25: 24	B2-5	Cooking pot	White minerals (large)	Interior : Orange (5YR7/8) Exterior : Greyish white (7.5YR8/2) Section : Orange (5YR7/8)	
4.25: 25	A1-8	Cooking pot	White minerals (large)	Interior : Dark orange (7.5YR7/4) Exterior : Dark orange (7.5YR7/4) Section : Dark orange (7.5YR7/4)	Interior: Sooted

Figure	Context	Type	Inclusions	Colour	Notes
4.26: 1	A1-8	Cooking pot	Black minerals (large)	Interior : Orange (5YR6/8) Exterior : Orange (5YR6/8) Section : Orange (5YR6/8)	
4.26: 2	A1-30	Cooking pot	Black minerals (large)	Interior : Light reddish brown (2.5YR5/6) Exterior : Black (10YR2/1) Section : Reddish grey (2.5YR4/1)	Sooted
4.26: 3	B2-5	Cooking pot	White minerals (large)	Interior : Light orange (5YR8/4) Exterior : Orange (7.5YR6/6) Section : Orange (2.5YR6/8)	
4.26: 4	A1-8	Cooking pot	Black minerals (large)	Interior : Orange (5YR6/8) Exterior : Orange (7.5YR7/6) Section : Orange (5YR6/8)	
4.26: 5	A1-49	Cooking pot	White minerals (large)	Interior : Light orange (5YR8/4) Exterior : Orange (5YR7/8) Section : Orange (5YR7/8)	
4.26: 6	B2-5	Cooking pot	Black minerals (large)	Interior : Yellowish orange (7.5YR7/8) Exterior : Greyish white (7.5YR8/2) Section : Yellowish orange (7.5YR7/8)	
4.26: 7	A2-18	Cooking pot	White minerals (large)	Interior : Greyish white (5YR8/2) Exterior : Greyish white (5YR8/2) Section : Orange (2.5YR6/6)	Partially sooted

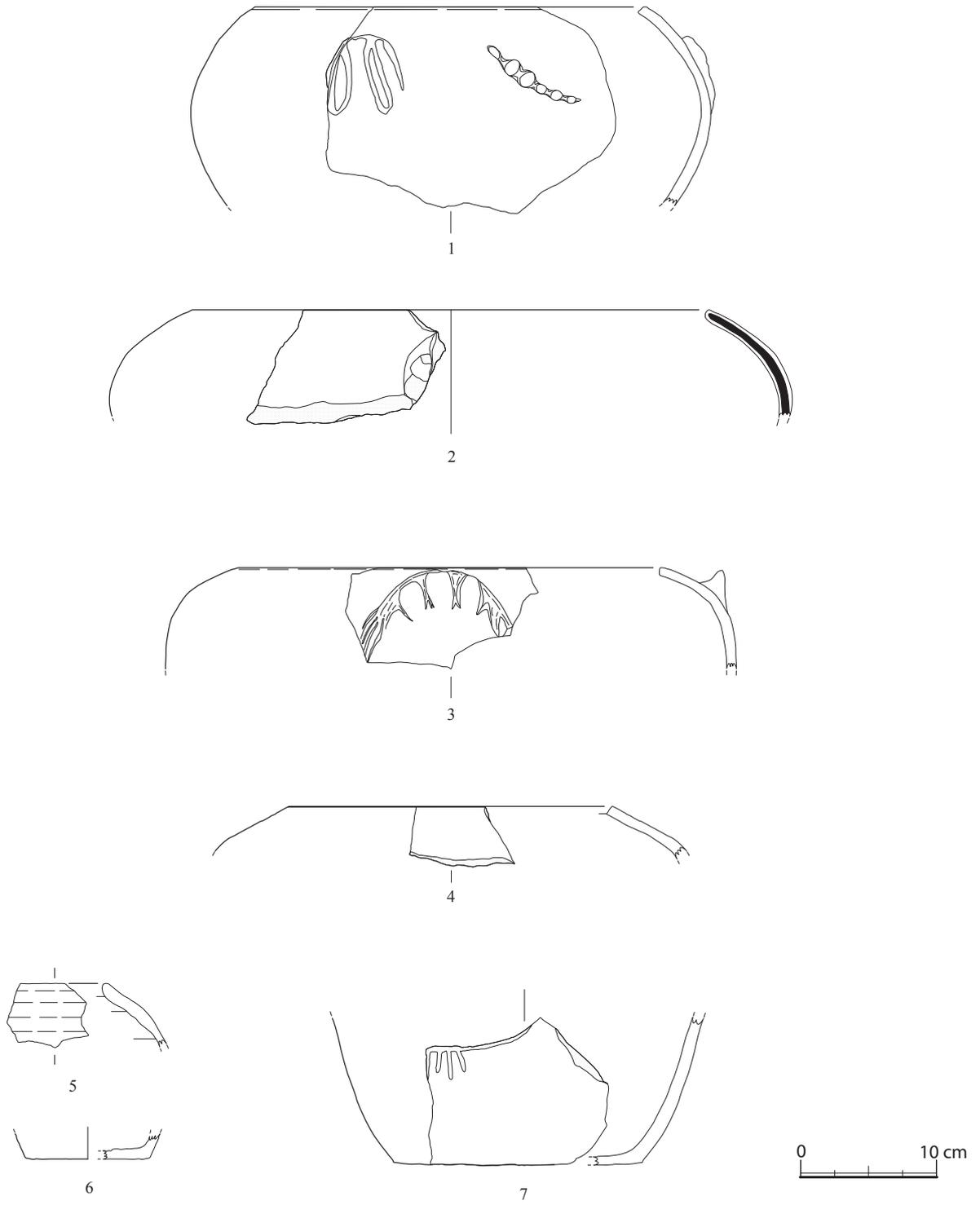


Figure 4.26 Cooking pot (2)

Figure	Context	Type	Inclusions	Colour	Notes
4.27: 1	A2-27	Plain ware : bowl	Minerals	Interior : Dark orange (5YR7/3) Exterior : Light brownish grey (5YR7/2) Section : Orange (5YR7/6)	Smoothed
4.27: 2	B2-5	Plain ware : bowl	Minerals	Interior : Light yellowish orange (7.5YR8/4) Exterior : Light yellowish orange (7.5YR8/3) Section : Yellowish orange (7.5YR7/8)	
4.27: 3	A2-27	Plain ware : bowl	Minerals	Interior : Dark orange (5YR7/4) Exterior : Dark orange (5YR7/4) Section : Dark orange (5YR7/4)	Smoothed
4.27: 4	B1-7	Plain ware : bowl	Minerals	Interior : Orange (5YR6/6) Exterior : Light yellowish orange (7.5YR8/4) Section : Orange (5YR6/6)	
4.27: 5	B1-5	Plain ware : bowl	Minerals	Interior : Light yellowish orange (5YR8/3) Exterior : Light yellowish orange (7.5YR8/3) Section : Light yellowish orange (7.5YR8/3)	Soot on the rim
4.27: 6	B1-5	Plain ware : bowl	Minerals	Interior : Light orange (5YR8/4) Exterior : Light orange (5YR8/4) Section : Light orange (5YR8/4)	
4.27: 7	A2-18	Plain ware : bowl	Minerals	Interior : Orange (5YR7/6) Exterior : Dark orange (5YR7/4) Section : Orange (5YR7/6)	Smoothed
4.27: 8	A3-110	Plain ware : bowl	Minerals	Interior : Dark orange (5YR6/4) Exterior : Dark orange (5YR6/4) Section : Greyish yellowish brown (10YR5/2)	Smoothed
4.27: 9	B1-5	Plain ware : bowl	Minerals	Interior : Orange (7.5YR7/6) Exterior : Orange (7.5YR7/6) Section : Orange (7.5YR7/6)	
4.27: 10	A3-110	Plain ware : bowl	Minerals	Interior : Dark yellowish orange (10YR7/4) Exterior : Dark yellowish orange (10YR7/4) Section : Orange (5YR6/6)	Slipped
4.27: 11	A3-110	Plain ware : bowl	Minerals	Interior : Orange (2.5YR6/6) Exterior : Orange (5YR6/6) Section : Orange (2.5YR6/6)	Smoothed
4.27: 12	A3-113	Plain ware : bowl	Minerals	Interior : Reddish grey (2.5YR5/1) Exterior : Reddish black (10R2/1) Section : Dark yellowish brown (10YR5/4)	Bottom, scraped
4.27: 13	A2-27	Plain ware : bowl	Minerals	Interior : Orange (2.5YR6/6) Exterior : Orange (2.5YR6/6) Section : Orange (2.5YR6/6)	Bottom, impression
4.27: 14	A1-29	Plain ware : bowl	Minerals	Interior : Orange (5YR6/8) Exterior : Orange (5YR6/8) Section : Orange (5YR6/8)	Bottom, smoothed
4.27: 15	B1-5	Plain ware : bowl	Minerals	Interior : Light orange (5YR8/4) Exterior : Light yellowish orange (7.5YR8/6) Section : Light orange (5YR8/4)	Bottom, smoothed
4.27: 16	A1-49	Plain ware : bowl	Minerals	Interior : Orange (5YR7/6) Exterior : Light yellowish orange (7.5YR8/6) Section : Orange (5YR7/6)	Smoothed
4.27: 17	A1-49	Plain ware : bowl	Minerals	Interior : Dark orange (7.5YR7/4) Exterior : Dark orange (7.5YR7/4) Section : Dark orange (7.5YR7/4)	Smoothed
4.27: 18	B2-5	Plain ware : bowl	Minerals	Interior : Orange (5YR6/6) Exterior : Orange (5YR6/6) Section : Orange (5YR6/6)	

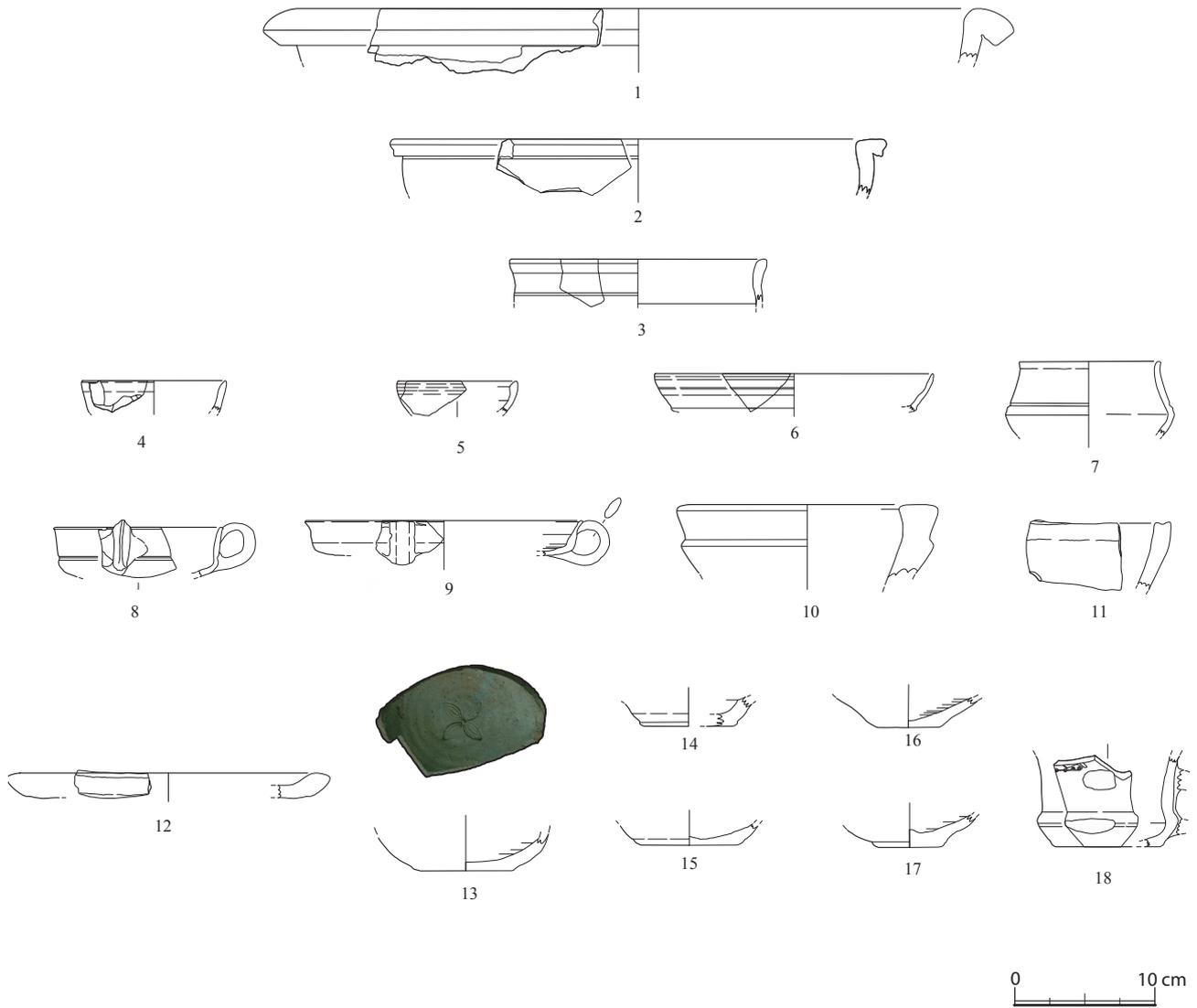


Figure 4.27 Plain ware (1)

Figure	Context	Type	Conclusions	Colour	Notes
4.28: 1	A1-46	Plain ware : jar	Minerals	Interior : Orange (2.5YR6/8) Exterior : Light yellowish orange (10YR8/4) Section : Orange (2.5YR6/8)	Exterior : Slipped
4.28: 2	B2-4	Plain ware : jar	Minerals	Interior : Orange (7.5YR6/8) Exterior : Orange (7.5YR6/8) Section : Orange (7.5YR6/8)	Impression on the neck
4.28: 3	B1-6	Plain ware : jar	Minerals	Interior : Orange (7.5YR8/8) Exterior : Light yellowish orange (7.5YR8/4) Section : Orange (7.5YR7/6)	
4.28: 4	A3-110	Plain ware : jar	Minerals	Interior : Orange (5YR6/6) Exterior : Dark orange (7.5YR7/4) Section : Light reddish brown (2.5YR5/6)	Smoothed
4.28: 5	A1-11	Plain ware : jar	Minerals	Interior : Dark orange (7.5YR7/4) Exterior : Light yellowish brown (10YR8/4) Section : Orange (7.5YR7/6)	
4.28: 6	A3-110	Plain ware : jar	Minerals	Interior : Orange (5YR7/6) Exterior : Dark yellowish orange (10YR7/4) Section : Orange (5YR7/6)	Incisions on the rim
4.28: 7	A1-46	Plain ware : jar	Minerals	Interior : Orange (5YR7/6) Exterior : Orange (5YR7/6) Section : Orange (5YR7/6)	Smoothed
4.28: 8	A1-29	Plain ware : jar	Minerals	Interior : Orange (5YR7/6) Exterior : Light orange (5YR8/4) Section : Orange (5YR7/6)	Smoothed
4.28: 9	A2-19	Plain ware : jar	Minerals	Interior : Orange (2.5YR6/6) Exterior : Light orange (5YR8/4) Section : Orange (2.5YR6/6)	
4.28: 10	A1-37	Plain ware : jar	Minerals	Interior : Reddish black (2.5YR2/1) Exterior : Reddish black (2.5YR2/1) Section : Orange (5YR6/6)	Sooted
4.28: 11	B1-5	Plain ware : jar	Minerals	Interior : Orange (5YR7/6) Exterior : Orange (5YR7/8) Section : Orange (5YR7/6)	
4.28: 12	A1-56	Plain ware : jar	Minerals	Interior : Dark orange (5YR7/3) Exterior : Dark orange (5YR7/4) Section : Orange (5YR6/6)	Soot on the rim and handle
4.28: 13	A1-46	Plain ware : jar	Minerals	Interior : Orange (2.5YR6/6) Exterior : Orange (2.5YR6/6) Section : Orange (2.5YR6/8)	Exterior : Sooted
4.28: 14	B2-5	Plain ware : jar	Minerals	Interior : Orange (7.5YR7/6) Exterior : Light yellowish orange (7.5YR8/3) Section : Orange (7.5YR7/6)	
4.28: 15	A2-26	Plain ware : jar	Minerals	Interior : Orange (5YR7/6) Exterior : Light yellowish orange (7.5YR8/4) Section : Orange (5YR6/8)	
4.28: 16	A1-46	Plain ware : jar	Minerals	Interior : Orange (2.5YR7/6) Exterior : Dark orange (7.5YR7/4) Section : Orange (5YR6/6)	Smoothed
4.28: 17	A1-46	Plain ware : jar	Minerals	Interior : Dark orange (5YR7/4) Exterior : Orange (5YR7/6) Section : Dark orange (5YR7/4)	Smoothed
4.28: 18	A3-110	Plain ware : jar	Minerals	Interior : Orange (7.5YR7/6) Exterior : Orange (7.5YR7/6) Section : Orange (7.5YR6/6)	Exterior : Wet smoothed
4.28: 19	A2-27	Plain ware : jar	Minerals	Interior : Orange (5YR7/6) Exterior : Dark orange (7.5YR7/3) Section : Orange (5YR6/6)	Smoothed
4.28: 20	A3-110	Plain ware : jar	Minerals	Interior : Light yellowish orange (10YR8/4) Exterior : Light yellowish orange (10YR8/4) Section : Light yellowish orange (7.5YR8/4)	Smoothed
4.28: 21	B1-7	Plain ware : jar	Minerals	Interior : Light yellowish orange (7.5YR8/6) Exterior : Light yellowish orange (7.5YR8/3) Section : Dark orange (7.5YR7/4)	Smoothed
4.28: 22	A3-113	Plain ware : jar	Minerals	Interior : Light yellowish orange (10YR8/4) Exterior : Dark reddish brown (5YR5/4) Section : Orange (5YR6/6)	Smoothed
4.28: 23	A2-25	Plain ware : jar	Minerals	Interior : Light brownish grey (7.5YR7/2) Exterior : Light brownish grey (7.5YR7/2) Section : Light yellowish orange (7.5YR8/4)	
4.28: 24	A3-110	Plain ware : jar	Minerals	Interior : Dark orange (5YR6/4) Exterior : Dark orange (7.5YR7/4) Section : Dark orange (7.5YR7/4)	Smoothed
4.28: 25	A3-110	Plain ware : jar	Minerals	Interior : Light yellow (2.5Y8/4) Exterior : Light yellow (2.5Y8/3) Section : Orange (5YR6/6)	Slipped
4.28: 26	A2-27	Plain ware : jar	Minerals	Interior : Orange (5YR6/6) Exterior : Orange (5YR6/6) Section : Orange (5YR6/6)	
4.28: 27	A1-20	Plain ware : jar	Minerals	Interior : Dark orange (7.5YR7/4) Exterior : Dark orange (7.5YR7/4) Section : Dark orange (7.5YR7/4)	
4.28: 28	B2-5	Plain ware : jar ?	Minerals	Interior : Orange (2.5YR7/6) Exterior : Light yellowish orange (7.5YR8/4) Section : Orange (2.5YR7/6)	Roughly shaped rim
4.28: 29	A1-8	Plain ware : jar	Black minerals	Interior : Orange (5YR6/6) Exterior : Orange (5YR6/6) Section : Orange (5YR6/6)	
4.28: 30	A2-27	Plain ware : jar	Minerals	Interior : Dark orange (5YR6/4) Exterior : Orange (5YR6/6) Section : Dark orange (7.5YR6/4)	Smoothed

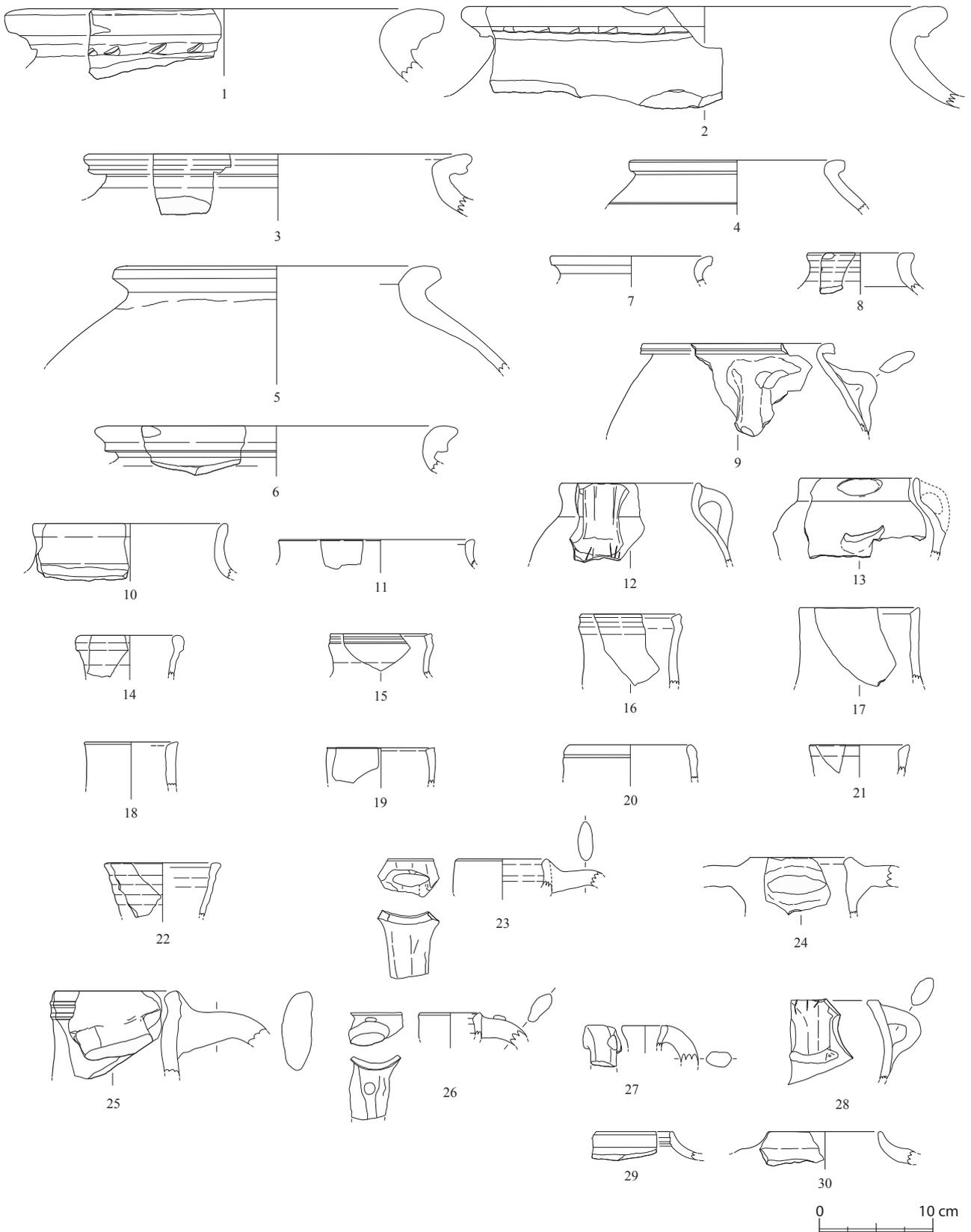


Figure 4.28 Plain ware (2)

The sherds of Fig. 4.25: 18–20 are of the second subtype with slight curvature from body to rim, and Fig. 4.25: 21–23 are the third subtype with everted rims. Both subtypes are considered to be a bowl-like shape without a shoulder. Fig. 4.25: 24 and 25 are the fourth subtype with S-shaped necks, a rare characteristic for cooking pots.

Un-necked cooking pots (Fig. 4.26) have curved rims. Parts of arched handles remain on the sherds in Fig. 4.26: 1–3 with some differences in detail. The decoration seen in the right part of the Fig. 4.26: 1 is probably a decoration that was originally a handle.

Unfortunately, it is impossible to restore the form of the rim based on only the base sherds. Fig. 4.26: 6 is relatively small if it is restored whole. In the sherd seen in Fig. 4.26: 7, the edge of the handle remains.

b) Plain Ware (Figs. 4.27, 4.28, 4.29: 1–12)

Plain wares occupy the highest proportion in the collected pottery, containing a small number of inclusions. In contrast to cooking pots, there are rare ones with coarse fabric, while the surfaces of some sherds are carefully treated. Plain wares were divided into bowls (Fig. 4.27) and jars (Figs. 4.28, 4.29: 1–12).

Rims of the bowls were further divided into eight types. The first type has ledge rim (Fig. 4.27: 1, 2). Pottery in this type might be large bowls, because they have large mouths and thick walls. Fig. 4.27: 3, the second type, is a bowl with slightly everted rim. Pottery of Fig. 4.27: 4–6, the third type, is relatively small with thin walls. Fig. 4.27: 7 shows a bowl of the fourth type, which has a carinated body. Fig. 4.27: 8 and 9 show bowls with curved bodies, handles and everted rims, which were sorted as the fifth type. The function of the last three subtypes would be for serving beverages like wine, considering their careful treatments.

Fig. 4.27: 10 has a thick wall relative to the size of the mouth, and is characterised by curved neck. Fig.

4.27: 11 was roughly made, therefore restoration of the mouth was impossible.

Fig. 4.27: 12 shows a very shallow platter. Although only a small part remains, the lower part of the exterior body is flat, indicating that this part is the base.

Fig. 4.27: 13–17 show the bases of bowls. All have flat bottoms and the interiors are smoothly treated. Especially in the center of the interior of the Fig. 4.27: 13, a seal impression of four leaves can be seen. Fig. 4.27: 18 shows a cup-shaped vessel with a handle. This was made carefully, and would have been used for serving beverages, similar to the vessels shown in Fig. 4.27: 7–9.

The vessels presented in the Fig. 28 are jars. Fig. 28: 1–6 shows large jars with ledge rims. Especially the Fig. 28: 1 and 2 have indentations on the necks, and Fig. 28: 6 has an Arabic inscription on the mouth (see below). Fig. 4.28: 7–9 also shows jars with ledge rims, nevertheless their mouths are small. The mouth of the jar in Fig. 4.28: 8 is particularly small, however the wall is thick indicating a large overall size. On the other hand, the size of jar in Fig. 4.28: 9 seems to be small, because the handle is only big enough for a single finger.

