The Neolithic Cemetery at Tell el-Kerkh

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This book is the second volume of the final excavation reports at Tell el-Kerkh, northwest Syria. Excavations at Tell el-Kerkh began in 1997 and continued until 2010, the year before the outbreak of the conflict in Syria. For the execution of archaeological research at Tell el-Kerkh, we are deeply grateful to the government of the Syrian Arab Republic, especially the Ministry of Culture, and the Directorate General of Antiquities and Museums (DGAM). Dr. Sultan Muhesen, then director of the DGAM, allowed a joint archaeological excavation with the University of Tsukuba to commence work in 1997 at Tell el-Kerkh in the Rouj Basin, Idlib Governorate. For the excavation permit, Dr. Adnan Bounni, then Director of Archaeological Excavations and Studies of DGAM, also provided valuable advice. Subsequently, many staff members of DGAM in Damascus extended the greatest consideration and permissions to enable our work. We cannot mention the names of all the DGAM staff members who took care of us in this regard, but we would like to express our deepest gratitude to the following colleagues in particular: Mr. Mohammad Qador; Mr. Nassib Salibi; Dr. Bassam Jammous; Dr. Michel al-Maqdissi; Dr. Ammar Abdulrahman; Dr. Ali al-Kayem; Dr. Abd al-Razzaq Moaz; Dr. Ahmad Serrieh; Dr. Maamoun Abdulkarim; Mr. Ahmad Taraqji; Dr. Haitham Hassan; Dr. Mahmoud Hamud; Dr. Ahmad Deeb; Dr. Samer Abdel Ghafour; and Mr. Tony Gerroug. We also thank Dr. Antoine Suleyman, Mr. Hamido Hammade, and Dr. Youssef Kanjou of the Aleppo National Museum for their unwavering cooperation with our studies.

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Last but not least, we express special thanks to Dr. Giro Orita, advisor of ICARDA for his inestimable support to our mission and Ms. Yayoi Yamazaki, an archaeologist who lived in Aleppo for her constant warm support.

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Chapter 1
Introduction

Akira Tsuneki

1. Process Leading to the Investigations

Questions such as where did human beings change their way of life from hunter-gathers to farmer-herders and why did human societies become more complex are timeless. As are those considering how and why human beings began to form large settlements and why did they begin to construct large cities. These questions seem to be some of the most challenging and exciting ones in the study of human history. All of these great transitions appeared in West Asia earlier than any other region in the world. Therefore, West Asian archaeology entices and attracts our attention. As such, archaeological investigations in West Asia will provide the basis for answering some of these questions.

The University of Tsukuba executed the first archaeological investigation in the Rouj Basin, Idlib province, northwest Syria, from 1990 to 1992 (Figures 1-1, 1-2). The purpose of these investigations was to pursue the above-mentioned questions, especially the formation of early farming societies and the development of complex societies based on archaeological data retrieved from the field. The Rouj Basin was chosen for exploration, because this small basin, measuring 37km from north to south and 2-7km from east to west, has extremely rich soil and water for farming fields, and the basin is full of artificial tells. The Rouj Basin was first surveyed archaeologically by a French mission (Courtois 1973) which was mainly concerned with Bronze Age tells. The University of Tsukuba team focused on a more holistic approach, with special emphasis on tracing the transition of settlement patterns. The director of the mission, the Late Professor Takuya Iwasaki, and the current field director, Akira Tsuneki, took part in the excavations as members of the Tell Mastuma (5km south of Idlib city) team led by the Ancient Orient Museum of Tokyo since 1980. Besides the excavations at Tell Mastuma, both of them repeated general survey around Tell Mastuma (Tsuneki 2009). This work revealed that the Rouj Basin was one of the richest areas for studying neolithization and urbanization in northwest Syria. A request was made to the Syrian Directorate General of Antiquities and Museums for approval to undertake investigations in the Rouj Basin. Fortunately, permission was granted to conduct an archaeological investigation for three years from 1990.

