

SUREZHA, KURDISTAN

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Introduction: The Origins of Towns and Social Complexity in Northern Mesopotamia in the Chalcolithic Period, 5300–3500 BC

The Chalcolithic Age from 5300 to 3100 BC is the time when the world's first urban civilization developed in Mesopotamia. This development took place in several stages. In southern Mesopotamia, these are best known through the Ubaid and Uruk periods and their associated material cultural styles. Most of what we know about the origins of towns in the Ubaid period, and the origins of cities in the Uruk period, derives from excavations in southern Mesopotamia, the land of Sumer, at sites such as Eridu, Ur, and Uruk/Warka. However, archaeologists still know very little about the development of towns and cities in northern Mesopotamia and especially in Iraqi Kurdistan, because, until recently, so few scientific excavations have been done in these regions. Although we have developed a good initial



Figure 1. Map of Chalcolithic northern and southern Mesopotamia, showing the location of Surezha east of the Tigris River on the Erbil plain in the Kurdistan region

picture of the Ubaid period in much of Mesopotamia and have started to develop an understanding of the post-Ubaid periods, the last twenty years of excavations in northern Syria and southeastern Turkey have made it clear that these areas had distinctive local cultures which interacted closely with southern Mesopotamia in the Ubaid and Uruk periods, but still retained their own material culture styles and traditions. We also know that southern Mesopotamian cultural influences on northern Mesopotamia (northern Iraq, northern Syria, and southeastern Turkey) were not continuous, but instead were stronger in some periods, and weaker in others. Thus, for example, we now can see that there was a period from 4500 to 3700 BC (after the Ubaid, and before the Middle Uruk period), when there was very limited interaction between southern and northern Mesopotamia. At these times we can clearly see the predominance of local (non-Ubaid and non-Uruk) cultures in the northern and eastern parts of the Mesopotamian world.

To recognize the existence of these local cultures and to better investigate their role in the development of social complexity, archaeologists have developed a locally based chronology for northern Mesopotamia. The equivalences between northern and southern Mesopotamia are summarized in table 1.

Table 1. Comparison of chronologies for southern Mesopotamia (the Ubaid and Uruk sequences) and northern Mesopotamia (the Late Chalcolithic or LC 1-5 sequence)

<i>Dates BC</i>	<i>Southern Mesopotamia</i>	<i>Northern Mesopotamia</i>
3400-3100	Late Uruk	Late Chalcolithic 5 (LC-5)
3700-3400	Middle Uruk	Late Chalcolithic 4 (LC-4)
3850-3700	Middle Uruk (first cities in South)	Late Chalcolithic 3 (LC-3) (first cities in North)
4200-3850	Early Uruk	Late Chalcolithic 2 (LC-2)
4500-4200	Terminal Ubaid?	Late Chalcolithic 1 (LC-1) (begins ca. 4800 BC in Kurdistan)
5300-4500(?)	Ubaid 3-4 (first towns in South)	Ubaid 3-4 ("Northern Ubaid") (first towns in North)
5800-5300	Ubaid 1-2	Halaf Chogha Mami Transitional Samarra

There is a great need to understand the role of Iraqi Kurdistan in the development of urban civilization during the Chalcolithic period from 5300 to 3100 BC. The Surezha excavations investigate the key periods of the origins of towns and later cities in northern Mesopotamia. Our plan is to define the chronology and cultural developments of the Ubaid, Late Chalcolithic 1, Late Chalcolithic 2, and Uruk periods in this important region. We use the Late Chalcolithic 1-5 sequence to track these developments for northern or upper Mesopotamia in order to recognize the fact that cultural developments were not identical between the north and the south.

Site Description

The ancient site of Surezha is a mounded settlement with an area of approximately 31 hectares, located next to the modern village of Surezha, approximately 20 kilometers south of the modern city of Erbil/Hawler on the Makhmur road (fig. 1). The UTM coordinates of the site are: N. 399555.0694, E. 3984361.1196. The elevation of the top of the high mound is 349 meters above sea level. The ancient site consists of three parts: (a) the high mound, (b) the terrace, and (c) the lower town. The small conical-shaped high mound measures approximately 188 meters northwest-southeast and 150 meters southwest-northeast, with an area of approximately 2.8 hectares (fig. 2). The high mound stands 16 meters above the terrace. The base of the high mound is surrounded by a terrace on all sides. The terrace is about 2 meters high and slopes gradually down over a distance of approximately 70 meters to the lower town, which extends out from the terrace in all directions. Part of the lower town lies underneath the modern village of Surezha to the north and east.

