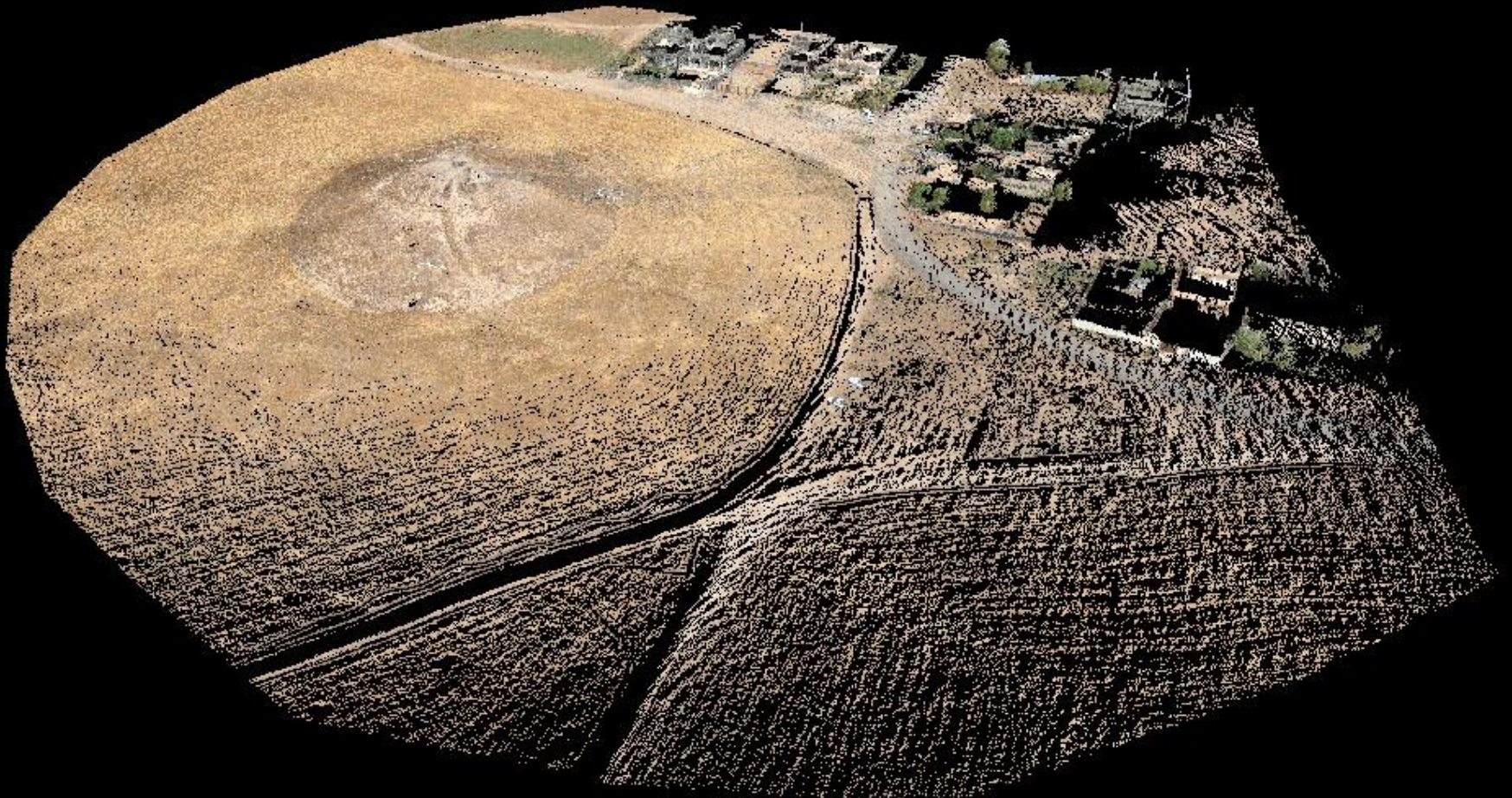


Kurdish Chalcolithic Conundra: Regional Identities and Local Variation at Surezha and Greater Mesopotamia

