

SEVENTH WORLDWIDE CONFERENCE OF THE
SOCIETY FOR EAST ASIAN ARCHAEOLOGY



PROGRAM



HARVARD
UNIVERSITY

BOSTON
UNIVERSITY

Harvard University and Boston University
Cambridge and Boston, USA
June 8–12, 2016

Imprint:

Society for East Asian Archaeology (SEAA)

<http://www.seaa-web.org/>

© SEAA 2016

7th Worldwide Conference, June 8–12, 2016

Cambridge and Boston, USA

SEAA Council:

Executive Officers

President: **PAK** Yangjin, Professor (Chungnam University, Republic of Korea)

Vice-President: Francis **ALLARD**, Associate Professor (Indiana University of Pennsylvania, Indiana, PA, USA)

Secretary: Barbara **SEYOCK**, Lecturer (RUB - Ruhr University Bochum, Institute of Archaeology, Germany)

Treasurer: Sascha **PRIEWE**, Managing Director (Royal Ontario Museum, Toronto, Canada)

Regional Representatives

Australasia: **CHEN** Pochan, Professor (National Taiwan University, Taipei, ROC)

China: **CHEN** Xingcan, Professor (Chinese Academy of Social Sciences, China)

Europe: Ariane **PERRIN**, Research Associate (Center for Korean Studies, Paris, France)

Japan: **MIZOGUCHI** Koji, Assoc. Professor (Kyushu University, Fukuoka, Japan)

Korea: Martin **BALE**, PhD (Harvard University, Cambridge, USA)

North America: Gwen **BENNETT**, Professor (McGill University, Montreal, Canada)

Appointed Officers

Journal Editor: Lothar **VON FALKENHAUSEN**, Professor (University of California, Los Angeles, USA)

SEAA-Web Editor: Barbara **SEYOCK**, Lecturer (RUB - Ruhr University Bochum, Institute of Archaeology, Germany)

SEAA Bibliographer: Gina L. **BARNES**, Professorial Research Associate (SOAS, University of London, UK)

Society for American Archaeology (SAA) Liaison: Fumiko **IKAWA-SMITH**, Professor Emerita (McGill University, Montreal, Canada)

Association for Asian Studies (AAS) Liaison: Fan **ZHANG**, Post-doctoral Fellow and Lecturer (Smith College, Northampton, MA USA)

Indo-Pacific Prehistory Association (IPPA) Liaison: Ling-yu **HUNG**, Assistant Professor (Indiana University, Bloomington, IN USA)

Japanese Archaeological Association Liaison: Koji **MIZOGUCHI**, Associate Professor (Kyushu University, Fukuoka, Japan)

American Anthropological Association (AAA): Mark **HUDSON**, Professor (University of West Kyushu, Japan)

SEAA7 Conference Organizing Committee:

Katherine Brunson, Mark Byington, Cao Bin, Jade d'Alpoim Guedes, Michelle Damian, Zoe Eddy, Rowan Flad, Yitzchak Jaffe, Christopher Kim, Jada Ko, Brian Lander, Cheryl Makarewicz, Robert Murowchick, Yangjin Pak, Ken-ichi Sasaki, Tong Shan, Yanxi Wang, Joshua Wright, Kaoru Ueda, Zhang Jianping, Zhu Ping

Supported by:

Harvard University Dean of Social Science
Harvard University Asia Center
Harvard University Fairbank Center for Chinese Studies
Harvard-Yenching Institute
American School of Prehistoric Research
Harvard University Standing Committee on Archaeology
East Asian Archaeology Seminar, Harvard University
International Center for East Asian Archaeology & Cultural History, Boston University
East Asian Archaeology Forum, Boston University
Boston University Center for the Humanities
Boston University Center for the Study of Asia
Peabody Museum of Archaeology and Ethnology, Harvard University

Contact Address:

Dr. Barbara Seyock

Lecturer

RUB – Ruhr University Bochum

Institute for Archaeological Sciences (IAW)

Am Bergbaumuseum 31

D- 44791 Bochum

[*b.seyock@gmx.de*](mailto:b.seyock@gmx.de)

SEAA7 Logo © design by Michael Moos

Front cover: Banshan Pot. Gift of Mrs. John Dane, 1941. (c) President and Fellows of Harvard College, Peabody Museum of Archaeology and Ethnology, PM# 41-61-60/7161 (digital file # 99320164).