Fig. 4.28: 10–13 have upright rims. Fig. 4.28: 12 and 13 have handles, and narrower bodies than those in Fig. 4.28: 1–6, indicating that these are small jars. Moreover, the vessels in Fig. 4.28: 13 might have been used for cooking because of the large quantities of soot on the surface. Fig. 4.28: 14–28 have small mouths and long necks. The rims shown in Fig. 4.28: 14–16 are slightly carinated, while those in Fig. 4.28: 17 and 18 have upright necks. Figs. 4.28: 19 and 20 show slightly curved rims, while those in Fig. 4.28: 21 and 22 have everted ones. Fig. 4.28: 23–28 have handles. Each handle is thick relative to the size of the wall and mouth, and attaches horizontally to the rim. These facts may indicate that they might be parts of large pottery. Furthermore, a button-shaped attachment is decorated on the handle of the vessel in Fig. 4.28:

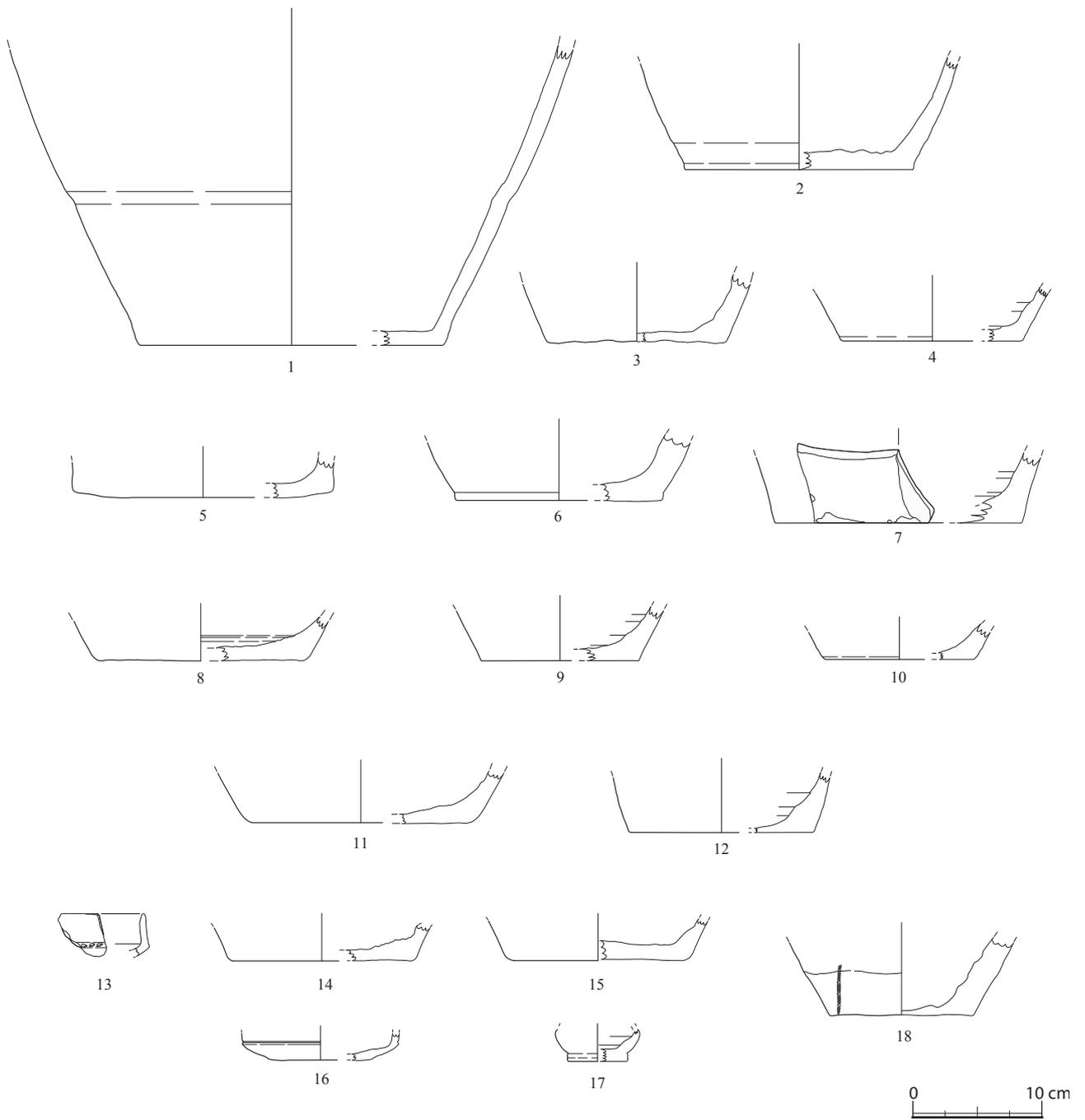


Figure 4.29 Plain ware and burnished ware

Figure	Context	Type	Inclusions	Colour	Notes
4.29: 1	B2-4	Plain ware : jar	Minerals	Interior : Dark orange (5YR7/4) Exterior : Orange (7.5YR7/6) Section : Dark orange (5YR7/4)	Bottom
4.29: 2	B1-7	Plain ware : jar	Minerals	Interior : Orange (2.5YR6/6) Exterior : Light yellowish orange (7.5YR8/3) Section : Orange (2.5YR6/8)	Slipped
4.29: 3	A1-11	Plain ware : jar	Minerals	Interior : Light yellowish orange (10YR8/4) Exterior : Light yellowish orange (10YR8/4) Section : Dark orange (5YR7/4)	Bottom
4.29: 4	B1-5	Plain ware : jar	Minerals	Interior : Dark orange (5YR7/4) Exterior : Dark orange (5YR7/3) Section : Dark orange (5YR7/3)	Bottom, smoothed
4.29: 5	A3-113	Plain ware : jar	Minerals	Interior : Dark orange (7.5YR5/4) Exterior : Orange (7.5YR6/6) Section : Orange (5YR6/6)	Smoothed
4.29: 6	A3-113	Plain ware : jar	Minerals	Interior : Light reddish orange (2.5YR7/4) Exterior : Orange (2.5YR6/6) Section : Orange (2.5YR6/6)	Bottom, smoothed
4.29: 7	A2-29	Plain ware : jar	Minerals	Interior : Light orange (5YR8/4) Exterior : Orange (5YR7/8) Section : Greyish white (2.5Y7/1)	Smoothed
4.29: 8	A2-27	Plain ware : jar	Minerals	Interior : Orange (5YR7/8) Exterior : Light orange (5YR8/3) Section : Orange (5YR7/8)	Bottom
4.29: 9	A1-23	Plain ware : jar	Minerals	Interior : Light orange (5YR8/4) Exterior : Light orange (5YR8/4) Section : Light orange (5YR8/4)	Bottom, smoothed
4.29: 10	B1-7	Plain ware : jar	Minerals	Interior : Dark orange (7.5YR7/4) Exterior : Dark orange (7.5YR7/4) Section : Dark orange (7.5YR7/4)	Bottom
4.29: 11	A3-110	Plain ware : jar	Minerals	Interior : Orange (5YR7/6) Exterior : Orange (5YR7/6) Section : Orange (5YR7/6)	Bottom
4.29: 12	B1-7	Plain ware : jar	Minerals	Interior : Orange (7.5YR6/8) Exterior : Orange (5YR6/8) Section : Orange (5YR6/8)	Bottom
4.29: 13	A3-110	Burnished ware	Minerals	Interior : Dark orange (5YR6/3) Exterior : Dark orange (7.5YR7/4) Section : Orange (7.5YR7/6)	
4.29: 14	A1-46	Burnished ware	Minerals	Interior : Orange (5YR7/6) Exterior : Orange (5YR7/6) Section : Orange (5YR6/6)	Burnished
4.29: 15	A1-46	Burnished ware	Minerals	Interior : Orange (5YR7/6) Exterior : Orange (5YR7/6) Section : Orange (5YR6/6)	Smoothed
4.29: 16	A1-46	Burnished ware	Minerals	Interior : Orange (5YR7/6) Exterior : Dark orange (5YR7/4) Section : Orange (5YR6/6)	
4.29: 17	B1-7	Burnished ware	Minerals	Interior : Dark orange (7.5YR7/4) Exterior : Light yellowish orange (7.5YR8/3) Section : Dark orange (7.5YR7/4)	
4.29: 18	A3-104	Burnished ware	Minerals	Interior : Dark orange (5YR7/4) Exterior : Light yellowish orange (10YR8/4) Section : Orange (5YR6/6)	Bottom, burnished

Figure	Context	Type	Inclusions	Colour	Notes
4.30: 1	A3-104	Glazed ware : bowl	No	Interior : Greyish white (10Y7/2) Exterior : Greyish white (10Y7/2) Section : Orange (2.5YR6/6)	
4.30: 2	B3-1	Glazed ware : bowl	No	Interior : Greyish white (10Y7/2) Exterior : Greyish white (10Y7/2) Section : Orange (5YR7/6)	Repaired
4.30: 3	B3-1	Glazed ware : bowl	No	Interior : Greyish white (10Y7/2) Exterior : Greyish white (10Y7/2) Section : Orange (5YR7/6)	
4.30: 4	A3-104	Glazed ware : bowl	No	Interior : Light yellow (7.5Y8/3) Exterior : Light yellow (7.5Y8/3) Section : Orange (5YR6/6)	
4.30: 5	A3-104	Glazed ware : bowl ?	No	Interior : Light orange (7.5Y8/3) Exterior : Light orange (7.5Y8/3) Section : Orange (5YR6/6)	
4.30: 6	B1-1	Glazed ware : spout	No	Interior : Dark reddish brown (2.5YR3/2) Exterior : Dark reddish brown (2.5YR3/2) Section : Orange (2.5YR6/8)	
4.30: 7	A3-104	Glazed ware : spout	No	Interior : Light orange (7.5Y8/3) Exterior : Light orange (7.5Y8/3) Section : Orange (5YR7/6)	Sooted

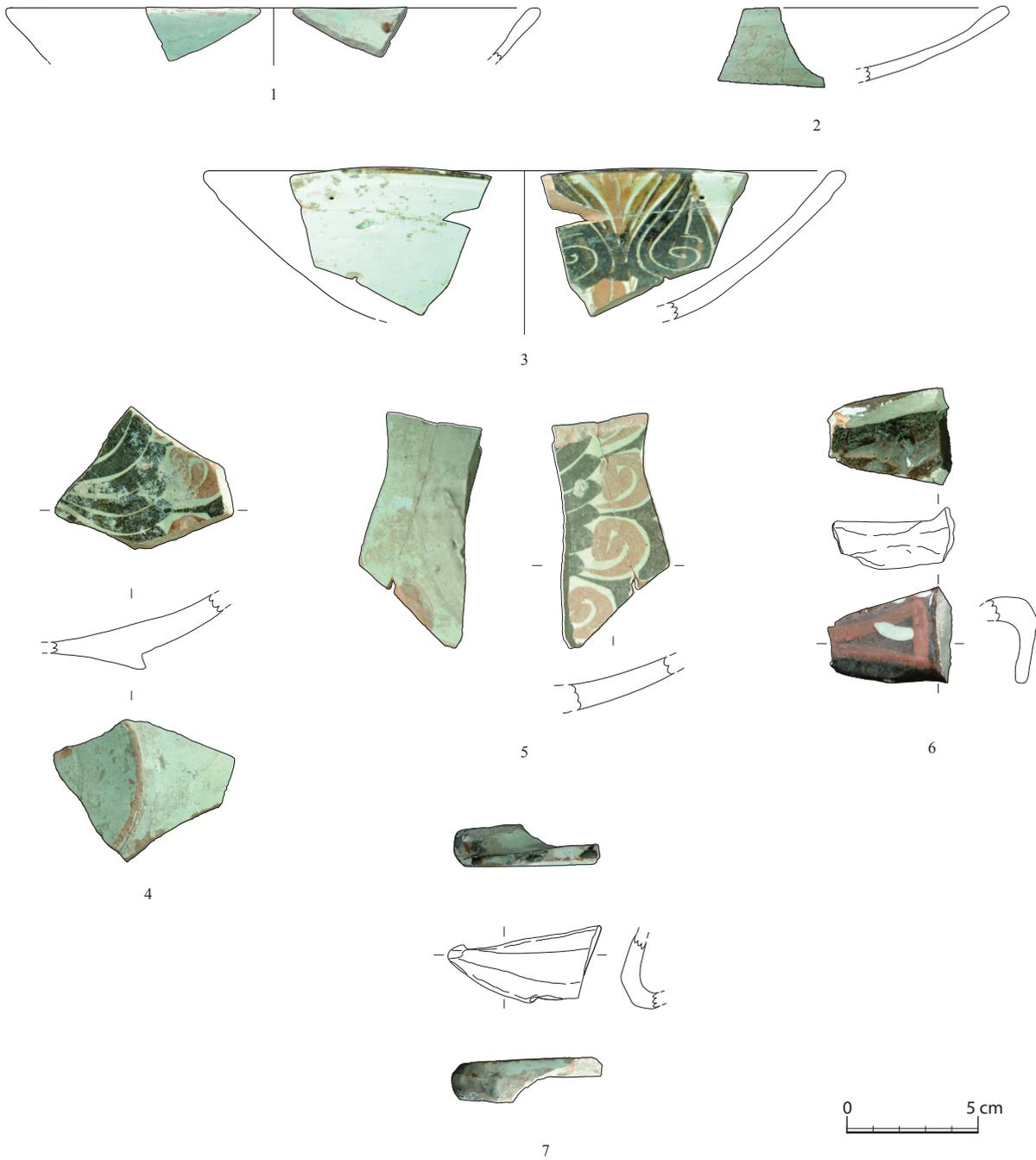


Figure 4.30 Glazed ware



Figure 4.31 Other clay objects

Figure	Context	Type	Inclusions	Colour	Notes
4.31: 1	A1-30	Lid	Minerals	Interior Dark orange (7.5YR7/3) Exterior : Dark orange (7.5YR7/4) Section : Light reddish brown (5YR5/6)	Soot on the bottom
4.31: 2	A2-26	Lid	Minerals	Interior : Orange (5YR6/6) Exterior : Greyish white (7.5YR8/2) Section : Orange (5YR7/8)	Smoothed
4.31: 3	A3-4	Lid	Minerals	Interior : Dark brown (5YR6/3) Exterior : Orange (5YR7/6) Section : Orange (5YR7/6)	Handle
4.31: 4	A3-110	Lid	Minerals	Interior : - Exterior : Light yellowish orange (10YR8/4) Section : Orange (5YR6/6)	Handle
4.31: 5	A3-110	Lid	Minerals	Interior : - Exterior : Orange (5YR7/6) Section : Orange (2.5YR6/8)	Handle
4.31: 6	A3-110	Lid	Minerals	Interior : Dark orange (7.5YR7/4) Exterior : Light yellowish orange (10YR8/4) Section : Orange (2.5YR6/8)	
4.31: 7	A3-110	Lid	Minerals	Interior : Dark yellowish orange (10YR7/4) Exterior : Dark orange (5YR7/4) Section : Orange (5YR7/6)	Wet smoothed
4.31: 8	A2-25	Lid	Minerals	Interior : Dark orange (7.5YR7/3) Exterior : Greyish white (7.5YR8/1) Section : Dark orange (7.5YR7/3)	
4.31: 9	A2-25	Lid	Minerals	Interior : Orange (2.5YR7/6) Exterior : Orange (2.5YR7/6) Section : Orange (2.5YR7/6)	
4.31: 10	A2-25	Lid	Minerals	Interior : Light reddish orange (2.5YR7/4) Exterior : Light reddish orange (2.5YR7/4) Section : Light reddish orange (2.5YR7/4)	
4.31: 11	A2-19	Lid	Minerals	Interior : Blackish brown (5YR3/1) Exterior : Light yellowish orange (10YR8/4) Section : Orange (2.5YR6/6)	
4.31: 12	A3-4	Lid	Minerals	Interior : Black (10YR2/1) Exterior : Yellowish orange (10YR8/6) Section : Orange (5YR7/6)	
4.31: 13	A3-114	Foot	Minerals	Interior : Orange (2.5YR6/6) Exterior : Orange (2.5YR6/6) Section : Orange (2.5YR6/6)	
4.31: 14	A1-46	Foot	Minerals	Interior : - Exterior : Orange (5YR6/6) Section : Orange (2.5YR6/6)	Smoothed
4.31: 15	A3-110	Foot	Minerals	Interior : - Exterior : Light yellow (2.5Y8/4) Section : Light reddish brown (5YR5/8)	
4.31: 16	A2-25	Foot	Minerals	Interior : Orange (2.5YR7/8) Exterior : Orange (2.5YR7/8) Section : Orange (2.5YR7/8)	
4.31: 17	A2-27	Foot	Minerals	Interior : - Exterior : Orange (5YR7/6) Section : Orange (5YR6/8)	
4.31: 18	A2-17	Pierced sherd	Minerals	Interior : Orange (5YR6/8) Exterior : Orange (5YR6/8) Section : Orange (5YR6/8)	Reuse of a base sherd
4.31: 19	A1-2	Pierced sherd	Minerals	Interior : Orange (5YR7/8) Exterior : Light orange (5YR8/4) Section : Orange (5YR7/8)	Reuse of a nody sherd
4.31: 20	A2-19	Lamp	Minerals	Interior : Light orange (5YR6/4) Exterior : Light yellowish orange (7.5YR8/4) Section : Orange (2.5YR6/6)	
4.31: 21	A2-17	Stand	Minerals	Interior : Light reddish brown (5YR5/6) Exterior : Orange (5YR6/6) Section : Orange (5YR6/8)	
4.31: 22	A3-110	Stand	Minerals	Interior : Orange (5YR6/6) Exterior : Orange (5YR7/6) Section : Orange (5YR6/6)	Scraped
4.31: 23	A3-113	Stand	Minerals	Interior : Orange (2.5YR6/6) Exterior : Dark yellowish orange (10YR7/4) Section : Orange (2.5YR6/6)	Partially heated

26.

Fig. 4.28: 29 and 30 show short-neck jars. Both have horizontal shoulders, indicating they had wide bodies.

Fig. 4.29: 1–13 are the bases of jars. On the one hand, Fig. 4.29: 1–7 have fixed thickness and L-shaped profiles. On the other hand, Fig. 4.29: 8–12 have L-shaped outlines of exterior and gently curved interior. As a result, the edges of the bases are thicker than bodies and centers of the bases.

c) Burnished Ware (Fig. 4.29: 13–18)

The excavation yielded 71 sherds of burnished wares. The vessels in Fig. 4.29: 13 has a carinated body with indentations. Fig. 4.29: 14 and 15 show bases, possibly juglets with handles. Fig. 4.29: 16 is the base of the bowl, probably for beverages, and Fig. 4.29: 17 is a miniature bowl. The exterior of the vessel in Fig. 4.29: 18 is abraded, little burnishing is recognized, and the interior is not treated. The last one seems to be a part of a large vessel, nevertheless it cannot be confirmed if the entirety or part of the surface was burnished.

d) Glazed Ware (Fig. 4.30)

As noted above, all glazed sherds were found in the topsoil. This means these vessels belong to a later period than the unearthened structures. Three sherds (Fig. 4.30: 1–3) are rims of bowls, one (Fig. 4.30: 4) is a base, and the other (Fig. 4.30: 5) is a body. The exteriors of all sherds and interiors shown in Fig. 4.30: 1 and 3 are glazed in white. On the other hand, complicated figures are drawn with various colour glazes such as brown, black, and brownish black, on the interiors of other bowls. Fig. 4.30: 6 and 7 are sherds of spouts. Fig. 4.30: 6 is glazed in brown, while Fig. 4.30: 7 is in white. Furthermore, a soot-like material adheres to the latter one, which might indicate this is a part of a lamp.

4.2.2.2. Other materials

a) Lid (Fig. 4.31: 1–12)

The lids were hand-made and were originally round with nobs in the centers. All the sherds in this category are fragments making restorations difficult. In the presented five nobs (Fig. 4.31: 1–5), Fig. 4.31: 1 was roughly shaped, while the tops of the others were nearly circular with gradual depressions. In particular, the lid in Fig. 4.31: 5 was depressed deeper and decorated by prodding and poking around the center.

Body sherds of the lids are flat, round and have soot adhering to the bottom. The forms of the edges were divided into folded (Fig. 4.31: 6 and 7), triangular (Fig. 4.31: 8–10) and flat with continuous thumb indentations around the edges (Fig. 4.31: 11 and 12). The exterior surfaces of these sherds were decorated with incised lines and prodding. The lid shown in Fig. 4.31: 1 can be also sorted into this type, because it is flat and decorated with thumb indentations around the edges.

b) Foot (Fig. 4.31: 13–17)

These sherds are considered to be parts of stands used for cooking at ovens. Each one is hand-made. The profiles of four of them (Fig. 4.31: 3–16) are circular. A grounding part remains only in vessels shown in Fig. 4.31: 13, which tapers off toward the bottom and is claviformed at the tip. Fig. 4.31: 14 and 15 show vessels that are decorated with circle incisions. Fig. 4.31: 16 has a process that is seeming a part of a decoration. Fig. 4.31: 17 has a rectangular profile and is smaller than others. Moreover, it is decorated with two lines of circle incisions on the obverse and the reverse sides.

c) Pierced Sherd (Fig. 4.31: 18, 19)

One pierced sherd (Fig. 4.31: 18) is a reused base sherd, and the other (Fig. 4.31: 19) is a reused body sherd. These sherds would have been used as loom weights.



Figure 4.32 Rim sherd with an inscription



Figure 4.33 Body sherd with an inscription



Figure 4.34 Roof tiles, clay objects, astragali and coins

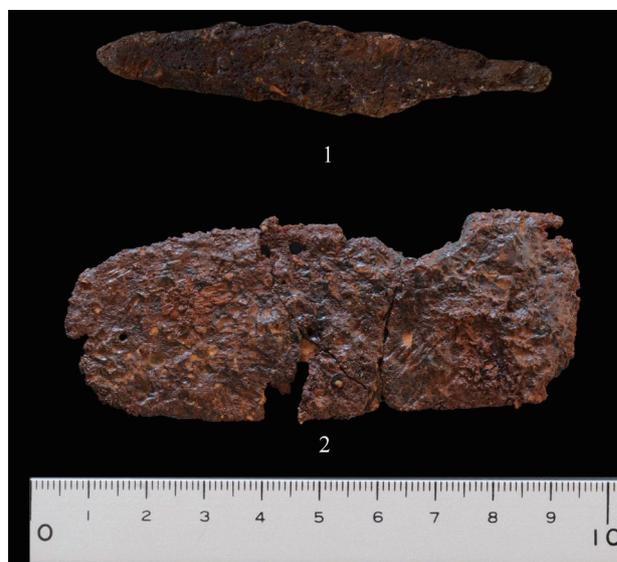


Figure 4.35 Iron objects

d) Lamp (Fig. 4.31: 20)

One lamp sherd was discovered at the site. Soot slightly adheres to the spout and interior. The wall is upright and high. The horizontal smoothing can be seen on the entire body, which indicates this pottery was wheel-made, and the spout was shaped later.

e) Stand (Fig. 4.31: 21–23)

Three stands were found. In Fig. 4.31: 23, a trace of a process can be recognized on the ring-shaped body with indentations. This could be a part of a trivet-shaped object, however the precise reconstruction is difficult as it is a small fragment.

f) Pottery sherds with inscriptions (Figs. 4.32, Fig.4.33)

Two pottery sherds discovered during two seasons of excavation are particularly noteworthy. One is a rim sherd and the other is a body sherd. On the rim sherd, there is an inscription of “Allāh Muhammad rasūl’ (Fig.4.32)’. On the body sherd, there is an inscription of “Muhammad Allāh” . These are the latter part of the Islamic phrase, “There is no god except Allah. Muhammad is the messenger of Allah” .

The inscription on the rim sherd was inscribed on the vessel after firing pottery while the inscription of the body sherd was inscribed before firing. It is

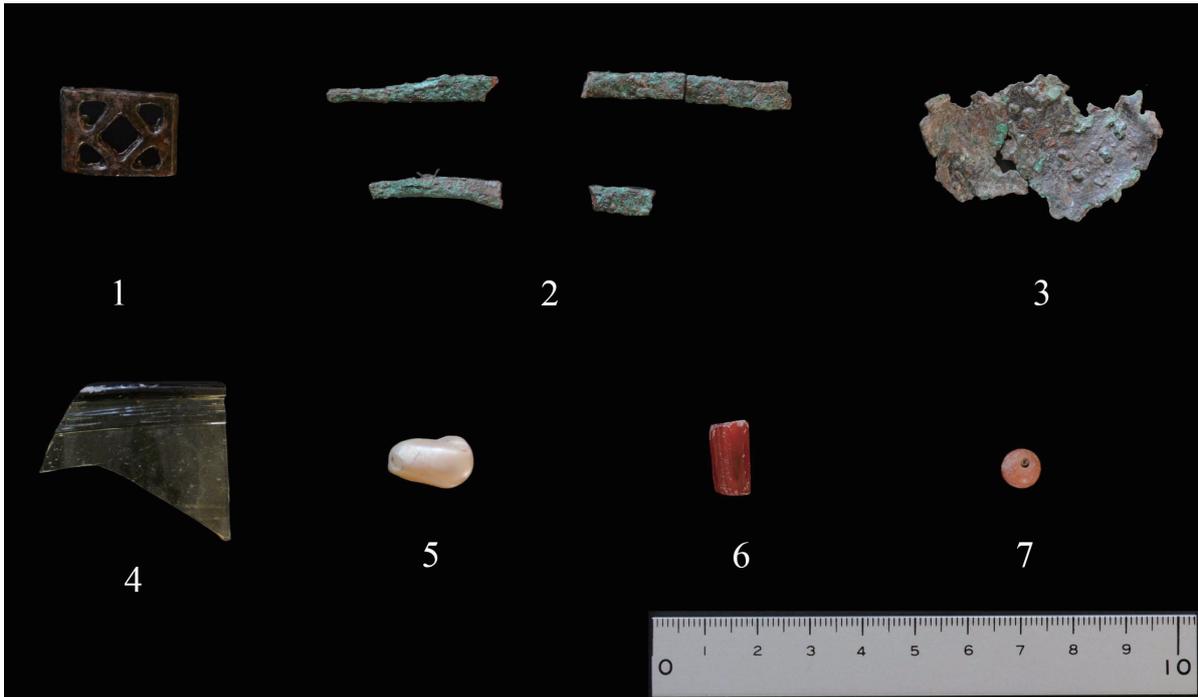


Figure 4.36 Bronze objects, glasses, pearl and carnelian beads

likely that the potter inscribed the Islamic phrase on the body sherd. These sherds suggest that Islam spread among not only elites but also ordinary people such as potters during the late 10th century. Before these examples, such pottery sherds had not been discovered in the Kyrgyz Republic.

g) Roof Tiles

Various types of roof tiles were found (Fig. 4.34.1). The possibility that the roofs of houses were covered with roof tiles cannot be completely dismissed.

h) Clay Objects

Several spindle whorls (Fig. 4.34: 2) and clay discs with holes were excavated. In addition, a spiral clay object was discovered (Fig. 4.34:3).

One animal figurine was excavated (Fig. 4.34:4). The head, upper body and hind legs were lost. A saddle on the back suggests that the animal figurine probably represents a horse.

i) Worked Sheep Astragali

Three worked sheep astragali were excavated (Fig. 4.34: 5-7). As for the first astragalus, three surfaces of the astragalus were polished to be flat. The second astragalus has linear scratches on the back and the third astragalus has a hole.

These astragali were probably used as throwing pieces in a game resembling the modern traditional Kyrgyz game, *Chuko*.

j) Coins

Several Qara Khan coins (Fig. 4.33: 8) and Turgesh coins (Fig. 4. 33: 9) were excavated. Qara Khan coins are circular and have the phrase, "There is no god but God. Muhammad is the messenger of the God", which were inscribed in Arabic. The Turgesh coins were apparently influenced by Chinese coins. They are circular and have a rectangular hole in the center. Sogdian letters were inscribed on the coins. It is unclear whether Turgesh coins were still used during the Qara Khan Dynasty or the coins represent contamination from older layers.

Table 4.2 Faunal remains excavated from Ak-Beshimin 2012 and 2013

	NISP	NISP(%)	Weight(g)	Weight(%)
Ovis	192	16.8%	3914.8	9.6%
Capra	29	2.5%	704.9	1.7%
Ovis / Capra	587	51.4%	9062.4	22.1%
Bos	136	11.9%	9652.5	23.6%
Equid	177	15.5%	16748.6	40.9%
Sus	3	0.3%	477.6	1.2%
Canis	9	0.8%	66.5	0.2%
Cervus	2	0.2%	228.8	0.6%
Bos or Cervus	1	0.1%	76.2	0.2%
Capreolus	2	0.2%	20.3	0.05%
Vulpes	1	0.1%	3.4	0.01%
Small Carnivore	1	0.1%	3.1	0.01%
Hare	1	0.1%	5.8	0.01%
Total	1141	100%	40964.9	100%

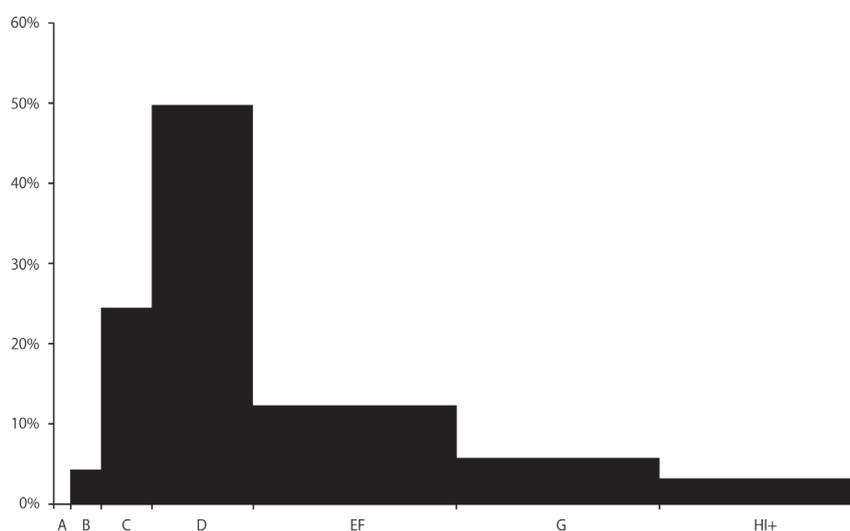


Figure 4.37 The culling profile of sheep/goats (A: 0-two months, B: two months-six months, C: six months-one year, D: one year-two years, EF: two years-four years, G: four years-six years, HI+: over six years)

k) Iron Objects

Several iron objects such as awls and knives were excavated (Fig. 4.35: 1). In particular, the thin plate in Figure 4.35.2 is noteworthy. There are several holes along the periphery of the plate. The plate is probably an armour scale. The similar armour scales were excavated from No. 2 Nestorian Church at Ak-Beshim.

l) Bronze objects

Several bronze objects such as decoration plaque (Fig. 4.36: 1), bracelets (Fig. 4.36: 2) and a fragment of vessel (Fig. 4.36: 3) were excavated.

m) Glasses (Fig. 4.36: 4)

One rim fragment of glass vessel was excavated.

n) Pearls (Fig. 4.36: 5)

One pearl was discovered during the excavations. The size of the pearl is over 1 cm in length. The pearl is pierced and thus the pearl was probably used as an accessory. If the pearl is a sea pearl, it could be a pearl taken from black oysters in India Ocean or the Persian gulf. However, given that Ak-Beshim is far from the sea, the pearl is probably a fresh water pearl, obtained from inland lakes or rivers.