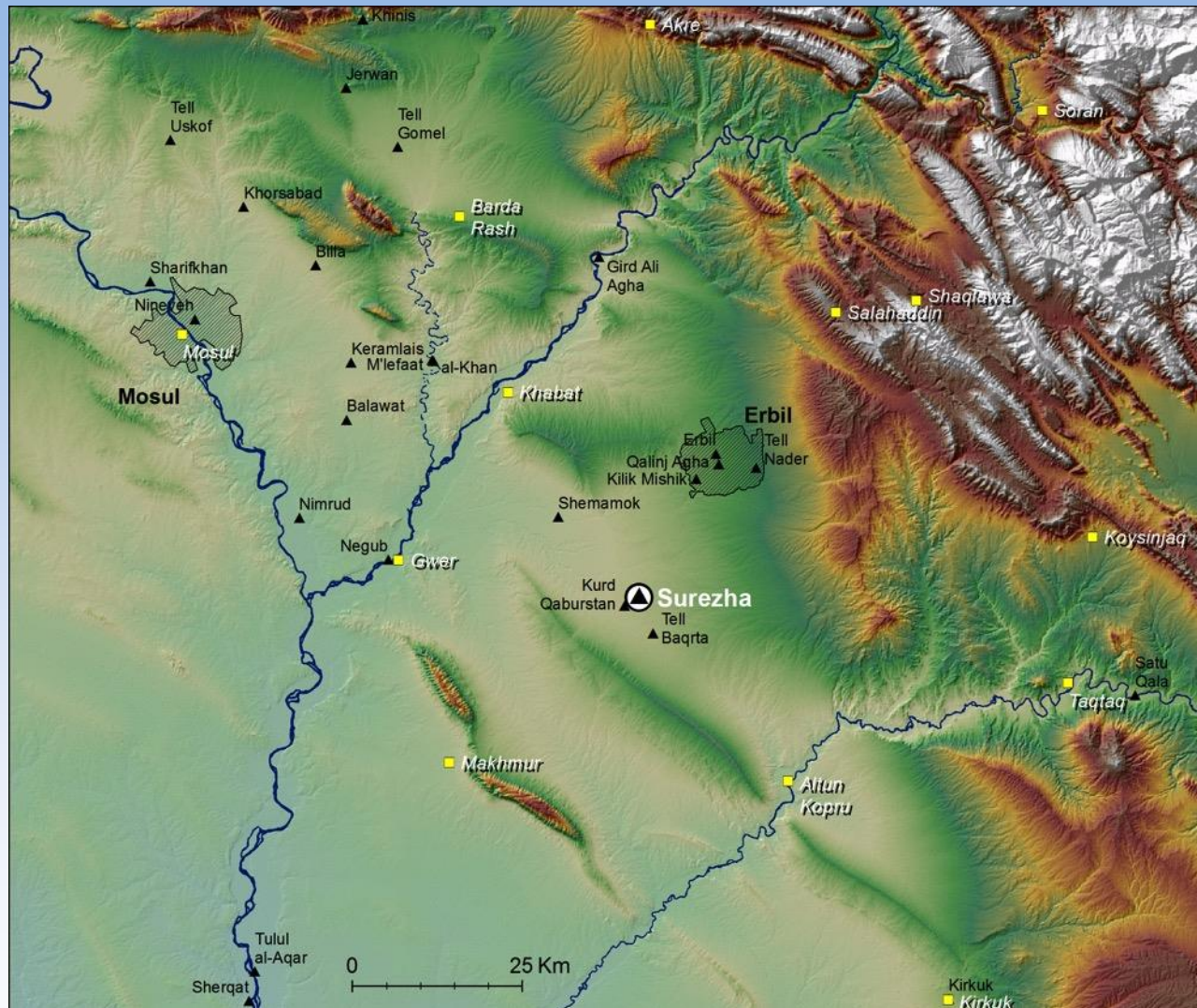


Gil Stein (U. Chicago) gstein@uchicago.edu ASOR Annual Meeting, Boston, - Nov. 16, 2017