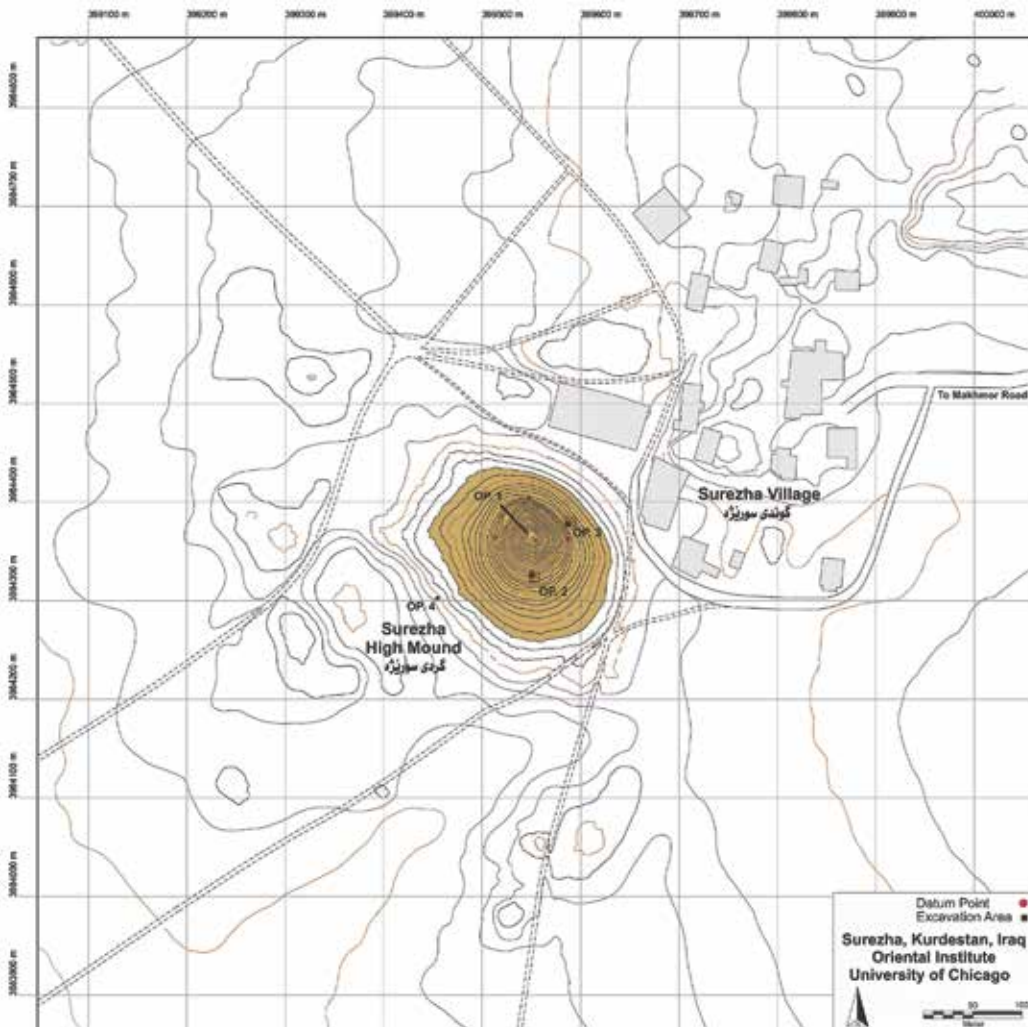


Figure 2. Topographic map of Surezha

Surezha was first identified and recorded as Site 27 by Harvard University's Erbil Plain Archaeological Survey (EPAS) in 2012. We want to express our appreciation to the survey director Jason Ur, who brought the site to our attention as having Chalcolithic ceramics from the Ubaid period. Our Oriental Institute team (Gil Stein, Abbas Alizadeh, Mehdi Omidfar, and Loghman Ahmadzadeh) re-visited the site that same summer of 2012 and our surface collections confirmed that Ubaid, Late Chalcolithic 2, and Uruk ceramics were present there. We also established that the high mound at the site was almost exclusively Chalcolithic in date.

The Surezha excavations are conducted by the Oriental Institute of the University of Chicago. The first field season of excavations and laboratory analyses was carried out from August 19 to September 18, 2013. The staff of the 2013 Surezha Excavations consisted of Prof. Gil J. Stein (director of the Oriental Institute of the University of Chicago, co-director), Abbas Alizadeh (Oriental Institute of the University of Chicago, co-director), Loghman Ahmadzadeh, John Alden (University of Michigan), Henrike Backhaus (University of Applied Sciences-Berlin), Barbara Couturaud (University of Versailles, France), Hamid Fahimi (Free University of Berlin, Germany), Sam Harris (University of Chicago), Kate Lieber (registrar), Mehdi Omidfar, and Max Price (Harvard University). We employed as excavators fourteen workmen from Erbil, Surezha village, and other nearby villages. Two workers from Erbil worked with us to wash excavated potsherds in our laboratory at the Erbil Museum of Civilizations.