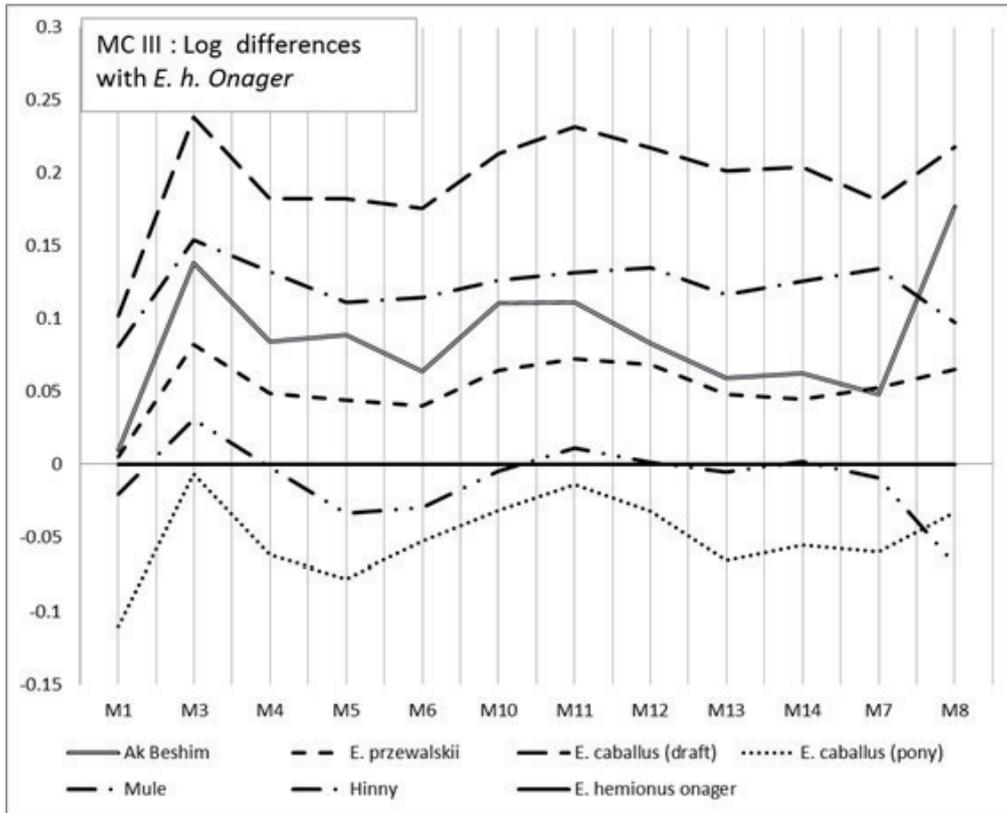


Figure 4.38 Comparison with other equid on the basis of measurements of the third metacarpal bones

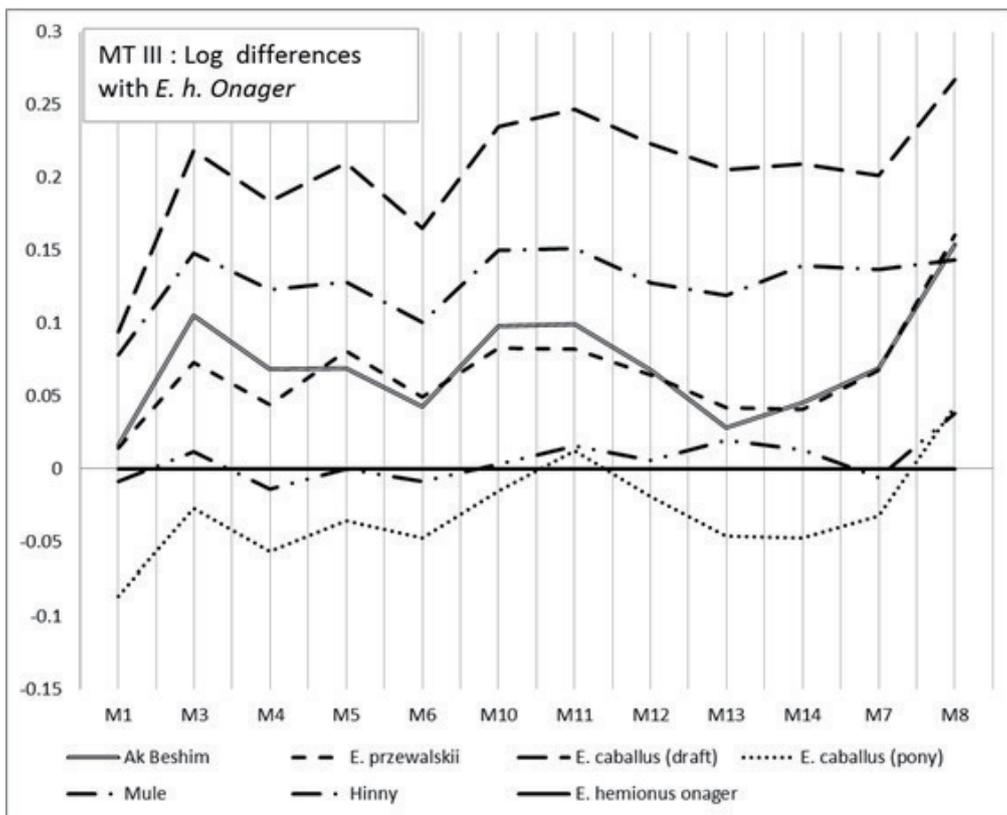


Figure 4.39 Comparison with other equid on basis of measurements of the third metatarsal bones

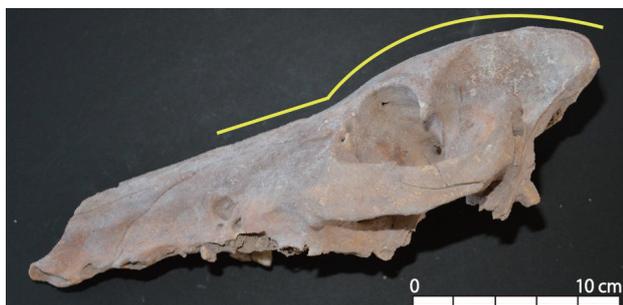


Figure 4.40 Pig skull



Figure 4.41 Upper jaw of roe deer

o) Carnelian Beads

Two carnelian beads were excavated. One carnelian bead is a hexagonal prism (Fig. 4.36: 6) and the other is globular (Fig.4.36: 7).

4.2.3. Faunal Remains (Tab.4.2, Appendix 3)

During the 2012-2013 seasons, the Japan-Kyrgyz joint excavations at *Shakhristan*, excavated a total of 2,853 fragments of faunal remains (ca. 61 kg). The excavators recovered all the specimens without dry-sieving or floatation. Therefore, it is highly possible that extremely small specimens were not included in the faunal assemblage.

Preliminary analysis of these materials indicates that most of these faunal remains belong to domestic animals. Detailed information for each species is provided in following section.

4.2.3.1. Domestic

a) Sheep / Goat (*Ovis aries*/*Capra hircus*)

Caprines account for ca. 70 % of the faunal assemblage from *Shakhristan*. Almost all the specimens were identified as domestic. Based on morphologically classifiable fragments, sheep outnumber goats with the ratio of 8:1. This result also means that at least in *Shakhristan* area, sheep accounts for the largest quantity of bones in the the faunal assemblage at Ak Beshim.

The culling profile for these species was also established on the basis of D. Helmer' s method (Helmer 1995; Helmer et al. 2007; Vigne and Helmer 2007) . This method is effective for a small

sample since it can be applied for upper molars and isolated molars. Because the distinction between sheep and goats is morphologically difficult and the quantity of goat remains are very limited, both species were combined in this analysis. The result here shows that individuals between 6 months and 2 years, especially 1 to 2 year old comprises most of the assemblage, while older specimens are poorly represented (Fig. 4.37). In other words, sheep and goat remains from *Shakhristan* are clustered toward young and well-padded age stages, whereas older individuals who have provided milk and wool were limited.

b) Horse (*Equus caballus*)

Equid remains represent the next largest group in the faunal assemblage, yet account for only 15 % of the number of identified specimens (total weight of bones ca. 40 %). Because bone weight is proportional to its carrying meat amount, equids outnumber other animals as the potential food supply. Cut marks on bone surfaces indicate filleting and skinning demonstrating that equids were consumed by the inhabitants of the site. This conclusion is also supported by the fact that all the specimens were found without the preservation of the anatomical position.

It is well known that there are various species or breeds of equid, including donkey and hybrids. Judged by biometry, almost all the specimens



Figure 4.42 Grape pips excavated from Ak-Beshim (Scale : 1mm)

from Shakhristan belong to horse (*Equus caballus*). Morphological analyses on the third metapodials also indicate that the equid remains from Shakhristan belong to horse (Figs. 4.38-39). Although no complete skeleton has been found, it is confirmed that these were small population with withers heights between 120 cm and 130 cm on the basis of the length of third metapodials (for the formula used here, see Hayashida and Yamauchi 1957).

In addition, the horse assemblage includes specimens between 6 to 9 years, appearing to have been killed in young stages.

c) Cattle (*Bos taurus*)

Following to equids, bovine remains account for a large number of the assemblage. Although all the specimens were identified as domestic cattle, it is possible that Zebu (*Bos indicus*) or Water Buffalo (*Bubalus bubalis*) are also included in the assemblage. It was not able to clarify this conclusion based on morphological classification.

d) Pig (*Sus scrofa*)

Although they account for a small quantity of the remains, the animal bone assemblage from Shakhristan includes Suid bones. Of these, skull, radius, and proximal phalanx were found in reliable

contexts. An important question is whether these specimens belong to wild or domestic suids. The skull bones were identified as mature on the basis of the status of third molar, which shows a similar morphology to domestic suids in its slightly round profile (Fig. 4.40). Other postcranial remains are small enough to be regarded as domestic. Therefore, all of these specimens possess features specific to domestic pigs. This matter should be investigated in further detail, but, the limited number of samples prevents further analysis.

e) Dog (*Canis familiaris*)

Few remains of dogs were identified. None of them appear to be buried because these specimens were recovered without intact anatomical positions. Evidence for butchering such as cut-marks could not be observed on the specimens.

4.2.3.2. Wild Species

A limited number of bones of game species are represented in faunal assemblage from Shahrstan. This includes wild sheep, large and small deer, foxes and hares. Metrical data of a large scapula of sheep led to the identification of the specimens as wild. Information on the geographical distribution of wild sheep indicates that the large sheep from Ak-Beshim are Argali (*Ovis ammon*). Although two kinds of cervids (Red deer and Roe deer) were represented, the number of latter is more frequent (Fig.4.41). Because of absence of antler implements, these species were mainly exploited for their meat and skin. Both fox and hare remains are represented by a single fragment.

4.2.4. Macrobotanical Study

Six soil samples were taken from Ak-Beshim during the 2013 season, and processed with water flotation in October 2014 to recover charred remains as well as heavy fractions.

The soil samples were secured from the fill of the street, ovens, house floors and so on. The total amount of soil collected was 54.8 litters (3.1 L at min, 14.8 L at max.) and

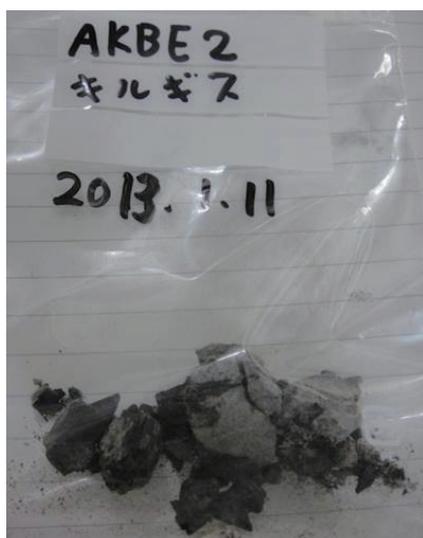


Figure 4.43 The charcoal sample (A1-8) for ^{14}C dating unearthed from Ak-Beshim, the Kyrgyz Republic

the average of each sample was 9 liters. Simple bucket flotation was employed, using the water supply in the garden of National Academy of Sciences of the Kyrgyz Republic. To gather light fractions, two sieves were used, 0.3 mm- and 0.5 mm-mesh, though scarcely any identifiable remains were recovered from the 0.3mm-mesh sieve. For heavy fractions, like ceramic sherds and bone fragments, a 1.0mm-mesh sieve was used.

A brief observation of the plant remains under a microscope revealed that the following food taxa were present: grains and rachis of free-threshing wheat, barley grains, Panicoid seeds, grape pips, and hawthorn seeds. Among the wild or weedy species, *Aegilops*, *Bromus*, *Galium*, and *Chenopodium* were recognized. Boraginaceae and *Fumaria* seeds were found uncharred.

The number of excavations in Central Asia is growing, yet archaeobotanical and archaeozoological research is rare in this vast area. In particular, research on plant use during the Islamic era is limited within Eurasia. Therefore, the plant remains from Ak-Beshim, combined with Arabic and Chinese written sources, will be important sources for the reconstruction of the food culture and agricultural activities in city life during the Middle Ages.



Figure 4.44 The five charcoal samples for ^{14}C dating unearthed from Ak-Beshim, the Kyrgyz Republic

4.2.5. Radiocarbon Dating of Charcoal Excavated from Ak-Beshim

4.2.5.1. Introduction

The Tokyo National Research Institute for Cultural Properties carried out excavation at the center of Shakhristan in Ak-Beshim, situated 45 km east of Bishkek, the capital of the Kyrgyz Republic, in September, 2012. During the excavation, the remains of streets and houses were unearthed from the uppermost stratum in which charcoal samples were also found. The charcoal samples were subsequently analysed by radiocarbon dating combined with accelerator mass spectrometry (AMS) so that the date of the architectural remains could be understood. The results of this analysis are reported below.

4.2.5.2. The Basic Principles of ^{14}C Dating

Carbon contains three naturally occurring isotopes, a radioactive isotope (^{14}C) and two stable isotopes (^{12}C and ^{13}C). The letter "C" is the symbol for elemental carbon and the numbers attached to "C" show atomic weights, 12, 13, and 14 respectively. The relationship between the total number of those atoms in a sample and the date of its sample is based on the fact that, the quantities of stable isotopes, ^{12}C and ^{13}C , are unchanged in a sample, whereas ^{14}C decays and transforms to a distinct element (nitrogen) as time lapses. This radioactive decay regularly occurs based on the principals of physics. The radioactive decay of ^{14}C progresses

Table 4.3 ^{14}C dating and calibrated age ranges for the charcoal samples unearthed from Ak-Beshim in the Kyrgyz Republic

Sample No.	Lab. No.	Material	Amount of charcoal used for CO_2 extraction (mg)	Yielded CO_2 (mgC) (%)	$\delta^{13}\text{C}$ by AMS (‰)	^{14}C age (BP $\pm 1\sigma$)	Calibrated-age range with probability (2 σ range) (cal AD/BC)
A1-3	NUTA2-19926	charcoal	6.20	4.36 (70.3%)	-25.6	1114 ± 20	cal AD 890-982 (95.4%)
A1-8	NUTA2-19927	charcoal	6.27	4.43 (70.6%)	-25.5	1066 ± 20	cal AD 900-922 (10.9%) cal AD 949-1020 (84.5%)
A1-27	NUTA2-19928	charcoal	6.16	4.30 (69.8%)	-26.6	1149 ± 20	cal AD 776-792 (6.9%) cal AD 802-845 (11.2%) cal AD 856-970 (77.4%)
A1-46	NUTA2-19929	charcoal	6.25	4.32 (69.3%)	-26.1	1185 ± 20	cal AD 772-890 (95.4%)
A1-48	NUTA2-19930	charcoal	6.20	4.89 (78.9%)	-22.8	1096 ± 19	cal AD 894-931 (38.5%) cal AD 936-991 (56.9%)

$\delta^{13}\text{C} = \left(\frac{^{13}\text{C}/^{12}\text{C}}{^{13}\text{C}/^{12}\text{C}}_{\text{PDB}} - 1 \right) \times 1000$ (‰), δ^{13}

PDB is an abbreviation for Pee Dee Belemnite, a type of fossil called "arrow stone", that is used as a reference sample for $^{13}\text{C}/^{12}\text{C}$ ratio.

This $\delta^{13}\text{C}$ was calculated by AMS that error is estimated $\pm 1\%$.

with a 0.0121% decrease in the number of ^{14}C atoms in a sample per year. Measuring the amount of decrease in ^{14}C by its decay, therefore, enables the determination of the date of the formation of the sample (Arnold and Libby 1949; Nakamura 2003a). Most of living things are composed of carbon, and thus, ^{14}C dating can be used to determine the date of a variety of remains that target contain carbon.

The formation of ^{14}C occurs in the atmosphere due to the action of cosmic rays from outer space. ^{14}C is oxidised to carbon dioxide ($^{14}\text{CO}_2$), which is subsequently mixed with distinct carbon dioxides ($^{12}\text{CO}_2$ and $^{13}\text{CO}_2$). The constant of ^{14}C concentration (the ratio of ^{14}C to ^{12}C) made according to the above process, enters the food chain via the food chain or photosynthesis via carbon dioxide ($^{14}\text{CO}_2$).

If the formation of ^{14}C is regularly consistent as time lapses, the amount of decrease in ^{14}C due to the decay reaches an equilibrium amount with the amount of newly formed ^{14}C , keeping the total amount of ^{14}C on earth constant. The ^{14}C concentration in each carbon sample is fairly constant based on this premise, and the relationship between the date of a sample and the ^{14}C concentration that remains in the sample is related by an exponential function. The half-life, specific to a particular radioactive atom, of ^{14}C , is estimated to be 5730 ± 40 years. ^{14}C remains in the materials that contained carbon through fixation that occurred several tens of thousands of years before present, and thus measuring the concentration ratio of ^{14}C enables us to determine the date of carbon fixation.

The charcoal samples from Ak-Beshim are incomplete combustion used to be utilised as building materials or fuelwoods, and its date of ^{14}C carbon fixation indicates the date of being felled and used such building materials or fuelwoods.

4.2.5.3. ^{14}C Dating of Charcoal Samples

4.2.5.3.1. The Charcoal Samples

The charcoal samples were divided into several pieces the size of an index finger, packed into five re-sealable poly bags, and delivered to Nagoya University (Figures 4.43, 4.44). Table 4.3 lists the samples.

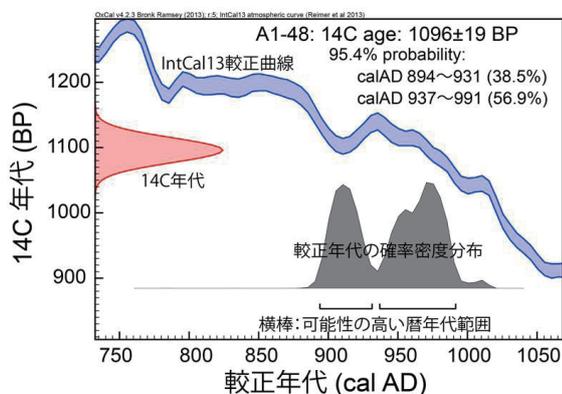


Figure 4.45 The result of calibration to calendar age from the ^{14}C age (1096 ± 19 BP) of sample A1-48 by OxCal4.2.3 The range of possibility based on 2 standard deviations (94.5%) is distributed AD894-991 in the probability density distribution from calibration.

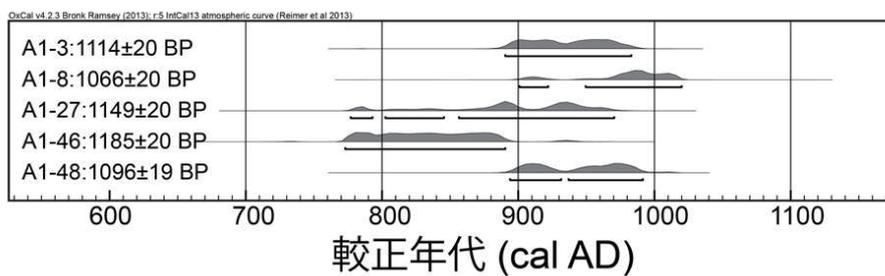


Figure 4.46 The concise result is the probability density distribution of calibrated ages from the five charcoal samples

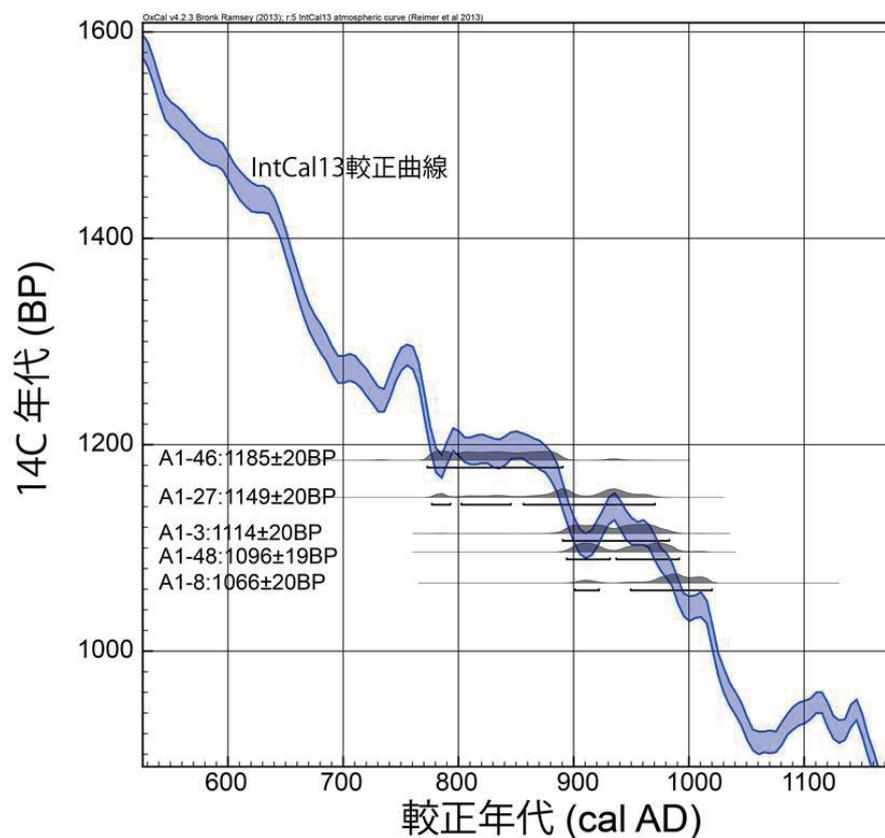


Figure 4.47 The comparison between the probability density distribution of both ^{14}C ages and calibrated ages from the five charcoal samples and the IntCal13 calibration curve

4.2.5.3.2. Sample Preparation for ^{14}C Dating

The charcoal sample preparation for ^{14}C dating was in line with the protocol outlined by Nakamura (1999), as shown below. The charcoal samples were firstly shaped into tiny pieces with a utility knife, and the requisite amount was transferred to a 100 ml beaker in order to dissolve contaminants, such as gules, by ultrasonic cleaning with acetone several times over several hours. Secondly ultrasonic cleaning with distilled water was performed several times to remove surface contamination. Subsequently, the samples were heated at 80°C with 1.2 stated hydrochloric acid for a day and night, and then heated again at 80°C with 1.2 stated sodium hydroxide for a day and night. During the latter process, the sodium hydroxide was replaced several times as needed. Next, the samples were heated at 80°C with 1.2 stated hydrochloric acid for two days and nights, and were washed with distilled water to remove the hydrochloric acid completely before being dried at 90°C .

Approximately 6 mg of the sample was extracted from the dried charcoal and placed in a 9 mm outside diameter quartz tube, with approximately 500 mg of cupric oxide wire. The quartz tube was exhausted by connecting it to a vacuum manifold and then sealed. These samples were heated at 900°C in electric furnace for about four hours to transform the samples into carbon dioxide by combustion of the carbon in the samples. Water and sulphur oxide were removed in vacuum manifolds by using freezing mixture consisting of liquid nitrogen (boiling point: -196°C), frozen pentane (melting point: -128°C) and a mixture of ethanol and liquid nitrogen (approximately -100°C) to refine the carbon dioxide. The quantities of each refined carbon dioxide sample were 4.3-4.9 mg as carbon shown in Table 1, and the carbon yields were 69-79 %, which indicates a fairly consistent rates (Table 4.3). The yields were slightly higher than the general rate for charcoal samples.

4.2.5.3.3. Synthetic Graphite

A part of the refined carbon dioxide (1.7 mg as carbon) from the charcoal samples was reduced with hydrogen at 620°C to obtain a graphite sample in a 9 mm outside diameter quartz tube. Approximately 3 mg of iron powder was utilised as a catalyst. Next, the graphite and iron powder was dried at 90°C for several hours and compressed into an aluminium specimen holder. This specimen was then loaded into the ion source of a Tandetron Accelerator Mass Spectrometer and used to calculate ^{14}C concentration ratio. Oxalic acid (NIST-SRM-4990C (HOxII)), which was supplied from National Institute of Standards and Technology (NIST) and as is known international reference samples of ^{14}C concentration, was used as a reference material for ^{14}C dating. Moreover, special grade oxalic acid (2 hydrate) reagent (57952) of KISHIDA CHEMICAL Co.,Ltd., a material that contained carbon without ^{14}C , was used to compensate for the effect of introducing extraneous carbon material during the process of sample preparation and ^{14}C dating by Accelerator Mass Spectrometry. Approximately 14 mg of both oxalic acids was placed in a Pyrex tube with approximately 500 mg of cupric oxide wire and sealed. The sample was heated at 500°C for two hours, during which time complete combustion ensued, and carbon dioxide formed. After the carbon dioxide was refined through the sample process as the archaeological samples, graphite was synthesised from approximately 1.5 mg of the refined carbon dioxide. The graphite was then compressed into an aluminium specimen holder to use as a reference sample of ^{14}C concentration and ^{14}C blank correction.

4.2.5.3.4. Calibration to a Calendar Year by Accelerator Mass Spectrometry (AMS)

The solid carbon samples prepared from the charcoal samples and oxalic acid as mentioned above were analysed by Tandetron Accelerator Mass Spectrometer (Nakamura 2001). ^{14}C dating by

Tandem Accelerator Mass Spectrometer calculates the abundance ratio of ^{14}C to ^{12}C ($^{14}\text{C}/^{12}\text{C}$ ratio (=R)). A comparison of an unknown sample (R_{sample}) and a reference sample of known ^{14}C concentration ultimately provides $R_{\text{sample}}/R_{\text{AD1950}}$ ratio. Moreover, Tandem Accelerator Mass Spectrometer can also calculate $^{13}\text{C}/^{12}\text{C}$ ratio (the rate of $\delta^{13}\text{C}$). The calculated $R_{\text{sample}}/R_{\text{AD1950}}$ ratio was corrected according to the testing of a blank reference sample of ^{14}C and the rate of $\delta^{13}\text{C}$ for each isotope of carbon. Based on this data, the conventional ^{14}C ages of the samples can be calculated (Table 4.3, Nakamura 2001;2003b). For the historical reasons, the Libby half-life, 5568 years, is conventionally used in the calculation of a radiocarbon dates. Conventional ^{14}C age is shown as the number of years BP (before present) associated with the sample and its tolerance is 1 standard deviation.

Conventional ^{14}C age was calibrated to calendar age ranges with the IntCal13 data set (Reimer et al.2013) using the calibration programme, OxCal4.2.3 (Bronk Ramsey 2009) (Table 4.3). Calibrated ages are marked with “cal AD” which corresponds to calendar age ranges. “Cal (calibrated)” is an abbreviation that indicates calibrated age ranges. Calibrated age ranges based on 2 standard deviations are shown with the range of possibility and relative probability (Table 4.3). Figure 5.61 illustrates the probability density distribution of calibrated ages for sample A1-3. Figure 5.62 shows the probability density distribution of calibrated ages for five samples and the comparison with the IntCal13 calibration curve is shown in Figure 5.63. The ranges of possibility for calibrated ages might suggest several ranges due to the inconsistent fluctuation of the IntCal13 calibration curve (Figures. 4.46, 4.47).

4.2.5.4. Conclusion

The ^{14}C dating results based on 2 standard deviations for the five charcoal samples from Ak-Beshim in the Kyrgyz Republic indicates that their

calibrated ages range between AD 772 and AD1020. However, the results of four charcoal samples ignoring A1-46, overlap in the 10th century AD. The data of the sample A1-46 might imply that the sample was a part of a large tree, which was cut down in a previous period, and was used as timber during a later period. The dating of the site, therefore, can be estimated AD900-1000 for the reason of the dating correspondence among ^{14}C dating results from the four samples.

5. Archaeological Investigations at Ken Bulun

5.1. Introduction

Ken Bulun is remains of a medieval town, located 40 km to the west of Bishkek, the modern capital of the Kyrgyz Republic. The site is located between Krasnaya Rechka and Ak-Beshim (Figs. 5.1, 5.2). This site was rediscovered in 2006 by Kyrgyz archaeologists.

In 2011, the Tokyo National Research Institute for Cultural Properties and the Institute of History and Cultural Heritage, National Academy of Sciences, Kyrgyz Republic undertook topographic mapping and surface sampling at Ken Bulun as a part of the UNESCO/Japan Funds-in Trust Project, “Support for Documentation Standards and Procedures of the Silk Roads World Heritage Serial and Transnational Nomination in Central Asia” (Yamauchi et al. 2012). Furthermore in 2013, topographic mapping was undertaken again at the site using funds from

Foundation for Cultural Heritage and Art Research. This chapter introduce the results of the topographic mapping and sampling and considers the ancient name of Ken Bulun.

5.2. Research History of Ken Bulun

Ken Bulun was first discovered by A. I. Terenozhkin in 1929. In his diary, he wrote that on 3 July 1929, he walked from the lodge toward the Krasnaya Rechka River and discovered tumuli and the remains of a medieval town near the village of Ken Bulun (Kamishev 2011).

However, after the discovery by A. I. Terenozhkin, the site was forgotten by researchers. For example, in 1959, P. N. Kozhemyako published a book on the medieval towns in the Chuy Valley but Ken Bulun was not mentioned. In addition, in 1982, a list of important archaeological sites that should be

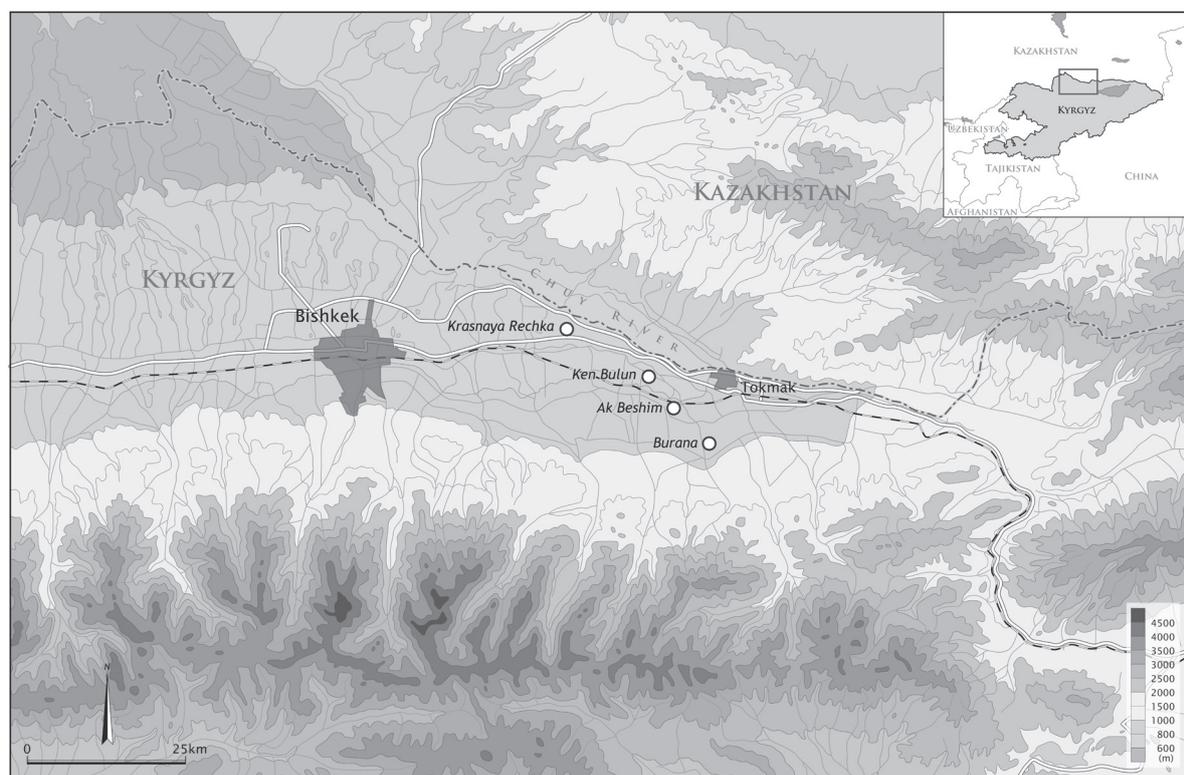


Figure 5.1 The Location of Ken Bulun

protected in the Kyrgyz Republic was created but Ken Bulun was included (Kamishev 2011) .

It was only in this century that the site of Ken Bulun was rediscovered. In the autumn of 2009, Buddha statues looted from the site were brought to the Kyrgyz National Museum and antique shops in Bishkek. Then archaeologists began to investigate the origin of these Buddha statues and finally relocated Ken Bulun (Kamishev 2011).