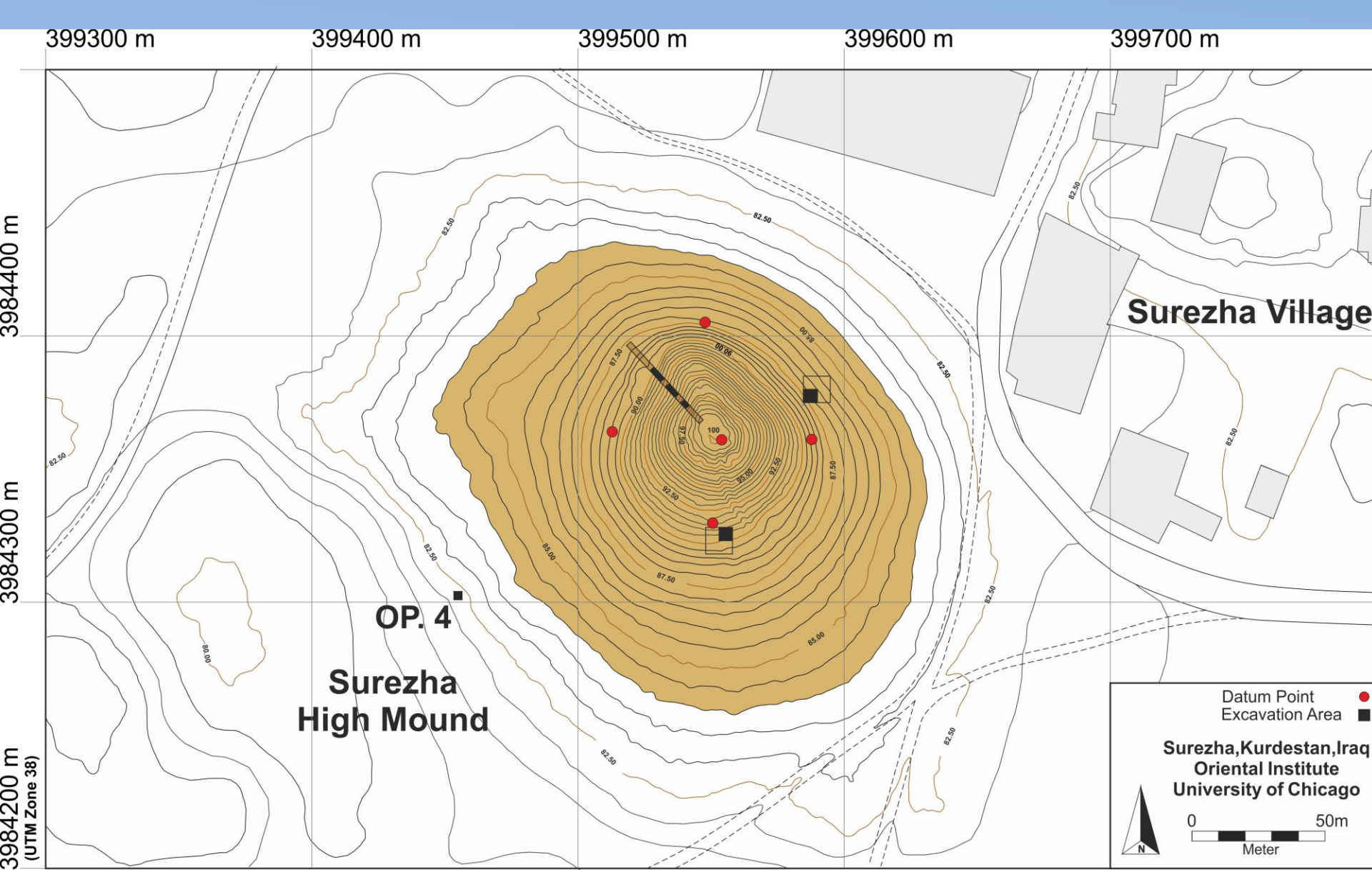
Main Mesopotamian Chalcolithic sites in the 6th-5th Millennium BC



Erbil Plain and Surezha (Kurdistan Region, Iraq)



(Map – courtesy of Jason Ur and EPAS)



Surezha Chalcolithic sequence



Middle Uruk period (=LC4)
3600-3300 BC



Late Chalcolithic 3 (LC3)
3850-3600 BC



Late Chalcolithic 2 (LC2)
4350-3850 BC

Late Chalcolithic 1 (LC1)
4800-4350 BC



Ubaid : 5300-4800 BC (?)

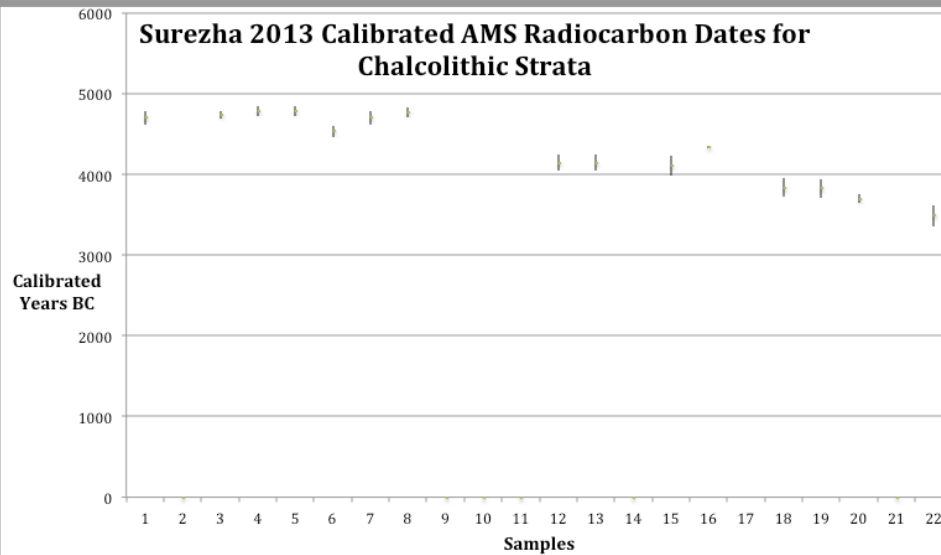


Halaf : 5800-5300 BC (?)