We wish to thank the General Directorate of Antiquities and Museums for the opportunity to undertake this project. We particularly thank the Kurdistan Regional Government (KRG) General Director of Antiquities and Museums, Mr. Mala Awat-Abu Bakr Othman, and the Assistant Director, Mr. Nader Abu Bakr, for their support and assistance. We are grateful for the administrative and logistical help of the Erbil Directorate of Antiquities and Museums, and its director Mr. Haider Hussein. In the first season of excavations at Surezha, our government representatives were Ghareeb Ismail, Rozhgar Rashid, and Pawan Kamal from the Erbil Directorate of Antiquities and the Erbil Museum of Civilizations. Financial support for the Surezha excavations came from the National Science Foundation (grant no. 0917904), the Oriental Institute of the University of Chicago, and the generosity of private donors, notably Mr. Harvey Plotnick. We also thank the Oriental Institute of the University of Chicago — especially Mr. Steven Camp — for administrative support for this project.

Goals for the 2013 Field Season

The 2013 field season had six main goals:

1. Develop a complete topographic map of the site.
2. Conduct controlled surface collections over the entire extent of Surezha in order to determine overall site size and the extent of occupation in different time periods.
3. Excavate a step trench down the west slope of the high mound to determine the stratigraphic sequence of the Chalcolithic occupation levels.
4. Excavate two 5 × 5 meter trenches to explore the Chalcolithic occupations on the east and south slopes of the high mound.
5. Excavate a 3 × 3 meter sounding in the lower town to determine the nature and date of occupation in that part of the site.
6. Field laboratory recording and analyses of the Chalcolithic ceramics in order to identify the characteristic pottery types for the main Late Chalcolithic periods.

Mapping

Three-dimensional (3-D) laser scan mapping of Surezha was conducted by a German-Iranian team from the Berlin-based surveying company Ingenieurbüro Gilan. The team established five permanent datum points on top of and around the main mound. Loghman Ahmadzadeh developed the final topographic map of the site (fig. 2).

Controlled Surface Collections

Henrike Backhaus conducted a program of controlled surface collections designed to determine the overall size of the ancient settlement of Surezha, and specifically how large the settlement was during the Chalcolithic period. One hundred and two collection units, mostly of 100 square meters, were collected in radial transects, grid transects, and additional individual units on the high mound, terrace, and lower town (fig. 3). In each sampling unit all ceramic sherds and chipped stone were collected, counted, weighed, and photographed, with special attention to the presence of Ubaid painted sherds and Late Chalcolithic chaff-tempered graywares as indicators of Chalcolithic occupation. In all, 33,578 sherds were processed, weighing about 342 kilograms. Thirty-three soil samples were taken as well for phosphate and other analyses to determine whether they derived from a settled area or fields outside of the site. To determine the size of the site, collection units were laid out in tran-