Three seasons’ investigations in the Rouj Basin reconfirmed how this basin was rich in both prehistoric and historic period remains (Iwasaki, Nishino and Tsuneki 1995; Iwasaki and Tsuneki 2003). We discovered thirty-eight tell-type settlements within the relatively small basin (Figures 1-3, 1-4). In pursuit of our research aim, i.e., the formation and development of farming societies, twenty-two of thirty-eight tell-type settlements produced materials from Neolithic periods (Tsuneki 2012, Tsuneki n.d.). Therefore, there was no doubt that this basin was very prolific area for our study focus. Furthermore, a very large Neolithic tell complex, Tell el-Kerkh, is located in the south of the basin. The size of this tell complex, as a Neolithic settlement, was beyond our imagination, and it was believed that further investigation of Tell el-Kerkh would reveal how ancient people began to form large settlements based on the new farming way of life. It also seemed that the site would provide a hint to understand the background for the formation of complex societies and in turn the emergence of urbanism.
Therefore, permission was sought from the DGAM to begin excavations at Tell el-Kerkh. After much negotiation, DGAM finally decided to begin a joint archaeological mission with the University of Tsukuba to excavate Tell el-Kerkh. Based on their sincere goodwill, the new excavations started at Tell el-Kerkh in 1997, and continued until 2010, just before the conflict began in Syria.

The years of the twelve-season field campaign resulted in several unexpected archaeological results. The excavations revealed that there had been a series of large and complicated societies during the late Pre-Pottery Neolithic B and the early-middle Pottery Neolithic periods (c. 7600 – 6000 BC). In addition to the Neolithic inventories, Tell el-Kerkh produced a range of rich historical cultural properties as well.

One of the most conspicuous results of the investigation at Tell el-Kerkh was the discovery of a Neolithic cemetery. Though a few graves had been already discovered in the former excavation seasons at Tell el-Kerkh, 2007 season revealed the existence of an outdoor communal cemetery for the first time. Since then, over 240 burials had been discovered until the 2010 season. It is clear that this cemetery is one of the oldest outdoor communal cemeteries not only in West Asia but also in the world; leading to increased understanding of its importance in human history. Investigation of the cemetery continued until 2010, but it has not been possible to completely excavate the whole area of the Neolithic cemetery. However, it was considered necessary to publish the known aspects of this precious Neolithic cemetery as soon as possible. So, the decision was made to publish the final report of the Kerkh Neolithic Cemetery as the second volume of the final report of excavations at Tell el-Kerkh.

2. Members and Operations of Each Excavation Season

1997 Season

Field duration: August 26 – October 9.
Operations: Paleo-environmental study (Landforms; geology; agricultural productivity potential); Excavations in Tell Ain el-Kerkh (Squares E270, E290 and E310 in the Central Area; Square E10 at the northern part of the mound; Square A386 at the northwestern fringe of the mound).
Syrian side members: Jamal Hydar (co-director); Adel Habash; Taghrid Mohammad.
Japanese side members: Takuya Iwasaki (advisor); Akira Tsuneki (co-director); Yutaka Miyake; Makoto Takizawa; Etsuko Kurata; Sadayuki Akahane; Toru Nakamura; Makoto Arimura; Osamu Maeda; Shuich Sekine.

1998 Season
Field duration: July 25 – September 10.
Operations: Paleo-environmental study (Geology; ancient Rouj lake deposits); Excavations in Tell Ain el-Kerkh (Squares E270, E290 and E310 in the Central Area; Squares D6 and D26 in the Northwest Area; Sounding
trenches in Tell Ain el-Kerkh (Squares D11, D16, E1, F1, B230, B290, and E110); A Roman-Byzantine tomb excavation at the southern summit of Tell Ain el-Kerkh.

Syrian side members: Jamal Hydar (co-director); Adel Habash; Haifa Sha’baan; Hazem Jarkas, Japanese side members: Takuya Iwasaki (advisor); Akira Tsuneki (co-director); Yutaka Miyake; Makoto Takizawa; Sadayuki Akahane; Takuro Adachi, Makoto Arimura; Toru Tomita; Shin-ichi Nishiyama; Tomoko Anezaki; Masaharu Nishizawa; Ken Hayase; Sachiko Yano; Atsunori Hasegawa.

1999 Season
Field duration: August 4 – August 30.
Operations: Excavations in Tell Ain el-Kerkh (Squares E270, E271 and E310 in the Central Area; Square D6 in the Northwest Area).
Syrian side members: Jamal Hydar (co-director); Haifa Sha’baan; Ghaith Sbeh; Saraa Saleh; Hazem Jarkas.
Japanese side members: Akira Tsuneki (co-director); Yutaka Miyake; Mark Hudson; Makoto Arimura; Osamu Maeda; Shin-ichi Nishiyama; Takahiro Odaka; Toshiko Matsuo; Sachiko Yano.

2000 Season
Field duration: August 5 – August 24.
Operations: Excavations in Tell Ain el-Kerkh (Squares E291, E310 and E311 in the Central Area).
Syrian side members: Jamal Hydar (co-director); Haifa Sha’baan; Ghaith Sbeh; Zeinab Ahmad.
Japanese side members: Akira Tsuneki (co-director); Yutaka Miyake; Makoto Arimura; Osamu Maeda; Ken-ichi Tanno; Takahiro Odaka; Atsunori Hasegawa; Daisuke Yamaguchi; Natsuko Kawazoe; Saori Katagiri (volunteer staff).

