PROGRAM FOR THE 2nd INTERNATIONAL CONFERENCE HELD AT KÜLTEPE İKİNCİ ULUSLARARASI KÜLTEPE TOPLANTISI PROGRAMI

MOVEMENT, RESOURCES INTERACTION

DEVINIM, KAYNAKLAR ETKILEŞİM

KÜLTEPE July (26)-27-28-29-(30), 2015 (26)-27-28-29-(30) Temmuz 2015

MOVEMENT, RESOURCES, INTERACTION

The period 2500-1500 BCE saw the rise of centralized state power in Central Anatolia in a process of urbanization and political centralization that reached its zenith in the 20th century BCE. At this time the region was divided into dozens of densely populated microstates, each centered on an individual urban and palatial institution, but connected through a shared linguistic, material and religious horizon. One element that tied together this competitive system of peer polities was a complex network of commercial exchange operated by local and foreign merchants working within and beyond the region. The site of Kültepe located near the modern-day provincial capital of Kayseri provides the best documentation for this international network through a unique convergence of textual, physical and scientific data. A fortuitous (for posterity) destruction of the site around 1835 BCE has provided a dense and multi-facetted documentation that allows us to extrapolate well beyond its confines in both time and space, so as to explore some of the foundational technological, commercial, cultural and biological connections that spanned the Eurasian landmass in the Bronze Age.

The purpose of the second International Meeting at Kültepe is to anchor the site in the dimensions of time and space – both in concrete physical terms, and through e.g. belief patterns, technology, institutions, climate, language, genetics and visual art – by bringing together specialists to present studies on the effects of commercial and cultural interaction at the site in a broad perspective. The meeting consists of eight sessions, three of which are general, and a catchall for reports on ongoing work conducted at Kültepe. The remaining five sessions are thematic, and are set to dig deep into the problems of understanding Kültepe in relation to a set of specific topics: chronology, the origins and extent of the commercial system, resources, technologies and the infrastructure of production and exchange, and cultural interaction, social and political practices.

A pair of distinguished scholars, whose work in the past has not been devoted mainly to studies of material from Kültepe, but whose research has been instrumental for placing it in a broader historical context, will lead each of the thematic sessions. In most cases, the session leaders are paired so that one comes from a material-culture background, while the other has focused on the written record. We hope that such a merger of approaches will be reflected in the papers given at the meeting, and that the speakers will embrace the unique opportunity presented by the site of Kültepe for interdisciplinary and integrative approaches. The chairs will lead brief discussions at the end of each paper, and present a brief summary of the main points made in their session as part of a panel that directs a closing plenary discussion on the three key topics of the meeting.

The conference and publication language is English. Conference proceedings will be published in a peer-reviewed sub-series of the journal Subartu (Brepols: Turnhout). Article submissions are due by January 1st, 2016. Final publication is set for the spring of 2017.

PROGRAM FOR THE 2nd INTERNATIONAL CONFERENCE AT KÜLTEPE

İKİNCİ ULUSLARARASI KÜLTEPE TOPLANTISI PROGRAMI

KÜLTEPE

July (26)-27-28-29-(30), 2015 (26)-27-28-29-(30) Temmuz 2015

Conference Organizers / Toplantıyi Düzenleyenler Fikri Kulakoğlu & Gojko Barjamović

JULY 26th, 2015

26 TEMMUZ 2015

18:00-20:00 Conference Opening Ceremony

Toplantı Açılış Töreni

Welcome (F. Kulakoğlu, G. Barjamović)

Hoşeldiniz

Official Opening Talk (C. Michel)

Resmi Açılış Konuşması

Reception

Resepsiyon

20:00-22:00 Dinner Yemek

JULY 27th, 2015

27 TEMMUZ 2015

09:15	Busses leave Kayseri Kayseri'den hareket
10:00-10:10	Welcome by Kulakoğlu and Barjamović Kulakoğlu and Barjamović'in Hoşgeldiniz Mesajı

SESSION 1: SOCIAL AND CULTURAL INTERACTION 1

OTURUM 1: SOSYAL VE KÜLTÜREL ETKİLEŞİM 1

Chairs: W. Sallaberger (LMU Munich) and A. Schachner (DAI) Oturum Başkanları W. Sallaberger (LMU Munich) and A, Schachner (DAI)

10:10-10:30	P. Matthiae (Rome, La Sapienza)
	Opening Talk
	Açılış Konuşması
10:30-10:40	Discussion / Tartışma
10:40-11:00	K. R. Veenhof (Leiden University)
	Some Observations on Assyrian Loans to Native
	Anatolians
	Asurluların Anadolululara Verdikleri Borçlar Hakkında
	Bazı Gözlemler
11:00-11:10	Discussion / Tartışma
11:10-11:30	F. Kulakoğlu (Ankara University)
	Monumental Structures at Kültepe Dating to the
	Early Bronze Age and Evidence of Early State
	Organization in a Central Anatolian Polity
	Kültepe'de Eski Tunç Çağı'na Tarihlenen Anıtsal Yapılar ve
	Orta Anadolu'da Erken Devlet Organizasyonuna Ait
	Deliller
11:30-11:40	Discussion / Tartışma
11:40-12:10	Coffee / Kahve

12:10-12:30	A. W. Lassen (Yale University)
	The Bull-Altar in Kültepe Glyptic: Motif and
	Meaning
	Kültepe Gliptiğinde Boğa-Altarı: Motif ve Anlamı
12:30-12:40	Discussion / Tartışma
12:40-13:00	C. Pappi (Leipzig University)
0	Beyond the kārum. Shaping Old Assyrian Religious
	Spaces
dillo	Kārum'dan Öte. Eski Asur Dini Mekanlarını Betimlendirme
13:00-13:10	Discussion / Tartışma
13:10-14:30	Lunch / Yemek

SESSION 2: SOCIAL AND CULTURAL INTERACTION 2

OTURUM 2: SOSYAL VE KÜLTÜREL ETKİLEŞİM 2

Chairs: H. Hauptmann and M. Lebeau ECUMS Brussels)
Oturum Başkanları: H. Hauptmann and M. Lebeau ECUMS Brussels)

14:30-14:50	T. Yıldırım (Ankara University)
	Excavations at Resuloğlu and the Relation of
	Northern Anatolia with South/Central Anatolia and
	Syro-Mesopotamia in the late 3rd Millennium BCE.
	Resuloğlu Kazıları ve Geç Üçüncü Binyıl'da Kuzey Anadolu
	ve Güney/Orta Anadolu'nun Suriye-Mezopotamya ile
	İlişkileri
14:50-15:00	Discussion / Tartışma
15:00-15:20	J. de Ridder (Leipzig University)
	Slavery in Old Assyrian documents
	Eski Asur Belgelerinde Kölelik
15:20-15:30	Discussion / Tartışma
15:30-15:50	A. Anderson (Harvard University)
	The Old Assyrian Social Network: A Link Between
	Texts and Context
	Eski Asur Sosyal Ağı: Metinler ve İçerik Arasında bir
	Bağlantı
15:50-16:00	Discussion / Tartışma
16.00 16.70	Coffee / Kabya
16:00-16:30	Coffee / Kahve