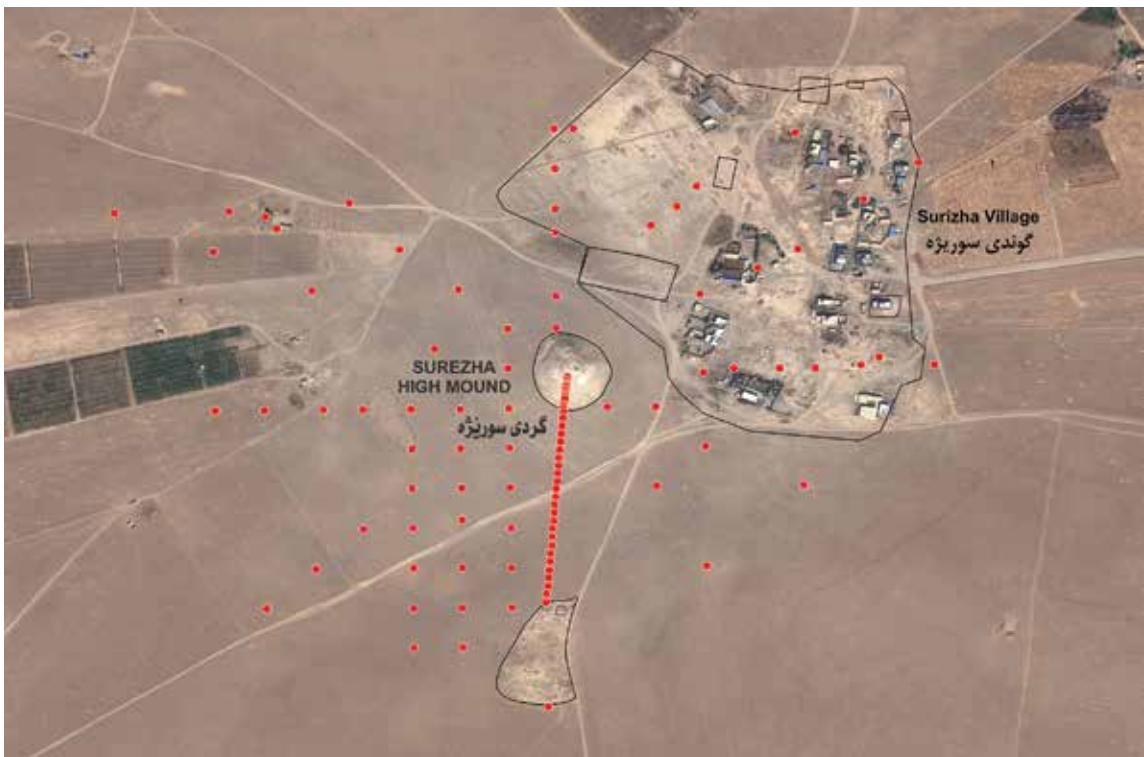


Figure 3. Satellite image of Surezha showing locations of controlled surface collection units. Surface ceramics and chipped stone pieces from controlled surface collections help to reconstruct the total occupied area of the site and its settlement history

sects extending out from the high mound in all directions. Sherds were collected until the density of sherds dropped to less than 0.5 sherds per square meter. At this point we concluded that we had reached the edge of the site. The controlled surface collections determined that the total occupied area of Surezha for all time periods combined was somewhere between 27 and 31 hectares.

Excavations

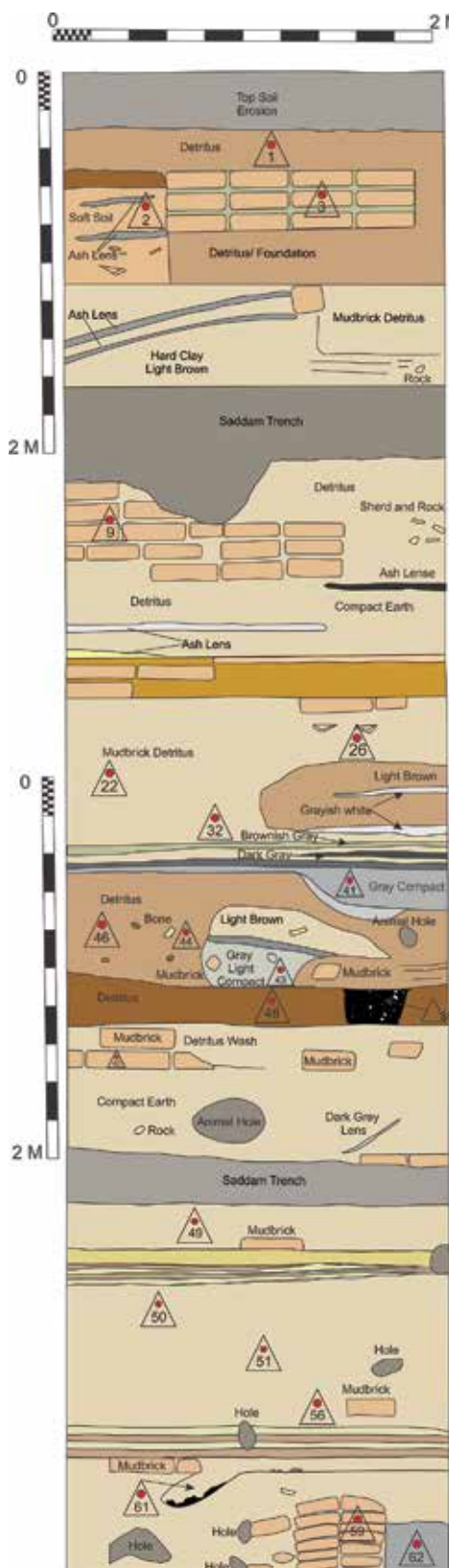
Excavations at Surezha began on August 19, 2013. Excavations were conducted in four trenches (called “operations”) across the site (fig. 2).

Operation 1 – Step Trench (Abbas Alizadeh, Loghman Ahmadzadeh, Mehdi Omidfar)

Operation 1 was opened as a long, 2-meter-wide step trench extending down the northwest slope of the high mound (fig. 4). Operation 1 was designed to recover stratigraphically intact deposits with the data needed to document the Chalcolithic occupation history of the site. Excavations started approximately 2 meters below the top of the mound in order to avoid the disturbed uppermost layers dating to later historic periods (especially the modern era, when the Surezha high mound was used as an anti-aircraft emplacement during the Iran-Iraq war of the 1980s). The steps of the trench recovered occupational deposits, architecture, stratigraphy, and radiocarbon samples from the following key periods:

- Late Chalcolithic 4/5 (LC-4/5)
- Late Chalcolithic 3 (LC-3)
- Late Chalcolithic 3/2 transitional

Figure 4. Surezha operation 1 step trench stratigraphic section (drawing by Abbas Alizadeh, Loghman Ahmadzadeh, and Mehdi Omidfar)



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- Late Chalcolithic 2 (LC-2)
- Late Chalcolithic 1 (LC-1)
- Ubaid deposits were not reached in the 2013 season.