2001 Season
Field duration: July 21 – August 30.
Operations: Paleo-environmental study (Geology); Excavations in Tell Ain el-Kerkh (Squares E270, E271, E290, E291, E310 and E311 in the Central Area; Square D6 in the Northwest Area); Excavations in Tell el-Kerkh 1 (Square K-183 = the northern foot of Tell el-Kerkh 1)
Syrian side members: Jamal Hydar (co-director); Haifa Sha’baan; Adel Habassi.
Japanese side members: Akira Tsuneki (co-director); Takaaki Ishikawa; Sachiko Yano; Atsunori Hasegawa; Serina Sato; Sean Dougherty.

2002 Season
Field duration: July 29 – September 1.
Operations: Excavations in Tell Ain el-Kerkh (Squares E270, E271, E290, E291, E310 and E311 in the Central Area; Square D6 in the Northwest Area, Squares G191-G192 at the western outside of the tell); Excavations in Tell el-Kerkh 1 (Squares K-182, K183 and K163 = the northern foot of Tell el-Kerkh 1)
Syrian side members: Jamal Hydar (co-director); Haifa Sha’baan; Adel Habassi; Zeinab Ahmad; Basel Hamid.
Japanese side members: Akira Tsuneki (co-director); Yutaka Miyake; Makoto Takizawa; Mark Hudson; Osamu Maeda; Ken-ichi Tanno; Takahiro Odaka; Tomoko Anezaki; Koji Miyazawa.

2005 Season
Field duration: August 13 – September 5.
Operations: Excavations in Tell Ain el-Kerkh (Squares E272, E273 and E274 in the East Trench); Excavations in Tell el-Kerkh 1 (Square O185 = the eastern foot of Tell el-Kerkh 1)
Syrian side members: Jamal Hydar (co-director); Haifa Sha’baan; Samaher Wannous.
Japanese side members: Akira Tsuneki (co-director); Takahiro Odaka; Ken-ichi Tanno; Osamu Maeda; Atsunori Hasegawa; Mina Kosuge.

2006 Season
Field duration: August 11 – September 6.
Operations: Excavations in Tell Ain el-Kerkh (Squares E272, E273, E274, E275 and E276 in the East Trench, Square A318 at Northern frontier of tell); Excavations in Tell el-Kerkh 1 (Squares O184 and O185 = the eastern foot of Tell el-Kerkh 1)
Syrian side members: Jamal Hydar (co-director); Haifa Sha’baan; Rudaena Harfoush.
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2007 Season
Field duration: July 17 – August 23.
Operations: Excavations in Tell Ain el-Kerkh (Squares E270, E271, E290, E291, E310 and E311 in the Central Area; Square D6 in the Northwest Area, Squares G191-G192 at the western outside of the tell); Excavations in Tell el-Kerkh 1 (Squares P110 and Q85 = the southern hilltop of Tell el-Kerkh 1)
Syrian side members: Jamal Hydar (co-director); Haifa Sha’baan; Mohammad Qantar.
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2008 Season
Field duration: July 16 – August 28.
Operations: Excavations in Tell Ain el-Kerkh (Squares E271, E291, and E311 in the Central Area; Squares E274, E275, E276 and E277 in the East Trench); Excavations in Tell el-Kerkh 1 (Square P110 = the southern hilltop of Tell el-Kerkh 1);
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2009 Season
Field duration: July 16 – August 28.
Operations: Excavations in Tell Ain el-Kerkh (Squares E271, E291, and E311 in the Central Area; Squares E274, E275, E276 and E277 in the East Trench); Excavations in Tell el-Kerkh 1 (Square P110 = the southern hilltop of Tell el-Kerkh 1);
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2010 Season
Field duration: July 4 – August 10, September 12 – September 29.
Operations: Excavations in Tell Ain el-Kerkh (Squares E251, E270, E271, E291 in the Central Area; Square A318 at Northern frontier of tell); Excavations in Tell el-Kerkh 1 (Squares P109 and P110 = the southern hilltop of Tell el-Kerkh 1; Squares M57 – M78 = Step trenches at northwest slope of Tell el-Kerkh 1);
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Figure 1-6. People who participated in the 2010 season.
3. Chronology of the Rouj Basin

a. Relative Chronology

First, we will describe the Rouj Basin, where Tell el-Kerkh is located, and its local chronology. The Rouj Basin, located 10km west of modern Idlib city, is a small graben surrounded by limestone mountains. It extends north to south by about 37km and east to west by between 2 and 7km (Figure 1-3). An archaeological mission from the University of Tsukuba conducted the first intensive general survey in this basin from 1990 to 1992, including test pits at Tell Aray 1 and 2, Tell Abd el-Aziz, and Tell el-Kerkh 2 (Iwasaki and Nishino 1990, 1991, 1992; Iwasaki, Nishino and Tsuneki 1996).