SESSION 2 (CONT.): CHRONOLOGY OTURUM 2 (DEVAM): KRONOLOJI

16:30-16:50	S. Manning (Cornell University)
	The Status of Dendrochronological Dates for
	Kültepe and Associated Sites: Current Best
	Calendar Placements and Implications for Wider
	Chronological Discussions
	Kültepe ve İlişkili Merkezler için Dendrokronolojik
	Tarihler: Güncel Tarihlendirmeler ve Daha Geniş Çaplı
	Kronolojik Tartışmalar
16:50-17:00	Discussion / Tartışma
17:00-17:20	E. Stratford (Brigham Young University)
	Chronology of Commerce: Debt Notes and
	Intercalation in the Old Assyrian Calendar
	Ticaretin Kronolojisi: Borç Notları ve Eski Asur
1500 1550	Takviminde Eklemeler
17:20-17:30	Discussion / Tartışma
10.00	
18:00	Visit to the Mound of Kültepe (F. Kulakoğlu)
	Höyük Gezisi
19:00	Dinner / Yemek
19:00	Dinner / Temek

JULY 28th, 2015

28 TEMMUZ 2015

09:15 Busses leave Kayseri

Kayseri'den hareket

SESSION 3: RESOURCES, TECH. AND INFRASTRUCTURE 1 OTURUM 3: KAYNAKLAR, TEKNOLOJİ ve ALTYAPI

Chairs: A. Archi (Rome, La Sapienza) and B. Helwing (CNRS, Lyon-2) Oturum Başkanları: A. Archi (Rome, La Sapienza) and B. Helwing (CNRS, Lyon-2)

,	
10:10-10:30	M. T. Larsen (University of Copenhagen)
	A Complex Business Affair with Diplomatic
	Repercussions
	Diplomatik Yankıları olan Karmaşık Bir İş İlişkisi
10:30-10:40	Discussion / Tartışma
10:40-11:00	V. Şahoğlu (Ankara University)
	The Anatolian Trade Network and its role in the
	socio-economic and political development of
	Anatolia during the second half of the 3rd
	Millennium BCE
	Anadolu Ticaret Ağı ve Onun M.Ö. 3. Binyıl'ın İkinci
	Yarısında Anadolu'nun Sosyo-ekonomik ve Politik Gelişimi
	Üzerindeki Etkisi
11:00-11:10	Discussion / Tartışma
11:10-11:30	M. Massa (University College London)
	The Role of Kültepe in the Interregional Exchange
	Networks Between Anatolia and Upper
	Mesopotamia, 2800-1950 BCE
	Kültepe'nin M.Ö. 2800-1950'de, Anadolu ve Yukarı
	Mezopotamya Arasındaki Bölgelerarası Değişim
11 70 11 40	Ağları'ndaki Rolü
11:30-11:40	Discussion / Tartışma
11 /0 10 10	
11:40-12:10	Coffee / Kahve

12:10-12:30	G. Barjamović (Harvard University)
	Tracing the Origins of Assyrian Trade in Anatolia
	Anadolu'daki Asur Ticaretinin Kökeni Peşinde
12:30-12:40	Discussion / Tartışma
12:40-13:00	A. Palmisano (University of Exeter)
	Drawing Pathways from the Past: Bridging Upper
	Mesopotamia and Central Anatolia in the early
	Second Millennium BCE
	Geçmişten Yollar Çizmek: Erken M.Ö. 2. Binyıl'da Yukarı
	Mezopotamya ve Orta Anadolu'yu Bağlamak
13:00-13:10	Discussion / Tartışma
13:10-14:30	Lunch / Yemek
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SESSION 4: RESOURCES, TECH. AND INFRASTRUCTURE 2 OTURUM 3: KAYNAKLAR, TEKNOLOJÍ ve ALTYAPI

Chairs: H. Erkanal (Ankara University) and S. Manning (Cornell University) Oturum Başkanları: Erkanal (Ankara University) and S. Manning (Cornell University)

14:30-14:50	M. Çayır (Ankara University)
	The 1997 Kültepe Archives of Alākum, Ennam-
	Anum, and his Son Aššur-malik
	Alākum, Ennam-Anum ve Oğlu Aššur-malik'in 1997 Yılında
	Keşfedilmiş Arşivleri
14:50-15:00	Discussion / Tartışma
15:00-15:20	L. Atıcı (University of Nevada, Las Vegas)
	Feeding Cities: Revisiting Fundamental Theoretical
	and Methodological Issues in Urban Zoo-
	archaeology in Light of Research at Kaneš
	Şehirleri Beslemek: Kaneš'teki Araştırmalar İşığında Kent
	Zoo-arkeolojisindeki Temel Teoritik ve Metodolojik
	Konulara Tekrar Bakış
15:20-15:30	Discussion / Tartışma
15:30-15:50	A. Fairbairn and N. Wright (Univ. of Queensland)
	The Archaeobotany of Plant Trade at Bronze Age
	Kültepe

15:50-16:00	Discussion / Tartışma
16:00-16:30	Coffee / Kahve
16:30-16:50	L. Peyronel (IULM Milan) Ebla and Kültepe. Reflections on Commercial Interactions and Exchange Systems Between Northern Syria and Anatolia During the Middle Bronze Age Ebla ve Kültepe. Orta Tunç Çağı'nda Kuzey Suriye ve Anadolu Arasındaki Değişim Sistemleri ve Etkileşim
16:50-17:00	Discussion / Tartışma
17:00-17:20	J. G. Dercksen (University of Leiden)
17.00-17.20	One Word, Many Values: on Shekels and Minas Bir Kelime, Çok Kıymet: Şekeller ve Minalar Hakkında
17:20-17:30	Discussion / Tartışma
18:00	Visit to the Kültepe Lower Town (M. T. Larsen) Aşağı Şehir Gezisi
19:00	Dinner / Yemek

JULY 29th, 2015

29 TEMMUZ 2015

09:15 Busses leave Kayseri

Kayseri'den hareket

SESSION 5: REPORTS ON ONGOING WORK 1

OTURUM 5: DEVAM EDEN ÇALŞMALAR HAKKINDA RAPORLAR 1

Chair: C. Michel (CNRS, Nanterre)
Oturum Başkanı: C. Michel (CNRS, Nanterre)