5.3. The Results of the Topographic Mapping

Ken Bulun is remains of a medieval town, which is located 1.5km to the south of the modern village of Ken Bulun. The site is situated on the river bank of the Chuy River (Fig. 5.3).

The site consists of Citadel, Shakristan and Rabad (Figs. 5.4-5.6). The Rabad is currently used as farmlands and is heavily disturbed by farming. This makes the boundary of Rabad unclear. Furthermore the remains of the fortification walls of Rabad cannot be observed. The possibility that

large scaled farming during the Soviet era removed the fortification wall cannot be totally dismissed. However, given that Terenozhkin did not mention the fortification walls in his diary in 1929, it is possible that Rabad originally had no fortification walls. Ken Bulun is very unique because most of the medieval towns in the Chuy Valley had fortification walls.

There is a 5 to 6m deep ditch 160 m to the south of the southern edge of Shakhristan (Figs. 5.4-5.7). Beyond the ditch , only a few artefacts are distributed. Therefore, this ditch is probably an artificial ditch that was used to protect Rabad.

Recent Google images and 1960s Corona images show two linear marks running from north to south. The linear marks are approximately 240m to the east of the eastern edge of Shakhristan. The linear marks may correspond to the remains of the eastern ditches of Rabad. During the topographic mapping process, the places were visited. However, the terrain was flat and any remains of ditches could not be observed from the ground. However, there is a

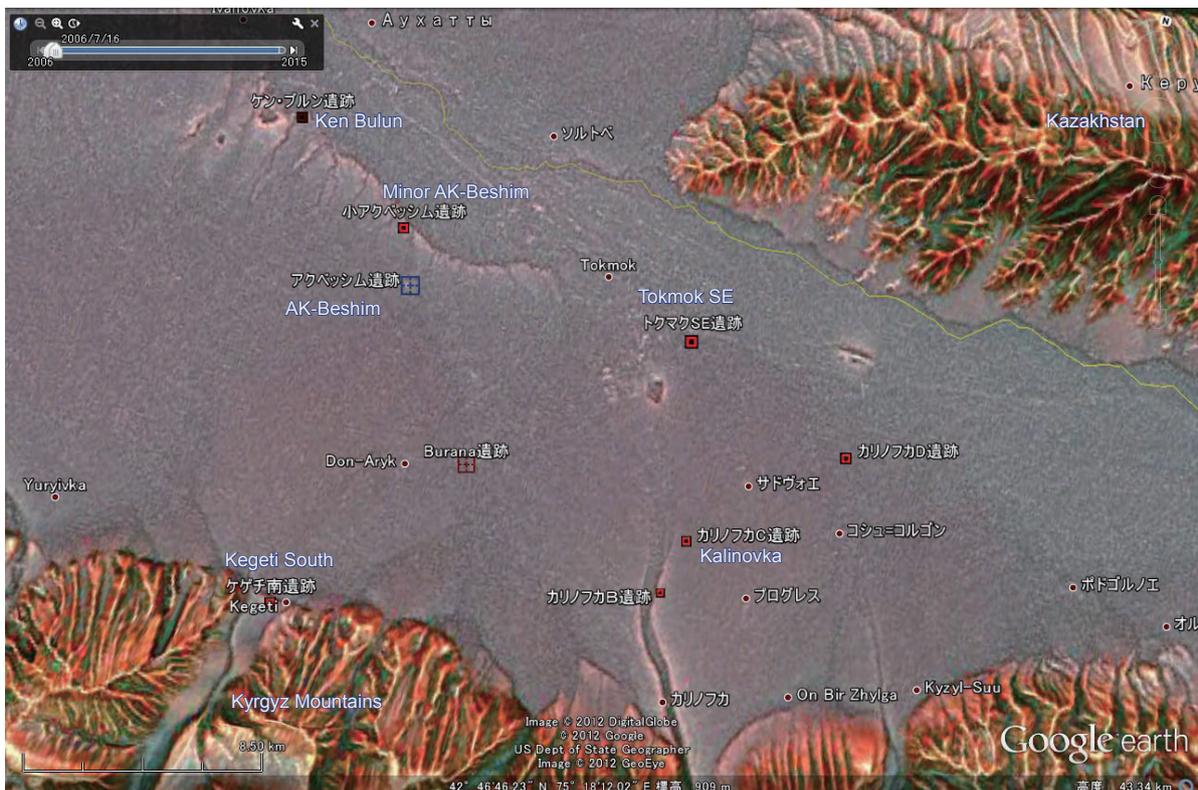


Figure 5.2 The Location of Ken Bulun (Google Earth)

possibility that the linear marks are crop marks and that the original two ditches had already been filled with soils.

As previously discussed, Ken Bulun is located on the river bank of the Chuy River. Therefore, the northern and western slopes of Rabad are very steep (Figs. 5.4-5.5). Because of these steep slopes, the fortification walls would have been constructed along the northern and western sides of Rabad. However, the southern and eastern sides of Rabad is very flat. Therefore ditches were dug along the southern and eastern sides.

It is estimated that the size of Rabad was approximately 12 ha and the size of Ken Bulun would have reached 16 ha in total. Given that Ak-Beshim is 100 ha and Kransnaya Rechka is 400 ha, Ken Bulun was a relatively small town.

Shakhristan is located to the north of Rabad and is pentagonal. The pentagonal shape is probably due to the natural topography. It is 200 m (from west to east) by 270 m (from north to south). The Shakhristan is approximately 17 m higher than

surrounding farmlands (Fig 5.4-5.6, 5-8, 5.9). In contrast with Rabad, Shakhristan was originally protected by fortification walls. Even now, the outer fringes of Shakhristan are approximately 1 m higher than the surroundings. Furthermore there is a triangular terrace to the west of Shakhristan. The terrace was probably an entrance to the town. It is likely that visitors probably crossed the terrace to access the western gate. In addition, there are remains of a large rectangular building in the middle of Shakhristan. The building was looted and burnt bricks are scattered around the remains. Given the central location of the building in Shakhristan, this building could be an important public building such as mosque.

Citadel is located at the northern edge of Shakhristan. It is 7 m higher than Shakhristan and 24 m higher than the surrounding farmlands. The slope of Shakhristan around Citadel is very steep (Figs. 5.4-5.6, 5.8, 5.11).



Figure 5.3 Ken Bulun (from the northwest)



Figure 5.4 Satellite Image of ken Bulun (Google Earth)

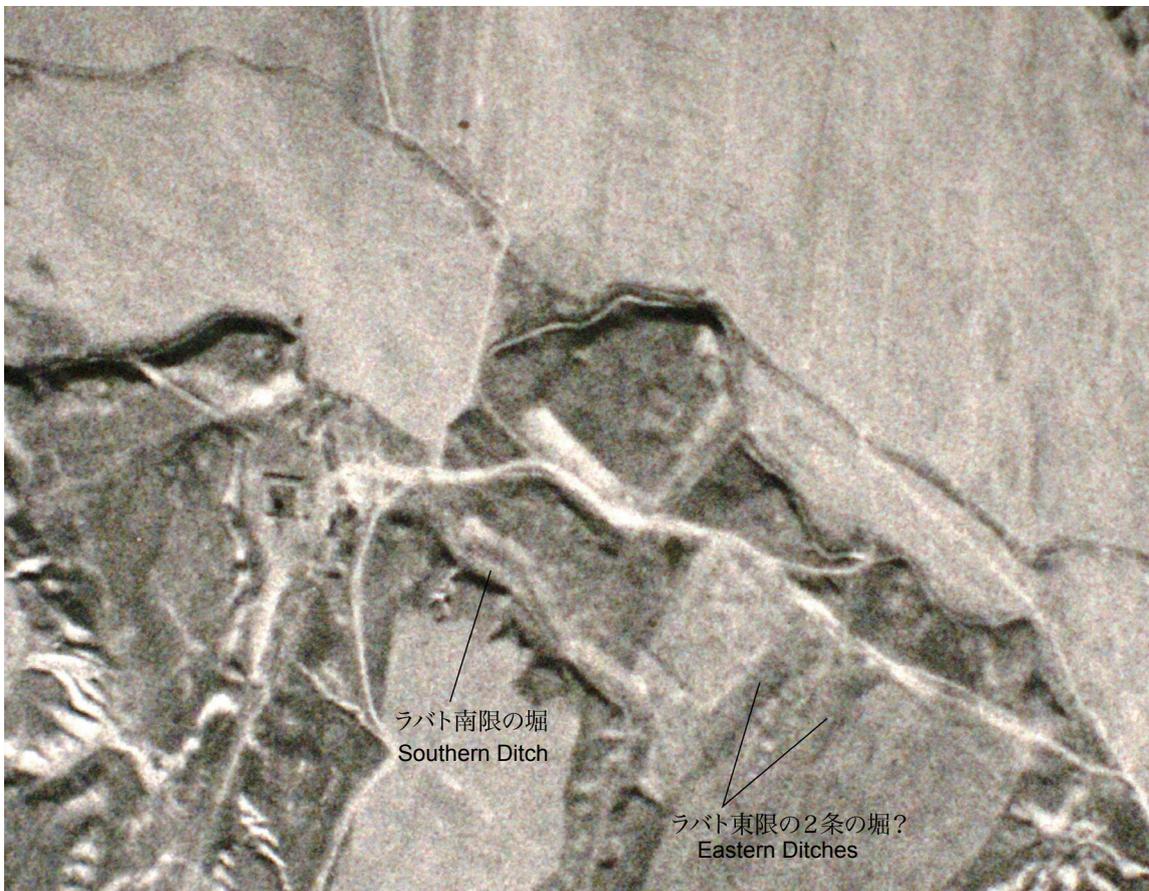


Figure 5.5 1960s Corona Image of Ken Bulun (Data available from U.S. Geological Survey, EROS Data Center, Sioux Falls, SD)

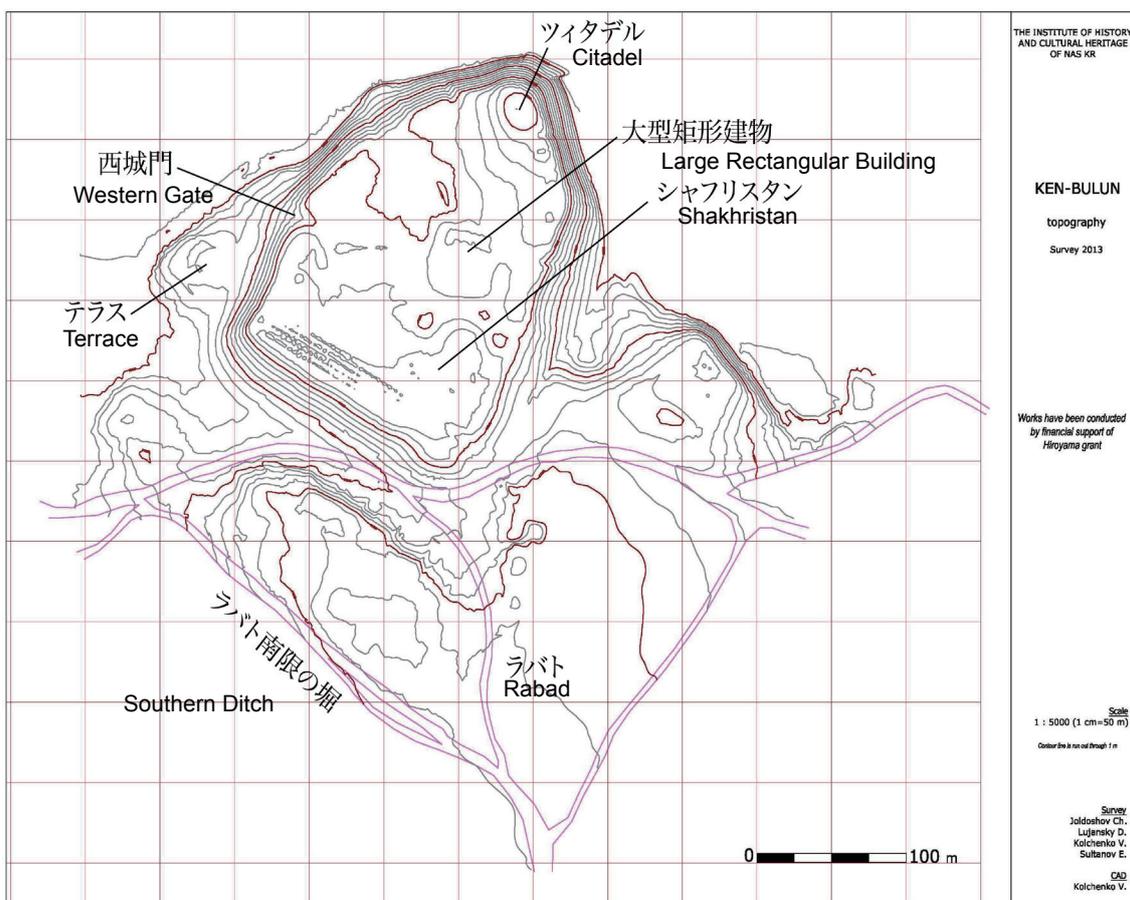


Figure 5.6 Topographic Map of Ken Bulun (Created by the Institute of History and Cultural Heritage, National Academy of Sciences, Kyrgyz Republic)

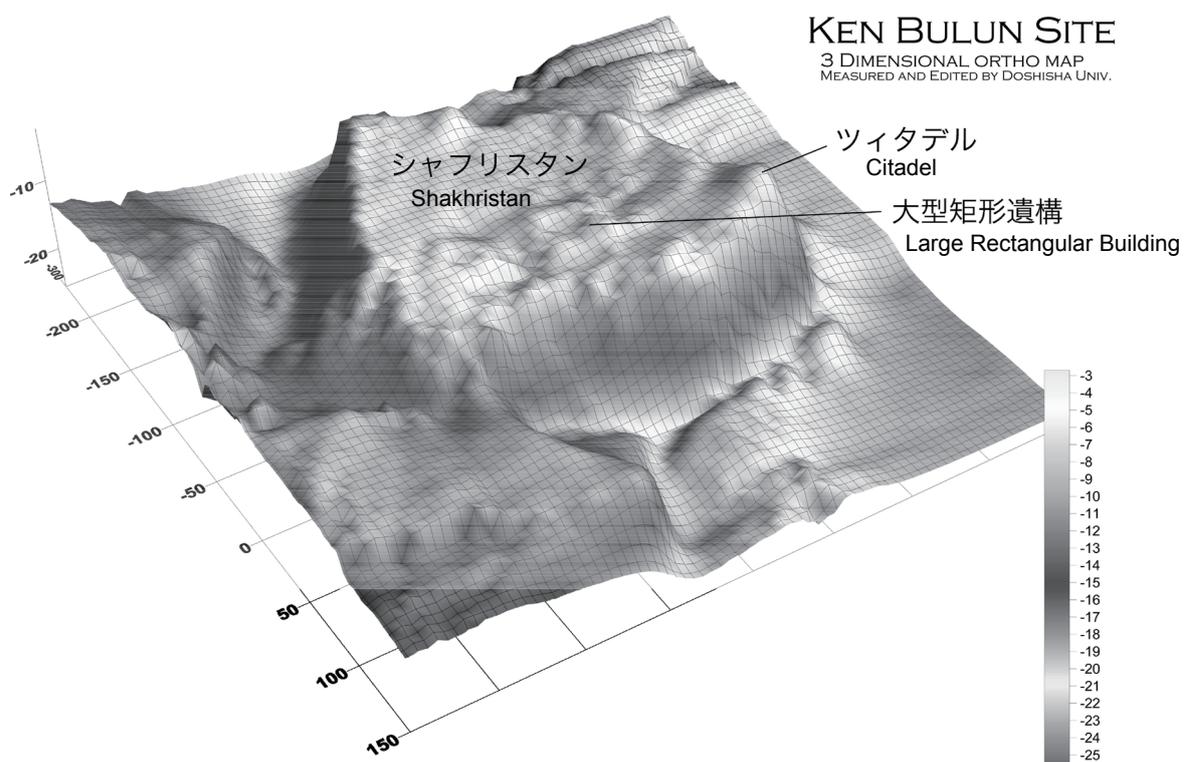


Figure 5.7 Three Dimensional Ortho Map of Shakhristan (by Doshisha University)



Figure 5.8 Southern ditch of Rabad (from east)



Figure 5.9 Shakhristan (from east)



Figure 5.10 Western gate of Shakhristan (from west)



Figure 5.11 Citadel (from south)

5.4. Results of the Surface Collection

5.4.1. Method and Results

A surface collection was conducted on the Shakhristan (except for its northernmost part) of Ken Bulun on 26 and 27 October, 2011 (Fig. 5.12). At first, the northern half of the Shakhristan was divided into six large grids, each measuring 50 m square. However, given that the grids were too large to recognize the distribution pattern precisely, another grid system consisting of 20 m squares was adopted for the southern half. Therefore, the northern grids are represented by Roman numerals (e.g. I–VI) and the southern ones by capitals letters and Arabic numerals (e.g. A4), to easily distinguish between them.

The southern grid system was arranged using a

total station, which was set up on the bench mark (BM0) used for the measurements. The total station measured the distance to the southern tip of the Shakhristan and a new bench mark was installed in the south. From this new point, iron pegs were set up 40 m apart by total station and then at respective middle points manually, to cover the entire surface. As a result, 32 small grids (12,400 m²) were defined, including the northernmost two grids measuring 20 m by 10 m. For each grid, three to four people participated in the surface collection.

Consequently, a large number of artefacts were collected in the southern half, the majority of which were pottery sherds: 6,004 total pottery sherds, fourteen sherds of glazed ware, two sherds of porcelain, 26 stone tools, eighteen roof tiles, 507 burnt bricks, 47 animal bones, 23 fragments of glass,

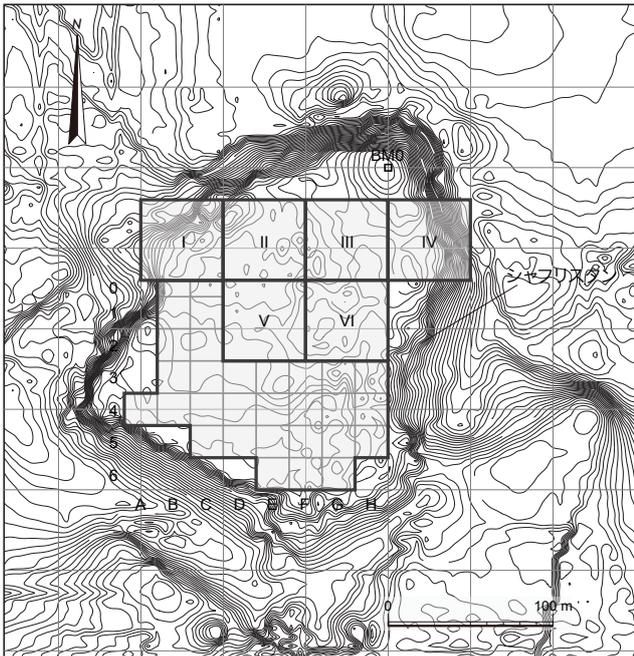


Figure 5.12 Grid systems in the Shakhristan of Ken Bulun site

27 metal objects and two metal slags (Table 5.1). The reasons why such a large number of artefacts were collected may be attributed to 1) exposure of artefacts due to past agricultural activities on a part of the Shakhristan and 2) a small number of visitors due to the lower popularity of the site until recent years. Furthermore, the fact that burnt bricks and other artefacts were clearly concentrated within specific grids may indicate that some structures remain unexposed.

A similar protocol was conducted in the six large grids in the northern half, but the results were not compiled due to the lower degree of precision.

Table 5.1 List of collected artefacts

Grid number	Sherd	Glazed ware	Stone objects	Roof tiles	Bricks	Bones	Glass	Metal goods	Coins	Porcelain	Metal Slag	Total
A4	185	0	1	0	16	2	0	0	0	0	0	204
B0	55	0	0	0	2	1	1	1	0	0	0	60
B1	148	1	2	1	8	0	2	0	0	0	0	162
B2	188	1	0	1	10	5	0	1	0	0	0	206
B3	103	0	5	3	20	0	1	0	0	0	0	132
B4	105	0	1	0	14	0	1	1	0	0	0	122
B5	398	0	0	0	16	7	2	2	0	0	0	425
C0	107	0	0	2	3	0	0	0	0	0	0	112
C1	233	0	0	0	6	0	0	0	0	0	0	239
C2	314	0	1	0	25	1	4	0	0	0	0	345
C3	106	1	0	0	6	0	1	0	0	0	0	114
C4	256	0	1	0	17	0	0	2	0	0	0	276
C5	205	0	0	0	19	0	0	0	0	0	0	224
D3	107	1	1	0	10	4	0	3	0	0	0	126
D4	214	0	2	1	53	4	2	1	0	0	0	277
D5	184	1	0	1	52	2	0	2	0	0	1	243
D6	245	2	0	1	34	7	0	0	0	1	0	290
E3	81	0	0	1	2	2	1	0	0	0	0	87
E4	176	0	0	3	7	1	0	3	0	0	0	190
E5	133	0	1	1	27	0	0	1	0	0	0	163
E6	171	0	3	2	47	0	0	1	0	0	0	224
F3	102	1	4	0	4	2	0	0	0	0	0	113
F4	245	1	0	1	14	1	1	0	0	0	0	263
F5	202	0	0	0	24	1	0	4	0	0	0	231
F6	270	2	1	0	9	2	1	0	0	0	0	285
G3	245	1	0	0	11	0	1	1	0	0	0	259
G4	123	0	0	0	4	0	2	0	0	0	0	129
G5	264	0	0	0	7	2	0	3	0	0	0	276
G6	270	2	1	0	9	2	1	0	0	0	0	285
H3	138	0	2	0	8	1	2	1	0	0	0	152
H4	338	0	0	0	13	0	0	0	0	1	1	353
H5	93	0	0	0	10	0	0	0	0	0	0	103
Total	6004	14	26	18	507	47	23	27	0	2	2	6670



Figure 5.13 Pottery sherds of the Pre-Qalakhaniid period (before the ninth century AD)

5.4.2. Collected Artefacts from Ken Bulun

Majority of the artefacts collected from Ken Bulun were attributed to two periods: the Qalakhaniid period (the mid-ninth to early thirteenth century AD) and the Post Qalakhaniid period. A total of 40 vessels were drawn, including 26 Qalakhaniid and 12 Post Qalakhaniid vessels. Two other vessels include an imported porcelain from the Song Dynasty and a roof tile not indicative of any specific periods. The observation results are summarized as follows, with particular focus on type and decorations.

a) Pre-Qalakhaniid Pottery

Pottery dated before the ninth century was quite rare in the entire artefact collection : Only two were dated to the period (Fig. 5.13). The left hand of Fig. 5.13 shows a shoulder fragment of a jar. The exterior surface has a band decoration consisting of two parallel lines and lattice between them, all of which were incised.

The right hand of Fig. 5.13 seems to show the handle of a lid. Probable decussate incision on the top was partially broken. The ware is somewhat coarse and, contains a large quantity of sand grit.

b) Qalakhaniid Pottery

The pottery assemblage of this period is characterised by their normal to fine quality of ware and relatively smaller vessels than the later period.

b.1) Bowl (Figs. 5.14: 1–4)

An unglazed bowl has sharpened rim and was made on wheel (Fig. 5.14: 1). Two glazed bowls are wheel-made fine ware. A well-fired shallow bowl is green-glazed on the entire interior surface and the exterior rim (Fig. 5.14: 2). The lower portion of the exterior body is unglazed but horizontally smoothed. Another fine glazed bowl displays a deeper profile than the former. It was painted with curved brown bands ca. 5–7 mm in width, and glazed in pale yellow (Fig. 5.14: 3). Combined glazed fragments with the same decoration probably originated from the same vessel (Fig. 5.14: 4).

b.2) Mug (Fig. 5.14: 5)

Only one drawn example of mug has squat profile with slightly everted rim (Fig. 5.14: 5). Taking a connecting part visible on the interior surface into consideration, it is expected that the rim and body were separately hand-made and combined later. While the exterior rim and the entire interior surface were horizontally smoothed, the exterior body was diagonally smoothed.

b.3) Pot (Figs. 5.14: 6, 7)

Two fragments of wide-mouthed pots were confirmed. Both have everted rims with bevelled tips. Their interior surface was horizontally and diagonally smoothed. While the larger one has wheel marks on the exterior surface (Fig. 5.14: 6), the smaller one was hand-made and smoothed somewhat irregularly (Fig. 5.14: 7). They represent coarse fabric due to the quantity grey grits and calcite, which probably functioned as heat-resistance. Therefore, this implies that they were exposed to heat, but there are no soot marks on their surface.

b.4) Necked Jar (Figs. 5.14: 8–10)

Three neck parts of probable necked jars were drawn, which are less common than holemouth jars. All of these vessels were wheel-made and their