Back cover: Detail of Decoration on Banshan Pot.

Cover Design: Ivan Bolivar

Edited by: Christopher Felix Kim, Rowan Flad, Joshua Wright, Robert Murowchick

Layout: Christopher Felix Kim

TABLE OF CONTENTS

Welcome and Information.....	5
Maps.....	9
Timetable.....	11
Daily Schedule.....	17
Paper / Poster Abstracts.....	56
Participant Index.....	142



Welcome and Information

My warmest greetings to all the SEAA7 participants! Welcome to the 7th Worldwide Conference of the Society for East Asian Archaeology and thank you very much for coming.

The worldwide conferences of the Society for East Asian Archaeology have always presented a great forum for academic exchange and personal interaction in East Asian archaeology. The 7th Conference, hosted by Harvard and Boston University, now returns to the USA for the first time since the inaugural meeting was held in Hawaii in 1996. The SEAA worldwide conferences, initially held every four years, are now held every two years in order to accommodate the rapid development and dramatic expansion of our field and the needs of our society membership.

For SEAA7, there are more than 300 participants from diverse countries, and the presented papers are rich with new discoveries and innovative ideas as well as enthusiasm and dedication to high ideals. This gathering of international scholars will certainly promote more active dialog, participation, and interaction among archaeologists, researchers, students, and members of the general public who are interested in the archaeology and related academic fields of China, Korea, Japan, and adjacent regions.

This conference is made possible by the commitment and effort of many institutions and individuals. I am really grateful for the enormous effort made by members of the conference organizing committee, including Professor Rowan Flad of Harvard, Professor Robert Murowchick of Boston University, SEAA Vice President Dr. Francis Allard, and SEAA Secretary Dr. Barbara Seyock. I also would like to recognize SEAA Treasurer Dr. Sascha Prieue and SEAA Webmaster Michael Moos for their great efforts in the preparation of this conference. I would like to express my deep gratitude as well to Harvard University and Boston University, which have provided generous financial and institutional support for this important conference.

On behalf of the executive board of the Society for East Asian Archaeology, I again extend my warmest wishes to all participants and hope that you will be able to share new information about ongoing research projects with old and new friends, to keep abreast of the most recent advances in the field, and to have a chance to enjoy a beautiful early summer season in New England. So now let us enjoy this scholarly festival for the exchange of research ideas and expansion of professional collaborative opportunities and personal interaction with colleagues. I am excited to have you here and welcome indeed!

Yangjin Pak, Ph.D.

President

Society for East Asian Archaeology



Welcome to SEAA7 !

The seventh international gathering of archaeologists focusing on East Asian archaeology returns to the United States for the first time since the inaugural meeting in Hawaii in 1996, and boy have we grown! This year we have approximately 300 presentations and posters scheduled over four days and are delighted you can join us. The international conferences of the SEAA were established 20 years ago as an English language forum for exchanging ideas about all topics related to the archaeology of East Asia. We are proud to carry on the tradition of this conference here in the historic cities of Cambridge and Boston, Massachusetts, and hope to have as successful an event as the 6th International Conference in Ulaanbaatar in 2014.

The participants in this SEAA Conference come from all around the world, representing at least a dozen countries where scholars work on the investigation of archaeological material from China, Korea, Japan, Mongolia, and adjacent regions. The range of talks presented this year continues to expand both geographically and temporally relative to previous conferences. We hope this marks a continuing expansion of the scope of the SEAA.

This conference was made possible by the financial support from a number of sources, listed on page 3 of the program book, as well as the tireless efforts of the SEAA officers and the local organizing committee. All of these individuals have contributed in important ways to the organizing of the conference and the compilation of this program book. Special thanks should be directed to the extraordinary efforts of Sascha Priewe and Barbara Seyock in their processing of membership and conference registrations, Katherine Brunson and Kaoru Ueda in their organizing of housing, conference rooms, the post-conference tours and other aspects of the conference, and Christopher Kim and Joshua Wright for their work on the conference program.