10:10-10:30	A. Yener (Koç University)
	The Discovery of New Tin Mines and Production
	Sites near Kültepe, Ancient Kaneš in Turkey: a
	Third Millennium BC Highland Production Model
	Türkiye'de, Kültepe, Eski Kaneš Yakınlarında Yeni Kalay
	Madeninin ve Üretiminin Keşfi: M.Ö. Üçüncü Binyıl Yayla
	Üretim Modeli
10:30-10:40	Discussion / Tartışma
10:40-11:00	H. Üstündağ (Anadolu University, Eskişehir)
	Osteobiographies of some Individuals from Kültepe
	Bazı Kültepe Bireylerinin Osteobiografisi
11:00-11:10	Discussion / Tartışma
11:10-11:30	S. Lehner (Cotsen Institute of Archaeology) and E.
	Pernicka (CEZ Archäologie, Mannheim)
	The Provenance of Tin Used in the Production of
	Bronze During the Middle Bronze Age at Kültepe
	Kültepe'de Orta Tunç Çağı'nda Bronz Üretiminde
	Kullanılan Kalayın Kökeni
11:30-11:40	Discussion / Tartışma
	The second secon
11:40-12:10	Coffee / Kahve

SESSION 6: REPORTS ON ONGOING WORK 2

OTURUM 6: DEVAM EDEN ÇALŞMALAR HAKKINDA RAPORLAR 2

Chair: L. Atıcı (University of Nevada, Las Vegas) Oturum Başkanı: L. Atıcı (University of Nevada, Las Vegas)

12:10-12:30	G. Öztürk (Ankara University)
	Seals and Sealing Practices at Kültepe During the
	Late Early Bronze Age
	Eski Tunç Çağı'nın Geç Evresinde Kültepe'de Mühürler ve
	Mühürleme Uygulamaları
12:30-12:40	Discussion / Tartışma
12:40-13:00	M. Ricetti (Rome, La Sapienza)
	Sealing Without a Seal: Alternative Sealing Media
	on Tablet Envelopes from Level II
	Mühürsüz Mühürleme: II. Kat Zarfları Üzerindeki
	Alternatif Mühürleme Araçları
13:00-13:10	Discussion / Tartışma
13:10-14:30	Lunch / Yemek

SESSION 7: REPORTS ON ONGOING WORK 3

OTURUM 7: DEVAM EDEN ÇALŞMALAR HAKKINDA RAPORLAR 3

Chair: A. Yener (Koç University)

Oturum Başkanı: A. Yener (Koç Üniversitesi)

14:30-14:50	V. Donbaz (Istanbul Archaeological Museums)
	Observations on Some Unpublished Ib Texts from
	Kültepe
	Yayınlanmamış Bazı Ib Metinleri Üzerinde Gözlemler
14:50-15:00	Discussion / Tartışma
15:00-15:20	E. A. Strand (University of Copenhagen), C.
	Breniquet (Université Blaise Pascal, Clermont-
	Ferrand) and C. Michel (CNRS, Nanterre)
	Current Research on Textile Imprints Found on
	bullae at Kültepe
	Kültepe Bullaları Üzerindeki Dokuma İzleri Hakkındaki
	Güncel Araştırmalar
15:20-15:30	Discussion / Tartışma

15:30-15:50 Yuji Yamaguchi (Okayama University), Hiroshi

Sudo (Okayama Orient Museum), Ryoichi Kontani (Notre Dame Seishin University), and Yuichi

Hayakawa (University of Tokyo)

Chalcolithic or Early Bronze Age: A New

Perspective on the Kayseri Province

Kalkolitik veya Eski Tunç Çağı: Kayseri'deki Yeni

Gözlemler

15:50-16:00 Discussion / Tartışma

16:00-16:30 Coffee / Kahve

SESSION 8: CLOSING PANEL AND PLENUM DISCUSSION

OTURUM 8: KAPANIŞ PANELİ VE GENEL TARTIŞMALAR

Chairs: Chairs: G. Barjamović, F. Kulakoğlu Oturum Başkanları/Chairs: G. Barjamović, F. Kulakoğlu

16:30-18:00 All chairs form a panel. The chairs of the topical

sessions (S1-S4) each give a 3 min. summary and synthesis of the papers in that session. A plenary discussion on the topic of movement, resources and interaction that ties together the site of Kültepe with its surrounding world in both time and space follows

this summary.

Bu, tüm oturum başkanlarının katılacağı bir paneldir. Oturum başkanları, oturumlarındaki bildirilerin 3 dakikalık bir özetini ve sentezini sunacaklardır. Bunu, Kültepe'nin etrafındaki dünya ile, hem zaman hem mekan olarak devinim, kaynakları ve etkileşimi hakkında genel bir

tartışma takip edecektir.

19:00 Dinner / Yemek

JULY 30th, 2015

30 TEMMUZ 2015

09:00-18:00

Trip to Hisarcik and Kestel-Göltepe tin mines with lunch in Cappadocia.

Hisarcık, Kestel-Göltepe'deki kalay madenlerine gezi ve Kapadokya'da yemek

RSVP required by July 1st at the latest

Geziye katılmak için lütfen 1 Temmuz'a kadar kayıt yaptırınız

SESSION CHAIRS

OTURUM BAŞKANLARI

Alfonso Archi (Sapienza – Università di Roma): S3

Levent Atıcı (University of Nevada, Las Vegas): S7

Gojko Barjamović (Harvard University): S8

Hayat Erkanal (Ankara Üniversitesi): S2

Harald Hauptmann (Ruprecht-Karls-Universität Heidelberg): S4

Barbara Helwing (CNRS-université, Lyon-2): S4

Fikri Kulakoğlu (Ankara Üniversitesi): S8

Marc Lebeau (European Centre for Upper Mesopotamian Studies): S2

Sturt Manning (Cornell University): S4

Cécile Michel (Centre national de la recherché scientifique, Nanterre): S6

Walther Sallaberger (Ludwig-Maximilians Universität München): S1

Andreas Schachner (Deutsches Archäologisches Institut): S1

Aslıhan Yener (Koç Üniversitesi): S8

PAPER ABSTRACTS

Adam Anderson, Harvard University (Session 1: Social and Cultural Interactions 1)

The Old Assyrian Social Network: A Link Between Texts and Context

In this presentation I will introduce and describe the method, preliminary results and application of a quantitative social network analysis on a large group of texts (ca. 5,000) from the Old Assyrian Text Project spanning levels II and Ib at Kültepe (ca. 1920-1720 BCE). Using a novel computational model for data-mining and disambiguation, I describe a tangible method for accurately reconstructing the Middle Bronze Age society that is evidenced in these tablets, which can help scholars reconnect the missing links to the archaeological context for these ca. 5,000 tablets, and ultimately reconnect them with the remaining ca. 18,000 tablets found through controlled excavations since 1948 at the site of Kültepe. I will also show how these databases and sociograms can be used for the disambiguation of the homonymous individuals mentioned in the Old Assyrian texts, and point to additional prosopographical and anthropological studies for the population of people living between Kaneš and Aššur mentioned in this fascinating group of Middle Bronze Age period cuneiform texts.