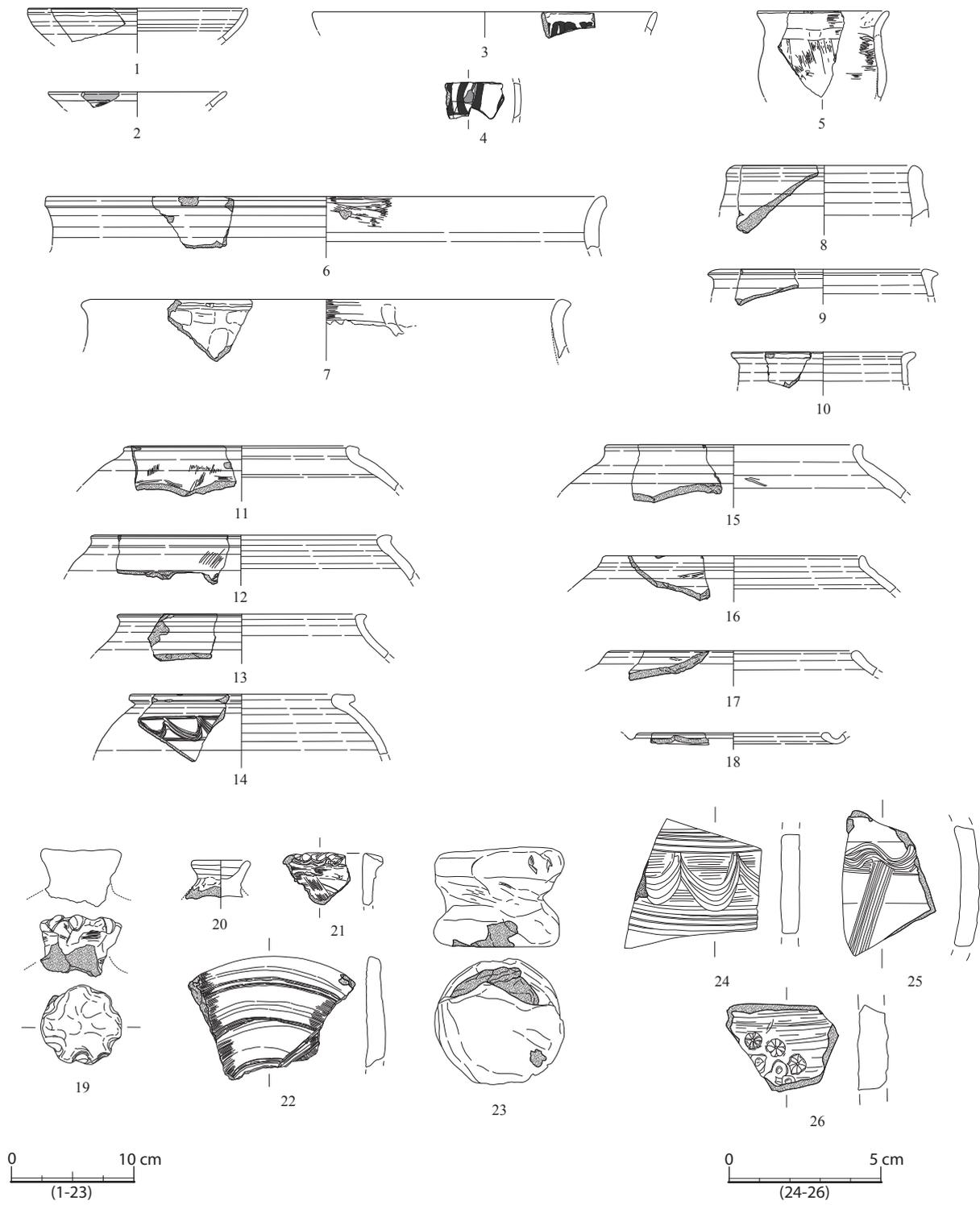


Figure 5.14 Collected pottery of the Qalaxhanid period

Figure	Grid	Type	Fabric	Inclusions	Colours	Notes
5.14: 1	F5-000.sfc	Small bowl	Normal	Grey minerals (the diameter is from 0.5 to 1mm) Several fragments of biotite and quartz	Interior : Dark orange (7.5YR6/4) Exterior : The same as the interior Section : Dark brown (7YR5/3)	Wheel made
5.14: 2	C3-000.sfc	Small bowl	Normal-Fine	No	Interior : Green Exterior : Green and dark yellowish orange (10YR7/4) Section : Brown (7.5YR4/6)	Wheel made ? , glaze on the interior and the exterior of the rim.
5.14: 3	Outside grits.sfc	Small bowl	Fine	No	Interior : Light yellow (7.5Y8/3) Exterior : The same as the interior Section : Orange (5YR6/6) Paint : Blackish brown (10YR2/3)	Wheel made, glazed.
5.14: 4	Outside grits.sfc	Small bowl (body)	Fine	No	Interior : Light yellow (7.5Y8/3) Exterior : The same as the interior Section : Light reddish brown (5YR5/6) Paint : Brown (7.5YR4/6), blackish brown (10YR2/3), olivish brown (2.5Y6/4)	Wheel made, glazed.
5.14: 5	C4-000.sfc	Mug	Normal	White minerals (the diameter is from 0.5 to 1 mm) Black minerals (the diameter is 0.5 mm)	Interior : Dark yellowish orange (10YR6/4) Exterior : Dark yellowish orange (10YR7/3) Section : Dark orange (7.5YR6/4)	Hand made
5.14: 6	G5-000.sfc	Pot	Coarse	Large amounts of dark grey minerals (the diameter is 1 mm) Small amounts of feldspar	Interior : Dark orange (7.5YR6/4) Exterior : Orange (5YR6/6) Section : Reddish brown (2.5YR4/6)	Wheel made
5.14: 7	B5-000.sfc	Pot	Coarse	Small amounts of grey minerals (the diameter is less than 1 mm)	Interior : Dark brown (7.5YR5/4) Exterior : Dark yellowish orange (10YR6/3) Section : Dark reddish brown (2.5YR5/4)	Hand made
5.14: 8	H4-000.sfc	Necked jar	Normal	Small amounts of white and grey minerals (the diameter is less than 1 mm)	Interior : Dark orange (5YR6/4) Exterior : Orange (5YR6/6) Section : Light reddish brown (2.5YR5/6)	Wheel made
5.14: 9	C8-000.sfc	Necked jar	Normal	Small amounts of black and white minerals (the diameter is 0.5 mm)	Interior : Orange (2.5YR6/8) Exterior : The same as the interior Section : Brownish grey (7.5YR5/1)	Wheel made
5.14: 10	C2-000.sfc	Necked jar	Normal-Fine	Black and grey minerals (the diameter is from 1 to 3 mm) Small amounts of white minerals (the diameter is from 1 to 2 mm)	Interior : Dark orange (2.5YR6/8) Exterior : The same as the interior Section : The same as the interior	Wheel made
5.14: 11	C5-000.sfc	Holemouth jar	Normal	White minerals (the diameter is from 1 to 3 mm)	Interior : Light reddish brown (5YR6/4) Exterior : The same as the interior Section : The same as the interior	Wheel made
5.14: 12	C1-000.sfc	Holemouth jar	Normal	Dark greyish minerals (the diameter is 1 mm) Small amounts of grey minerals (the diameter is 2 mm)	Interior : Reddish brown (5YR4/6) Exterior : Unknown Section : Brownish grey (5YR5/1)	Wheel made
5.14: 13	C1-000.sfc	Holemouth jar	Normal	Black minerals (the diameter is less than 1 mm)	Interior : Dark orange (5YR5/4) Exterior : Dark brown (7.5YR5/4) Section : Greyish Brown (7.5YR4/2)	Wheel made Exterior: Soot?
5.14: 14	C2-000.sfc	Holemouth jar	Normal	Amounts of grey and black minerals (the diameter is 1 mm) Small amounts of white minerals (feldspar?)	Interior : Orange (5YR6/6) Exterior : Dark orange (7.5YR5/4) 断面 : Dark reddish brown (5YR5/4)	Wheel made, decorated by a comb.
5.14: 15	C1-000.sfc	Holemouth jar	Normal	Small amounts of white minerals (the length is from 1 to 2 mm) Small amounts of black minerals (the length is from 1 to 2.5 mm)	Interior : Dark reddish brown (5YR5/4) Exterior : Greyish yellow (2.5Y6/2) Section : Brownish grey (5YR5/1)	Wheel made
5.14: 16	C4-000.sfc	Holemouth jar	Normal	Black and grey minerals (the diameter is from 1 to 2 mm)	Interior : Dark orange (5YR6/4) Exterior : Dark brown (7.5YR6/3) Section : Dark orange (2.5YR6/4)	Wheel made
5.14: 17	F5-000.sfc	Holemouth jar	Normal	Small amounts of grey and white black minerals (the diameter is from 1 to 2 mm)	Interior : Light reddish brown (2.5YR5/6) Exterior : Dark orange (7.5YR6/4) Section : Dark reddish brown (2.5YR5/4)	Wheel made
5.14: 18	C2-000.sfc	Holemouth jar	Coarse	White particles (the diameter is 0.5 cm) White fragment (the diameter is from 1 to 1.5 mm)	Interior : Olivish black (7.5Y3/2) Exterior : Olivish black (7.5Y2/2) Section : Blackish brown (5YR2/2)	Wheel made
5.14: 19	Outside grits.sfc	Lid (Handle)	Coarse-normal	Black and grey minerals (the diameter is from 1 to 3mm) Small amounts of white mineral fragments (the length is from 1 to 3 mm)	Exterior : Dark reddish brown (2.5YR5/4) Section : Yellowish grey (2.5Y6/1)	Hand made
5.14: 20	F6-000.sfc	Lid (Handle)	Normal	Grey and black minerals (the length is from 1 to 4 mm)	Interior : Dark yellowish orange (10YR7/3) Exterior : The same as the interior Section : Dark brown (7.5YR5/4)	Self slipped?
5.14: 21	C5-000.sfc	Lid	Coarse	Large amounts of white and grey minerals (the diameter is from 1 to 3 mm)	Upper : Dark orange (7.5YR7/4) Lower : Dark orange (7.5YR7/3) Section : Reddish brown (2.5YR4/6)	Thumb indentations
5.14: 22	B5-000.sfc	Lid	Coarse	Large amounts of sands (the diameter is from 1 to 0.5 mm)	Upper : Dark yellowish orange (10YR7/3) Lower : Dark orange (5YR6/4) Section : Light reddish brown (2.5YR5/6)	
5.14: 23	B3-000.sfc	Kiln stand	Coarse	Small amounts of white and grey minerals (the diameter is from 1 to 7 mm)	Exterior : Orange (5YR6/6) Section : Light reddish brown (5YR5/6)	
5.14: 24	F6-000.sfc	Decorated sherd	Normal-Fine	Small amounts of white mineral (the diameter is 1 mm) A few fragments of mica	Interior : Orange (2.5YR6/6) Exterior : Dark yellowish orange (slip) (10YR7/4) Section : Orange (2.5YR6/6)	Decorated with a comb
5.14: 25	G5-000.sfc	Decorated sherd	Normal-Fine	Small amounts of black minerals (the diameter is 0.5 mm)	Interior : Dark greyish yellow (2.5Y5/2) Exterior : Greyish white (slip) (5Y8/2) Section : The same as the interior	Decorated with a comb
5.14: 26	G5-000.sfc	Decorated sherd	Coarse ~ Normal	Black and grey minerals (the diameter is from 1 to 2 mm) White minerals (the diameter is from 0.5 to 3 mm)	Interior : Orange (5YR6/6) Exterior : Light reddish brown (5YR5/6) Section : Reddish brown (5YR4/6)	Flower shaped impression

surfaces were horizontally smoothed by hand on wheel. A simple upright rim (Fig. 5.14: 8), triangular rim (Fig. 5.14: 9), and ledge rim (Fig. 5.14: 10) were recognized.

b.5) Holemouth Jar (Figs. 5.14: 11–18)

Holemouth jars occupy the high proportion of the pottery collection. The exterior surfaces were smoothed and sometimes decorated with a comb. All of these vessels were wheel-made. This type was divided into three subtypes as follows, depending on shape of the rims.

The first subtype is characterised by a slightly thickened rim with triangular rip (Figs. 5.14: 11–13). A jar with a folded rim is the second type, which has a combed decoration with continuous arches between two horizontal bands (Fig. 5.14: 14). A slightly raised plain rim seems to be as common as the triangular rim (Fig. 5.14: 15–7), including one variant with a distinct curved profile (Fig. 5.14: 18).

b.6) Lid (Figs. 5.14: 19–22)

Four fragments of pottery lids were collected from the site. They can be reconstructed as round with nobs in the center, though all of them are small fragments and therefore cannot be precisely reconstructed.

Two nobs of lids have been confirmed (Figs. 5.14: 19, 20). The larger one was roughly hand-made of baked clay with grits inclusions ca. 1–3 mm in diameter and is decorated with continuous thumb indentations around the edge (Fig. 5.14: 19). The side was irregularly smoothed. Another nob has a deep hollow in the center, which appears to be a small cup (Fig. 5.14: 20). This hand-made cup-like nob was somewhat irregularly smoothed on tournette or wheel after the rough shaping.

In addition, two body fragments of lids were collected (Figs. 5.14: 21, 22), both of which were probably flat, round, and coarsely hand-made. The decorated one has continuous thumb indentations on the edge and was roughly smoothed on the

upside (Fig. 5.14: 21). The other sample was much coarsely hand-made with large amount of sand and probably larger than ca. 270 mm in diameter (Fig. 5.14: 22). The upside was totally smoothed in a concentric way and has several incised lines 2–3 mm in width possibly composing a motif.

b.7) Kiln Stand (Fig. 5.14: 23)

This weight-like clay object is thought to have been used for stacking unbaked pottery in a kiln chamber. It was made of baked clay, including large white and grey angular grits. The surface does not indicate any traces of secondary heating.

b.8) Decorated Sherds (Figs. 5.14: 24–26)

Three decorated body sherds have been confirmed, two of which have combed bands on the exterior surfaces. The decoration seen in Fig. 5.14: 24 consists of sinuous and horizontal combed bands. The stark resemblance to the decoration on a holemouth jar (Fig. 5.14: 14) indicates that the sherd originated from a vessel of the same style. Fig. 5.14: 25 is diagonally and horizontally combed, probably by a much sharper instrument, given the deeper incised lines. Furthermore, an additional sample has three clear impressions of flower with eight to nine petals and a few small circles on the exterior surface (Fig. 5.14: 26). These flowers would have been part of a larger motif.

c) Post Qalaxhanid Pottery

The pottery assemblage attributed to the period tends to be much coarser and larger than the preceding one, albeit belonging to an obscure chronology. They, seem to belong to the same cultural phase.

c.1) Pot (Figs. 5.15: 1, 2)

Two coarse pots were hand-made with rough horizontal and diagonal smoothing on both surfaces. The larger one has a slightly everted rim and a roughly burnished, interior surface (Fig. 5.15: 1).

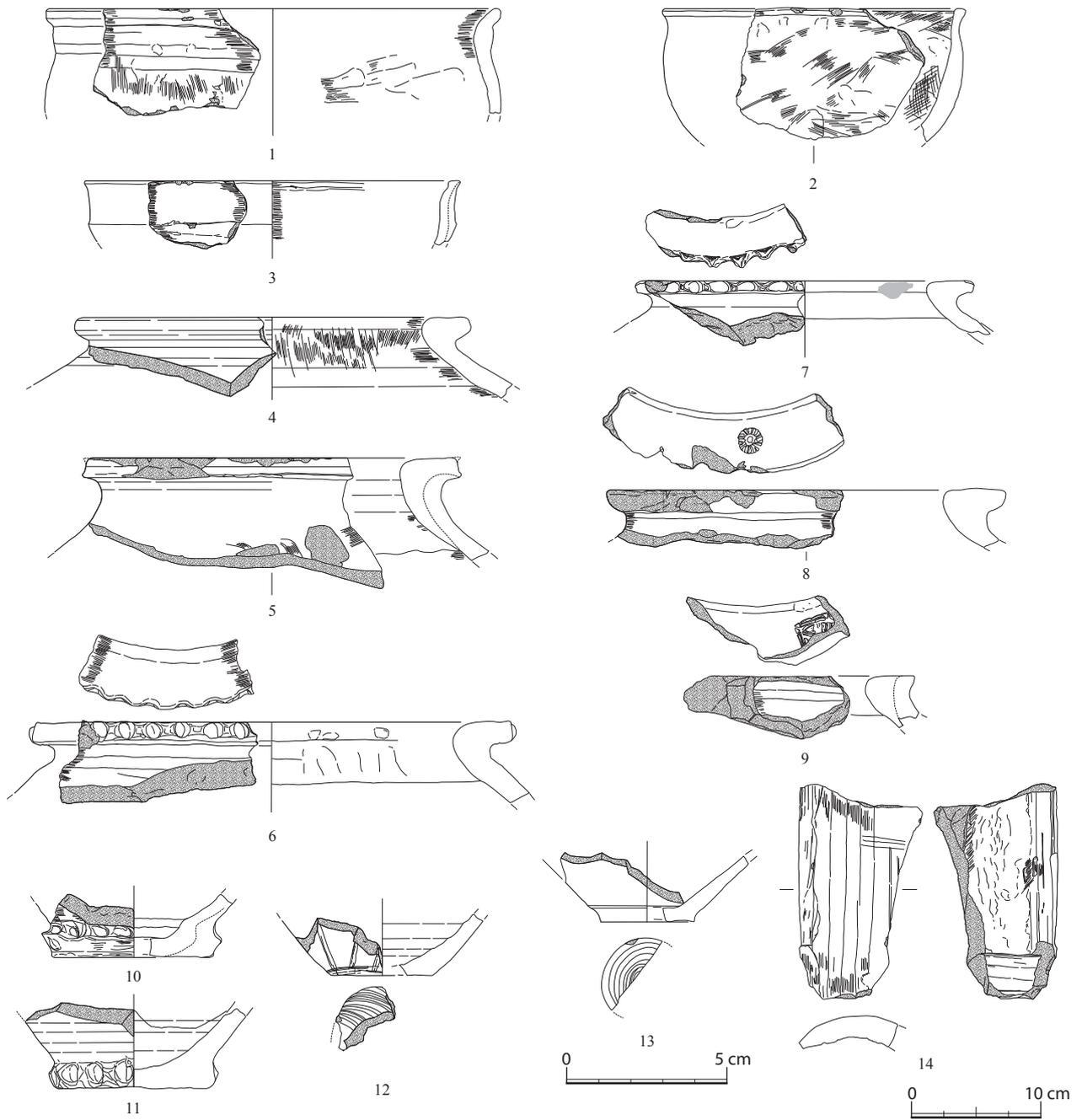


Figure 5.15 Collected pottery of the Post Qalaxhanid period

Figure	Grid	Type	Fabric	Inclusions	Colour	Notes
5.15: 1	G6-000.sfc	Pot	Coarse	Amounts of sands (the diameter is from 1 mm to 3 mm)	Interior : Orange (2.5YR6/6) Exterior : Light reddish brown (2.5YR5/6) Section : Reddish brown (2.5YR4/8)	Hand made
5.15: 2	B5-000.sfc	Pot	Coarse-Normal	直径1～3mmの黒色および白色粒を多量に含む。 Amounts of white minerals (the diameter is from 1 mm to 3 mm)	Interior : Dark orange (5YR6/4) Exterior : Light yellowish orange (10YR8/3) Section : Dark reddish brown (2.5YR4/4)	Hand made, Patchy soot on the bottom
5.15: 3	C1-000.sfc	Carinated bowl	Coarse	Sands (the diameter is from 1 to 3 mm)	Interior : Dark orange (5YR6/4) Exterior : The same as the interior Section : Dark reddish brown (2.5YR4/4)	
5.15: 4	B2-000.sfc	Pithos	Normal	Black and white minerals (the diameter is from 1 to 3 mm) White fragment of minerals (the length is from 0.5 to 3 mm) Small amounts of mica	Interior : Dark yellowish orange (10YR6/3) Exterior : Dark reddish brown (5YR5/4) Section : Yellowish grey (2.5Y6/1)	Wheel made
5.15: 5	B2-000.sfc	Pithos	Normal	Grey minerals (the diameter is from 1 to 3 mm)	Interior : Light reddish brown (2.5YR5/6) Exterior : Light yellow (wash) (2.5Y7/3) Section : Light reddish brown (2.5YR5/8)	Wheel made
5.15: 6	E6-000.sfc	Pithos	Coarse-Normal	Large amounts of grey minerals (the diameter is from 1 to 3 mm) White minerals (the length is from 0.5 to 3 mm)	Interior : Dark orange (7.5YR7/4) Exterior : Dark orange (5YR6/4) Section : Light reddish brown (2.5YR5/6)	Hand made using a tournette
5.15: 7	G6-000.sfc	Pithos	Normal	Large amounts of grey, black and white minerals (the diameter is from 0.5 to 3 mm) Small amounts of mica and feldspar	Interior : Orange (5YR6/6) Exterior : Dark orange (5YR6/4) Section : Grey (5Y4/1)	Wheel made, thumb indentations on the rim
5.15: 8	D3-000.sfc	Pithos	Coarse-Normal	Large amounts of grey, red, black and white minerals (the diameter is from 0.5 to 3 mm)	Interior : Orange (5YR6/6) Exterior : Dark reddish brown (5YR5/4) Section : Dark yellowish orange (10YR7/2)	Hand made using a tournette, stamp impression on the rim
5.15: 9	D3-000.sfc	Pithos	Normal	White minerals (the diameter is from 0.5 to 2mm) White and black minerals (the diameter is from 0.5 to 1 mm) Small amounts of mica	Interior : Dark orange (7.5YR6/4) Exterior : Orange (5YR6/6) Section : Dark brown (7.5YR5/4)	Hand made using a tournette, stamp impression on the rim
5.15: 10	H3-000.sfc	Decorated base	Coarse-Normal	Grey and black minerals (the diameter is from 1 to 4 mm)	Interior : Dark reddish brown (5YR5/4) Exterior : Orange (2.5YR6/6) Section : Reddish brown (2.5YR5/4)	Hand made, thumb indentations
5.15: 11	Outside Area-1.sfc	Decorated base	Normal	Dark grey and black minerals (the diameter is from 1 to 3mm)	Interior : Dark orange (7.5YR6/4) Exterior : Dark yellowish orange (10YR7/3) Section : Dark orange (7.5YR5/1)	Wheel made, thumb indentations
5.15: 12	C1-000.sfc	Decorated base	Normal-Fine	Grey minerals (the diameter is from 1 to 4 mm) Small amounts of white minerals (the diameter is from 1 to 2 mm)	Interior : Dark orange (7.5YR6/4) Exterior : Dark orange (5YR6/4) Section : Brownish grey (7.5YR5/1)	Wheel made
5.15: 13	B5-000.sfc	Chinese porcelain	Fine	No	Interior, exterior : Light greenish grey (10G8/1) Section : Pure white	Song dynasty (12 century)
5.15: 14	Outside Area-1.sfc	Round roof tile	Coarse-Normal	Small amounts of grey and black minerals (the diameter is from 0.3 to 2 mm) Small amounts of white fragments (the length is from 0.5 to 3 mm)	Dorsal : Grey (5Y6/1) Ventral : Light grey (5Y7/2) Section : Greyish yellow (2.5Y7/2)	Scraped dorsal face

The exterior horizontal smoothing implies it was finished on tournette.

Given the soot marks present on both surfaces of the smaller one (Fig. 5.15: 2) and the large quantity amount of inclusions that are ca. 1–3 mm in diameter, the vessel is believed to have been used for cooking activities.



Figure 5.16 Collected coin of the Qalakhaniid period

c.2) Carinated Bowl (Fig. 5.15: 3)

This vessel has a slight carination in the middle of the exterior body. The entire interior and exterior surfaces were horizontally smoothed. A large quantity 1-3 mm-diameter sand grit was included, in the fabric. The inclusions were possibly added for heat resistance and may indicate its use as a cooking pot, though soot marks were not observed.

c.3) Pithos (Figs. 5.15: 4–9)

Large wheel-made pithoi were classified into three subtypes: plain, those with indentations on the tip of rim, and those with seal impressions on the rim.

Two rim fragments of plain pithoi were drawn (Figs. 5.15: 4, 5). Their walls measure ca. 1.5–3 cm in thickness, and traces of wheel marks are evident on both surfaces. The everted thickened rims were bevelled on the tips and flattened on the tops. While

the vessel in Fig. 5.15: 4 was diagonally smoothed on the interior surface, Fig. 5.15: 5 indicates an interior trace that the rim made separately and then attached to the body like the vessel in, Fig. 5.15: 9.

Two vessels were continuously thumb-indented on their rims (Fig. 5.15: 6), sometimes having triangular cuttings (Fig. 5.15: 7). As this type of decoration would require a more projected rim profile, both of these vessels have ledge rims.

Seal impressions were confirmed on the rims of two pithoi (Figs. 5.15: 8, 9). Their forms and method of manufacture are more or less similar to the above. Fig. 5.15: 8 has a chrysanthemum-like mark that was impressed before firing. Fig. 5.15: 9 shows the upper half of a stamp seal impression which has a square shape, possibly a cross mark. Both likely functioned as potter's marks, which represent the places where the vessels were manufactured.

c.4) Decorated base (Figs. 5.15: 10–12)

Two basal fragments were decorated with continuous indentations on their exteriors, which were irregularly and rough horizontally smoothed (Figs. 5.15: 10, 11). Both flat bottoms are completely abraded. Given that the decoration is reminiscent of the thumb-indented rims of pithoi, these fragments can be concluded to have originated from the same vessel type.

Another example has a few vertical incised lines ca. 3-4 mm in width on the exterior surface, which is partially polished (Fig. 5.15: 12). A string cut-mark on the flat bottom and interior wheel marks indicate that a wheel or tournette was used to shape the vessel.

d) Porcelain (Fig. 5.15: 13)

One tiny basal fragment of imported porcelain from China was collected from the site and, can be dated to the twelfth century and, the Song Dynasty. This fine ware has a pure white section without any inclusions and was homogeneously glazed in light green.

e) Roof Tile (Fig. 5.15: 14)

This round roof tile was probably made by a moulding technique, although no definitive traces remains on the ventral surface. Among other sherds, the upside was carefully finished by scraping. The grey colour indicates that it was fired in an oxygen-reductive atmosphere. The period of the production remains undermined.

f) Coin

One silver coin was collected, dated to the Kala-Khanid period (Fig. 5.16)

5.5. Ken Bulun and Banjikat/Mǐ guó

Finally, the ancient name of Ken Bulun should be discussed. According to Islamic sources, a city called Banjikat (or Panjikat) was located at between Ak-Beshim (Suyab) and Krasnaya Rechka (Navakat or Navikat) (Mori 1993; Yoshida 2002). Furthermore, according to the Chinese source, Huanghua Sida ji, 'Mǐ guó chéng is located 10 Chinese miles west of Sui yè chéng, and Xīnchéng is 30 Chinese miles,' which means a city called Mǐ guó chéng was located between Sui yè chéng (Ak-Beshim) and Xīnchéng (Krasnaya Lechka). However, site corresponding to Banjikat or Mǐ guó chéng has not been identified, and its location has remained a mystery for a long time.

It seems certain that Ken Bulun can be associated with Banjikat/Mǐ guó. Although there are some city sites between Krasnaya Rechka and Ak-Beshim, Ken-Bulun is a large city with a fortification and a citadel. Moreover, although mainly Qarakhanid artefacts were collected on the surface of the site, its cultural layers are thick enough to contain materials dating to the Sogdian Period. Furthermore, the direction (Mǐ guó chéng is located to the west of Sui yè chéng) and positional relations (10 Chinese miles from Sui yè chéng to Mǐ guó chéng, and 20 Chinese miles from Mǐ guó chéng to Xīnchéng), correspond to the positional relationships between Ak-Beshim,

Ken Bulun and Krasnaya Rechka sites: Ak-Beshim
→ about 8 km west → Ken Bulun → about 12 km →
Krasnaya Rechka. For such reasons, it is assumed
that that Ken Bulun corresponds to Banjikat/Mǐ guó.

On the other hand, in the Republic of Tajikistan,
the neighbouring country of the Kyrgyz Republic,
there is a famous Sogdian palace site called
Penjikent (Mǐ guó in Chinese). Many cities in the
Chuy Valley are thought to have been established by
Sogdian settlers from the west. Therefore, Ken Bulun
may have been established by western immigrants
from Penjikent, and named the new settlement after
their home city (Mori 1993; Yoshida 2002).

6. Summary

Ak-Beshim was once called Suyab meaning ‘the Suy River’. This is a name composed of Suy (Turkic origin) and ab (Iranian origin). Xuanzang visited this region in the early 7th century, and recorded the ‘Sù yè shuǐ chéng’ as one of the towns of ‘Sū lì’, the Sogdian region, in the Great Tang Records on the Western Regions. Moreover, he stated that ‘Tens of fortified towns are located to the west of the Sù yè, and each of them has a leader. They are subordinate to Göktürks although they were not ordered by it. The land between Sù yè chéng and Jié shuāng nà guó, and people living there are called Sū lì’. This seems to indicate that this region was the intersection of the Turkic and Iranian cultural spheres.

Ak-Beshim is thought to have been established as a colonial town of Sogdians from the west in the 5th century, and afterwards developed into one of the central trading towns along the Chuy River. Many contemporary sites such as Krasnaya Rechka and Ken Bulun are located to the west of Ak-Beshim. On the other hand, to the east of Ak-Beshim, large towns are not known except Burana which dates to a later era. Therefore, Ak-Beshim was the last town beyond the Pamir Mountains for people traveling from the west, and the first city for ones who arrived in the Chuy Valley from the east. Because the routes through the Pamir Mountains are thought to have been blocked often with snow in winter, caravans going to the east had to wait for the snow to melt in order to pass the Pamir Mountains, and those coming from the east after the snow melt might have rested at Ak-Beshim.

Ak-Beshim is located at the contact point between eastern and western worlds, where Sogdians, Iranian tribes, and Turkic nomads co-existed. Furthermore, the site was located in the region that the Tang Dynasty of China, the Tufan (the Tibetan Empire), and Turkic nomads such as the Western Turkic Khaganate, fought to control.

During the Tang period, ‘Sui yè zhèn’ was established at the site, as the frontier city for the management of the Western Regions. Ak-Beshim consists of the slightly elevated mound of city called ‘Shakhristan’, and another mound called the ‘Rabat’ to the southeast. Although the Rabat is often assumed to have been the city of Qara Khitai, it is very likely to be the remains of Sui yè zhèn in the Tang period. Remains of the town walls and many roof tiles were excavated there at the end of October 2015, and they are likely to be of the Chinese style. Although there is no decisive evidences to identify Rabat as Sui yè zhèn at this time, the character of this site will become clear in future excavations.

Ak-Beshim is the only site in the Central Asia, where the local town abuts on the Chinese citadel (zhèn). Therefore, Ak-Beshim is a very important site, not only to the study of local cultures and their transitions through the research of the Shakhristan of local city, but also to the understanding of the structures of the Chinese citadel and aspects of contact with Chinese culture through the research the Rabat.

Ak-Beshim is thought to have declined around the 11th century. The cultures of Ak-Beshim region were originally a mixture of the Turkic nomads and Sogdian cultures. Furthermore, the Chinese and Tibetan cultures had influenced them, and Islamic culture eventually emerged and spread to these areas. Based on this it can be firmly concluded that Ak-Beshim, as one of the towns on the Silk Roads, was a points of contacts between the eastern and the western worlds.

Some excavations were conducted at Ak-Beshim, because of its importance and fame. Nevertheless, the results were not well published, and the character of the site has only been partially understood. Therefore, it is necessary clarify the whole picture of the site through organized and systematic excavation with medium- and long- term

plans.

Ken Bulun is located between Ak-Beshim and Krasnaya Rechka. It is assumed, as has already been pointed out, that Ken-Bulun can be identified as “Mǐ guó chéng” in the Chinese sources (see Chapter 5.5). The site has solid town walls and a citadel, which indicate that it was one of the central towns in this region. Although a gilded bronze Buddha statue was found recently at Ken Bulun, its context is unclear, because excavation was not conducted. Therefore, it is expected that the history of Ken Bulun could be clarified by future surveys.

The Tokyo National Research Institute for Cultural Properties and the Institute of History and Cultural Heritage, National Academy of Sciences of the Kyrgyz Republic, conducted training courses for young specialists to protect the cultural heritage in the Kyrgyz Republic, Afghanistan, and other Central Asian countries, at Ak-Beshim and Ken-Bulun, as parts of the “Networking Core Centers for International Cooperation on Conservation of Cultural Heritage Project” of the Agency for Cultural Affairs in Japan and “UNESCO/Japan Funds-in-Trust Project: Support for documentation standards and procedures of the Silk Roads World Heritage Serial and Transnational Nomination in Central Asia” . The aims of these projects was to obtain skills and knowledge, which are required

in order to protect the cultural heritage such as documentation of sites, excavation, conservation and site management. It is difficult to say if the aims of these projects was completely achieved, because these were short-term projects. However, it is hoped that young specialists in the Kyrgyz Republic, Central Asia, and surrounding countries were given significant opportunities to study the protection of cultural heritage. At the very least new network of young researchers in Central Asian countries was established through workshops at Ak-Beshim.

Ak-Beshim was registered as one of the main sites of the UNESCO’ s World Cultural Heritage “Silk Roads: the Routes Network of Chang’ an-Tianshan Corridor,” along with Krasnaya Rechka and Burana. This inscription was achieved through the cooperative recommendation of China, the Kyrgyz Republic and the Republic of Kazakhstan. It is possible to say that interest in the network of the Silk Roads is being revitalized. On the other hand, in the 21st century, it is hoped that the Silk Roads can be utilized not only as cultural heritage, but also as a roads of interaction, conversation, and peace. Japan should continue cooperation in conservation of cultural heritage in Central Asia.

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Appendix 1

Suiye (碎 葉) and Ak-Beshim: a Historical Development at the Western Tien-shan in the 7th to the First Half of the 8th Century¹⁾

Shigeo SAITO

1. Introduction

The historical importance of the Suiye Garrison (碎葉鎮) known as the westernmost foothold of the Tang Dynasty has been recognised for a long time, in its relationship to the Four Garrisons of Anxi (安西四鎮), the Tang' s footholds to rule the Western Regions. First of all, K. Otani discussed the brief history of the Four Garrisons of Anxi (Otani 1925), and then, T. Matsuda (1970, pp. 357–391), S. Ise (1955), and H. Sato (1958) made great achievements in the study of this area. Nevertheless, each study is fragmentary, and overviews of the history of the Tarim Basin including Suiye, and its previous studies have not been conducted rigorously since T. Moriyasu (1984) and C. Beckwith (1987) studied the development of the Tibetan Empire. On the other hand, since the great work of M. Naito (1988), dealing with the history of the Western Türk Qaghanate, who were nomads in the northern Tien-shan Mountains and deeply involved with the Suiye, it is necessary to correlate all of the prior studies.

Furthermore, although little was dealt in the above studies, archaeological research has been conducted in the Western Tien-shan area and Suiye, including by K. Kato who has published an overview (Kato 1997). Among the revealed objects, there is an epitaph written in Chinese, which has an important relevance to Suiye, and research has been published on this topic.

Due to the above, this paper will present the activities of various forces over Suiye in the 7th–8th centuries and their historical development in chronological order, based on a discussion and summary of the previous studies. Then, it will address the Du Huaibao Stele (杜懷寶碑) unearthed

at Ak-Beshim, and introduce the relationship between it and Suiye.

2. A Historical Development of Suiye

2.1. Suiye and the Western Türk Qaghanate

This chapter reviews how various forces, such as the Western Türk Qaghanate, the Tang Dynasty and the Tibetan Empire, extended to the Western Region, and interacted with Suiye, based on the results of previous studies.