In all deposits, large numbers of ceramics were recovered — these are especially important to allow us to identify the characteristic local ceramic forms for each period. In the LC-3 layers (dating to the beginning of the fourth millennium BC), we recovered a stamp-seal impressed container sealing on unbaked clay with a geometric double-spiral design (fig. 5). In the underlying LC-2 occupation (dating to 4200–3850 BC), excavations uncovered a series of mudbrick rooms containing in-situ complete and largely complete ceramic vessels, including a double-mouthed jar (figs. 6–7).



Figure 5. Stamp seal impression (SR0097) with double spiral motif from LC-3 level of the Operation 1 step trench, dating to the early fourth millennium BC (corresponding to the early Middle Uruk period in southern Mesopotamia). Scale 2:1



Figure 6. Operation 1: group of four LC-2 complete ceramic vessels, including a large double-mouthed jar (SR0926)



Figure 7. Operation 2: double-mouthed jar (SR0926) from LC-2 deposits



Figure 8. Ubaid baked clay "mullers" from excavated LC-1 context in Operation 1 and from site surface

Excavations recovered more than 2.70 meters of deposits dating to the Late Chalcolithic 1 period. This period immediately follows the Ubaid period. Although we did not reach the Ubaid occupation levels that immediately underlie the LC-1 deposits, the increasing amounts of brown painted Ubaid pottery and worn Ubaid “mullers” (fig. 8) suggest that we are very close to the Ubaid levels and can expect to reach them in the next field season.

Operation 2 (Hamid Fahimi)

Operation 2 was opened as a 5 × 5 meter trench to explore the Chalcolithic deposits on the southern edge of the high mound in an area where Late Chalcolithic, Ubaid, and earlier Halaf pottery were all present on the surface. Immediately below the disturbed surface levels, excavations recovered intact mudbrick architecture, consisting of two small houses with multiple rooms and hearths dating to the LC-1 period (fig. 9). The two houses were separated by a narrow alleyway. One especially interesting discovery was a small carved stamp seal in the shape of a bird, with a crosshatched incised geometric design on the bottom (fig. 10). The 2013 excavations in Operation 2 ended in LC-1 levels. We anticipate reaching Ubaid deposits in the coming field season.

Operation 3 (Barbara Coutraud)

Operation 3 was opened as a 5 × 5 meter trench to explore the Chalcolithic deposits on the eastern edge of the high mound. Excavations showed that there were deep deposits of surface



Figure 9. Operation 2: LC-1 period architecture. two mudbrick houses with an alleyway running between them



Figure 10. LC-1 period bird-shaped stamp seal (SR0137) found in Operation 2, side view and crosshatched incised design on base. Scale: 2:1

wash, sometimes containing Uruk-period bevel-rim bowls, presumably washed down from their original contexts at the top of the mound. Bevel-rim bowls were also found in intrusive pits at the east edge of Operation 3. The slope wash deposits overlay a series of open areas or outdoor surfaces. One of these surfaces had a group of large vitrified plastered mudbrick fragments with curved interior surfaces. Based on the shape, plastering, and heat alteration, these seem to have been fragments of a collapsed kiln. Although these occupation surfaces were badly cut through by later pits, the ceramics in the deposits suggest that they date to the Late Chalcolithic 1 period (ca. 4800–4200 BC). Based on the presence of Ubaid ceramics on the modern ground surface around the trench, we anticipate reaching intact Ubaid deposits in Operation 3 in future field seasons.

Operation 4 (Max Price)

Operation 4 was opened as a 3 × 3 meter sounding designed to explore the nature of settlement in the lower town to the southwest of the high mound and terrace. The sounding extended down 2.80 meters and recovered occupation surfaces but with very little architecture and almost no ceramics. The latest occupation detected was a series of pits dating to the Ottoman period in the late eighteenth and early nineteenth centuries. The pits cut into a series of outdoor surfaces and one mudbrick wall stub that seems to date to the historic periods, probably the second millennium BC. Beneath these surfaces was a very clean silty deposit 1.5 meters deep, which may represent the long period when Surezha seems to have been abandoned after the Chalcolithic period. Beneath the silty abandonment layer in the lowest or earliest surfaces reached, the small number of badly damaged potsherds were chaff-tempered wares, apparently dating to the Chalcolithic period. Operation 4 showed that the lower town of Surezha was not very densely populated in either the historic or the Chalcolithic periods.

Laboratory Analyses

The Surezha project conducted laboratory work at the Erbil Museum from August 21 to September 18, 2013. The main areas of laboratory work were artifact processing, registration and documentation, ceramic analysis, and zooarchaeological analysis. Soil samples, radiocarbon samples, and obsidian samples were exported for analysis at laboratories in the United States, Germany, and France.