Levent Atıcı, University of Nevada, Las Vegas (Session 4: Resources, Technologies, Infrastructure 2)

Feeding Cities: Revisiting Fundamental Theoretical and Methodological Issues in Urban Zooarchaeology in Light of Research at Kaneš

Zooarchaeologists have established that complex societies had specialized animal management systems with part- or full-time food-producing specialists relying on surplus production and storage, tax collection, and redistributive mechanisms. Zooarchaeological research has also modeled animal economies using binary oppositions such as urban consumers and rural producers, and distinguishing between

centralized / regulated and decentralized / unregulated animal economies with direct or indirect food provisioning systems. This theoretical framework has often employed explicit quantitative measures to create an analytical framework and testable hypotheses using archaeological bone assemblages. In the present paper, however, I present converging lines of evidence to question the applicability of such dichotomized approaches to organization of every state or society in the ancient Near East. As Kültepe tablets epitomize, despite the centralized and regulated nature of Kaneš, with its imposing policies on the organization of agropastoral economy, some aspects of production, distribution, and consumption remained unregulated. We learn that the concepts of public and private were inseparable at Kaneš and they had vaguely defined and permeable boundaries, as the political and palatial involvement vested these individuals with double-dipping power and authority to operate as private enterprise as well.

Gojko Barjamović, Harvard University (Session 3: Resources, Technologies and Infrastructure 1)

Tracing the Origins of Assyrian Trade in Anatolia

The caravan records from Kültepe provide mostly unbiased and occasionally detailed information about transport infrastructure, communication, and the physical realities of travel in Western Asia during the early Middle Bronze Age. It is a key observation that the volume of goods transported by the Assyrian traders exceeds (possibly by several orders of magnitude) anything known from other ancient sources, since their commercial network cannot have formed overnight and functioned in isolation. Close and relatively stable commercial links, each of a comparable transport capacity to the Assyrian system, must have existed in a series of interlocking networks that connected the centers of Eurasia in a chain of transport and supply. Such a system will have emerged gradually, and judging from what little we know from the Assyrian case, it appears to have been based on a series of polities specialized in the management of long-distance trade. This paper will trace the (admittedly hazy) origins of Assur as a community specialized in long distance trade by linking recent archaeological discoveries at Kültepe to evidence to textual corpora from the 3rd millennium.

Murat Çayır, Ankara Üniversitesi (Session 6: Reports on Ongoing Work 2)

The 1997 Kültepe Tablets – Archives of Alakum, Ennam-Anum, and his Son Aššur-malik

This talk will present an overview of the 410 cuneiform documents unearthed at Kültepe during the campaign of 1997 that once belonged to the archives of the Assyrian merchants Alakum, Ennam-Anum, and his son Aššur-malik.

Jan Gerrit Dercksen, Universiteit Leiden (Session 4: Resources, Technologies, Infrastructure 2)

One Word, Many Values: On Shekels and Minas

The excavations at Kültepe have yielded archaeological and textual evidence on the weight systems used by the Assyrian merchants and their counterparts in Anatolia. The sub-systems are not exclusively Anatolian or Assyrian, but form part of metrological systems used in the wider ancient Near East. Recent publications of artifacts and metrological studies necessitate a fresh discussion of the evidence to assess how the merchants from Assur and others dealt with these different systems in practice.

Veysel Donbaz, İstanbul Arkeoloji Müzeleri (Session 7: Reports on Ongoing Work 3)

Observations on Some Unpublished Ib Texts from Kültepe

Among the ca. 23.000 cuneiform tablets unearthed at the site of Kültepe, the small group of texts coming from the Ib-stratum deserve particular attention for the topics they cover and the hints they offer to social and historical topics otherwise unknown. Despite of their obvious importance, the Ib corpus makes up less than 1/20 of the total number of tablets unearthed from the site, and only about 1/3 of the group has been published. The present paper offers and overview of the unpublished texts and the exciting new information they contain.

Andrew Fairbairn & Nathan Wright, University of Queensland (Session 4: Resources, Technologies, Infrastructure 2)

The Archaeobotany of Plant Trade at Bronze Age Kültepe

Archaeobotany provides the means of recovering material evidence of plant trade from archaeological strata, though differentiating local and distance provenance for plant resources is not always possible. A body of new archaeobotanical data from Kültepe and other sites in central Anatolia is providing original insights into the development of plant trade through standard archaeobotanical research and isotope analysis. This paper focuses on the contribution of EBA and MBA Kültepe to that research, where a combination of archaeobotanical analysis combined, in the latter with rich textual data, allow us to begin the process of disentangling local and distant trade networks. Focusing on probable local products, including cereals, legume crops and fuel, and distantly sourced items such as hazelnut, pomegranate and sumac, this paper discusses the complexity of plant trade and identifies possible trade items amongst the apparently more mundane species on our data lists.

Fikri Kulakoğlu, Ankara Üniversitesi (Session 5: Reports on Ongoing Work 1)

Monumental Structures at Kültepe Dating to the Early Bronze Age and Evidence of Early State Organization in a Central Anatolian Polity

Beginning in 2009 renewed excavations on the mound of Kültepe have demonstrated that the site had established itself as a major urban center much earlier in the 3rd millennium BCE than hitherto assumed. The monumental public architecture uncovered at the site in the past six seasons is so far unique to the region for this early date, and it suggests that Kültepe was a prosperous regional center well before the arrival of Assyrian merchants. Two monumental structures, a building and a temple, were unearthed by T. Özgüç in Levels 12 and 11b of the EBA III (c. 2400–2100 BCE). The size of the Level 12 temple, which is commonly referred to as a 'megaron,' due to its rectangular plan and long hall and front portico in front, approaches that of the largest and best-known megaron at Hissarlik II in Western Anatolia. The second, so-called 'building with pilasters,' belongs to Level 11b. Although its plan is incomplete, it is obvious that this structure differs from the modest

architecture known elsewhere in contemporary Central Anatolia, both in terms of dimensions, and in the presence of half-pillars and benches. Recent work has revealed an additional architectural complex, which has turned out to be the largest so far discovered anywhere in Anatolia belonging to this period. This mudbrick complex in level 13 measures at least 70 by 55m. On account its size, it cannot be interpreted as a domestic structure, and must have been used for official administrative purposes. The objects so far discovered in the EBA III levels at Kültepe testify to its regional and international connections. The new monumental compound and the 'megaron' of level 12 are both the architectural embodiments of an age where Anatolian rulers according to later written tradition challenged the imperial power of the armies of Akkade. Remarkably, the level 13 at Kültepe is as structure built in Mesopotamian or Syrian style, and is unique within central Anatolian context, attesting to the existence of a powerful local authority capable of erecting such an edifice.

Mogens Trolle Larsen, Københavns Universitet (Session 3: Resources, Technologies and Infrastructure 1)

A Complex Business Affair with Diplomatic Repercussions

A group of 22 documents from the archive of the Šalim-Aššur family are concerned with a particular business transaction that involved trade in copper and wool in very large quantities. It is reflected in so many texts because it did not go according to plan, but came to involve a diplomatic and legal conflict with a high Anatolian official in the important city Purušhaddum. The affair is of interest for a number of reasons: 1) it describes a commercial procedure that is otherwise rather poorly attested, despite the likelihood that it was very common; 2) the volume of goods handled in this one transaction was very large; 3) the legal procedures involved in the resolution of the conflict reflect the complicated relationship between the Assyrian and the Anatolian institutions in a fairly detailed way.