The Western Türk Qaghanate is the first force that extended its influence to Suiye. The western Türk Qaghanate was the western part of the nomadic confederation of Türks (突厥), which was established on the Mongolian Plateau in 552, and founded by Ishtämi Qaghan (室点密可汗),²⁾ the younger brother of Yili Qaghan (伊利可汗 ; Bumïn Qaghan), the founder of Türk Qaghanate. The Türk Qaghanate was divided into the Eastern and Western Türk Qaghanates on either side of the Altai Mountains. The throne of the Western Türk Qaghanate was succeeded by Ishtämi Qaghan' s descendants.³⁾

Initially, the territory of the Western Türk Qaghanate was the Yulduz Grassland (now known as the Bayanbulak Grassland) (Matsuda 1970: 248–287). Afterwards, Nijue Chuluo Qaghan (泥撅处羅可汗) moved it to near Beshbalıq (present-day Jimsar) (Shimazaki 1977: 181–182), and Ton Yabghu Qaghan (統葉護可汗) moved it to near Suiye (Matsuda 1970: 287–288; Naito 1988: 2–3).

Suiye is a transliterated form of Sūyāb in the Islamic sources. Although its original meaning was the Chuy River, it had already become a place name by the Tang period, meaning the Chuy River and the plains along the river (Naito 1988: 1–2). Suiye City

(碎葉城, present-day Ak-Beshim⁴) was established there. Xuanzang visited Suiye City in 630⁵, and documented the city in the *Great Tang Records on the Western Regions* (大唐西域記), Volume 1, p. 18.

Traveling 500 lis (ca. 220 km) to the northwest of Da Qing Lake (Issyk-Kul), we arrive at the city of the Suiye River. The city is 6 or 7 lis (ca. 2.5–3 km) in circuit; merchants of various states here came from surrounding nations congregate and dwell. The soil is favourable for red millet and for grapes; the woods are not thick, the climate is windy and cold; the people wear garments of twilled wool. Traveling from Suiye westward, there are a great number of isolated towns; in each there is a chieftain; these are not dependent on one another, but all are in submission to the Türks.

It is noteworthy that merchants came to Suiye Garrison from surrounding nations to dwell, and the cities, including Suiye Garrison, submitted to the Western Türk Qaghanate. Suiye Garrison was the international commercial city, and its submission to the Western Türk Qaghanate strengthened the Qaghanate's power.

Then, where was the home of the Western Türk Qaghanate? Naito considered this question in detail (Naito 1988: 1–21). She also took note of Xuanzang's manuscript.

Daci'en-Si Sangzang Fashi Zhuan (大慈恩寺三藏法師傳), Volume 2

Travelling 500 lis northwest along the sea (Issyk-Kul), we arrived at Suiye. We met Si Yabghu Qaghan⁶ (肆葉護可汗) of the (Western) Türk Qaghanate. He was just going hunting, horses were so strong...He was pleased with the (Xuanzang's) meeting, and told "I am going to somewhere, and return in a few days. You go to ordu (牙帳)." He had Damozhi (答摩支), the tarqan, send (me to ordu) and rested me...Travelling 400 lis (ca. 176 km) west from here (ordu), we arrived at Pingyu (屏聿).

It is also called as Qianquan (千泉). The land was hundred lis square, and had many ponds, marshes and rare trees. Forests were so thick, and the climate was so cool and humid, it is summer resort for the Qaghans.

This is the record of Xuanzang's visit to Si Yabghu Qaghan of the Western Türk Qaghanate in order to be assured a safe journey to India to seek Dharma. According to this record, Xuanzang met Si Yabghu Qaghan at Suiye Garrison. However, since Si Yabghu Qaghan was going hunting, he ordered Damozhi to send Xuanzang to Ordu. The document states that Ordu, the home of Si Yabghu Qaghan, was located away from Suiye Garrison.

Additionally, Naito studied the descriptions of the homes of successive Qaghans of the Western Türk Qaghanate, and Qaghans of Western Türk Qaghanate origin after its collapse in various Chinese and Islamic manuscripts. Finally, she concluded that Ordu of the Western Türk Qaghanate had been located in the Chuy-Ili Mountains, north of Suiye Garrison, from the reign of Ton Yabghu Qaghan, who was contemporay with Xuanzang, until the Türgish Dynasty, which strengthened its power after the collapse of the Western Türk Qaghanate (Naito 1988: 48).

On the other hand, according to the description found in the Daci'en-Si Sangzang Fashi Zhuan, Qianquan was the summer resort of the Qaghans. Qianquan is identified as present-day Merke, west of Suiye Garrison, which was thought to be the summer resort for the Qaghans of the Western Türk Qaghanate (Matsuda 1970: 288–289).

The Qaghans of the Western Türk Qaghanate moved seasonally around Suiye Garrison. According to the description of the *Great Tang Records on the Western Regions*, it is noteworthy that Suiye Garrison was an independent city for one of chieftains, but not for Qaghans.

2.2. Extension of the Tang Dynasty to the Western Region

The Western Türk Qaghanate lost its power in 630, because of internal divisions among influential people. Afterwards, the Tang dynasty extended from the Tarim Basin to Suiye Garrison. The Tang began to extend its powers to the Western Region, by subjugating the Hami (伊吾) Oasis in 630, and Tuyuhun (吐谷渾) in 634–635 to obtain Shanshan (鄯善) and Cherchen (且末) regions (Matsuda 1987: 111–114; Moriyasu 1984: 2). Moreover, the Tang invaded the Turfan Oasis in 630, and established the Anxi Protectorate (安西都護府) in the next year (Otani 1925: 274–277). Furthermore, they invaded the Karashahr (焉耆) Oasis in 644 (Matsuzaki 1987). At the same time, the Tang planned to subjugate the Western Türk Qaghanate. Around 642, Yipi Shegui Qaghan (乙毗射匱可汗) was enthroned as the new Qaghan, elected under the observation of a Tang envoy. However, since this Qaghan could not extend his power to the Tarim Basin, the Tang subjugated the Kucha (龜茲) Oasis, and established the Anxi Protectorate there in 648, establishing the Four Garrisons of Anxi⁷⁾ as strongholds at cities in oasis of the Tarim Basin (Matsuda 1970: 360–361; Naito 1988: 27–29).

As seen above, the Four Garrisons of Anxi enabled Tang to establish dominant force over the Tarim Basin. Although three places of the Four Garrisons of Anxi have been identified as Kucha, Kashgar (疏勒) and Khotan (于闐), two different places are referred to as the last garrison one in the historical documents: Suiye and Karashahr. Scholars who deny that Suiye was one of Four Garrisons insist an impossibility for the Tang to extend power to the area under the domination of the Western Türk Qaghanate (Matsuda 1970: 360–361; Cen 1958: 29; Zhou 1978: 139–140; Wu 1982: 166–167; Xue 1984: 74–76). However, Naito supports the association of Suiye as the fourth garrison for the following two points. First, when the Tang regained the Four Garrisons of Anxi including Suiye in 692, Empress

Wu (則天武后) was pleased with recovery of the “Four Garrisons during the Zhenguan (貞觀) period (627–649),” which means Suiye was one of them. Second, as seen above, when the Four Garrisons of Anxi were initially established, the Tang had Yipi Shegui Qaghan enthroned as the Qaghan of the Western Türk Qaghanate. Furthermore, the Tang charged Ashina Helu (阿史那賀魯), one of the royal family of the Western Türk Qaghanate, to rule over it. Therefore, it is possible to consider that Suiye was within the Tang’s territory (Naito 1988: 21–29).

Under the Tang’s expansion, Ashina Helu became independent from Tang, when Taizong (太宗) died in 649. The Tang sent expeditionary forces three times between 651 and 657, with Ashina Mishe (阿史那彌射) and Ashina Buzhen (阿史那步真), members of the royal family, and Tiele (鉄勒) nomads in the north of Gobi Desert, and finally recaptured Ashina Helu.⁸⁾

Although the collapse of the Ashina Helu administration is generally considered as the “downfall of the Western Türk Qaghanate,” this only means that the legitimate nomadic confederation succeeding Ishtämi Qagan did not appear after this. Tribes consisting of the Western Türk Qaghanate continued to exist.⁹⁾ Türgish which was prosperous in the early 8th century, was one of these tribes. According to Naito (1988: 62–64, 67–68), the Western Türk Qaghanate had 10 tribes under the royal Qaghan before its collapse, and was re-established as a coalition government of 10 tribes after the collapse and removal of the Qaghan. The coalition government was called the “Shixing (十姓, Ten Tribes)” or “Shijian (十箭)” in the Chinese documents, and “On Oq (ten arrows)” in the Orkhon inscriptions, which came to mean the Western Türk Qaghanate during the 680s and 690s.

On the other hand, the royal families did not perish completely. They continued to hold the loose-rein control (羈縻支配) (indirect rule) of the former Western Türk Qaghanate people, as the puppet Qaghans by using the family’s authority. The first

instances of these puppet Qaghans were Ashina Mishe and Buzhen who subdued Ashina Helu.

The Tang divided the 10 tribes under Ashina Helu into eastern and western sections. In December 657, Ashina Buzhen was sent to the five tribes of the Nushibi (五弩失畢) area (western part), and was appointed as Jiwangjue Qaghan (繼往絕可汗) and the Mengchi Protector-general (濛池都護), while Ashina Mishe was sent to the five tribes of the Duolu (五咄陸部) area (eastern part) and appointed as Xingxiwang Qaghan (興昔亡可汗) and the Kunling Protector-general (崑陵都護) (Naito 1988: 30–32). At that time, the center of the Mengchi Protector-general is thought to have been established at Suiye (Naito 1988: 44). However, when Ashina Mishe was murdered by Ashina Buzhen in 662, this organization collapsed. Ashina Buzhen was also murdered in 666 or 667 without being able to reunify the former area of the Western Türk Qaghanate, causing there to be no ruler of the Western Türk Qaghanate (Naito 1988: 271–275). Moreover, Naito believes that the Suiye Garrison, one of the Four Garrisons of Anxi, was abandoned with Ashina Buzhen's death, and the Karashahr Garrison was established in its place (Naito 1997: 155). The Tang could not hold its authority in the conflict-prone territory of the Western Türk Qaghanate.

2.3. Disputes between the Tang and the Tibetan Empire over the Four Garrisons of Anxi

The state of the Four Garrisons of Anxi including Suiye changed frequently. At first, the Tibetan Empire extended its power over the Tarim Basin. The Tibetan Empire became large enough to dominate the Tibetan Plateau during the reign of Songtsen Gampo (the end of the 6th century to 649), and the Tang sent Princess Wenchen (文成公主) to him as an empress. The Tibetan Empire did not extend to the Tarim Basin during his reign, but in 662 when Ashina Mishe was murdered by Ashina

Buzhen (Moriyasu 1984: 7). After Ashina Mishe's death, when the commander of Yuhaidao (颯海道總管) Su Haizheng (蘇海政) who murdered Mishe, attacked Kashgar (疏勒), Gongyue (弓月) and Tibet with the Buzhen, two of the five tribes of Nushibi, sent an army to help Kashgar (Matsuda 1970: 325; Moriyasu 1984: 7; Naito 1988: 272). Tibet withdrew, and Kashgar returned to the rule of the Tang (Naito 1988: 273). Naito considers that Tibet's sending of troops was the set-up for the extension of power to the Tarim Basin (Naito 1988: 272–273).

In 670, the Tibetan Empire conducted a large military campaign to conquer the Tarim Basin. Kucha, the Anxi Protectorate, was attacked. The Anxi Protectorate was annihilated, and the Four Garrisons of Anxi came under the control of the Tibetan Empire. The Tibetan Empire's extension of power was so prominent that it brought Tuyuhun in the Qinghai (青海) Region under its control in the same year (Yamaguchi 1983: 686–694).

Nevertheless, the Tibetan Empire's domination lasted for only a few years, and the Tang recovered the Four Garrisons of Anxi in between 673 and 676. Although it is uncertain why the Tibetan Empire left the Tarim Basin so easily (Moriyasu 1984: 12–13), it did not give up its power over the basin completely. When Ashina Duzhi (阿史那都支) of the Chumukun tribe (妣木昆部) called himself the Shixing Qaghan (十姓可汗) and raised a rebellion against the Tang in 677, the Tibetan Empire subjugated the Four Garrisons of Anxi once again (Moriyasu 1984: 13–15; Naito 1988: 276–278). Naito assumes that Ashina Duzhi dominated the entire Western Türk Qaghanate with his base in Suiye until 676 when Ashina Duzhi, the Turkic king, invited the Tibetan premier to visit him in an annual of the Tibetic language (Naito 1988: 276–277).

However, the Tang retaliated and defeated Ashina Duzhi in 679. As described in the next chapter, Pei Xingjian (裴行儉) attacked Ashina Duzhi by using a descendant of the Persian royal family, and caught him. At this time, the Tibetan

Empire did not seem to have enough power to extend control to the Tarim Basin, because of its struggle for political power (Moriyasu 1984: 15–16). The Tang took over Suiye Garrison, the stronghold of Ashina Duzhi, and added it as one of the Four Garrisons of Anxi in place of Karashahr Garrison. However, it is uncertain whether the Tang recovered all of the Four Garrisons of Anxi because there is a lack of supporting documents (cf. Moriyasu 1984: 16, 65, n. 74, 76; Beckwith 1987: 46–47, n. 47).

Suiye Garrison was maintained by Wang Fangyi (王方翼) in 679. His activities are well known and documented below.

Furthermore, he (Wang Fangyi) established (fortification walls of) the Suiye Garrison city. He made 12 gates (in total) on all 4 sides (of the walls), and all gateways were bent so that they hid (soldiers') sally and retreat. (The construction work) finished in 50 days. Foreign rulers rushed from the Western Region to see the walls, and dedicated special products of each country. [Jiutangshu 185, p. 4802]

The fortification walls built at that time are considered to correspond with the area called "*Rabat*" at Ak-Beshim, identified as Suiye Garrison (Gorycacheva and Peregudova 1996: 186. cf. Kato 1997: 148–149). The association of Suiye Garrison with Ak-Beshim is addressed in the next chapter. The characteristics of Suiye Garrison as referred to in the manuscript above include the shape of the walls and the number of the gates, which are expected to be discovered in the future excavations at Ak-Beshim.

After the recovery of the Four Garrisons of Anxi, the Tang held the indirect rule over the 10 tribes of the former Western Türk Qaghanate again. The Tang again used the legitimate royal family of the Western Türk Qaghanate as puppet rulers. The Tang nominated Ashina Yuanqing (阿史那元庆) as Xingxiwang Qaghan of the Kunling Protector-general to control the eastern five tribes

and inheriting his father, Ashina Mishe's position in 685, and nominated Ashina Huseluo (阿史那斛瑟羅) as Jiwangjue Qaghan of the Mengchi Protector-general to control the western five tribes and inheriting his father, Ashina Buzhen's position in 686 (Naito 1988: 288, 307). However, soon after that, the Four Garrisons of Anxi came under the control of the Tibetan Empire again. Sato (1958: 348–352), Moriyasu (1984: 17) and Beckwith (1987: 50) posited the date of the collapse of the Four Garrisons of Anxi as 687. On the other hand, W. Zhou (1977: 141–143) and Naito (1988: 291–293) suggested the date of 686, based on the rescript in the eleventh month of 686, quoted by "Register for Fan Deda (汜德達告身)" (68TAM100:1; Tu Wen III: 604) unearthed from the Astana Tombs in Turfan, which indicate that "the Jinya Jun (金牙軍) force left off the four Garrisons of Khotan, Anxi, Kashgar and Suiye". They interpret "left off" as "abandoned." According to the latter theory, Suiye Garrison came under the control of Tibetan Empire at that time, since it was included in the four Garrisons.

The Tibetan Empire's attack extended to the Western Türk Qaghanate which Tang tried to conquer. Ashina Yuanqing, Xingxiwang Qaghan of the eastern part, was caught by the Tibetan Empire in between 686–689. Although he was released afterwards, he entered Tang instead of returning to the Western Türk Qaghanate, and was executed for calumny in 692 (Naito 1988: 290–291).

On the other hand, Ashina Huseluo, the Jiwangjue Qaghan of the western part, was not attacked by the Western Türk Qaghanate, but was attacked by the Eastern Türks (The Second Türk Qaghanate). The Second Türk Qaghanate was established in the Inner Mongolia in 682, mainly consisting of the people of the First Türk Qaghanate which collapsed in 630 and was held by the Tang under the loose-rein control.¹⁰ Because the Second Türk Qaghanate repeatedly invaded the area of the former Western Türk Qaghanate, Ashina Huseluo had to escape the Tang in 690 (Naito 1988: 305–314).

Although the Tang tried to defend against the seizure of the Four Garrisons of Anxi by the Tibetan Empire, the attacks of the army corps in the Parthian region (安息道行軍) were unsuccessful twice (Ise 1955: 260; Naito 1988: 293–295). The Tang recovered the garrisons as the result of the victory of the final battle against the Tibetan Empire during 692–694, for which Tang allied with Wuzhile (烏質勒) of the emerging Türgish (Moriyasu 1984: 18–20). According to an article written in 692, “Tang defeated and recovered the four Garrisons of Kucha, Khotan, Kashgar and Suiye” [Jiutangshu 93, p. 2977], which means Suiye was included in the recovered region. The Tibetan Empire established Ashina Tuizi (阿史那倭子), who re-emerged after his father, Ashina Yuanqing’s execution, as the Ton Yabghu Qaghan to rally the former Western Türk Qaghanate (Naito 1988: 295–298). As a result, some tribes of the former Western Türk Qaghanate agreed and attacked Suiye. However, the Tibetan Empire did not recover the Four Garrisons of Anxi, since Han Sizhong (韓思忠), the governor-general of Suiye, intercepted him and crushed the Tibetan Empire’s force at Qianquan (Naito 1988: 298–302). Nevertheless, Naito presumes that Ashina Tuizi retained power in some areas of the Suiye Plain, after the failure of the revolt (Naito 1988: 323). The Tibetan Empire made the royal family of the Western Türk Qaghanate a puppet ruler to dominate the Western Türk Qaghanate, especially the Suiye Plain with the Four Garrisons of Anxi (Naito 1988: 304). The Tibetan Empire, as well as the Tang, aimed to expand its power to Suiye through the use of the royal family of the Western Türk Qaghanate.¹¹⁾

2.4. The rise of the Türgish and the Eastern Türk Qaghanate’s invasion

After this, the situation became more complicated. Wuzhile of Türgish, who supported the Tang’s recovery of the Four Garrisons of Anxi increased his power and became independent, while the Eastern Türk Qaghanate did not concede the Tien-shan

area, and entered battles between the Tang and the Tibetan Empire with the former Western Türk Qaghanate among them. The Tang sent Ashina Huseluo again to Suiye in 700, as the Commander-in-Chief of the Expeditionary Pingxi Force (平西軍大總管), and not as Qaghan. According to Naito (1988: 319–321), the reason that Ashina Huseluo did not name himself Qaghan was to communicate his presence as the Tang commander, not the Western Türk Qaghanate’s, to the Eastern Türk Qaghanate who aimed to expand its power into the Former Western Türk Qaghanate area by sending the Inäl Qaghan (拓西可汗). A second goal was to force the former Western Türk Qaghanate settle down by suppressing the Türgish, who were originally subject of the Western Türk Qaghanate.

On the other hand, the Tibetan Empire also took action in 700 by using Ashina Tuizi. According to the Old Tibetan Annals (ver. 1, l. 133), Ton Yabghu Qaghan (Ashina Tuizi) was sent to Dru-gu (Türk)¹²⁾ (Dotson 2009: 101). Although the location of Dru-gu is unknown, there are two interpretations of the inscription. The first is to consider Ashina Tuizi as a reinforcement for Axijibaolu (阿悉吉薄露), who was thought to be of Western Türk Qaghanate origin and who raised a rebellion against the Tang (Moriyasu 1984: 22–23; Naito 1988: 322–323; Beckwith 1987: 62). The interpretation states that Axijibaolu raised the rebellion with the Tibetan Empire, and Ashina Tuizi was sent in response. The other interpretation is to consider that he was sent to the Eastern Türk Qaghanate as a messenger of the united front with the Tibetan Empire (Moriyasu 1984: 23–24). In any case, the Tibetan Empire continued to expand its power in the plain by using Ashina Tuizi.¹³⁾

Contrary to the actions of the Tang and the Tibetan Empire, the Türgish gained control of Suiye. After Wuzhile seized Suiye and banished Ashina Huseluo, the Türgish became the strongest force in the Tien-shan area (Naito 1988: 324–328). Nevertheless, “Suiye Garrison” is still seen in some of the Chinese documents because the Tang

normally placed the governor-general of Suiye by compromise with the Türgish. This does not mean that Suiye was once again substantially under the Tang's control (Matsuda 1970: 367–369).

After Wuzhile's death in 706, his son Suoge (娑葛) succeeded as leader of Türgish, while the Tang sent Ashina Huaidao (阿史那懷道)¹⁴, a son of Ashina Huseluo, who was appointed as Shixing Qaghan, and appointed Suoge as the Dujun (Commander-in-chief) of the Walu Prefecture (嗚鹿州都督) and the Huaide Commandery Prince (懷德郡王) (Naito 1988: 335–339). T. Saito points out the reason Suoge was given the title of Dujun, not Qaghan, is that the Tang tried to appease him with neighboring states. He also argued that Ashina Huaidao, who was the true royal family of the Western Türk Qaghanate and Shixing Qaghan was sent because the Tang were trying to appeal the existence of the “true heir to the Qaghan” of the Western Türk Qaghanate and show Ashina Huaidao's higher ranking over Suoge (Saito 1991: 36–37). Moreover, the Censor-in-chief (御史大夫), Jie Wan (解琬), was sent to Suoge to bestow on him the title of the Jinhe Commandery Prince (金河郡王) in 708.

The good relationship between the Tang and Suoge temporarily deteriorated: Tang attacked Suoge in 708 by deferring to Ashina Zhongjie (阿史那忠節)'s opinion, who was a subordinate of Wuzhile. Suoge confronted the Tang by declaring himself Qaghan, while the Tang appointed Ashina Xian (阿史那獻), a son of the Xingxiwang Qaghan Ashina Yuanqing (and a younger brother of Ashina Tuizi), as “Shixing Qaghan” and sent him to the region (Moriyasu 1984: 24–25; Naito 1988: 346–349). Although the Tibetan Empire supported the Tang, it was defeated by Suoge, and Ashina Zhongjie was captured (Moriyasu 1984: 24–25; Naito 1988: 346–349). Therefore, the Tang made a great concession to Suoge and appointed him as the “Fourteen Tribes Qaghan (十四姓可汗)” in 709 [Jiutangshu 97, p. 3048]. “Fourteen Tribes” are presumed to be the Türgish clan, which was one of the Ten Tribe that was divided into black

and yellow tribes, three clans of Turkic Qarluq (葛邏祿), and were the “Ten Tribes” (Matsuda 1970: 370–371). Naito assumes that “Shixing Qaghan” of Ashina Xian was abolished, as this title, that Suoge used when he declared himself as Qaghan in 708, was ratified by the Tang, and included the “Ten Tribes” (Naito 1988: 352–354).

This appointment of Qaghan caused the Tang to approve Suoge's rulership over the former Western Türk Qaghanate in both name and reality (Saito 1991: 37). According to Osawa, this appointment was implemented through the mediation of the Qırqız (黠戛斯) located north of the Mongolian Plateau (Osawa 1996: 12–16). The reason for the good relationship among the Tang, the Türgish and the Qırqız was to confront the Second Türk Qaghanate, which had become strong under the rule of Qapghan Qaghan (黠戛可汗: 691–716) and had appointed Bars-Bäg as a puppet Qaghan in the first half of 708.¹⁵ Bars-Bäg secretly formed a relationship with the Tang to overthrow Qapghan Qaghan, despite the fact that he was a puppet Qaghan of the Eastern Türk Qaghanate. The Eastern Türk Qaghanate attacked the Qırqız and killed Bars-Bäg in 710, and attacked the Türgish and killed Suoge, bringing the Türgish Khaganate to extinction (Iwasa 1936: 195–201; Naito 1988: 360–361).

After the death of Suoge, Suiye became temporarily a blank area. The Tang appointed Ashina Xian as “the Pacification Commissioner of Shixing (安撫招慰十姓大使) and the Xingxiwang Qaghan” to control the former Western Türk Qaghanate areas (Naito 1988: 82–85; Saito 1991: 38). Nevertheless, Suiye was seized in 714 by Dou Dan (都担) from the Huluwu tribe (胡祿屋部) which was a group of the former Western Türk Qaghanate (Matsuda 1970: 373; Naito 1988: 72–75). Dou Dan's war did not lead to a serious takeover, because it was suppressed by Ashina Xian who was appointed as Qixi Military Commissioner (碯西節度使) in the same year [Zizhi Tongjian 211, “the Second Year of Kaiyuan (714)”, p. 6698]. Furthermore, according

to Naito, the Eastern Türk Qaghanate attacked the Beiting Protectorate (北庭都護府) to occupy Suiye beyond the Beiting Protectorate (Naito 1995: 36–37). However, this was ceased with the death of Tonga Tegin (同俄特勤), a son of the Qapghan Qaghan, and the Eastern Türk Qaghanate retreated (Naito 1995: 34–35).

On the other hand, the Türgish were revived by Sulu (蘇祿) from black tribe of the Türgish which had been disrupted by the Eastern Türk Qaghanate (Matsuda 1970: 371; Naito 1988: 354–355), and became independent as a Khagan in 716 [Zizhi Tongjian 211, “the Fourth Year of Kaiyuan (716)” , p. 6698]. The Tang appointed Ashina Xian as the Shixing Qaghan again in 716 or 717, and appointed Sulu as the Dujun, to appease Sulu and show Ashina Xian’s dominance (Saito 1991: 40–42). However, this situation was ended by Ashina Xian’s dogmatic suppression of Sulu and his defeat in June and July in 717. The Tang then had to support Sulu’s control (Saito 1991: 43) and appointed him as the Shunguogong Duke (順國公) in 718, and as Zhongshun Qaghan (忠順可汗) in 719. This means that the Tang had given him the title of the Qaghan, which had not been granted thus far [Cefu Yuanguai (冊府元龜) 964, Ming Edition, p. 11343].

The Tang ceded control over Suiye nominally in 719 by adding Karashahr Garrison to the Four Garrisons. Hereafter, the Tang never reincorporated Suiye into their sphere of influence (Matsuda 1970: 384–391). What prompted the Tang to cede control of Suiye is unclear as the only reference to this event is the following.

Anxi Military Commissioner (安西節度使) Tang Jiahui (湯嘉惠) presented the emperor the petition of adding Karashahr to the Four Garrisons, because the Shixing Qaghan hoped to dwell in Suiye. [Xintangshu 221a, p. 6230]

Concerning the Shixing Qaghan who hoped to move to Suiye, some identify him as Ashina Xian

(Matsuda 1970: 382; Ise 1955: 293–300; Naito 1988: 86–87), and others as Sulu (Sato 1943: 78–88; Zhao (周) 1978: 143–147; Xue (薛) 1984: 83; Beckwith 1987: 90). T. Saito supports the opinion that it was Sulu for the following reasons: First, Sulu received a promotion from the rule of Dujun to a Duke in the Tang court, and was appointed as Zhongshun Qaghan in 719, which meant that the relationship between him and the Tang would have been a good one. Therefore, the Tang would have ceded control of Suiye to Shixing Qaghan when appointing Zhongshun Qaghan. Secondly, Shixing Qaghan Ashina Xian was not described in 719, although he was around Suiye in 716 and 717; third, the situation in 719 was so unstable that Tang could not send Shixing Qaghan to Suiye. Thirdly, the editor of the Xintangshu may have mistaken Sulu for Shixing Qaghan.

On the other hand, A. Liu discusses the documents describing the situation of that time (Liu 2002), including the letter sent by Xianzhi (獻之), the Yanpo Area Commander of the Huluwu tribe (胡祿屋部塩泊都督府) of the five tribes of Duolu, unearthed from the Shanshan District (鄯善縣) in Turfan. According to Liu’s interpretation, Xianzhi was requisitioned to the force to Dingyuan by the “Commander-in-chief of the Campaign to Dingyuan (定遠道行軍大總管) and Qaghan” Ashina Xian in November 717, and finally returned to his village near Turfan in 721 (Liu 2002: 178–186). Furthermore, the force to Dingyuan was in the eastern Tien-shan area for defending from an attack from the Eastern Türk Qaghanate in 717 (Liu 2002: 201). Liu insists that the “Shixing Qaghan” in the Xintangshu was Ashina Xian, because the authority of Ashina Xian spread to the areas of the Western Türk Qaghanate in 721. However, there are some problems in the discussion of the “Shixing Qaghan in Suiye” such as the fact that Ashina Xian was called only “Qaghan” in the letter, and that the sphere of Xianzhi’s activity was the eastern Tien-shan area, as Liu points out. Therefore, the author follows the

Saito's opinion, even if these two opinions should be verified in detail in the future. In any case, Suiye was rarely described in Chinese documents after it was under the control of Sulu.¹⁶⁾

As seen above, the history of the eastern Turkestan including Suiye is complex. However, the point is that the authorities of the Ashina family, the royal family of the Western Türk Qaghanate, lasted for a long time. Suiye was under the authority of the Western Türk Qaghanate, and therefore, the Tang and the Tibetan Empire tried to expand their power to Suiye by using the puppet Qaghan. The Ashina family lost power after the rise of the Türgish. Afterwards, the Ashina family vanished from history through the rise of Qarluq and Kara-Khanid Khanate.

3. Du Huaibao Stele

In this chapter, the Du Huaibao stele, which is written in Chinese and was unearthed at Ak-Beshim site, will be discussed.

Although some scholars have tried to associate Suiye with Ak-Beshim (Clauson 1961: 4; Zhang 1979: 463), the theory was not confirmed due to the lack of strong evidence. However, a Chinese stele identifying Ak-Beshim as Suiye was uncovered in 1982.

This stele was first published by V. D. Goryacheva and S. Y. Peregudova (1996: 185–187; c.f. Kato 1997: 148–149). Naito presents the description that was offered as the rubbed copy made by K. Kawasaki and considers the stele's historical background (Naito 1997). Furthermore, Y. I. Ludo-Lesnichenko and Xue also mention the stela, based on Naito's theory (Ludo-Lesnichenko 2002: 123–126; Xue: 133–137), while Zhao partially alters Naito's views (Zhao 2000).