Registration: Artifact Processing, Registration, and Documentation

Kate Lieber and Sam Harris were the registrars responsible for processing, registration, and documentation. All information about these materials is entered into a computerized File-

Maker Pro 12 database designed for Surezha by Michael Fisher. The archaeological materials recovered by the Surezha excavations were assigned master registration numbers called “SR numbers” (SR = Surezha). The registrars and ceramicist John Alden supervised the washing and cleaning of all artifacts that came into the laboratory. After washing, the ceramics, chipped stone, and objects were photographed. The registrars made written descriptions and measurements of all the registered objects, and labeled each object with its SR number.

Obsidian Analysis

Twenty-five samples of excavated obsidian tools and production debris from Surezha were sent to the Centre Nationale de la Recherche Scientifique (CNRS) laboratory in Orléans, France, for analysis by Bernard Gratuze, Sophie Boucetta, and Lamya Khalidi. Chemical composition of the samples was conducted using Laser Ablation High Resolution Inductively Coupled Plasma Mass Spectrometry (ICP-MS). Comparison of the sample results with the geochemical profiles of known obsidian sources in the CNRS database determined that all derived from east Anatolian sources. Sixteen samples matched the well-known Nemrut Dağ source at the western edge of Lake Van. Another six samples matched the Meydan Dağ source at the northeast edge of Lake Van. Surprisingly, two of the Surezha samples derived from obsidian flows in the region of Sarikamish, to the north of Lake Van, and one sample matched the “3-D” source, an as-yet unidentified obsidian flow in the Van region. Together, the Surezha samples show the existence of a north-south trade route linking the Erbil plain with key obsidian source areas in eastern Anatolia during the Chalcolithic period. This is consistent with the evidence from other Chalcolithic sites such as Hamoukar and Brak in the Khabur plains, and Tell Nader near Erbil.

Ceramic Analysis

John Alden and Gil Stein conducted the ceramic analysis in 2013. We processed 396 bags of pottery; 93 of these were from the systematic surface survey of the ancient settlement, while the remaining 303 were excavated material from the four areas the project was investigating. We separated and photographed over 3,000 excavated ceramic sherds from the four operations for typological and chronological analysis. About 600 diagnostic ceramics were drawn. Our goals from these studies are to define the chronological periods when Surezha was occupied, to learn how the size of the ancient settlement changed over time, to understand how the people living at the site organized their daily lives, and to determine what kinds of social and economic contacts the people of Surezha had with other parts of Kurdistan, with southern Mesopotamia, and with neighboring regions of highland Iran.

In this first season of work, our most immediate goal was to understand the chronology of the sequence of occupations at Surezha. From the styles of the ancient pottery that have been found on the site, we know Surezha was occupied during part or all of the Halaf, Ubaid, Late Chalcolithic, and Uruk periods. In this year’s work, our primary focus was the excavation of the Operation 1 step trench, where we successfully excavated a series of deposits covering the LC-1 to the LC-3 periods.

Surface finds of baked clay mullers and ceramics indicate that there was a significant Ubaid occupation at Surezha (fig. 11). The ceramics recovered from the stratigraphic excavations at Surezha indicate that, after the Ubaid period, the material culture of the Chalcolithic occupation of the Erbil plain differed in significant ways from contemporaneous occupations in other parts of upper (northern) Mesopotamia such as the Tigris-Mosul region, the Khabur



Figure 11. Ubaid ceramics recovered as surface finds from Surezha

headwaters region, and the Balikh River valley in north Syria. Although in very general terms this region can be related to widely distributed Late Chalcolithic assemblages in the north, nevertheless, the LC 1–3 periods at Surezha are characterized by distinctly local ceramic assemblages. In the 2013 season we began the process of defining the typology of these local ceramic assemblages.

As an example, some of the most distinctive and diagnostic forms of ceramic decoration in the LC-1 period are incised chevron and zigzag patterns and deep, regular comb incised horizontal bands (fig. 12). These forms occur in association with devolved forms of Ubaid-derived painted wares and appear to be characteristic of LC-1 sites on the Erbil plain and immediately adjacent sites such as Makhmur and Gawra.

The Surezha ceramic sequence is thus a critical tool that will help archaeologists understand how the regional settlement system developed during this era of prehistory, and when and how the first cities in Kurdistan developed in relation to southern Mesopotamia.