Agnete W. Lassen, Yale University

(Session 1: Social and Cultural Interactions 1)

The Bull-Altar in Kültepe Glyptic: Motif and Meaning

The Kültepe glyptic represents a strong test case for what happens when different artistic traditions are in contact, interact and transform. The data set is dense, coherent and can be chronologically and culturally ordered, which allows for detailed studies of both style and iconography in a cultural encounter setting. This talk will focus on one iconographic motif, the so-called bull-altar, which has been the focus for a few studies in the past years. It takes a fresh look at this motif by examining when and where it first appears, how it is represented in the different glyptic traditions, and finally, who are the individuals who use seals carrying it. It has traditionally been argued that the bull-altar was a representation of an Anatolian deity, but here it is argued that it appears first in the Assyrian glyptic tradition, and that it was most prominently used by Assyrian officials and institutions. On the basis of its iconographic context and stylistic elements, along with the chronology and usage, it is argued that the bull-altar in fact represents a physical manifestation of the chief deity in Assur.

Joseph W. Lehner, Cotsen Institute of Archaeology & Ernst Pernicka, Curt-Engelhorn-Zentrum Archäologie, Mannheim (Session 5: Reports on Ongoing Work 1)

The Provenance of Tin Used in the Production of Bronze During the Middle Bronze Age at Kültepe

One of the biggest questions regarding the Bronze Age concerns the innovation of bronze technologies and their apparently rapid adoption across the Near East. The earliest bronzes in the Near East occur within the Fertile Crescent, however the largest sources of tin are located in central Asia and western/central Europe. Recent discoveries of smaller occurrences of tin in the vicinity of Kültepe near to modern Hisarcık add further nuance to the debate. Old Assyrian texts are the first in Anatolia that refer to the mass importation of tin, apparently from a location to the east – most likely the tin sources of central Asia. Renewed scientific analyses of copper alloys from Kültepe dating to the late 3rd and early 2nd millennia BCE add to our understanding from the texts. New

analyses using tin isotopes on samples from the lower city dating to the karum II period shed light on this problem by adding another independent line of evidence. In this paper, we present our ongoing work on the tin problem, and we present our data to test the ongoing hypotheses about the adoption of bronze in the Near East and the transport of tin as a fundamental commodity during the 2nd millennium BC.

Sturt W. Manning, Cornell University (Session 2: Chronology)

The Status of Dendrochronological Dates for Kültepe and Associated Sites: Current Best Calendar Placements and Implications for Wider Chronological Discussions

In recent years analyses of the Revised Eponym List, linking with the archaeology, associated (or potentially associated) astronomical observations, and especially dendrochronology, have (in the main) supported a Middle Chronology date, or something relatively close to this, for the statement of calendar dates for the Waršama palace at Kültepe (and thence more widely in the Mesopotamian world). This paper critically revisits the basis of the dendrochronological data, and discusses how a near-absolute date can be applied to these. Some issues are reviewed regarding the data, and wider east Mediterranean chronological concerns in the earlier 2nd millennium BCE, and on-going work to clarify some problems will be shown and discussed. A current best position will be offered.

Michele Massa, University College London (Session 3: Resources, Technologies and Infrastructure 1)

The Role of Kültepe in the Interregional Exchange Networks between Anatolia and Upper Mesopotamia, 2800-1950 BCE

This paper aims at re-evaluating the mechanisms of interregional exchange networks between Anatolia and Syro-Anatolia during the Early Bronze Age, focusing the attention on the importance of Kültepe as a gateway between these two largely separated worlds. Its role will be assessed not only on the basis of the ample archaeological evidence for contacts with Mesopotamia, but also through the reconstruction of the

main EBA exchange routes that highlights the position of Kültepe as a central hub within the network. The paper will further provide evidence for the mutual exchange of finished products, raw materials, technological know-how and cultural behaviors, suggesting that the integration of central Anatolia into the Mesopotamian sphere occurred much earlier than commonly assumed. It will try to sketch different phases of this phenomenon, indicating an increasing larger range of exchanged products towards the late 3rd millennium BCE and a concomitant process of adoption of Mesopotamian cultural elements among local Anatolian communities, particularly within elite-related contexts. The paper will finally address the relationship between the Early Bronze Age networks and the much better-known Old Assyrian ones, suggesting a substantial degree of continuity between the two phenomena.

Güzel Öztürk, Ankara Üniversitesi (Session 2: Social and Cultural Interactions 2)

Seals and Sealing Practices at Kültepe during the late Early Bronze Age

Recent excavations at Kültepe have revealed a unique collection of stamp- and cylinder seal impressions. In particular, a number of bullae were recovered during recent excavations that formed part of an administrative apparatus apparently dating to the formative period of the international trade network. This discovery provides the first clear evidence of tags attached to goods sent from northern Mesopotamia to Anatolia before the strong commercial links of the Assyrian trading network were established in the early second millennium BCE. The evidence from the site of Kültepe throws new light on the date, scale and organization of international trade across Western Asia prior to the better-known Old Assyrian commercial circuit of the Middle Bronze Age. This paper presents a preliminary report on the stylistic and iconographic characteristics of the Early Bronze Age seal impressions in order to identify their precise point of origin, function and date, and also aims to define how these bullae, attached to goods shipped from the lands south of Anatolia, functioned in the development of this sophisticated interregional exchange.

Alessio Palmisano, University of Exeter

(Session 3: Resources, Technologies and Infrastructure 1)

Drawing Pathways from the Past: Bridging Upper Mesopotamia and Central Anatolia in the early Second Millennium BC

This paper aims to reconstruct past routes and transport system pertaining to Upper Mesopotamia and Central Anatolia during the Old Assyrian colony period by integrating archaeological data, textual evidence and geographical features into a spatial perspective. I propose applying a variety of computational and quantitative approaches to understand to what extent social and/or environmental factors could have affected past human movement. I assess what were the Assyrian merchants' routes from Aššur to Kaneš and the connectivity within the trade network set up by the Assyrians in Upper Mesopotamia and Central Anatolia. The modeling's results show that the Assyrian traders perhaps did not cross the easiest pathway to reach Anatolia. In fact, the Euphrates River could have significantly affected the journey of the Old Assyrian caravans. In this configuration, the most accessible crossings along the Euphrates appear to be near Samsat Höyük (perhaps ancient Hahhum) and at Birecik. Furthermore, the results show that the Assyrians located their commercial settlements in those Anatolian cities that could have exerted a control over geo-graphical features such as mountain passes and natural corridors of movement (e.g. alluvial intermountain valleys). The pivotal role of Kaneš in the Assyrian trade system could be explained as its position in the network, where results as the main intermediary between colonies in western, northern and south-eastern Anatolia. Overall, the results demonstrate the advantage of spatial and computational approaches to explain past human dynamics of movement and interaction in Upper Mesopotamia and Central Anatolia in the early second millennium BCE.