Afterwards, archaeological study of the basin continued (e.g., Iwasaki and Tsuneki 2003; Tsuneki and Hydar 2007; Tsuneki et al. 2011). These studies formed the basis of the local Rouj Basin chronology. The Neolithic part of the Rouj Basin chronology is briefly summarized below (see Table 1-1, Figures 1-7 and 1-8).

Rouj 1 corresponds to the Pre-Pottery Neolithic B in the broad Levantine chronology. No PPNA site was discovered during the research in the Rouj Basin. The Early PPNB layers recovered at Tell Ain el-Kerkh represent the earliest Neolithic evidence found in the Rouj Basin. The Rouj 1 era can be divided into two periods, Rouj 1a and 1c. As there must have been a hiatus between these two periods contemporary with the Middle PPNB period, the term Rouj 1b was created to indicate this period.

Rouj 1a (EPPNB): The lowest layers of the Northwest Area at Tell Ain el-Kerkh provide the indicator for this period. 14C dating suggests that this area dates from c. 8700 to 8300 cal BC. Sophisticated naviform cores were used in blade production, and the stone tools were primarily made from the blades. The most characteristic tool-types are Aswad points and large blades with fine retouch on one lateral edge. Pressure flaking was frequently used to retouch the point.

Rouj 1c (LPPNB): This period corresponds to the Late PPNB period. Many test trenches which were set in each place of Tell Ain el-Kerkh and Test Pit A of Tell el-Kerkh 2 produced the Rouj 1c cultural layers. 14C dating suggests that this period dates from c. 7600 to 7000 cal BC. The stone cores for blade production consisted of naviform cores and single platform cores. The Byblos point had become the main point type, with the Ugarit point also frequently appearing in the assemblage. Large sickle blades truncated at both ends, ordinary blades, and end scrapers on flakes were the main tool types.

Rouj 2 corresponds to the Pottery Neolithic (PN). This era can be divided into four periods.

Rouj 2a (Incipient PN): Layers 6–5 in the Test Pit A of Tell el-Kerkh 2, which produced the earliest type of pottery in the Levant, provides a typical assemblage for this period. The main chipped stone tool types are the Ugarit point, Amuq point, large sickle blades truncated at both ends, and end scrapers on blades and flakes; the technical continuity from Rouj 1c is remarkable. The most notable indicator for this period is the presence of so-called ‘Kerkh Ware,’ the prototype of Dark-faced Table 1-1. The Rouj Basin chronology (2021 version).
Figure 1-7. Neolithic lithic chronology of the Rouj Basin.
Burnished Ware (DFBW) (Tsuneki and Miyake 1996; Miyake 2003). In Layers 6–5 of Tell el-Kerkh 2, Kerkh Ware accounted for 33–42% of the pottery assemblage. However, a pure Kerkh Ware cultural layer has not yet been discovered in the excavations at Tell el-Kerkh. Kerkh Ware potsherds have always been discovered with early DFBW.

Rouj 2b (Early PN): The layers of this period were discovered in various trenches at Tell Ain el-Kerkh, Tell el-Kerkh 2, and Tell Aray 2. Although we do not have good ¹⁴C dating for the Rouj 2a-b period, Rouj 2a-b must be dated from between c. 7000 and 6600 cal BC based on the absolute dates of Rouj 1c and Rouj 2c. The chipped stone tools are similar to those of Rouj 2a. Kerkh Ware
dwindled and finally disappeared, and the DFBW became the main pottery, with some accompanying Coarse Ware potsherds. The DFBW is a fine ware with grit tempering. In addition to the bowl, the jar became a significant pottery form. Applique bands and ridge handles were sometimes added to the outer surface of the pottery. Nail and pinch impressions are the most characteristic decorations for DFBW of this period. White plastering, with occasional reddish painting, is also a characteristic decoration for this pottery.