The description of the stele is shown below. This is the revised translation presented by Naito, based on the inspection of the rubbed copy, offered by Kawasaki.¹⁷⁾

1. Vice-commander
2. of Anxi, in Suiye, Pacifier of (碎葉鎮庄),
3. the Ten Tribes (十姓使), Supreme Pillar of State (上柱国)
4. Du Huaibao... from the top
5. for the Tianhuang (天皇),¹⁸⁾ and to the bottom
6. ... (for) my deceased mother
7. ...
8. Fajie (法界) ...¹⁹⁾
9. wishes (the mother) getting
10. repose the soul, and builds a Buddha statue
11. and two statues of Bodhisattva.

As Naito points out, this stele is a pedestal (32.6 cm wide, 11 cm deep and 13.5 cm high) of a Buddha statue offered by Du Huaibao to his deceased mother (Naito 1997: 151–152).

Then, who was Du Huaibao? Unfortunately, his biography does not mention any details concerning himself, and the description below is the only document that mentions him.

Zhang Yue (張說) "Memorial Inscription of the Dujun of Xia Prefecture, Wang from Taiyuan (夏州都督太原王公神道碑)" [Wenyuan Yinghua (文苑英華) 93 p. 4804]

When Pei Xingjian (裴行儉) caught Li Zhefu (李遮旬) actually, he nominally insisted to help assume a Persian prince. Then he found Wang Fangyi's great high spirits. Pei soon recommended him. An imperial ordinance was given, and Wang became the vice-commander of the force to Persia (波斯軍副使), holding the Anxi Protectorate, and the person [of Merit Title (勳官)] was promoted to the Supreme Pillar of State, while (Du) Huaibao transferred from the Anxi Protectorate to the Prefect of the Ting Prefecture (庭州刺史). Chinese and foreign people could not arrive at the opposite side of the great city Suiye even they walk much, because it had complex streets and castles... (partially omitted) ... Not long after, another imperial ordinance was given to

appoint Wang as the Prefect of the Ting Prefecture, and had him control the Jinshan Protector-general (金山都護) (latter Beiting Protectorate) as the Commander of the Persia (波斯使). The predecessor Du Huaibao controlled Anxi in instead and guarded Suiye... (omitted)

This document describes the stele built in front of the tomb of Wang Fangyi, and was written by Zhang Yue. In the first half of the document, the 677 rebellion of Ashina Duzhi and Li Zhefu of the Chumukun tribe is recorded. Pei Xingjian made a surprise attack and captured them in 679 (Moriyasu 1984: 14–16; Naito 1988: 275–280). This time, Pei captured them by having the force invade the former Western Türk Qaghanate area, nominally aiming to leave the Persian prince to return home, calling himself as the “安撫大食使 (the Pacification Commissioner of the Arab).” In the next sentence, Wang Fangyi was appointed as the Anxi Protectorate instead of Du Huaibao. As noted above, Wang Fangyi established the walls of Suiye Garrison in September 679 [Tang Huiyao (唐会要), 73, p. 1571].

Furthermore, Wang Fangyi was transferred to be the prefect of the Ting Prefecture, and Du Huaibao was assigned to Suiye instead, which Naito and Ludo-Lesnichenko consider to have occurred in late 679 or early 680 (Naito 1997: 154; Ludo-Lesnichenko 2002: 126). Naito suggests that Du Huaibao's title was “碎葉鎮守使 (Guardian of Suiye),” because he “guarded Suiye” according to the tomb stele, along with the vice-commander of Anxi seen in the Du Huaibao Stele. Naito believes that the Du Huaibao Stele has an error in which the printer had written “碎葉鎮压十姓使” instead of “碎葉鎮守使 鎮压十姓使 (the Guardian of Suiye, Pacifier of the Ten Tribes),” because of duplication of the character, “鎮” (Naito 1997: 152–153).

However, the assumption of Du's title has not been proven, because it is based only on the description of the tomb stele. On the other hand,

Xue criticizes Naito's theory as he reads the same words as “碎葉鎮，压十姓使.” Furthermore, he insists Du had the title of “押十姓使”，interpreting “压” to have the same meaning as “押” (Xue 2010: 136–137). However, Xue's theory has also not been proven, because he does not present similar instances of the substitution of “压” for “押.”

Moreover, Zhao suggests that “碎葉鎮压十姓使” is the temporary title for the conquering of the Ten Tribes at Suiye, and assumes it would have changed to the permanent title “碎葉鎮守使” at a later time (Zhao 2000: 388, 390).

As seen above, the interpretation of “碎葉鎮压十姓使” has not been agreed upon. However, the discovery of the Du Huaibao Stele clarified that Du Huaibao was assigned to Suiye as the vice-commander of the Anxi, and therefore, that Ak-Beshim is Suiye Garrison.²⁰⁾

Concerning the date of the stele, Zhao concludes that Du Huaibao was assigned to Suiye in 679 instead of Wang Fangyi and again in 686 when the Four Garrisons of Anxi were surrendered by the Tibetan Empire (Zhao 2000: 389–390). On the other hand, Naito maintains the strict date by the inclusion of the “Ten Tribes” in the Du Huaibao Stele. As mentioned above, the “Ten Tribes” originally signified the ten tribes consisting of the Western Türk Qaghanate, over which the Qaghan Ashina family reigned (Naito 1988: 67). After the fall of the Western Türk Qaghanate, Ashina Duzhi (of a non-royal family), who was captured by Wang Fangyi reorganized the Ten Tribes, and called himself “Shixing Qaghan”，the head of the alliance. Afterwards, the title became established as the Western Türk Qaghanate after its decline (Naito 1988: 67–68).

After 679 when Du Huaibao was assigned to Suiye, the Shixing Qaghan was Ashina Chebu (阿史那車簿) who confronted the Tang and, whose origin was also non-royal. Although he sieged the Gongyue Cheng (弓月城) which is identified as the area around Almalik in the Mongolian Period,²¹⁾ he was

defeated by Wang Fangyi (Naito 1988: 68–72; 284–288). Naito considers the “Pacifier of the Ten Tribes (鎮压十姓使)” in the Du Huaibao Stele to be the title given to Du Huaibao for guarding the Suiye Garrison and defeating Ashina Chebu’s army (Naito 1997: 56). After Ashina Chebu’s rebellion, the Ten Tribes lost power, and Suiye Garrison came under the control of the Tibetan Empire until 685. Therefore, Naito insists on date of 682 for the Du Huaibao Stele (Naito 1997: 157).

Zhao suggests that Du Huaibao may have built the Buddha statues for the repose of his deceased mother during the confusion of the former Western Türk Qaghanate area a few months after the Ashina Chebu rebellion (Zhao 2000: 388). However, according to Naito, the name of the “Ten Tribes” had not been used when Ashina Duzhi raised the rebellion in 677, and the name “Ten Tribes of the Türks (十姓突厥)” was used at this time. Therefore, Naito concludes that the Tang came to perceive the former Western Türk Qaghanate as the “Ten Tribes” during the 680s and 690s (Naito 1988: 60–64). If this is true, at the time of the Ashina Chebu rebellion when the stele was created, the Tang had begun to refer to the group of the former Western Türk Qaghanate as the “Ten Tribes,” which may indicate that the rebellion prompted the Tang use the name. According to this opinion, the date of the stele can be specified between 682 and 686, nevertheless it cannot be defined precisely as 682 in accordance with Naito.

Moreover, the title “天皇” in the Du Huaibao Stele can aid further in the specification of the date. This title was used for only 10 years between 674 and 683 during the reign of the third emperor of the Tang, Gaozong. According to the *Jiutangshu*, Volume 5, “the Chapter of Gaozong” (p. 99), “(咸亨五年八月) 皇帝稱天皇、皇后稱天后” (from August 674, the Gaozong started to call himself as Tianhuang, while the Empress Wu as Tianhou). These titles continued until the death of Gaozong. According to the *Jiutangshu* 6, p. 116, “弘道元年十二

月丁巳、大帝崩、皇太子顯即位、尊天后為皇太后” (4th December 683, the Emperor Gaozong passed away and the Crown Prince Xian was enthroned, while Tianhou was called Huangtaihou for respect).

Unfortunately, this description does not indicate whether the title Tianhuang continued after 683. However, in the *Jiutangshu* 6, p. 116, “(嗣聖元年) 二月戊午、廢皇帝為廬陵王、幽于別所、仍改賜名哲” (6th February (684), the Empress Wu confined the Emperor Zhongzong after dethroning him, called as Luling Prince and changed his name to Zhe), the title “Emperor” is used. According to Luo, changing his title to Tianhuang and Tianhou was a demonstration of Wu’s intension to be equal to the Emperor and superior to the Empress (Luo 2009: 230–231). Therefore, the original purpose of changing titles was to establish the Tianhou, and establishing the Tianhuang was incidental. Furthermore, Luo points out that Wu Zetian did not lose power even after the death of Zhongzong, and finally called herself “Shengmu Shenhuang (聖母神皇)” superior to the Emperor. Following the opinion above, the title of Tianhuang was abolished at the end of 683, because continuing the title was not necessary after the title of Tianhuang had been abolished.

Based on these argument, the description “for Tianhuang” in the Du Huaibao Stele can be considered a wish for the charity of the donation of the Buddha statues to reach the Tianhuang Gaozong as well as the deceased mother. Therefore, the date of the stele should be between 674 and 684, even considering the period until the news of the death of Gaozong would have reached Suiye. In addition, considering Naito’s opinion that the name “Ten Tribes” did not appear before the Ashina Chebu’s rebellion in 682, the stele was most likely made between 682 and 684.

4. Conclusion

As seen above, Suiye in the 7th and 8th centuries was a land of the conflict among the Tang, the

Tibetan Empire and the Eastern Türk Qaghanate, while the Western Turkic Khagante nomads were active in the region. On the one hand, Suiye was an international city with merchants from various places as Xuanzang reported, and on the other hand, it was a rich grassland for the nomads living around the city. Moreover, it was one of the Tang' s strongholds in their control of Inner Asia, even if it was for a short period.

Concerning the topographical importance of Suiye, T. Matsuda pointed out that the city had been crossroads of an oasis trading area in Mawarannahr (Transoxiana) to the west, the nomadic area to the north, and China to the east, and therefore, the Tang tried to rule over this region to control caravan trades in Inner Asia (Matsuda 1970: 430–431). Furthermore, Naito regards Suiye Garrison as the Sogdian commercial city, and considers the city to be a strategic point on the route from the Western Regions to China, or from Altai to Mongolia across the Chuy-Ili Mountains, and the entrance to the eastern world for the colonial cities of the Sogdians (Naito 1988: 37–38). Moreover, M. Arakawa, who studied the Tang' s trading system in the Western Region in detail suggests that the Suiye Garrison' s development under the control of the Tang would show the Tang' s intention to maintain trade routes by taking control of the steppe routes on the northern Tien-Shan from the nomadic countries. Arakawa also thinks that Beiting (Bešbalīq) in Jimsar in the eastern Tien-Shan had a similar role (Arakawa 2010: 507–508, 517).

On one hand, Suiye developed as a pivotal point on the trading route in the Western Regions, and on the other hand, it was the contact point between the nomadic and settled people. K. Iwami points out that Suiye Garrison functioned as the capital city of the Western Türk Qaghanate for foreign envoys and merchants, but not for nomads, which is similar to Ordu-Balīq (current Kharbalgas archaeological site), the capital city of the Eastern Uyghur Khaganate which demolished the Second Türk Qaghanate

and ruled over the Mongolian Plateau in the mid-8th century, and Qaraqorum, the capital city of the Mongolian Empire in the 13th century (2008: 49). It will be necessary to reconsider Suiye Garrison' s historical importance in the future, as the relationship between nomadic and settled peoples must be understood to further elaborate the history of the Chinese and Inner Asian.²²⁾

Therefore, excavations at Ak-Beshim are quite important. The author hopes that further excavations will result in new relations concerning the situations of Inner Asian commercial cities, the relationship between nomads and urbans, and Tang' s rulership over barbarian peoples.

Notes

1) This is a revised article based on presentation given at the symposium entitled “Archaeological Sites in the Chuy Valley, the Kyrgyz Republic” held in January, 2011.

2) Ishtämi Qaghan was called as “Ishtämi Qaghan” in the Orkhon Inscriptions written in Old Turkic alphabet (Tekin 1988: 8–9, 70), while transliterated as “室点密可汗” or “瑟帝米可汗” in Chinese documents (Matsuda 1970: 256). He has been identified as Dizaboulos (or Dilziboulos, Silziboulos) in Greek documents written by Menandros (Naito 1988: 399).

3) Concerning the genealogy of the Qaghans of the Western Türk Qaghanate, see Naito (1988: 256).

4) The identification of Suiye Garrison as Ak-Beshim will be discussed below.

5) The author follows the De la Vaissière’ s theory that Xuanzang departed from Chang’ an in 629 and visited Suiye in 630 (De la Vaissière 2010: 166).

6) The person called “葉護可汗” in this document was identified as Ton Yabghu Qaghan (統葉護可汗) for a long time. However, De la Vaissière clarified his identity as Si Yabghu Qaghan, the next Qaghan of Ton Yabghu Qaghan (De la Vaissière 2010: 165–166).

7) The loose-rein control of oasis regions, where the Four Garrisons of Anxi was located, was a double ruling system of the Area Command (都督府) and the king as seen previously and in the Tang’ s guardian force (鎮守軍) (Moriyasu 1984: 52–54; Zhang and Rong 1987: 90–91; Zang and Rong 2008: 111–117; Arakawa 1997: 10–16).

8) Concerning the capture of Ashina Helu, see Matsuda (1970: 341–351).

9) In this article, the nation governed by the Ashina family before the fall of Ashina Helu’ s government is called “the Western Türk Qaghanate,” while the tribes constituting the Western Türk Qaghanate after its fall is referred to as “the former Western Türk Qaghanate.”

10) Concerning the loose-rein control of survivors of the Western Türk Qaghanates and the establishment of the Second Türk Qaghanate, see Iwasa 1936; Iwami 1998; Saito 2009; 2011.

11) Recently, the authority of the Turkic Qaghans starting with Bumïn Qaghan, the founder of the Eastern Türk Qaghanate has been thought to be important in the legitimacy of rulership throughout the Eastern Türk Qaghanate’ s history. Some aspects of this have been clarified such as the Second Türk Qaghanate creating a false genealogy that displayed a direct line from Bumïn Qaghan (Suzuki 2008: 147–145), and the Tang making Ashina Gande (阿史那感德), a direct descendant of Bumin Qaghan, the puppet Qaghan in control of the survivors of the Eastern Türk Qaghanate (Saito 2011: 25–31). Therefore, it is necessary to note the Ashina family’ s authority over the Western Türks.

12) Dru-gu in the Old Tibetan document is the transliteration of Türk, meaning general Turkic peoples. See Moriyasu (1977: 14–16).

13) Beckwith insisted that he was sent to the Western Türk Qaghanate, because Dru-gu referred to the Western Türk Qaghanate, as the Eastern Türk Qaghanate was called as “Bug-čhor” in the Old Tibetan Annals (Beckwith 1987: 63–64, n. 56). However, the author has pointed out that in another article (Saito 2011), ‘Bug-čhor is not the term used to refer to the Eastern Türk Qaghanate itself, but the groups who survived the purge during the enthronement of the Bilgä Qaghan, led by the son(s?) of the predecessor Mochuo Qaghan.

Therefore, the Beckwith's theory should be reconsidered.

14) Ashina Huaidao's wife was from the An family of the Six Sogdian Prefecture (六胡州), according to the tomb inscriptions of Ashina Huaidao and his wife (Ishikawa 2011: 28, 44).

15) Osawa (1996: 1–6). Although Naito insists that Bars-Bäg's origin was the former Western Türk Qaghanate (Naito 1988: 39–40; 1995: 37–39), the author follows Osawa's theory that concludes that he was of Qırqız origin based on the Orkhon inscriptions.

16) The fact that the walls of Suiye had been destroyed by the attack of the Beiting Military Commissioner (北庭節度使) Wang Zhengjian (王正見) in 748, and that the Dayun temple (大雲寺) survived when Du Huan visited Suiye were reported in the *Jingxingji* (『經行記』) by Du Huan (written after 762, original does not exist) and in the *Tongdian* (通典) 193 p. 5275.

17) In addition to Naito's interpretation of inscription, Zhao (2000: 384), Ludo-Lesnichenko (2002: 124) and Xue (2010: 134–135) also provide original interpretations.

18) Although Zhao reconstructed this as “天子” (emperor) (Zhao 2000: 384), Professor Yutaka Yoshida suggested personally to read this as “天皇.” The author would like to thank him sincerely for his advice.

19) Naito and Ludo-Lesnichenko insist the character is “晉” (Naito 1997: 151; Ludo-Lesnichenko 2002: 124), despite the fact that it looks like “普” in the rubbed copy. Zhao (2000: 384) and Xue (2010: 134–135) also interpreted it as “普.”

20) Some have tried to associate Suiye Garrison with

other places. For instance, Wang (1994: 193–194) insisted it was in the Dujun of Karashahr's territory, based on *Xintangshu* 43b, p. 1134. His theory does not hold after the discovery of the Du Huaibao Stele. Wu (1978) criticized Wang's theory based on interpretation of Chinese documents, before the discovery of the stele.

21) Concerning the identification of Gongyue Cheng, see Matsuda (1970: 336–338).

22) For instance, there has been discussion that the mixed region of nomads and settled people created dynamism in the Chinese and the Inner Asian histories. Although the name of the region differs according to individual researchers, Iwami (1999), Moriyasu (2007: 60–61) and Seo (2009: 113–116) provide an overview. Moreover, Moribe (2010), Yamashita (2008; 2011), Nishimura (2005; 2008; 2009), Murai (2003; 2008; 2010) and Suzuki (2006; 2011) consider the historical development in the region.

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Appendix 2 AK-Beshim Excavation Contexts

Area A Contexts

Season	Area	Context	Type	Level	Description
2012	A1	1	Topsoil	Surface	-
2012	A1	2	Layer	1	Sediments below the surface layer (20cm below)
2012	A1	3	Mixed	-	Modern Irrigation ditch
2012	A1	4	Mixed	-	Modern Irrigation ditch
2012	A1	5	Mixed	-	Modern Irrigation ditch (?), Animal disturbance
2012	A1	6	Mixed	-	Modern Irrigation ditch (?). Continuation of A1-05
2012	A1	7	Layer	1	Sediments below A1-02 (20cm below). Overall square
2012	A1	8	Material concentration	1	Pottery concentration in a shallow depression.
2012	A1	9	Layer	1	Sediments below A1-07 (15cm). Overall square
2012	A1	10	Room fill	1	Sediments in Room 1
2012	A1	11	Room fill	1	Sediments in Room 2
2012	A1	12	Wall	1	Isolated wall
2012	A1	13	Wall	1	Wall around Rooms 1 and 2
2012	A1	14	Mixed	-	Animal disturbance
2012	A1	15	Material concentration	1	Brick concentration of fallen wall
2012	A1	16	Layer	1	Sediments behind Rooms 1 and 2
2012	A1	17	Material concentration	1	Materials from S-W Corner (bones, fragmented bricks, wood, etc..)
2012	A1	18	Wall	1	Wall
2012	A1	19	Wall	1	Wall
2012	A1	20	Layer	1	Sediments in the S part (10cm)
2012	A1	21	Layer	1	Sediments in the S part (10cm)
2012	A1	22	Layer	1	Sediments in the N-E part (10cm)
2012	A1	23	Material concentration	1	Concentration of fragmented pottery
2012	A1	24	Layer	1	No description
2012	A1	25	Pit fill	1	Pit in the Room 2 near S wall (between Rooms 2 and 4)
2012	A1	26	Wall	1	N-S wall on the S part (=B1-102).
2012	A1	27	Material concentration	1	Concentration of bones in the middle of Room 1
2012	A1	28	Room fill	1	Sediments in the S-E part of Room 4 (5-10cm)
2012	A1	29	Room fill	1	Sediments in the S-E part of Room 1 (10-15cm)
2012	A1	30	Pit fill	1	Pit near the S wall of Square A1
2012	A1	31	Pit fill	1	Pit near the S wall of Square A1
2012	A1	32	Wall	1	Wall from the E wall of Square A1 (Room 2 E wall)
2012	A1	33	Sufa	1	Sufa/Bench outer wall in the Room 4
2012	A1	34	Sufa	1	Sufa/Bench in the Room 4
2012	A1	35	Room fill	1	Sediments in Room 3
2012	A1	36	Pit fill	1	Pit
2012	A1	37	Pit fill	1	Pit
2012	A1	38	Mixed	-	Animal Disturbance
2012	A1	39	Mixed	-	Animal Disturbance
2012	A1	40	Mixed	-	Animal Disturbance
2012	A1	41	Mixed	-	Animal Disturbance
2012	A1	42	Room fill	1	Room, Kitchen?
2012	A1	43	Oven fill	1	Oven with brick wall
2012	A1	44	Room fill?	1	Room?
2012	A1	45	Pit fill	1	Pit
2012	A1	46	Ash deposit	1	Shall depression with ashy sediments
2012	A1	47	Mixed	-	Animal Disturbance
2012	A1	48	Oven fill	1	Oven with brick wall and burnt orange line
2012	A1	49	Material concentration	1	Isolated bone
2012	A1	50	Material concentration	1	Scattered mudbricks
2012	A1	51	Material concentration	1	Isolated wood
2012	A1	52	Material concentration	1	Fragmented potttery below scattered bricks
2012	A1	53	Pit fill	1	Pit
2012	A1	54	Oven fill	1	Oven
2012	A1	55	Room fill/floor	1	Room fill/floor
2012	A1	56	-	-	No description
2012	A1	57	Mixed?	1	Complete bone in a possible distubed pit
2012	A1	58	Material concentration	1	Collapsed mudbricks (originally A1-35, overlapped)
2013	A1	101	Mixed	-	Artifacts collected during the cleaning
-	A1	201	Floor	1	Floor of the Western room, Unit 1
-	A1	202	Foor	1	Floor of the Central room, Unit 1
-	A1	203	Floor	1	Floor of the main room, Unit 2 (=B1-101)
-	A1	204	Floor	1	Floor of the subsidiary room, Unit 2
-	A1	205	Oven	1	Oven in the subsidiary room (A1-204), Unit 2
-	A1	206	Sufa	1	Eastern sufa of the Western room (A1-201), Unit 1
-	A1	207	Sufa	1	Western sufa of the Western room (A1-201), Unit 1
-	A1	208	Sufa	1	Western sufa of the Central room (A1-202), Unit 1

Season	Area	Context	Type	Level	Description
2012	A2	1	Topsoil	Surface	-
2012	A2	2	Topsoil	Surface	-
2012	A2	3	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	4	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	5	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	6	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	7	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	8	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	9	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	10	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	11	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	12	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	13	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	14	Mixed	-	Modern Irrigation Ditch or Animal Disturbance
2012	A2	15	Layer	1	Sediments below A2-02. Overall square
2012	A2	16	Wall	1	
2012	A2	17	Layer	1	Sediments below A2-15. Overall square
2012	A2	18	Harden surface	1	Hard surface below A2-15
2012	A2	19	Wall fragments	1	
2012	A2	20	Wall	1	
2012	A2	21	Wall	1	
2012	A2	22	Wall	1	
2012	A2	23	Room fill	1	Sediments in a room
2012	A2	24	Room fill	1	Sediments in a room
2012	A2	25	Room fill	1	Sediments in a room
2012	A2	26	Room fill	1	Sediments in a room
2012	A2	27	Layer	1	Sediments below A2-17. Overall square
2012	A2	28	Coin	1	Coin discovered in the A2-27
2012	A2	29	Layer	1	Sediments below A2-27. Overall square
2012	A2	30	Trench	1	Trench dug at the northeastern corner of A2
2012	A2	31	Coin	1	One coin is discovered in the trench (A2-30)
2012	A2	32	Surface of the main street	1	At the bottom of trench (A2-30), the surface of the main street was discovered (=B2-101). The surface of the main street includes a number of slags, pottery sherds and animal bones
2012	A2	33	Wall	1	
2012	A2	34	Mixed	-	Objects collected during the cleaning
2013	A2	101	Layer	1	
2013	A2	102	Iron Object	1	Discovered in A2-101
2013	A2	103	Roof tile	1	Discovered in A2-101
2013	A2	104	Layer	1	Under A2-101. Just above the main street
2013	A2	105	Room fill	1	Room fill in the room 3 of Unit 1
2013	A2	106	Cooking Pot	1	Cooking pot discovered in the A2-105
-	A2	201	Floor	1	Floor of the Eastern room, Unit 1
-	A2	202	Wall	1	Northern wall of the Eastern room, Unit 1
-	A2	203	Wall	1	Eastern wall of the Eastern room, Unit 1
-	A2	204	Wall	1	Western wall of the main room, Unit 5 (=B2-103)
2012	A3	1	Topsoil	-	Topsoil
2012	A3	2	Layer	1	Sediments of overall square
2012	A3	3	Layer	1	Sediments of overall square (Surface examination)
2012	A3	4	-	1	No description
2012	A3	5	Material concentration	1	bronze and beads
2012	A3	6	Material concentration	1	Cattle bone
2012	A3	7	Material concentration	1	Pottery and iron
2013	A3	101	Mixed	-	Modern Disturbance
2013	A3	102	Mixed	-	Modern Disturbance
2013	A3	103	Room fill	1	Sediments in the main room of Unit 4
2013	A3	104	Topsoil	Surface	-
2013	A3	105	Pottery	Surface	Pottery discovered in the A3-104
2013	A3	106			
2013	A3	107	Pottery	Surface	Pottery discovered in the A3-104
2013	A3	108	Room fill	Surface	Sediments in the main room of Unit 4
2013	A3	109	Mixed	-	Section wall
2013	A3	110	Sediment	1	Sediment on the alley
2013	A3	111	Mixed	-	Modern disturbance
2013	A3	112	Mixed	-	Modern disturbance
2013	A3	113	Sufa fill	1	Sufa fill
2013	A3	114	Room fill	1	Room fill in the subsidiary room of Unit 4
2013	A3	115	Oven fill	1	Fill of the oven in the subsidiary room of Unit 4
-	A3	201	Floor	1	Floor of the main room, Unit 4
-	A3	202	Wall	1	Northern wall of the main room, Unit 4
-	A3	203	Wall	1	Southern wall of the main room, Unit 4
-	A3	204	Wall	1	Western wall of the main room, Unit 4
-	A3	205	Wall	1	Eastern wall of the main room, Unit 4
-	A3	206	Sufa	1	Sufa of the Unit 4
-	A3	207	Wall	1	Northern wall of the Sufa, Unit 4
-	A3	208	Wall	1	Western wall of the Unit 4

Season	Area	Context	Type	Level	Description
-	A3	209	Wall	1	Southern wall of the Unit 4
-	A3	210	Floor	1	Floor of the subsidiary room, Unit 4
-	A3	211	Wall	1	Western wall of the subsidiary room, Unit 4
-	A3	212	Wall	1	Partition wall (?) of the Northern part of the Unit 4
-	A3	213	Floor	1	Entrance of the Unit 4
-	A3	214	Wall	1	Northern wall of the Unit 5
-	A3	215	Alley	1	Alley itself
-	A3	216	Oven	1	Oven in the subsidiary room (A3-210), Unit 4

Area B Contexts

Season	Area	Context	Type	Level	Description
2013	B1	1	Topsoil	Surface	-
2013	B1	2	Mixed	-	Modern disturbance
2013	B1	3	Mixed	-	Modern disturbance
2013	B1	4	Sediment	1	Outside Unit 3
2013	B1	5	Room fill	1	Room fill in the main room of Unit 3
2013	B1	6	Oven fill	1	Oven fill
2013	B1	7	Sufa fill	1	Sufa fill in the main room of Unit3
-	B1	101	Floor	1	Floor of the main room, Unit 2 (=A1-203)
-	B1	102	Wall	1	Western wall of the main room, Unit 2 (=A1-26)
-	B1	103	Wall	1	Southern wall of the Unit 2
-	B1	104	Alley	1	Alley itself
-	B1	105	Floor	1	Floor of the main room, Unit 3
-	B1	106	Wall	1	Northern wall of the main room, Unit 3
-	B1	107	Wall	1	Western room of the main room, Unit 3
-	B1	108	Wall	1	Eastern wall of the main room, Unit 3
-	B1	109	Sufa	1	Sufa of the Unti 3
-	B1	110	Wall	1	Northern wall of the Sufa, Unit 3
-	B1	111	Wall	1	Western wall of the Sufa, Unit 3
-	B1	112	Floor	1	Floor of the subsidiary room (?), Unit 3
-	B1	113	Oven	1	Oven in the Unit 3
2013	B2	1	Topsoil	Surface	-
2013	B2	2	Topsoil	Surface	Under B2-1
2013	B2	3	Spindle whorl	Surface	Discovered in B2-2
2013	B2	4	Room fill	1	Room fill of the main room of Unit 5
2013	B2	5	Room fill	1	Room fill of the main room of Unit 6
2013	B2	6	Pottery	1	Discovered in B2-5
2013	B2	7	coin	1	Discovered in B2-5
2013	B2	8	Pottery fragment	1	Discovered in B2-5
2013	B2	9	Bronze	1	Discovered in B2-5
-	B2	101	Surface of the main street	1	Surface of the main street itself (=A2-32)
-	B2	102	Floor	1	Floor of the main room, Unit 5 (=B3-101)
-	B2	103	Wall	1	Western wall of the Unit 5 (=A2-204)
-	B2	104	Wall	1	Southern wall of the main room, Unit 5 (=B3-102)
-	B2	105	Floor	1	Floor of the main room, Unit 6 (=B3-107)
-	B2	106	Wall	1	Partition wall (?) in the main room (B2-105; B3-107), Unit 6
-	B2	107	Wall	1	Western wall of the Unit 6
-	B2	108	Wall	1	Southern wall of the Unit 6
2013	B3	1	Topsoil	Surface	-
2013	B3	2	Oven fill	1	Soil sample of the oven (B3-106), Unit 5 (originally B3-2')
2013	B3	3	Pottery	Surface	Discovered in the B3-1
2013	B3	4	Bronze Item	Surface	Discovered in the B3-1 (originally B3-2, overlapped)
-	B3	101	Floor	1	Floor of the main room, Unit 5 (=B2-102)
-	B3	102	Wall	1	Southern wall of the main room, Unit 5 (=B2-104)
-	B3	103	Wall	1	Western wall of the main room, Unit 5
-	B3	104	Floor	1	Floor of the subsidiary room, Unit 5
-	B3	105	Wall	1	Southern wall of the subsidiary room, Unit 5
-	B3	106	Oven	1	Oven in the Unit 5
-	B3	107	Floor	1	Floor of the main room, Unit 6 (=B2-105)
-	B3	108	Floor	1	Floor of the subsidiary room, Unit 6
-	B3	109	Wall	1	Western wall of the subsidiary room, Unit 6
-	B3	110	Oven	1	Oven in the Unit 6
-	B3	111	Wall	1	Eastern wall of the subsidiary room, Unit 5
-	B3	112	Wall	1	Eastern wall of the subsidiary room, Unit 6
-	B3	113	Wall	1	Wall of the Eastern part of the Sq.