Cinzia Pappi, Universität Leipzig (Session 1: Social and Cultural Interactions 1)

Beyond the kārum. Shaping Old Assyrian Religious Spaces

The correspondence of the Assyrian merchants at Kaneš and their personal names provide the main sources for the study the religious practice of Assyrian communities in Anatolia at the beginning of the second millennium BCE. The theophoric elements in names offer insights

both on theological concepts associated with particular deities as well as developments of private religious practice. The archival sources in their archaeological context provide also direct insights into the practices, rites, and rituals associated with the daily religious experiences of the local community, compensating for the lack of more traditional religious texts such as prayers or hymns. In this paper I will investigate the different spheres of religious interactions between the Assyrian community in Anatolia and their homeland basing on a more nuanced view of religious practice not as an abstract whole, but as a complex of various practices in the life of the individual and of the community. The examination of different aspects of this practice interacting within a complex religious space will provide a picture of the religious life of the community involving, at the same time, links to the city religion at Assur and integration with or accommodation of localized religious practices.

Luca Peyronel, Libera Università di Lingue e Comunicazione a Milano (Session 4: Resources, Technologies, Infrastructure 2)

Ebla and Kültepe. Reflections on commercial interactions and exchange systems between Northern Syria and Anatolia during the Middle Bronze Age

The paper deals with commercial exchanges between Syria and Anatolia during the Middle Bronze Age taking into account items and raw materials discovered at Ebla and in other Old Syrian centers as well as those indicators of trade relations with Syria attested in Cappadocia. A specific analysis on balance weights and their correlation with different standards shed light on an articulated pattern of metrological interaction, with the presence 'Anatolian' weights at Ebla (based on a unit of 11.7 g) and the knowledge of the 'Syrian' system with a shekel of 7.8 g at Kültepe. Raw materials such as obsidian and rock crystal, rings and ingots of silver and data on metalworking and metal objects (including lead figurines) are discussed in order to reconstruct the pattern of exchanges and the main trade routes towards Cappadocia and the Anatolian plateau.

Melissa Ricetti, Sapienza – Università di Roma (Session 2: Social and Cultural Interactions 2)

Sealing Without a Seal: Alternative Sealing Media on Tablet Envelopes from Kültepe Lower Town Level II

Seal impressions from Kültepe are one of the largest repertoires for second-millennium Near Eastern glyptic. The Assyrian merchants who settled in the lower town introduced in Anatolia the cylinder seal, which after a short time was adopted also by the locals. Despite its appreciation and diffusion stamp seals and substitute seals remained in common use for the whole period in association - apparently - only with Anatolian sealers. With the expression 'substitute seals' is meant all the alternative objects (such as rings, earrings, cloth hems, nails, etc.) that may produce peculiar impressions if applied on the clay and that have been used several times as identity markers on the documents from Kültepe. The paper will analyze the evidence of alternative sealing media within the sealed documentation from level II focusing in particular on the relation with their potential users and the latter's occurrence in the texts. Moreover, through the joint exam of sealing practices and textual information it will investigate the reasons behind their use in comparison to that of actual seals at Kültepe and in other related contexts.

J. J. de Ridder, Universität Leipzig (Session 2: Social and Cultural Interactions 2)

Slavery in Old Assyrian Documents

The social phenomenon of slavery is a well-known topic in Ancient Near Eastern studies. Yet, it is not easy to define social class, as the term slaves is often used as a synonym for servants or people of lower class; the Old Assyrian archives seem to confirm this picture. Moreover, the archives provide us with a detailed overview of Old Assyrian society, where we can follow the traders' careers in which some slaves appear. The information is complicated by the various designations for slaves that this paper will attempt to explain. Slavery was not limited to the Assyrian traders in Anatolia; instead, most sales contracts concern local Anatolians. Due to social interaction between the different ethnic groups, it was possible for Anatolian slaves to end up with Assyrian masters and vice versa. We will also discuss the different reasons that

could cause people to be enslaved, of which the main reason was defaulting on debts. As we will see, slaves as a group were a dynamic social class and in most cases conditions to regain freedom were legally secured.

Vasıf Şahoğlu, Ankara Üniversitesi (Session 3: Resources, Technologies and Infrastructure 1)

The Anatolian Trade Network and its role in the Socio-economic and Political Development of Anatolia during the Second Half of the 3rd Millennium BCE The 3rd Millennium BCE is a crucial period in the history of the Anatolian Communities. During its second half, the region became part of a much bigger system of interregional connectivity extending to the Indus Valley in the east, and to the Aegean and Thrace in the West. Through this network of connections, new raw materials, finished products, craftsmanship, technologies, and, above all, new ideas regarding the presentation of social stratification and religious practices, began to appear in Anatolia. The use of sealings in administrative sense and a common weighting system also began to appear in a systematic way for the first time during this period. This phase is one of the 'golden ages' of Anatolian Culture. Of course, the Anatolian Trade Network cannot be claimed as the sole reason for these important new developments. Local dynamics, climatic factors, and a growing population must have also played an important role in the implementation of these new elements in the daily lives of Anatolian communities.

Eva A. Strand, Københavns Universitet; Catherine Breniquet, Université Blaise Pascal Clermont-Ferrand & Cécile Michel, Centre national de la recherché scientifique (Nanterre) (Session 4: Resources, Technologies, Infrastructure 2)

Current Research on Textile Imprints found on Bullae at Kültepe

Textiles and their production constitute one of the most significant crafts in Bronze Age Anatolia. An endless amount of textiles in different qualities were needed not only for clothing but also furnishing, transport of merchandise, etc. Additionally, textiles were highly important as trading goods as the Old Assyrian private archives found in the houses

of Kültepe low town clearly demonstrate. However, due to poor climate conditions, archaeological textiles are extremely rare and fragmentary in Anatolia. In order to gain a better under-standing for the textiles and their production they, therefore, must be studied with different methods and innovative approaches. In Kültepe, textile production is indicated by textile tools, such as loom weights and spindle whorls, dated to the Middle Bronze Age. Furthermore, there are other indirect sources: textile imprints on unbaked clay bullae permit the identification of spinning and weaving techniques and in some cases, the identification of the material. Such bullae were found both in Early and Middle Bronze Age levels and are the object of a joint research project that began in 2013. Here, we will present the results of a systematic study of imprints of textiles demonstrating without doubt that textile production during the Early Bronze Age was already well developed and varied. We will further discuss these results in the context of Kültepe.

Edward Stratford, Brigham Young University (Session 2: Chronology)

Chronology of Commerce: Debt Notes and Intercalation in the Assyrian Calendar The editors of the Revised Eponym List (REL) support a chronology of the early second millennium BCE that is close (or identical) to the Middle Chronology, and militates against the high, low and ultra-low chronologies, based on the relation between archaeological stratigraphy, texts, and dendrochronological results from the so-called Waršama Palace at Kültepe. However, work on the eponym lists has yet to yield a more rigorous temporal framework for contextualizing the individual commercial activities of merchants, particularly within the constraints of the shipping season as determined by the progression of seasons. As a result of textual and empirical analysis, we can propose a reasonably confident correlation between the Old Assyrian and Julio-Gregorian calendars during the best attested years of the Kültepe Lower Town Level II period (REL 81-110). Nonetheless, in the process of clarifying the practice of successor eponyms it will become clear that confidence in another interpretive stance must be revised. There are, in fact, no 'dated texts' from the Old Assyrian period, only texts with dates.