Surezha Calibrated AMS Radiocarbon Dates

Surezha 2013 Calibrated AMS Radiocarbon Dates for Chalcolithic Strata



LC1: ca 4800 – 4350 ?? BC (end point uncertain).

LC2: ?? 4350 (beginning uncertain) – 3950 BC

LC3: ca 3950-3650 BC

LC4: ca 3650- 3350 BC

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

Goals:

- *Define the LOCAL ceramic sequence and chronology for Surezha and the Erbil Plain**
- *Trace development of economic differentiation and social complexity from Ubaid → LC1 → LC2**
- *Map changes in the role of inter-regional interaction with Mesopotamia and other regions in the development of complexity on Erbil Plain**

Surezha High Mound and 2017 excavation areas

Area B

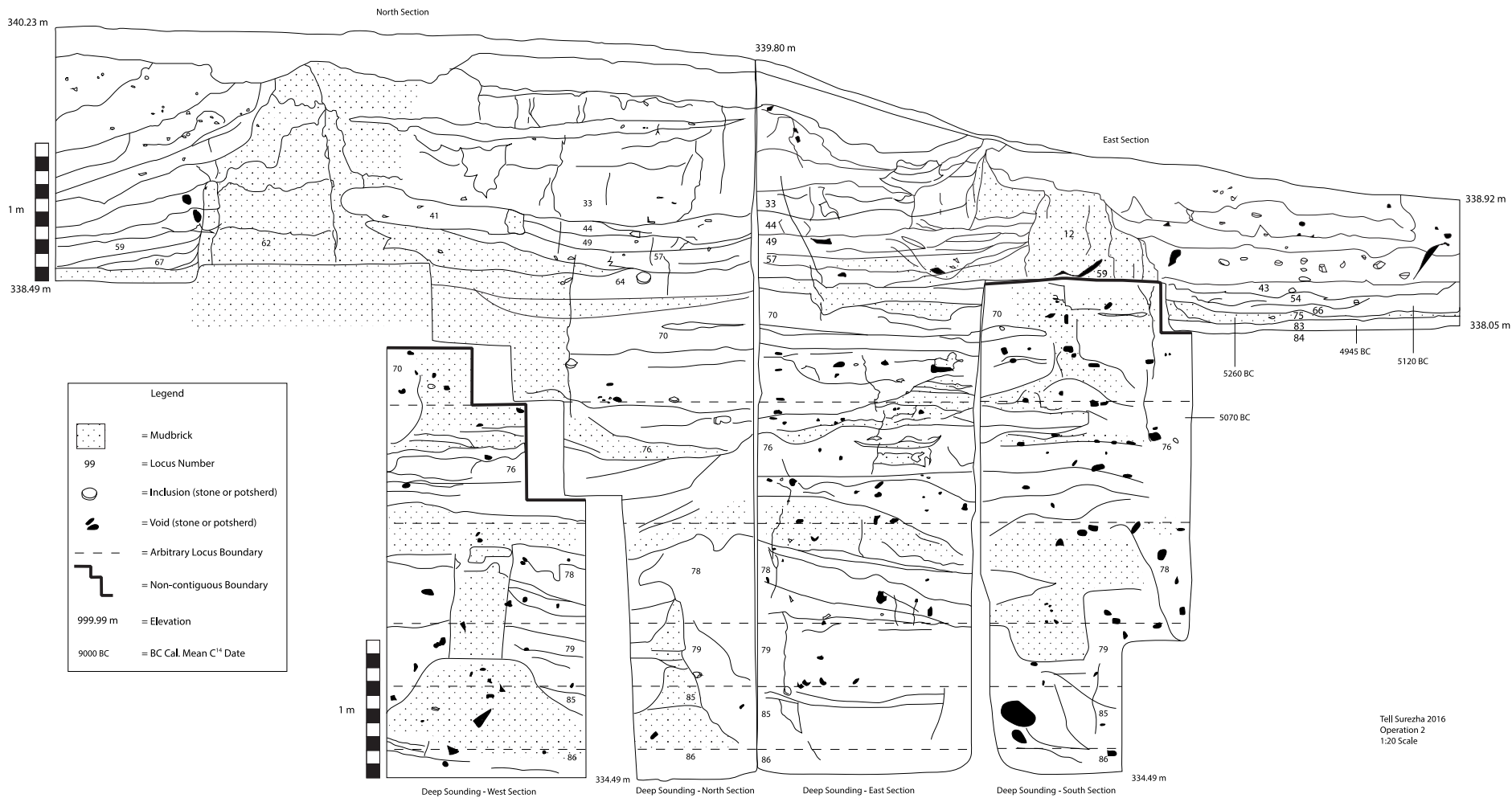
10

9

2

UAV image – courtest J. Ur and EPAS

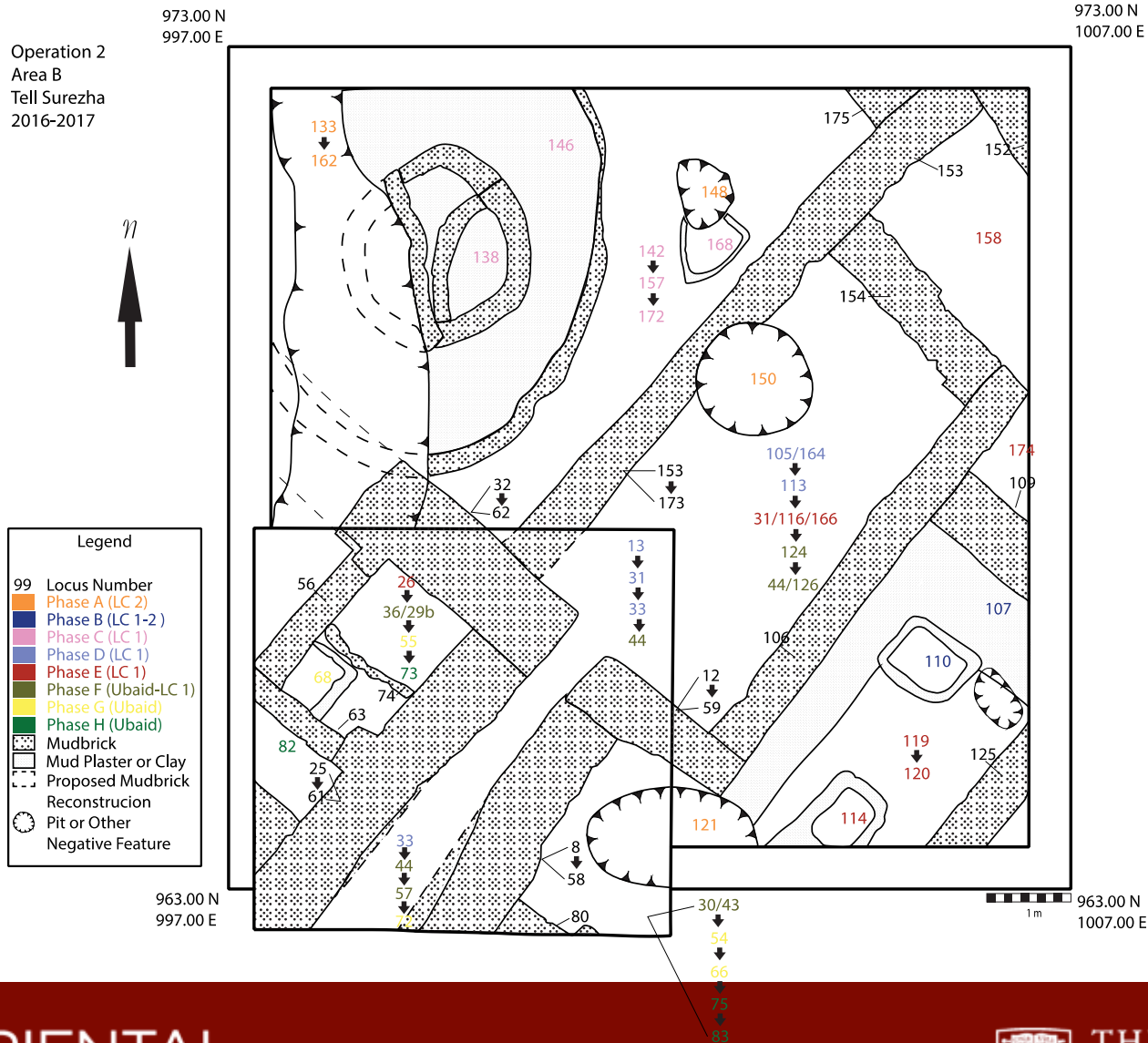
Operation 2: LC1 and Ubaid stratigraphic sequence



Tell Surezha 2016
Operation 2
1:20 Scale

Surezha Operation 2:

Domestic Architecture shows strong continuities from Ubaid to LC1

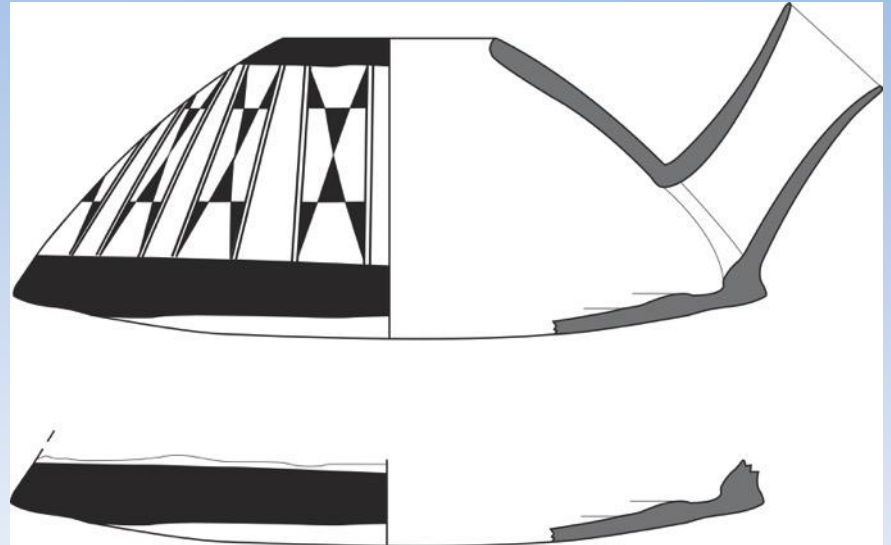


Ubaid phase at Surezha-

- *First evidence for emergence of Elites**
- *Close material culture ties to Ubaid South Mesopotamia**



Surezha:
Ubaid ceramics & clay nails/mullers



Reconstructed Ubaid style
Lenticular vessel ("Tortoise jar")
from Surezha –
Possible ritual vessel for use in temples?

Ubaid Prestige goods at Surezha:



Polished stone Palettes:
A. Zeidan, B. Surezha, C. Gawra



Carved stone stamp seal

Micro-archaeological sampling of house floors to reconstruct domestic economy



LC1 phase at Surezha-

****Changes in Subsistence Economy**

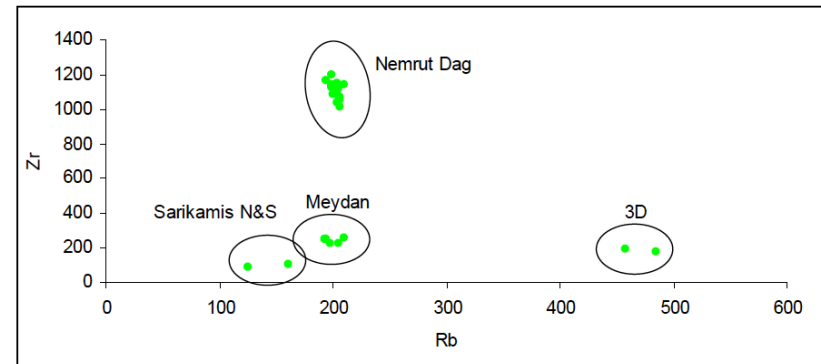
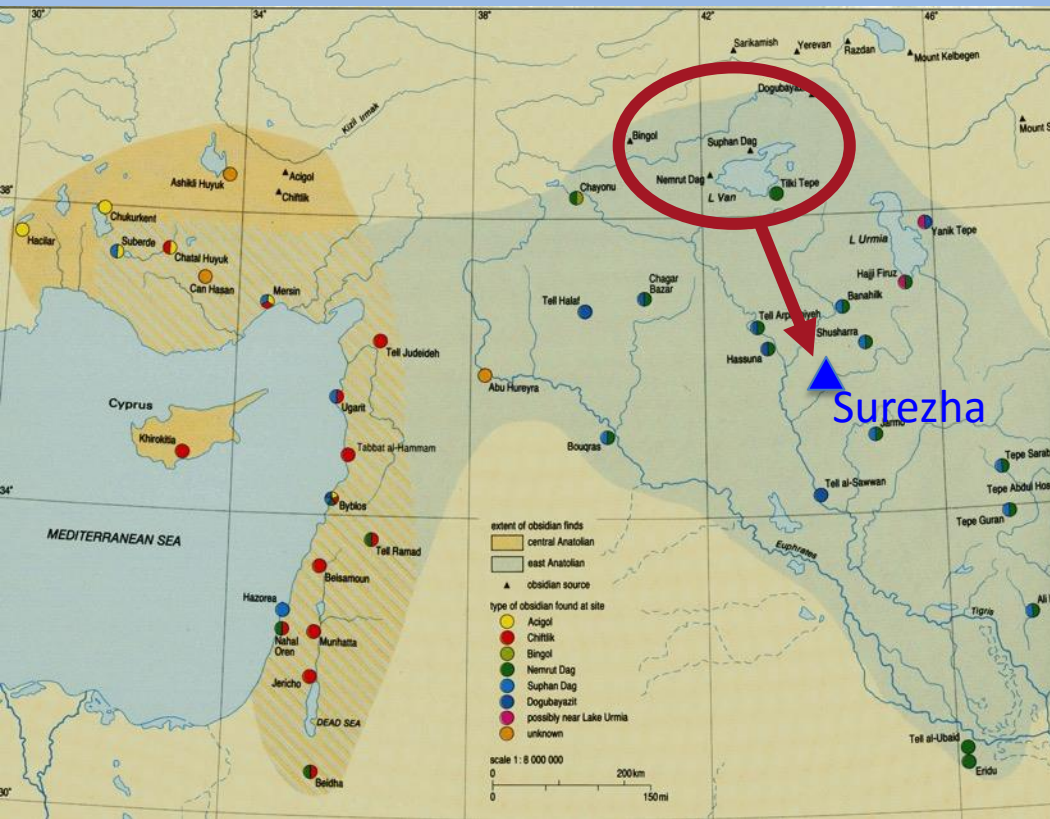
****Reorganization of Inter-regional Interaction**