Rouj 2c (Middle PN): Layers 7–3 of the Central Area, the main excavated squares of Tell Ain el-Kerkh, provide the most typical objects for this period. \(^{14}C\) dating of many of the organic samples indicates that this period spans between c. 6600 and 6000 cal BC. For the chipped stone tools, the Amuq point with pressure flaking retouch had become the main point type. Most sickle elements were truncated at both ends and of relatively short lengths. Small drills on blades for boring beads had become one of the main chipped stone tools. The number of scrapers on flakes had diminished less than in the previous period. DFBW and Coarse Ware were the main pottery types. The varieties of DFBW became richer and included carinated bowls, S-shaped bowls, hemispherical bowls, deep bowls, shallow bowls, short-necked jars, collar-necked jars, hole-mouthed jars, and stands. Low applique bands were frequently applied to the upper part of the outer surface of the pottery. In addition, fine stick impressions were observed as a decoration. Large and flat-based bowls and jars were the main forms of chaff-tempered Coarse Ware, which were mostly plain and rarely decorated. The husking tray is one of the most characteristic of Coarse Ware varieties.

Rouj 2d (Late PN): The last phase of the Pottery Neolithic dates from c. 6000 to 5700 cal BC. With few diagnostic imported potsherds, this period can be compared to the beginning of the Halaf period in Jazirah. This period was mainly represented by the material from Layers 2-1 of the Central Area at Tell Ain el-Kerkh. The chipped stone tools suddenly lost their definite forms and consisted mainly of rough flake tools. Although the point-type tool disappeared, a few very sophisticated stone daggers made with pressure flaking retouches were discovered. Crescent-shaped sickle elements and tile knives were also characteristic stone tools of this period. In addition to DFBW and Coarse Ware pottery, Dark-faced Unburnished Ware and Cream Ware (Red Washed Ware) appeared in this period. A few fine painted potteries, including Early Halaf painted potsherds, were also discovered. Remarkable forms, such as the flat-based bowl with a flared rim, the cream bowl, and the short-necked jar, all of which were typical of Early Halaf painted pottery, flourished among the Rouj 2d DFBW. Sophisticated pattern burningish is a characteristic decoration of fine DFBW.

b. Absolute Chronology

We have many and various \(^{14}C\) date results from Tell el-Kerkh, and these results were shown and discussed in the Chapter 7. Here the essence of the results is summarized to reconfirm the discussion for the Rouj Basin chronology.

Rouj 1a: There are five data samples from Square D6 of Tell Ain el-Kerkh. The oldest sample dates 8749-8470 cal BC (1σ) and the youngest dates 8426-8295 cal BC (1σ). The other three data samples show the ages between these two. Therefore, it is suggested that the Rouj 1a dates between 8700-8300 cal BC.

Rouj 1c: There are twelve data samples (five from charcoal and seven from human bones) from Square D6 of Tell Ain el-Kerkh and one datum from Test Pit A of Tell el-Kerkh 2. The oldest sample of the former dates to 7932-7585 cal BC (1σ), and the youngest one dates to 7177-6863 cal BC (1σ). Other samples from Square D6 date between 7578-7380 and 7312-7077 cal BC (1σ). The latter sample from Tell el-Kerkh 2 dates to 7345-6660 cal BC (1σ) (Yoneda 2003: 193-194). Therefore, it is suggested that the Rouj 1c dates between 7600-7000 cal BC.

Rouj 2a-b: There is just one old sample from the Test Pit A of Tell el-Kerkh 2. This sample is dated to 8280-7363 cal BC (1σ)(ibid). However, this date is too old for the beginning of the Pottery Neolithic period. The next, the Rouj 2c period started around 6600 cal BC. Therefore, it is suggested that the Rouj 2a-b period dates to 7000-6600 cal BC.

Rouj 2c: There are five samples from the Central Area (except human bone samples from Kerkh Neolithic cemetery), and five samples from the East Trench of Tell Ain el-Kerkh. There are also six samples from the Test Trench at Tell Aray (Yoneda 2003: 193-194). Ten samples from Tell Ain el-Kerkh date from 6748 to 5845 cal BC (1σ). However, middle six samples represent from 6570 to 6023 cal BC. In addition, all carbon ages of the twenty-five human bone samples from Kerkh Neolithic Cemetery fall within this range, especially from 6400 to 6100 cal BC (see Chapter 7: Table 7-4). Therefore, it is very probable that the Rouj 2c dates to between 6600-6000 cal BC.

Rouj 2d: There are one sample from the Central Area and five samples from the East Trench of Tell Ain el-Kerkh (except human bone samples). One sample dates to 6390-6260 cal BC (1σ), and the other five samples indicate a date between 5969 and 5669 cal BC (1σ). Four human bone samples from the Rouj 2d layers date 6057-5676 cal BC. Therefore, 6000-5700 cal BC is the most probable term for the Rouj 2d period.