Y. Yamaguchi, Okayama University (岡山大学), Hiroshi Sudo, Okayama Orient Museum (岡山市立オリエント美術館), Ryoichi Kontani, Notre Dame Seishin University (ノートルダム清心女子大学) and Yuichi S. Hayakawa, University of Tokyo (東京大学)

(Session 7: Reports on Ongoing Work 3)

Chalcolithic or Early Bronze Age: A New Perspective on the Kayseri Province
As part of the Kayseri Archaeological Survey Project we have surveyed
124 archaeological sites during six campaigns conducted 2008 to 2013.
The sites visited and materials collected all fall into a series of distinct
cultural phases that may be linked to the ceramic assemblage of Kültepe.
Due to a lack of chronological data in the area, however, we are not able
to distinguish the three phases of the Early Bronze Age, but only discern
Early Bronze Age phases I/II from phase III. A further result of the
survey relates to the pattern of early settlement. It has hitherto been
suggested that a lack of early sites in the mountainous area around the
modern city of Sariz (SE Kayseri province) indicated that large-scale or
long-term residential sites had not yet formed in this area. In fact,
through our survey we were able to prove the presence of archaeological
materials in the Sariz area, but always on non-mounded sites.

Handan Üstündağ, Anadolu Üniversitesi, Eskişehir (Session 6: Reports on Ongoing Work 2)

Osteobiographies of some Individuals from Kültepe

A population-based osteological analysis of the total record of human remains from Kültepe was presented at the First Kültepe Meeting by the author. This presentation instead pursues an osteobiographical approach and focuses on 'individuals' rather than 'population'. Osteobiography refers to the 'life history as recorded in bone'; the examination of the skeletons provide information, such as age, sex, growth disturbances, diet, diseases, and injuries. The osteobiographical method needs to integrate this kind of biological data and archaeological information to better understand individual life histories.

Klaas Veenhof, Universiteit Leiden (Session 1: Social and Cultural Interactions 1)

Some Observations on Assyrian Loans to Native Anatolians

Among the Kültepe tablets there are a fair number of debt-notes that record small debts of silver (often between ca. 10 and 30 shekels), of various kinds of grain (a limited number of sacks), and a few of mixed debts (silver and grain). They are owed by Anatolians to fellow Anatolians (found in archives of Anatolians) and to Assyrian traders (found in Assyrian archives). Such records are in general not very informative about the cause and nature of the debt (consumptive loan or commercial debt?) and we almost never know who the debtors (among them married couples) were (farmers, local business-men, inhabitants of Kaneš or people from its countryside?). There is also a lot of variation in the stipulations about their payment (currency, due dates, installments), interest (normal, default or no interest), 'additional gifts' by the debtor, and securities (esp. guarantors and pledges). Rare debt-notes contain stipulations about a possible cancellation of debts and the rate of exchange of the grain. My paper tries to understand more of what was at stake in these debts, in particular in those owed by Anatolians to Assyrians.

K. Aslıhan Yener, Koç Üniversitesi (Session 5: Reports on Ongoing Work 1)

The Discovery of New Tin Mines and Production Sites near Kültepe, Ancient Kaneš in Turkey: a Third Millennium BC Highland Production Model

This paper introduces an unexpected new source of tin (cassiterite) combined with arsenic (yazganite), located in the foothills of the volcano, Erciyes in the Kayseri Plain 26 km south of the site of Kültepe. Volcanoes in Turkey have always been associated with obsidian sources, but were not known to be a major source of heavy metals, much less, tin. XRF analyses confirmed earlier semi-quantitative pXRF analysis of the Hisarcık ores which yielded high levels of tin and arsenic, as well as significant traces of manganese and antimony, which are suitable to produce complex copper alloys and with enough tin and arsenic content to produce tin bronze. Crucible smelting experiments conducted in 2014 at Kültepe successfully smelted the Hisarcık ores into tin metal

prills while a second co-smelting experiment with copper produced metal prills.

Tayfun Yıldırım, Ankara Üniversitesi (Session 7: Reports on Ongoing Work 3)

Excavations at Resuloglu and the Relation of Northern Anatolia with South Central Anatolia and Syro-Mesopotamia during the late 3rd Millennium BCE. Excavations at the Resuloglu Settlement and Cemetery in the Corum province have since 2003 provided considerable new data, not only on the chronology of Central Northern Anatolia during the second half of the 3rd Millennium BCE, but also on the relation between this area and neighboring regions. The fortified Early Bronze Age settlement unearthed on the southwestern mound, its architectural features, grain silos, and radiocarbon dates, enable us to interpret previously uncovered material from contemporaneous sites in Northern Anatolia with less archeological contexts, and to improve chronological correlations between this region and Central Anatolia. A total number of 400 pithoi and cist-stone graves of the associated Early Bronze Age cemetery contribute to our knowledge of local burial customs, and likewise help us to establish cultural links to Southern Anatolia, as well as Syria and even Mesopotamia. In semblance to a range of other northern settlements – e.g. Alaca Höyük, Eskiyapar and Maşat Höyük – several examples of jewelry and weapons found at Resuloğlu provide strong evidence of Syro-Mesopotamian, influence or interaction.

POSTER ABSTRACTS

Levent Ercanlı, Middle East Technical University; Fikri Kulakoğlu, Ankara Üniversitesi; Ali Kalkanlı, Middle East Technical University Examinations of Metal Working Technologies at Kültepe Prior to the Assyrian Colony Period

Metal played a key role in the social and economic development of early human society, and the rich metal deposits of Anatolia in particular have lent this region an important role in early trade and state formation. As shown from the analysis presented at the 1st KIM-conference in 2013, the site of Kültepe was one important center of metallurgy during the Middle Bronze Age and the Assyrian Colony Period, being itself a crossroad of trade with Mesopotamia and a node of innovation. This poster will present the results of a similar examination of metal artifacts from the site dating to the Early Bronze Age. Evidence comes from metal artifacts that were not found suitable for exhibition, and which could therefore be examined by an energy dispersive X-ray unit of scanning electron microscope for elemental analysis, as well as through X-ray diffraction for the analysis of minerals. The microstructures of the individual artifacts were tested under both the scanning electron microscope, and an optical microscope to reveal the operations on the metal applied by the ancient smiths as presented here.