Surezha LC1 Bitumen Hafted Sickle Elements



Blades are locally produced from local raw materials

Erbil Plain Connections to Eastern Anatolia in the Ubaid (& LC1) Period:



Binary diagram Rb-Zr for the analysed obsidian

LC1 Long-distance Obsidian exchange
From Eastern Anatolian sources –
Mainly Nemrut Dag (and Meydan Dag)

Surezha Archaeobotanical Remains

Rain-fed agriculture focused on drought tolerant crops –

Barley and Emmer Wheat – most common

Wood charcoal - rare. Dung fuel was used –

indicating either deforestation or natural open grassy steppe vegetation

Sample number	2764	2778	2786	2908/2910	2921	2782/2794	2800/2906	2422
Operation	1	1	1	1	2	5	5	8
Locus	80	82	83	87	83	24	28	4
Lot	18	23	23	30	88	29	37	5
Volume sediment (L)	10	5	5	8	1	9	12	6
Volume Light Fraction (mL)	7	2.8	5	18	5	99	40	15
Mass Light Fraction (g)	2.35	1.09	1.95	4.38	0.066	25.91	17.00	3.42
Recovery density mL/L	0.7	0.56	1	2.25	5	11	3.33	2.5
Recovery density g/L	0.24	0.22	0.39	0.55	0.066	2.88	1.42	0.57
Cereal grains								
<i>Triticum dicoccum</i>				x		xx	xx	x
<i>Triticum monococcum</i>						x	x	x
<i>Triticum durum/aestivum</i>						x	x	x
<i>Triticum</i> sp. <i>indet.</i>	x		x	x		xx	xx	
<i>Hordeum vulgare</i>	xx	x	x	x		xxx	xx	x
Cereal frags < 1–2mm	xxx	xx	xx	xxx		xxxx	xxxx	xxx
Cereal <i>indet.</i>	x		x	x	x	xxx	xxx	xxx
Cereal processing debris								
<i>Hordeum</i> sp. rachis				x		x		
<i>T. monococcum</i> spikelet fork								x
<i>T. durum/aestivum</i> rachis						x		
<i>Triticum</i> sp. spikelet fork	x		x	x		xx	xx	x
<i>Triticum</i> sp. glume base	x	x	x	x		xxx	xx	x
<i>Triticum</i> sp. rachis						x	x	
Cereal glume				xx		x		
Cereal rachis <i>indet.</i>	x			x		x	x	
Basal rachis <i>indet.</i>				x			x	
Basal culm (<2mm)			x	x				
Cereal culm (<2mm diameter)				x		x	x	
Cereal embryo			x	x		xx	x	
Pulses								
<i>Lathyrus/Vicia</i> type			x					
<i>Lens culinaris</i>							x	x
Large legume <i>indet.</i>		x		x		x		x
Other								
<i>Carthamus tinctorius</i>							x	
<i>Linum usitatissimum</i>	x	x		x				x
Nut shell						x	xx	

(Data: Lucas Proctor 2016)

Surezha Faunal Remains (2016 field season)

Sharp Increase from Ubaid to LC1

in ratio of sheep/goats relative to pigs-

possible evidence for intensified wool and textile production

Identified Taxa	Post-Halaf	Ubaid	Ubaid-LC 1	LC 1
Ovis/Capra	7	31	17	39
Ovis	(0)	(0)	(3)	(1)
Capra	(1)	(1)	(1*)	(16)
Sus	3	40	16	16
Bos	7	11	9	2
Gazella	1	0	0	0
Canis	0	1	0	1
Total	18	83	42	58

(data: Max Price 2016)