Figure 12. LC-1 diagnostic ceramics on the Erbil plain: (top) note sherds with zigzag incision, deep combed-incised horizontal bands, and crudely painted, Ubaid-derived wares; (bottom) sherds with incised chevron decoration and deep comb-incised sherd

Site Chronology and Radiocarbon Dates

One of the most important results of our first season at Surezha is that we have begun to develop a locally based radiocarbon chronology for stratigraphically excavated ceramic assemblages on the Erbil plain in the Late Chalcolithic 1, 2, and 3 periods. Our excavations were able to recover and process sixteen radiocarbon samples from these assemblages and date them using Accelerator Mass Spectrometry (AMS — see fig. 13 and table 2). For the LC-3 and 2 periods, our dates are consistent with the chronology of these phases in other regions of upper Mesopotamia such as southeast Turkey, the Middle Euphrates, the Balikh Valley, and the Khabur plains. However, one of the most significant implications of the LC-1 radiocarbon dates is that the Ubaid period seems to have ended earlier on the Erbil plain than in other parts of the Ubaid interaction sphere. Six samples from two separate operations (1 and 2) are consistent in showing that the LC-1 period began about 4800 BC (if not before) — at least 300 years earlier in the Erbil region than the 4500 BC initial date when the LC-1 began in the Upper Khabur or the Balikh. Clearly this initial conclusion needs to be carefully investigated by further investigations at Surezha and hopefully at other sites in the Erbil region and neighboring zones. For this reason, the completion of the step trench and the recovery of the Ubaid-to-LC-1 transition at Surezha are primary goals for future field seasons.

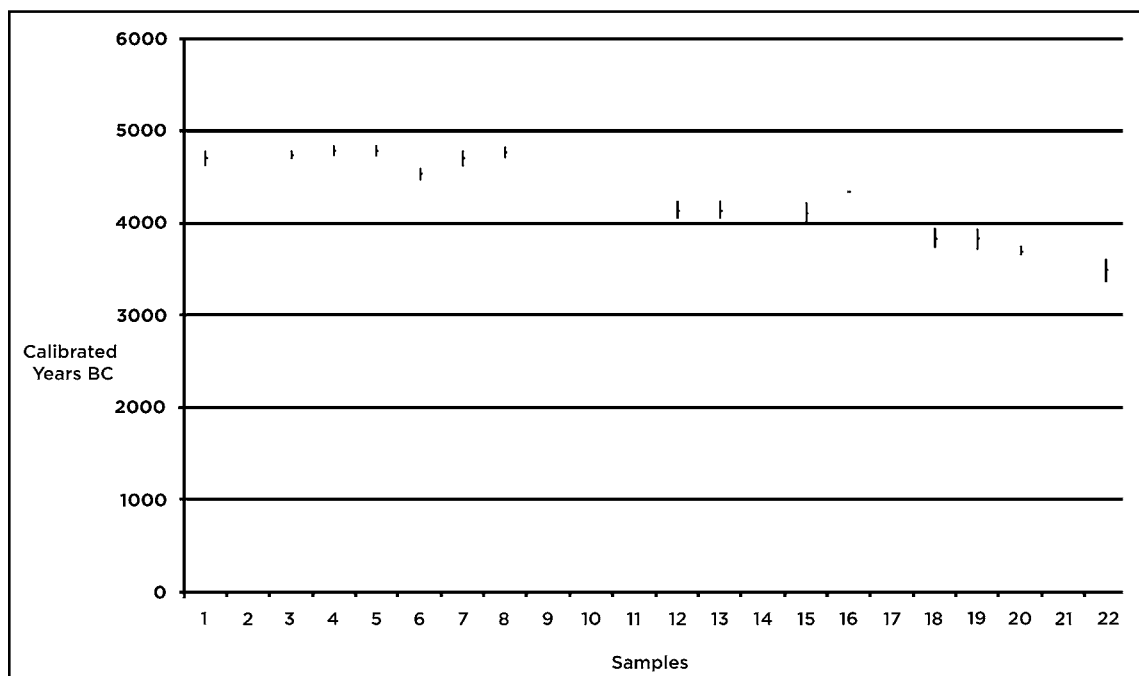


Figure 13. Surezha 2013 calibrated AMS radiocarbon dates for the LC-1, LC-2, and LC-3 periods