Pinar Ertepinar, Ütrecht University Archaeomagnetism and the Dating of Architectural Remains at the site of Kültepe

Archaeomagnetism – the study of burnt archaeological artifacts – provides with crucial information on the behavior of Earth as a geodynamo. Data collection pertaining to the past 5 thousand years has recently become comprehensive enough to allow the construction of regional paleosecular variation curves (PSV), which can used as a powerful tool for archaeomagnetic dating. This poster presents the results of a series of full-vector archaeomagnetic experiments performed

on 13 sets of samples collected at the site of Kültepe. The data allows us to assign relative dates to inferred fire events at the site, and to conclude that these fire events were not all contemporaneous with one another, or with the abandonment of the site, as has been previously hypothesized.

Selin Küçük, İstanbul Teknik Üniversitesi

A Step-by-step Protocol for Documentation and Archiving Using Digitization in Archaeology

Accessibility determines the destiny of fields in a media-age, and so, archaeology, even if it has further physical limits, is indeed one of the many fields inevitably in need of digitization. Digitizing archaeological materials not only leads to accessibility. It also provides better conditions for the fieldwork by providing instant access to highresolution prints, time-saving and the possibility of immediate revision. The methodology of digitizing archaeological drawings varies according to its practitioner. A key reason for this variability is the use of different kinds of vector-based and graphical software. Since staged repetitions are an inevitable part of the recording process, the discipline of the individual user to go forward step-by-step and control each iteration is key for producing as correct a digitization as possible. In this study, the methodology of digitizing hand drawings from the field is subject to detailed scrutiny. Individual steps proposed include high-resolution scanning, co-ordinate axis determining in vector software, importing axis grid to graphical software as a base for scanned hand-drawings, generating composite plans from hand-drawn materials on a coordinate plain, and exporting it to a vector software once again to complete drawings. Schematic drawings, 1:1 detailed drawings, longitudinal sections, and separation of historical layers can be effortlessly produced as a result of using this approach. Ultimately, the purpose of the present poster is to suggest a protocol that will help archaeologists extend their access to data by providing a general and easily followed algorithm for how to document finds through digitization.

Ryutaro Naruhashi, University of Tokyo (東京大学) and Kaoru Kashima, Kyushu University (九州大学)

Holocene Paleo-environmental Variability as Reconstructed from a Wetland Sediment Record around the site of Kültepe from a Hand Drilling Study

According to the archaeological evidence from Kültepe, the site was first abandoned around 1700 BCE; however, the cause of this abandonment is not clear. A hand coring survey undertaken within a 2 km radius of the main mound collected a total of nine core samples. Sediments in were obtained continuously from the upper Pleistocene to the modernday era in three of the cores. This study aims to reconstruct the natural environment changes around the archaeological site of Kültepe during the Holocene by measuring grain size, magnetic susceptibility, and soil colors as proxy. The depositional facies of cores #2 (taken 500 m from the mound), #6 (1 km from the mound), #7 (300 m from the mound), and #8 (300 m from the mound) indicate the depositional system around the site is generally consistent with that of a river-floodplain regime, such as back marsh, abandoned channels, and other flood plain deposits that have accumulated through the Holocene. On the other hand, in core #9 oxidized colored flood loam shows thick accumulation, and it seems that it formed as part of an alluvial fan system. This suggests that the area around Kültepe is located in a border zone between floodplain and alluvial fan. Moreover in cores #7, 8 and 9 it is noteworthy that there are earthenware fragments appearing at a similar depth of 3.00 - $4.00 \, \text{m}$

Çetin Şenkul, Süleyman Demirel Üniversitesi, İsparta Holocene Environmental Change in Consideration of Fossil and Modern pollen analysis of Kultepe (Kayseri) Region

The new data that will be obtained within context of the project presented on the present poster has the potential to make a great contribution to our knowledge of the paleo-environmental conditions of Central Anatolia during the Holocene. The project (which is centered on the site of Kültepe) has two main targets. The first target is to reconstruct the palaeo-climatic properties of the survey area during the Holocene period. In order to designate the fossil pollens, drilling cores

will first need to be taken from Engir Lake using Livingstone and Dachnowski corer drilling equipment. Then, so as to assess the pollen diagrams more accurately, pollen units around lake Engir will be taken in order to determine how much pollen has fallen on surface and on water. The second target is to reconstruct the paleo-climatic conditions of human impact on the natural environment and the paleo-ecological development within the survey area. To achieve this goal, functional plant types are used as indicator species. Moreover, changes that occur for the rates and patterns of vegetation, which will be determined by functional plant species, human activities on natural environment, and its impact on the natural environment, will be presented as part of the project.

Hiroshi Sudo, Okayama Orient Museum (岡山市立オリエント美術館)
The Regional Interaction between Central Anatolia and other Areas in the 4th and 3rd Millennia BCE: New Evidence from the Archaeological Survey Project in Kayseri, Turkey

Six seasons of the Archaeological Survey Project in Kayseri (KAYAP) conducted between 2008 and 2013 has registered 124 archaeological sites, and collected thousands of archaeological finds alongside extensive geographical data. Among the finds, the author has found examples of potsherds that share a number of features with the so-called 'Red-Black Burnished Ware' (RBBW) that is generally considered as diagnostic for the Trans-Caucasian Kura-Araxes culture. An examination of their color, surface treatment, and inclusions in the material clay suggests that it is highly possible to assign these wares to the RBBW category. Furthermore, the group in question has alternate chromatic patterns depending upon to the shape of the vessels, which is also a characteristic shared with the RBBW in Central and the Southeastern Anatolia. Finally, examples of Canaanite Blades found in the Kültepe excavations, as well as the KAYAP survey, seem to have been imported from Southeastern Anatolia. Together, this material presents new evidence for regional interaction between Central Anatolia and other regions in the 4th and 3rd Millennia BCE.

Gökçe Bike Yazıcıoğlu-Santamaria, University of Chicago Locals, Immigrants, and Marriage Ties at Kültepe: Results of Isotopic Analyses on Human Teeth from 2006-2008 Lower Town Excavations

While there is no doubt that Kaneš was a cosmopolitan city, identifying the geographical background of the inhabitants of individual houses has remained a challenge, especially if archives are lacking. As part of my dissertation research, in which I proposed an interdisciplinary methodology for understanding the dynamics of immigration and cultural pluralism at Kaneš, I conducted strontium (Sr) and stable isotope analyses on human teeth from intramural graves in two areas of the Level Ib lower town. The diversity of 87Sr/86Sr ratios in this sample clearly demonstrates the presence of immigrants from multiple locations and allows the demographic reconstruction of mixed households, when combined with age/sex data, mortuary evidence, and contextual relationship of graves. To serve as geographical reference, snail shells were collected from 100 locations in central Anatolian settlement basins along the Kızılırmak River, and the analysis of a sub-sample yielded observable trends in the distribution of 87Sr/86Sr ratios. Accordingly, the birthplace of certain individuals in the Kültepe houses was identified as the high Anatolian plateau, while others pointed to an origin to the south of Kayseri, possibly the Amuq, the upper Euphrates or the Tigris basin. Moreover, the widely ranging oxygen and nitrogen values, which demonstrate variability in the sources of drinking water and different levels of meat consumption respectively, imply that transhumance or marriage ties with highland communities may have been part of residential mobility patterns at the city.

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