Appendix 3 Measurement Values of Animal Bones Excavated from Ak-Beshim

Measurement values (*Ovis*)

Atlas

Bone#	note	GB	GL	GLF	BFcd
164		65.6	25.2	44.8	46.4

Scapula

Bone#	note	BG	LG	GLP	SLC
33		23.5	30	39.1	23.7
132	wild?	29.7	38.8	45	29.7
142		24.2	29.2	36.5	22.7
143		24.7	28.9	36.1	21.3
144		22.9			23.2
145		23.8	28.1	36.4	20.2
154		25	29.6	37.3	22.3
162		22.8	29.8	36.2	20.8
187		24.6	31.2	39.4	21.8
210		23.9	28.7	34.5	21.3
219					21.1
276		21.8	30.8	38.6	22.5
277		22.6	28.9	36.3	20.9

Humerus

Bone#	note	Bd	BT	HTC	Ddm
2		34.7	32	15.8	30.6
36			31.5	16.3	
65		29.9	27.9	13.4	25.3
68		37.4	36	17.5	
69		35.1	32.8	16.2	30
70		31	27.8	14.2	
76		33.4	32	16.5	
83		36.6	35.1	17.9	32.9
93		35	32.8	16.8	31.7
141		34.1	32.5	15.9	30.2
155		36.2	34	17.4	33.5
208		37.6	36.9	17.4	31.2
252		32.4		16.3	29.3
274		29.4	29.1	14.6	27.8
275		35.6	33.1	16.3	30.8
290		37.4	35.4	17.6	32.5
291		33	31.2	16.7	
301		35	34.7	16.4	30.7
312		31.7	29.7	14.7	28.1

Radius

Bone#	note	Bp	BFp	Dp	SD	DD	Bd	BFd	Dd	GL
3		35.5	33.1	19	17.9					
29		34.6	31.6	16.9	18					
39		34.9	32.5	17.4	19.3					
48		33.6	31.1	17.6						
56		35.8	31.8	17.7	16.9		31.7	25.2	20.6	162.1
109		34.4	31.3	18.4						
119							31.1	24.1	19.8	
133		34.4	30.6	16.9						
193		40.3	35.9	20.8						
218		37.7	34.3	18.9	20.7	10.7				
230		38.5	34.9	19.6	19.4	10.2				
231		38.1	34.1	18.7						
256		32.4	29.8	17.5	15.9	8.8	31	25.1	22.2	151.4
289		33.4	29.6	17	17.6	11				
294		32.9	30.2	17.8	17	9.7				

Ulna

Bone#	note	DPA	SDO	BPC
134	unfused	33.6	27.9	19.9
189		27	23.9	19.9
273		31.3		23

Metacarpal

Bone#	note	Bp	Dp	SD	DD	Bd	Dd	GL
27		25.1	17.7					
28						25.8	16.9	
80	unfused					25.7	16.9	
125		25.5	18					
135	young	25.2	17.8					
169		29.9	20.1					
253						26	16.9	
255		26.4	19.2	16.3	13.8			
257		27.6	18.5	19.7	10.8			
268		24.9	18.3	14.5	10.8	27.4	16.7	124.6
269		30	20.4					

1st Phalanx
(Anterior)

Bone#	note	Bp	SD	Bd	GLpe
319	fusing	13.8	12.5	13.6	39.4

Pelvis

Bone#	note	LA
32		33.5
111		33.9

Femur

Bone#	note	Bd	Dd
172	fusing	40.2	
239		49.5	55.9

Tibia

Bone#	note	SD	DD	Bd	Dd
5				33.4	25.4
6				28.2	21.3
7	unfused			33.1	25.1
23				29.7	23.2
24				30.6	22.3
30				31.4	25
57				28	21
66	unfused			29.2	23
84	fusing			27.5	21
94				29.9	22.4
96	unfused			29	23.3
110				30.2	22.8
118				33.1	22.8
124				30.3	24
140				31.6	22.6
168				28.9	20.9
188				32	24
194				28.9	22.9
197		15.8		28.8	21.9
198	fusing			30.3	22.4
240		15.5	13.8	28	21.9
241				30.3	21.7
251				28.3	20.9
270	fusing			32	22.7
271				30.5	22.5
287		16.1	13.1	25.8	20.7
304	unfused			31.8	24.2
305				29.9	22.1

Astragalus

Bone#	note	GLI	DI	GLm	Dm	Bd
22		35.3	19	33.4	20.1	22.6
25		30.2	17.5	29.3	18.9	20.2
49		31	17.4	29.2	18.8	19.5
67		34.1	18.2	32.3	19.2	21.8
85		32.3	18.1	31	20.4	21.7
95		32.2	18.5	33.2	18.6	20.6
129		31.9	18.7	31.4	19.1	20.9
137		33	18.2	30.7	19.1	20.7
139	game piece	32.8	18.2	30.7	19.8	21.4
156		32.5	18.1	30.1	17.8	20
173			16.8	28.7	19	19.3
191	game piece	30.5	16.9	29.6	17.9	19
199		32.8	18.1	31.2	21.5	21
203		30.6	17	28.7	16.8	19
272		29.2	16.9	27.6	17.9	20.1
286		31.7	18.4	30.3	19.4	20.9
295		30.8	17.3	30.3	18.3	19.2
306		31	17.6	30.2	18	19.4
307		31.6	17.9	29.7	20.8	20.5
308		33.4	18.6			20.9
318		31.8	18.1	30.9	19.6	20.3
322	young	28.4	15.7	26.6	16.7	18.3
325		32.3	17.7	31	17.9	20.2

Calcaneus

Bone#	note	GB	GD	GL
75			27.3	
174		21.1	26	60.6
190		18.8	23.1	56.7
195		21.8	27.1	69
254		19.5	23	60.7
316		20.7	23.6	62.9

Metatarsal

Bone#	note	Bp	Dp	SD	DD	Bd	Dd	GL
8		22.9	23.1					
12		31.2	20.7					
211		22.3	21.5	13.5	12.7	26.7	17.7	143.3
223		22.8	22.2					
315								130.3

1st Phalanx
(Posterior)

Bone#	note	Bp	Dp	SD	Bd	GLpe
79	fusing	11.6		9.6	11	40.2
117		14.2		11.7	12.8	40
323		12.5	15.4	10.5	12.7	34.5

2nd Phalanx
(Posterior)

Bone#	note	Bp	SD	Bd	GL
9		12.7	9.1	10	24.8
37		10.6	7.8	8.5	21
165		12.2	8.6	10.1	25
324		11.6	9.1	9.3	20.8

3rd Phalanx

Bone#	note	Ld	DLS
309		22.6	29.8

Measurement values (*Capra*)

Scapula

Bone#	note	BG	LG	GLP	SLC
149		21.3	27.8	34.9	19.1
180		22.1	26.6	34.3	18.6

Humerus

Bone#	note	Bd	BT	HTC	Ddm
47		29.6	28.6	14	25.4
64		32.9	30.6	14.2	25.8
122		30	30.5	13.8	25.2
136		30.3	31.2	15.4	28.8
209		36	32.9	16.1	30.4
300		35.5	34.1	16.1	31.4

Metacarpal

Bone#	note	Bp	Dp
288		23.9	17.6

1st Phalanx (Anterior)

Bone#	note	Bp	SD	Bd	GL
116		12	9.7	11.5	38.8

Tibia

Bone#	note	Bd	Dd
97		25.5	20.2

Metatarsal

Bone#	note	Bp	Dp
224		24	22.9

1st Phalanx (Posterior)

Bone#	note	Bp	SD	Bd	GL
74		11.3	9.7	10.6	35.9
181		10.5	9	10.9	34.3

Measurement values (*Sus*)

Radius

Bone#	note	Bp	Dp	SD
183		25.3	17.3	14.5

1st Phalanx (Posterior)

Bone#	note	Bp	SD	Bd	GLpe
259		13	10.7	10.9	20.8

Measurement values (*Canis*)

Scapula

Bone#	note	BG	LG	GLP	SLC
121		15.6	22.8	26.3	21.9

Ulna

Bone#	note	DPA	SDO	LO	BPC
170		22.7	19.7	29.2	16.4

Tibia

Bone#	note	Bd
52		19.7

Metatarsal III

Bone#	note	Bp	Dp	SD	DD	Bd	BT	Dd	GL
321		6.4	11.2	6.7	5.4	8.2	7	8.1	76

Measurement values (*Bos*)

Scapula

Bone#	note	BG	LG	GLP	SLC
228		44.1	53.3	62.8	49.4
265		43.4	52.8	60.4	49.4

Humerus

Bone#	note	Bd	BT	HTC	Ddm
53		87.8	75.6	32.8	
227		67.3	65.5	30.1	67.7

Radius

Bone#	note	Bp	BFp	Dp	SD	Bd	BFd	Dd	GL
130						67.7	55.2	36.6	
131	fusing					55.7	48	32.2	
146		84.8	75.3	39.9					
175	unfused					62.7	50	33.1	
222					47.3	76.4	59.5		265

Ulna

Bone#	note	DPA	SDO	BPC
151		71.1	46.8	50.2
279		62.7		43.2

Metacarpal

Bone#	note	Bp	Dp	SD	Bd	Dd	GL
19		55.4	31.5	28.4	57.4	30.3	184
31		55.7	30.7				
40					51.7	28	
103		52.8	29	31.7	56.1	29.2	182.3
127		49.5	30.4	26.9	52.1	28.1	123.6
152					59.1	33.7	
185		59	34.7				

1st Phalanx
(Anterior)

Bone#	note	Bp	Dp	SD	Bd	Dd	GLpe
50		29.4		23.4	26.6		55.1
86		28.8		25.7	25.7		55.2
87		29.5		24.6	26		55.7
104		26.2		21.8	25.2		54.8
105		25.9		23.3	28		56.2
153		31		23.6	29.3		60.8
176		27.1		21.7	25.5		52.2
226		30.7	35.2	25.3	29.4	22.7	60.7

2nd Phalanx
(Anterior)

Bone#	note	Bp	SD	DD	Bd	GL
34		29.6	23.2		23	37.3
42		29.1	24.4		26.2	34.9
88		27.6	21.3		23.4	33.9
212		26.7	22.6	22.2	24	34.2
225	pathology				30	40.4

Pelvis

Bone#	note	LA
213		67.8

Femur

Bone#	note	DC	Bd
20	fusing	43.6	
21	fusing	38.9	
54			79.7

Calcaneus

Bone#	note	GB	GD	GL
158		40.8	47	123
192		30.9	42.5	116.3

Metatarsal

Bone#	note	Bp	Dp	SD	DD	Bd	Dd	GL
138		44.1	41.9	25		49.3	29.8	210
159		43.6	42.5	26.1		49.4	29	210
163		43.9	41.9	25		49.7	29.7	212
186		50.3						
280		50.7		30	28.1	58.9	32.3	223
302				27.3	22.4	46.6	27.9	210

1st Phalanx
(Posterior)

Bone#	note	Bp	SD	Bd	Dd	GLpe
41		29	23.5	25		56.6
160		26.5	23.6	24.6		56.9
266		29.1	25.3	29	23.5	60.8
281		29	26.6	28.9	20.8	58.7
293		25.3	22.4	25.3		53.6
310						40.9

2nd Phalanx
(Posterior)

Bone#	note	Bp	SD	Bd	GL
51		28.2	22.5	22.6	35.6
89		26.2	20.6	21	36
106		27.4	21.9	21.9	36.1

Measurement values (*Equus*)

Scapula

Bone#	note	M2	M3	M4	M5
147		57.4		51.3	43
206			98.2	62.5	51.9
234		61.5	83	57.6	46.2
235			96.5	58.6	48.5
236		44	75.4	46.4	36.6
237		64.5	86.8	59.2	51.5
238				57.1	44.3
298		54	86.8	52	42.4

Humerus

Bone#	note	M5	M7	M8	M9	M10	M11
10			72.2		40.6	30.7	34.2
38		97.2					
82			70.1		44.1	35.1	
150			74.6		52	37.1	37.9
171			72.7	83.3	49	37.4	38.2

Radius

Bone#	note	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
102				76.3	37.7	83.7					
112								62.2	72.9		
205								58.2	70.2		
229		39	27	74	37.6	79.2					
249		42	29.2				62.5	36.1	73.6	26	16.4
260		39.2	26.4				61.4	37.7	72	27.7	14.1
296				77.8	39	85.7					
327							63.7	36.2	75	27.2	16.3

Metacarpal

Bone#	note	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16
120											48.2	49.1	36.8	26.8	30.4		
128		217	207	35.6	25.6	53	31.4	38.2	18.5	69	49.9	49.7	35.6	27.6	29.9		10.4

1st Phalanx (Anterior)

Bone#	note	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13
81		79.8	72.6	34.6	56.2	39.2	45.3		25					
261		87.2	80.5	33.6	54	36.3	47.3	43.2	24.1	46.2	71.8	70.4	15.7	14.7
313		77.1			50.5	34.9						60.8		15.3
317		80.8	74.6	30.9	54.8	39.7	44.6	38.9	24.1	44.6	61.4	60.2	15.2	15.6

2nd Phalanx (Anterior)

Bone#	note	M1	M2	M3	M4	M5	M6
46		42.7	32.5	42.8	49.5	29.1	46.8
73		48.7	38.4	43.6	53.9	32.6	48.1
204		47.3	38.2	43.3	51.2	33	47.3

Pelvis

Bone#	note	LA	LAR
267		66.2	58.5
329		66.3	61.1

Femur

Bone#	note	M7	M8	M9
263		92.6	112.4	60.4
264		83.7	115.5	55.9

Tibia

Bone#	note	M7	M8
35		64.1	37.2
98		72.7	46
113		70.3	44.2
166		71.7	43.9
232		68.6	41.6
248			46.8

Astragalus

Bone#	note	M1	M2	M3	M4	M5	M6	M7
99		55.6			60.2	54.8		
101		45.4			48.3	41.3		
114		56			61.1	52.3		
167		58.8			60	50.5		
184		61.2			60.3	49.8		
283		55.6	55	30.6	59.2	52.1	33.3	
284		60	62.6	34.8	61.6	56	33	54.2

Calcaneus

Bone#	note	M1	M2	M3	M4	M5	M6	M7
4							47.1	46.3
26							49.3	47.6
100							49.5	50.1
115		117.5	79.4	19.6	35.2	51.8	55.3	52.7
233		104	71.7	20.6	32.6	51.3	51	48.6
285		109.3	74.9	20.6	31.8	50	52.4	52.5

Metatarsal

Bone#	note	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13
44								46.1						
157		257	245	32	29.6	47.5	38.6	42.2	12.4	6	47.9	47	35.2	25.3
207				27.9	28.6			43				42.6	32	23.4
320		257	250	31.1	28.7		36.6	41.9		5			36	25.2

1st Phalanx
(Posterior)

Bone#	note	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13
11		78.3	71.5	33.7	51.9	34.6	44.8		23					
45		79.1	75	31.7	48.3	31.6	44		23.8					
90		79.7	72.3	34.5	52.4	37.2	48.6	41.5	23.6	44.9	60.3	60.3	18.7	16.1
126		82		34.9	53	40.6								
196		86.9	79.6	36.1	56.7	35.5	50.1		25.7					
247		82.9	77.2	35.7	56.1	38.4	45.1	42.5	24.9	46.3	63.7	61.1	19.3	17

2nd Phalanx
(Posterior)

Bone#	note	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13
91		45.4	36.8	42.1	43.3	32.1	47.7		25.5					
311		73.3	68.7	30.4	45.4	31.4	40.4	38.3	22.1	42.9	58.1	57.8	17.1	15

3rd Phalanx
(Posterior)

Bone#	note	M1	M2	M3	M4	M5	M6
92		54.6	50.6	74.3	47.1	18.2	39.6
123			42.8	79.6	48.7	14.1	30.2
148			47.7	70.3	49.4	22.2	39.6
282		53.6	47.4	70.3	50.5	16.8	34.9
297		53.3	48.6	69.3	45.2	17.9	43.6
303		62.6	49.7		50.1	20.8	39.6
328		58.4	57.2	73.9	45.8	22.7	41.4

Measurement values (*Cervus*)

Radius

Bone#	note	Bp	BFp	Dp
182		68.2	64.3	37.5

Measurement values (*Capreolus*)

Ulna

Bone#	note	DPA	BPC
250		23.8	16.3

Measurement values (*Lepus*)

Femur

Bone#	note	SD	Bd
1		8	20

Appendix 4

Networking Core Centers for International Cooperation on Conservation of Cultural Heritage Project “Training Workshop for the Protection of Cultural Heritage I Central Asia” and “UNESCO/ Japan Funds-in-Trust Project: Support for Documentation Standards and Procedures of the Silk Roads World Heritage Serial and Transnational Nomination in Central Asia”

Masashi ABE and Kume SHOGO

1. Introduction

The Tokyo National Research Institute for Cultural Properties began archaeological research at the medieval fortified towns, Ak-Beshim and Ken Bulun.

The research was conducted as a part of two projects; “Training Workshops for the Protection of Cultural Heritage in Central Asia” funded by the “Networking Core Centers for International Cooperation on Conservation of Cultural Heritage Project” of the Agency for Cultural Affairs in Japan (from fiscal year 2011 to fiscal year 2014) and “UNESCO/Japan Funds-in-Trust Project: Support for Documentation Standards and Procedures of the Silk Roads World Heritage Serial and Transnational Nomination in Central Asia” (from fiscal year 2011 to fiscal year 2013).

This appendix introduces the activities undertaken by these two projects. For details of specific activities, please refer to reports published by the Tokyo National Research Institute for Cultural Properties, Nara National Research Institute for Cultural Properties and UNESCO (Tokyo National Research Institute for Cultural Properties 2012, 2013, 2014, 2015, Yamauchi, et al. 2015; Lin, et al. 2014).

2. Networking Core Centers for International Cooperation on Conservation of Cultural Heritage Project “Training Workshop for the Protection of Cultural Heritage in Central Asia”

Central Asia is rich in precious historical sites such as sites associated with the Silk Road. However, after the collapse of the Soviet Union, the lack of opportunities for young specialists to join excavations and conservation works has been a serious problem in Central Asia.

Considering this situation, the Tokyo National Research Institute for Cultural Properties began a new training project “Training Workshop for the Protection of Cultural Heritage in Central Asia”. This project was funded by “Networking Core Centers for International Cooperation on Conservation of Cultural Heritage” Project of the Agency for Cultural Affairs in Japan. The project was undertaken from fiscal year 2011 to fiscal year 2014 jointly with the Institute of History and Cultural Heritage of the National Academy of Sciences of the Kyrgyz Republic and the Nara National Research Institute for Cultural Properties.

Over the course of four years, a total of eight workshops covering “documentation”, “excavation”, “conservation” and “site presentation” were undertaken at the medieval fortified town of Ak-

Table. 1 Training workshop for the protection of cultural heritage in Central Asia

Workshop	Period	Number of trainees
First workshop (fiscal year 2011) Training workshop on archaeological survey	6 October ~ 17 October, 2011	12 trainees Kyrgyz: 8 Uzbekistan: 1 Kazakhstan: 1 Tajikistan: 1 Turkmenistan: 1
Second workshop (fiscal year 2011) Training workshop on archaeological drawing	4 February ~ 10 February, 2012	8 trainees Kyrgyz: 8
Third workshop (fiscal year 2012) Training workshop on archaeological excavations and conservation of archaeological objects	1 September ~ 17 September, 2012	14 trainees Kyrgyz: 8 Kazakhstan: 1 Tajikistan: 1 Turkmenistan: 1 Afghanistan: 2
Fourth workshop (fiscal year 2012) Training workshop on conservation of archaeological objects and documentation of excavated objects	8 February ~ 14 February, 2013	8 trainees Kyrgyz: 8
Fifth workshop (fiscal year 2013) Training workshop on archaeological excavations, conservation of excavated objects and site presentation	27 August ~ 12 September, 2013	14 trainees Kyrgyz: 8 Kazakhstan: 1 Turkmenistan: 1 Tajikistan: 1 Armenia: 1 Afghanistan: 1
Sixth workshop (fiscal year 2013) Training workshop on conservation of archaeological objects	10 February ~ 15 February, 2014	9 trainees Kyrgyz: 9
Seventh workshop (fiscal year 2014) Training workshop on site presentation and museum exhibitions	3 July ~ 14 July, 2014	6 trainees Kyrgyz: 3 Afghanistan : 3
Eighth workshop (fiscal year 2014) Training workshop on exhibition and publication of the excavation reports	27 October ~ 1 November, 2014	9 trainees Kyrgyz: 9

Beshim,. Through the eight workshops, trainees acquired comprehensive knowledge, necessary to protect cultural heritage. In addition, trainees were invited from five central Asian countries in order to create networks among young specialists in Central Asia.

In fiscal year 2011, the main topic was “documentation of the cultural heritage” and two workshops, “Training Workshop on Archaeological Survey” and Training Workshop on Archaeological Drawing” were undertaken. Trainees studied archaeological surveys, drawing of archaeological objects such as pottery and chipped stones and photography (Figs. 1, 2).

In fiscal year 2012, the main topics were “excavation” and “conservation” and two workshops were undertaken. Trainees studied excavation methods, drawing and photography of archaeological features and objects, excavation

of fragile objects using Paraloid, removal of stratigraphic sections, conservation of metals and pottery sherd reconstruction (Figs. 3, 4).

In fiscal year 2013, the main topics were “excavation” , “conservation” and “site presentation” . Two workshops were held. Trainees studied excavation methods, drawing and photography of archaeological features and objects, excavations of fragile objects using Paraloid, removal of stratigraphic sections, conservation of metals, pottery sherd reconstruction, replica production and site presentation (Figs. 5, 6, 7).

In fiscal year 2014, the main topic was “site presentation” and two workshops were undertaken. In early July, trainees from Central Asia were invited to Japan for two weeks. After lectures on site presentation, trainees visited famous historical sites and museums in Japan (Fig. 8). Then in October, a workshop on exhibition and publication of

excavation reports was held.

Trainees not only from Central Asian countries but also from Afghanistan and Armenia, were invited to the workshops. There were a total of 80 trainees reaches.

Trainees attended the workshops with keen interests. This is probably because there are few opportunities for young specialists to join excavation and conservation works in Central Asia. In addition, creating a network among young specialists in Central Asia was a great achievement of the workshops.

In June of 2014, Silk Roads sites were inscribed on the list of UNESCO world heritage in the UNESCO world heritage committee in Qatar. However, Silk Roads sites in Central Asia still face many problems of documentation and site presentation. Further international cooperation is required to protect cultural heritage in Central Asia.

3. UNESCO/Japanese Funds-in-Trust Project: Support for Documentation Standards and Procedures of the Silk Roads World Heritage Serial and Transnational Nomination in Central Asia

Five countries in Central Asia (Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan), in which the principal routes of the Silk Roads are concentrated, have cultural heritage that shows historical traces of the accumulation and spread of people, products and information across the Silk Road. The joint application for the registration of Silk Road on the World Heritage List has been advanced since 2003 by six countries, including the five Central Asian Republics and China. In order to support these activities,

Table. 2 Workshops undertaken by “UNESCO/Japan Funds-in-Trust Project: Support for documentation standards and procedures of the Silk Roads World Heritage Serial and Transnational Nomination in Central Asia

Implementing bodies	Workshop	Period	Number of trainees
Kazakhstan (Tokyo National Research Institute for Cultural Properties, Nara National Research Institute for Cultural Properties)	1st Workshop on the Methods of Geophysical Survey	27 September ~ 19 October, 2011	Total: 12 Kazakhstan: 9 Uzbekistan: 1 Kyrgyz: 1 Tajikistan: 1
Kazakhstan (Tokyo National Research Institute for Cultural Properties, Nara National Research Institute for Cultural Properties)	2nd Workshop on the Methods of Geophysical Survey	20 September to 25 September, 2012	Total: 9 Kazakhstan: 5 Uzbekistan: 1 Kyrgyz: 2 Tajikistan: 1
Kyrgyz (Tokyo National Research Institute for Cultural Properties, Doshisha University)	1st Workshop on Archaeological Site Documentation	18 October to 27 October, 2011	Total: 9 Kyrgyz: 9
Kyrgyz (Tokyo National Research Institute for Cultural Properties)	2nd Workshop on Archaeological Site Documentation	19 September 19 to 25 September, 2012	Total: 8 Kyrgyz: 8
Tajikistan (Tokyo National Research Institute for Cultural Properties)	1st Workshop on Archaeological Site Documentation	1 November to 8 November, 2012	Total: 11 Tajikistan: 8
Tajikistan (Tokyo National Research Institute for Cultural Properties)	2nd Workshop on Archaeological Site Documentation	7 November to 14 November, 2013	Total: 9 Tajikistan: 9
Uzbekistan (Doshisha University)	1st Workshop on Archaeological Site Documentation	7 November to 15 November, 2012	Total: 13 Uzbekistan: 8
Uzbekistan (Tokyo National Research Institute for Cultural Properties)	2nd Workshop on Archaeological Site Documentation	1 December to 3 December, 2013	Total: 13 Uzbekistan: 13
Turkmenistan (University College London)	1st Workshop on Archaeological Site Documentation	29 August to 11 October, 2011	-
Turkmenistan (University College London)	2nd Workshop on Archaeological Site Documentation	10 May to 7 June, 2013	-

“UNESCO/Japanese Funds-in-Trust Project: Support for Documentation Standards and Procedures of the Silk Roads World Heritage Serial and Transnational Nomination in Central Asia” was conducted between 2011 and 2014, targeting the five Central Asian Republics.

A series of workshops to promote developments in the human resources were conducted in the five countries in order to progress toward in the registration of World Heritage Sites (Table 2). Workshops were planned to provide knowledge suitable for the state of cultural heritage documentation in each country. For example, in Kazakhstan, where somewhat adequate

documentation skills have been achieved, workshops were designed for the development of human resources and technical transfer related to geophysical surveys of subsurface archaeological remains (Fig. 9). In the other four countries, in which technical foundations have not been fully established, basic training was carried out with an emphasis on the measurement and digital mapping of archaeological remains and historical structures (Figs. 10-13). Essential equipment for documentation such as total station was supplied to each country to promote the establishment of the basic groundwork for equipment common to the five countries. Furthermore, the cooperation



Figure. 1 Archaeological survey training at Ak-Beshim



Figure. 2 Archaeological drawing training



Figure. 3 On-site training in the excavation of fragile archaeological objects using Pararoid



Figure. 4 On-site training in the removal of stratigraphic sections



Figure. 5 Conservation training in metal objects



Figure. 6 Excavation training at Ak-Beshim



Figure. 7 Pottery reconstruction training



Figure. 8 Lectures at Hyogo Prefectural Museum of Archaeology



Figure. 9 Geophysical survey training in Kazakhstan



Figure. 10 Archaeological documentation training in Kyrgyz



Figure. 11 Archaeological documentation training in Tajikistan



Figure. 12 Training on 3D documentation of archaeological features in Uzbekistan

of not research institutes in Japan, but also that of overseas institutes was requested to enable the five countries to establish independent relationships for cultural heritage preservation with other countries. To be specific, each cooperative organization was assigned to workshops held in different countries, i.e., TNRICP and the Nara National Research Institute for Cultural Properties handled Kazakhstan, the Kyrgyz Republic, and Tajikistan, the University of London handled Turkmenistan, and TNRICP and Doshisha University handled Uzbekistan (Kume 2015).

As described above, at the 38th session of the World Heritage Committee Meeting held in Doha, Qatar in 2014, the section on Silk Roads network, “Silk Roads: the Routes Network of Chang’ an-Tianshan Corridor” submitted by Kazakhstan, the Kyrgyz Republic, and China was inscribed on the World Heritage List. Meanwhile, the inscription of “Silk Roads: the Penjikent-Samarkand-Poykent Corridor” submitted by Tajikistan and Uzbekistan was postponed, and application for the cultural heritage proposed by Turkmenistan was not submitted to the committee. It was decided to provide continual assistance not only to achieve the inscription of these unlisted sites on the World Heritage List, but also to improve the fundamental reserach systems, the creation and utilization of

cultural heritage databases, and the sharing of archives within the five countries to build a system of sustainable management for cultural heritage and a cooperative relationship with tourism development projects (Phase II: 2014 - 2017) (Kume 2015).

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Chief Editors :

Kazuya YAMAUCHI (Teikyo University)

Bakit AMAMBAEVA (The Institute of History and Cultural Heritage of National Academy of Sciences of the Kyrgyz Republic)

Editors :

Masashi ABE (The Tokyo National Research Institute for Cultural Properties)

Shogo KUME (Tokyo University of the Arts)

Hiroo KANSHA (Keio University)

Masatoshi YAMAFUJI (The Nara National Research Institute for Cultural Properties)

Contributors :

Kazuya YAMAUCHI (Teikyo University)

Hidehiro SOHMA (Late Professor, Nara Women`s University)

Toshio NAKAMURA (Nagoya University)

Jumpei KUBOTA (Research Institute for Humanity and Nature)

Mitsuko WATANABE (Nara Women`s University)

Masashi ABE (The Tokyo National Research Institute for Cultural Properties)

Sigeo SAITO (Japan Society for the Promotion of Science Research Fellow PD)

Chie AKASHI (Japan Society for the Promotion of Science Research Fellow PD)

Saiji ARAI (The University of Tokyo)

Shogo KUME (Tokyo University of Arts)

Hiroo KANSHA (Keio University)

Masatoshi YAMAFUJI (The Nara National Research Institute for Cultural Properties)

Bakit AMANBAEVA (The Institute of History and Cultural Heritage of National Academy of Sciences of the Kyrgyz Republic)

Aidai Suleimanova (The Institute of History and Cultural Heritage of National Academy of Sciences of the Kyrgyz Republic)

Valery Kolchenko (The Institute of History and Cultural Heritage of National Academy of Sciences of the Kyrgyz Republic)

Valentina Sankova (National Academy of Sciences of the Kyrgyz Republic)

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13-43 Ueno Park, Taito-ku, Tokyo, 110-8713

TEL: + 81-3-3823- 4898

<http://www.tobunken.go.jp/~kokusen>