Table 2: Surezha 2013 radiocarbon dates

Beta No.	SR No.	Operation No.	Locus	Lot	Phase	Conventional Age BP	2 Sigma Calibration	Comments
360647	SR1025	1	56	62	LC-1	5850 +/- 30	4790-4680 Cal BC 4630-4620 Cal BC	—
360651	SR1402	1	60	66	LC-1	5860 +/- 30	4790-4690 Cal BC	—
360650	SR1243	2	35	65	LC-1	5920 +/- 30	4840-4720 Cal BC	—
360631	SR0182	2	7	19	LC-1 ?	5920 +/- 30	4840-4720 Cal BC	—
360632	SR0199	2	14	22	LC-1 ?	5700 +/- 30	4600-4460 Cal BC	—
360637	SR0753	2	14	23	LC-1 ?	5840 +/- 30	4780-4680 Cal BC 4670-4670 Cal BC 4660-4650 Cal BC 4640-4620 Cal BC	—
360638	SR0795	2	20	37	LC-1 ?	5890 +/- 30	4830-4810 Cal BC 4810-4710 Cal BC	—
360643	SR0924	1	46	54	LC-2	5320 +/- 30	4250-4040 Cal BC	—
360644	SR0932	1	44	55	LC-2	5310 +/- 30	4240-4040 Cal BC	—
360645	SR0935	1	44	55	LC-2	—	—	—
360646	SR0948	1	44	53	LC-2	5260 +/- 30	4230-4200 Cal BC 4170-4130 Cal BC 4120-4090 Cal BC 4080-3980 Cal BC	—
360636	SR0696	4	22	45	LC-2 ?	5470 +/- 30	4350-4320 Cal BC	—
360635	SR0093	1	26	37	LC-3	5040 +/- 30	3950-3750 Cal BC 3720-3720 Cal BC	—
360639	SR0880	1	32	43	LC-3	5020 +/- 30	3940-3860 Cal BC 3840-3840 Cal BC 3820-3710 Cal BC	—
360640	SR0881	1	32	43	LC-3	4910 +/- 30	3760-3740 Cal BC 3710-3640 Cal BC	—
360629	SR0062	1	14	27	LC-3 ?	—	—	—
360634	SR0675	4	17	35	LC-4 ?	4670 +/- 30	3620-3610 Cal BC 3520-3360 Cal BC	LC pottery and possible beginning of abandonment layer
360630	SR0064	1	14	27	Middle Bronze	3230 +/- 30	1600-1590 Cal BC 1530-1430 Cal BC	Second millennium
360633	SR0266	4	5	26	Ottoman	50 +/- 30	1700-1720 Cal AD 1820-1830 Cal AD	Pit with Ottoman pipe fragment

Conclusions and Directions for Future Research

The results of our first field season of excavations and surface survey suggest that Surezha can play a key role in defining for the first time a locally based Chalcolithic sequence of material culture and chronology for the Erbil plain. This is important because the Erbil plain east of the Tigris River had its own regional culture that was related to, but far from identical with the better-known cultural sequence of southern Mesopotamia. Our excavations and systematic surface collection surveys have established that the high mound at Surezha has an apparently continuous prehistoric Chalcolithic sequence extending back from the Middle Uruk period (equivalent to the Late Chalcolithic 4 period in northern Mesopotamia) back in time through the Late Chalcolithic 3, Late Chalcolithic 2, Late Chalcolithic 1, Ubaid, and Halaf periods. Excavations in 2013 reached LC-1 levels dating to the first half of the fifth

millennium BC. Surface finds of ceramics indicate that Ubaid and Halaf strata underlie the LC-1 deposits. We must also allow for the possibility that (as yet undetected) earlier Neolithic strata might be present in the earliest levels of the site, beneath the Halaf. The Surezha excavations thus have the potential to provide a radiocarbon-dated, locally based ceramic sequence that can serve as the foundation for regional studies of the Chalcolithic prehistory of the Erbil plain and adjacent areas.

The distributional density of surface ceramics from controlled surface collections have established the combined occupied area of the high mound, terrace, and lower town at approximately 27–31 hectares. Although some fourth-millennium ceramics were recovered in soundings at the base of the southwest terrace, most of the sparse lower town occupation dates to the second and first millennia BC, with sporadic re-occupations up through the Islamic and Ottoman periods.

Our results so far indicate that the Chalcolithic cultures of the Erbil plain interacted with northern and southern Mesopotamia in the Halaf, Ubaid, and Uruk periods, as evidenced by the presence of ceramic styles from these periods and cultures in the stratified sequence of Surezha. However, the material culture at Surezha retained a strongly local character, and Mesopotamian influences seem to have been sporadic — waxing and waning over time — rather than continuous and strong at all times at Surezha (and presumably the Erbil plain more generally).

We can see this best in the radiocarbon data, which suggest that Ubaid influences at Surezha ended several hundred years earlier than the fading of Ubaid influences in north Syria and even at sites such as Tepe Gawra XIII. At this latter site, we see Ubaid pottery along with ceramic types that we now can identify as LC-1, based on the Surezha excavations. This suggests that Ubaid influences on material culture were still strong at Tepe Gawra near Mosul around 4800 BC, even though Ubaid ceramic styles had by then already disappeared from contemporaneous sites on the Erbil plain such as Surezha, where they were replaced by distinctive, local LC-1 ceramic forms and styles.

This difference in contemporaneous ceramic styles between the Erbil plain and northern Mesopotamia in the early fifth millennium suggests that the Erbil region may have pursued different developmental pathways from those in the better-known regions of lowland northern and southern Mesopotamia.

In future field seasons, we hope to reach Ubaid and Halaf deposits in Operation 1, while expanding our exposures of LC-1 deposits in Operation 2 at the southern base of the high mound. As this work progresses, we plan to complete the close documentation and dating of the Surezha Chalcolithic sequence, while laying the groundwork to investigate the degree of sociocultural complexity on the Erbil plain in the Chalcolithic, and the ways that towns and cities first developed in this important region beyond the Tigris.