We urge you to take advantage of not only the conference offerings of paper presentations and posters, but also the libraries, museums, historical sites, and other resources and walking tours available in the areas around Harvard and Boston Universities. A few of these are listed in the next few pages, and others are described in the additional information in your welcome packet.

Rowan Flad
Robert Murowchick
Local Organizers, SEAA7

Free admission to the Harvard Museums of Science and Culture (including the Peabody Museum, Semitic Museum, and Harvard Museum of Natural History) AND to the Harvard Art Museums with your conference identification badge.

In particular, we draw your attention to a special exhibit at the Harvard Art Museums, mounted specifically for the SEAA7 Conference:

Prehistoric Pottery from Northwest China Exhibit

Ancient pottery vessels are not only works of art but also representations of technical achievement, products of economic value, and windows into understanding ancient history and society. This installation showcases approximately 60 excellent, yet rarely seen prehistoric Chinese ceramics from the collections of the Harvard Art Museums and the Peabody Museum of Archaeology and Ethnology. This installation has been organized with Ling-yu Hung, a visiting fellow at the Harvard Fairbank Center for Chinese Studies and assistant professor of anthropology at Indiana University in Bloomington. The installation is made possible in part by funding from the Gurel Student Exhibition Fund and the José Soriano Fund at the Harvard Art Museums, and the Harvard Fairbank Center for Chinese Studies.

The Harvard Art Museums is experimenting with Bluetooth beacon technology during this exhibition and hope you will be among the first to try it out. If you have a recent iPhone or Android device with Chrome installed and Physical Web enabled, you will be able to access a Digital Tour while you are in the gallery. Or, access the tour at <http://www.harvardartmuseums.org/tour/prehistoric-pottery-from-northwest-china>

Transportation

As shown in the maps on the next pages and in the welcome packet, the conference will take place at two venues. From Wednesday June 8th to Friday June 10th, conference activities will take place at the Harvard University campus. On Saturday and Sunday, June 11th-12th, the venue is on the Boston University campus. Regardless of where you are staying, therefore, you will need to travel by public transportation to the conference venues on certain days.

To reach the Harvard University or Boston University (BU) areas by public transportation from Logan International Airport, there are two options:

(1) http://www.mbta.com/riding_the_t/logan/#Blue

At Logan Airport, take the free “Airport Shuttle” bus from your airline terminal to the Blue Line MBTA “Airport Station” (The shuttle buses run a continuous circle among all the airport terminals and the MBTA “T” station). At the MBTA “Airport Station”, buy a Charlie Card** (an MBTA ticket, probably about \$2.65) and board an INBOUND Blue Line train to go four stops to the “Government Center” station and transfer to the Green Line.

- If your destination is the Omni Parker House hotel take the Inbound Green Line (B, C, D, or E trains) one stop to Park Street Station and exit.
- If your destination is Harvard University, at Park Street Station change to the Alewife Red Line train and take it three stops to Harvard.
- If your destination is Boston University, at Government Center station take the Inbound Green Line “B” train, which will take you to Park Street and continue through several more stops (Boylston, Arlington, Copley, Hynes, Kenmore, etc.) and then above ground along Commonwealth Ave. to BU. Lines “C” and “D” will also take you close to the conference venue, but you MUST get off at Kenmore Square and walk from there (a five minute walk to KCB).
 - **The closest “T” stop to the conference venue (Kenmore Classroom Building, or KCB) is the “Blandford Street” stop.** (“B” line only)
 - **The closest “T” stop to the 10 Buick St. Residence is the “St. Paul Street” stop** (the cross street is called St. Paul Street south of Comm Ave, but is called Buick Street north of Comm Ave). When you depart the train, you will see the large red brick FitRec (Fitness and Recreation Center) on Comm Ave; the 10 Buick Street Residence is located just behind FitRec along Buick Street.