Surezha LC1 Craft Economy - Textile Production: Weaving tool, looms, loom-weights, needle, spindle whorls



The Erbil Plain and its Neighbors: Changing Patterns of Inter-Regional Interaction

**Ubaid Period:
Local Culture of Erbil Plain
has ties to South (Mesopotamia),
and ties to Anatolia through the obsidian trade**



LC1 Period:
Local Culture of Erbil Plain
expands scope of interaction-
continuing ties to:

South Mesopotamia

Anatolia

While establishing new ties to:

North Mesopotamia (Jazira)

Northwestern Iran

Surezha LC1

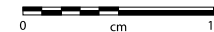
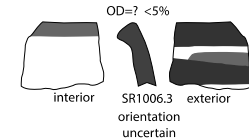
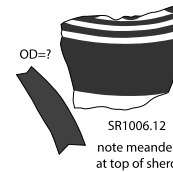
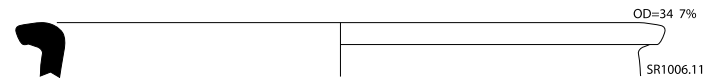
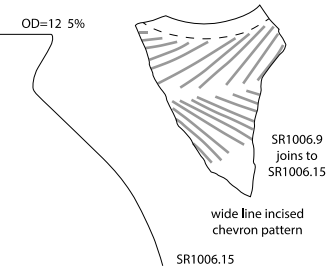
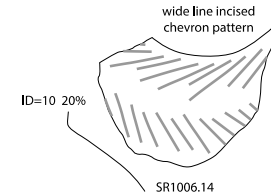
Local Style Incised Ware Ceramics: Deep Comb Incision” and “Herringbone Incised”



Surezha



Surezha



Tell Ibrahim Bayis- Makhmur: Amin
& Mallowan 1950

Erbil Plain Connections to South Mesopotamia in the LC1 Period:

At Surezha - LC1 Ubaid-derived painted ceramic styles continue –

BUT they are now CHAFF TEMPERED WARES

(in Ubaid period – mineral tempered painted wares)



Ubaid levels: **Mineral** tempered wares



LC1 levels: **Chaff** tempered wares



**Erbil Plain Connections
to North
Mesopotamia
in the LC1 Period:**

**a Local version of
“Sprig Ware”**

**Unique occurrence
of a Jazira LC1
diagnostic type at Surezha**

Erbil Plain Connections to North Mesopotamia in the LC1 Period: “Blister Ware”

Diagnostic Jazira LC1 Pottery at Surezha



Erbil Plain Connections to Northwest Iran in the LC1 Period:

“Dalma Impressed Ware”

Solduz-Ushniu-Urmia region Diagnostic LC1 Pottery

Occurs in latest LC1 phase at Surezha



Dalma Impressed Ware from Dalma Tepe Lake Urmia Region – Northwest Iran

Dalma ware - found at NW Iranian sites such as:
Hajji Firuz, Pisdeli, Hasanlu, Dinkha, (Hamlin 1975:119-120)

Dalma Phase (= Hasanlu IX) :
ca 5000-4500 BC in NW Iran (Voigt and Dyson 1992)
Contemporaneous with Late Ubaid and LC1 at Surezha



Figure 36. Drawings of impressed, red-slipped, and painted wares from Dalmā Tepe. Photograph Hasanlu Project, The University Museum of Archaeology/ Anthropology.



The Erbil Plain and its Neighbors: Changing Patterns of Inter-regional Interaction in the 6th-5th mill. BC



Ubaid



LC1

Conclusions:

- * The Erbil Plain Chalcolithic cultures had a strongly local character, even during periods of increased interaction with Mesopotamia (e.g. the Ubaid)
- *The Ubaid period - earliest evidence for elite emergence in the region
- *LC1 period shows great continuities with the earlier Ubaid period, even though interaction with southern Mesopotamia declines in the LC1.
- *LC1 shows three main developmental changes –
 1. Economic Intensification: Shift toward greater importance of sheep/goats and woolen textile production
 2. Sharp increase in inter-regional interaction, with a new focus on contact and trade with North Mesopotamia and Northwest Iran
 3. Gradual increase in economic and social complexity from the Ubaid through LC1 (reaching full development of urbanism and political centralization in the LC2)

Acknowledgments:

The Surezha excavations are supported by the National Science Foundation, The University of Chicago Oriental Institute, and the generosity of private donors.



We thank Mr Abu Bakr Othman (Mala Awat) the General Director of Antiquities for the Kurdistan Regional Government (Iraq), and Mr. Nader Babakr, Director of Antiquities for the Erbil Governate for their support. We also gratefully acknowledge the staff of the Surezha project, and the workers from Erbil and Surezha village who carried out the excavations.