OR

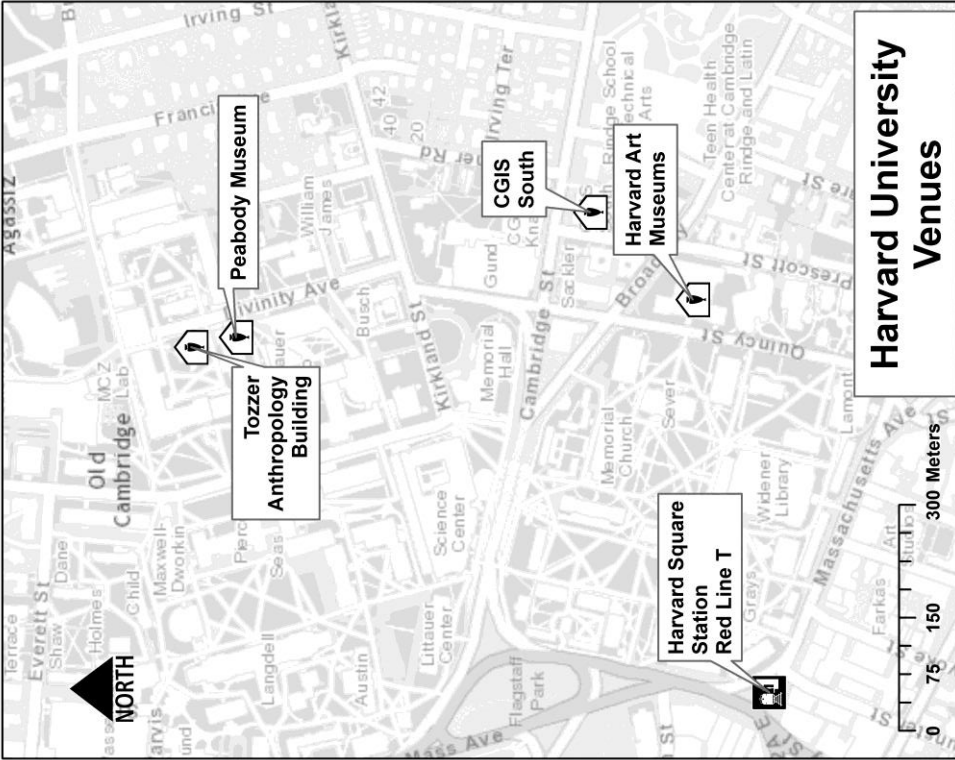
(2) http://www.mbta.com/riding_the_t/logan/#Silver

At Logan Airport, take the free Silver Line bus (Route SL1) to South Station, where you can then connect with the Red Line “T” subway. Look for signs to the Red Line “T” INBOUND (the train will say “Alewife”).

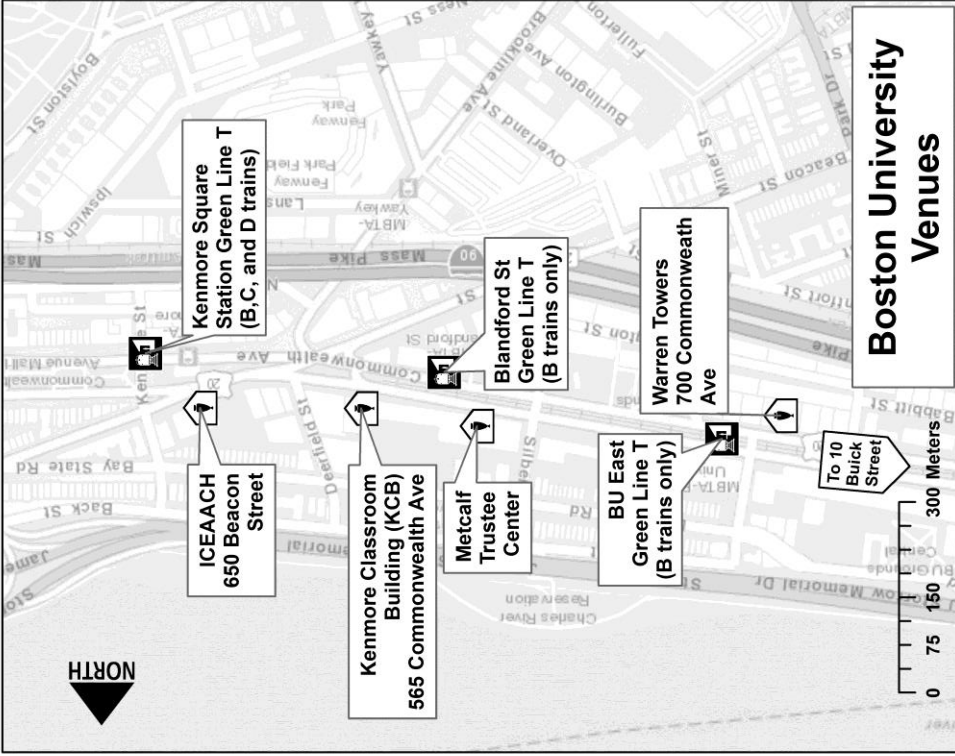
- Take it five stops to Harvard University if that is your destination.
- If you are going to Boston University, take the Red Line only two stops to Park Street, then change to the OUTBOUND Green Line “B” train to take you to BU, as above.

Here’s an MBTA (“the T”) subway map (also included in your registration packet) to help you make sense of the above descriptions: http://www.mbta.com/schedules_and_maps/subway/

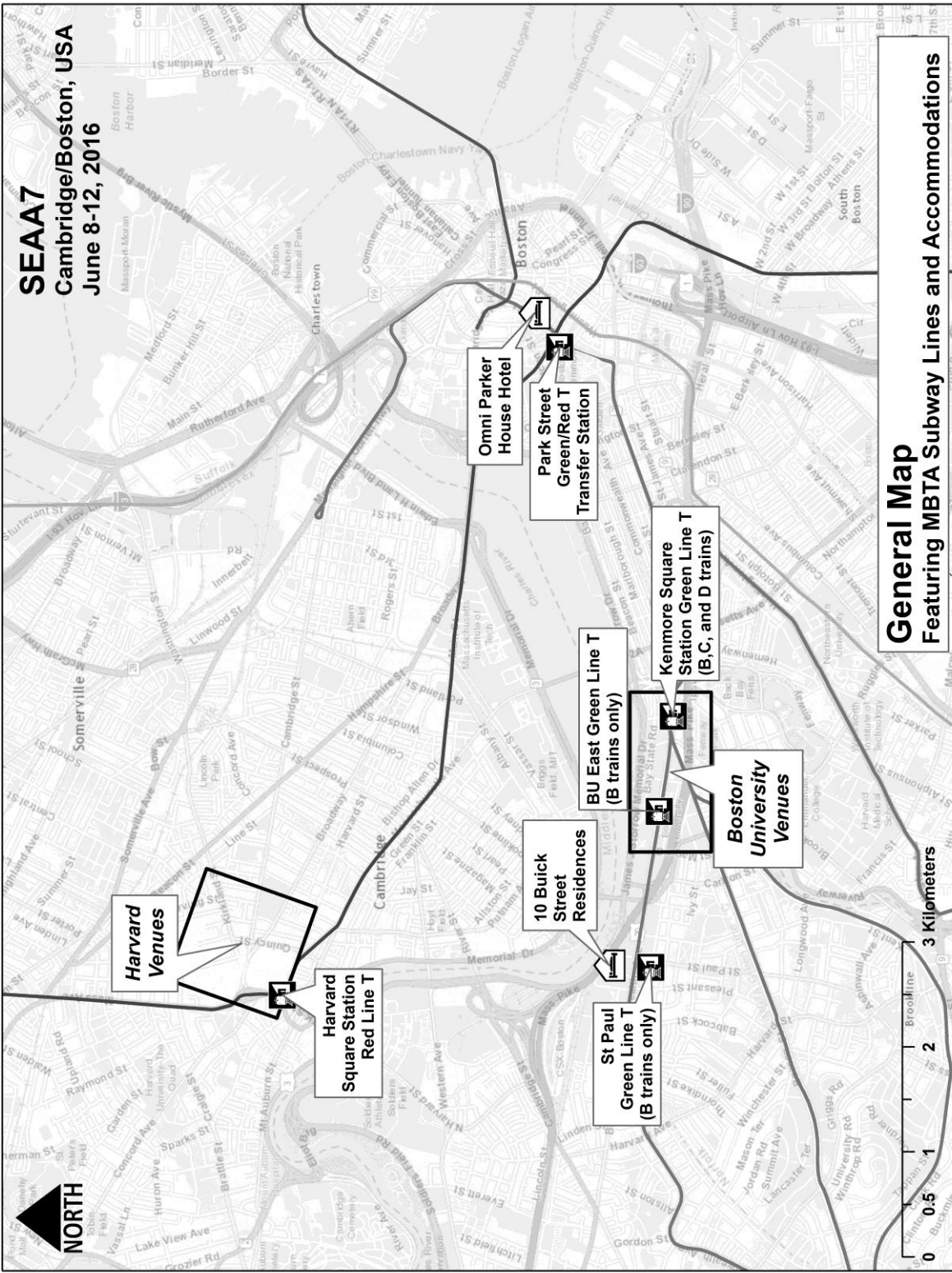
**A note on the MBTA Charlie Cards: Instead of buying individual subway tickets each time you go, you can buy a plastic Charlie Card instead, which will save you a little money. When you get the Charlie Card, we suggest that you put \$10 or \$20 on it, then you can quickly swipe your card and jump on the “T” when you want to head into downtown Boston, or make trips to Harvard or BU. When you swipe your card, it automatically deducts the fare and the turnstile shows you your remaining balance so you can top it off with more money as needed. All T stations have fare machines where you can add additional money (cash or credit cards accepted).



SEAA7
 Cambridge/Boston, USA
 June 8-12, 2016



Venue Map
 Featuring Locations of Sessions and Events



Timetable

DAY 1: June 8, Wednesday (at Harvard University)

9:00-13:00	Registration	CGIS Concourse (Basement)
13:30-14:30	Opening Ceremony	Harvard Art Museums Menschel Lecture Hall
14:30-17:45	Plenary Session Organizer: Rowan FLAD	Harvard Art Museums Menschel Lecture Hall
18:00	Welcome Reception	Peabody Museum of Archaeology and Ethnology

DAY 2: June 9, Thursday (at Harvard University)

9:00-12:40	Morning Sessions (10:30-11:20 - Coffee Service)	CGIS Concourse (Basement)
12:30-14:00	Lunch	CGIS Concourse (Basement)
13:00-14:00	SEAA Council Meeting	CGIS S0250
14:00-18:00	Afternoon Sessions (15:30-16:20 - Coffee Service)	CGIS Concourse (Basement)
19:00	SEAA Business Meeting (19:30-20:00 - One Minute Poster Summaries)	Harvard Art Museums Menschel Lecture Hall

DAY 3: June 10, Friday (at Harvard University)

9:00-12:40	Morning Sessions (10:30-11:20 - Coffee Service)	CGIS Concourse (Basement)
12:30-14:00	Lunch Served / Buses Loaded / Drive to PEM	Gather at CGIS Building
14:00-19:00	Mid-Conference Excursion to Peabody Essex Museum (Salem, MA)	Peabody Essex Museum
19:00	“Women in Asian Archaeology” group meeting	Peabody Museum, 5th Floor

DAY 4: June 11, Saturday (at Boston University)

9:00-12:40	Morning Sessions (10:30-11:00 - Coffee Service)	Kenmore Classroom Building
12:00-13:30	Brunch [available 11:30-13:30] ("Publishing in Archaeology" seminar)	Warren Towers Dining Hall Melville Lounge, Warren Towers Dining Hall
14:00-18:00	Afternoon Sessions (16:00-16:30 - Coffee Service)	Kenmore Classroom Building
18:30-20:30	Saturday Boston University Reception	Metcalfe Trustee Center, One Silber Way, 9th Floor Boston University

DAY 5: June 12, Sunday (at Boston University)

9:00-12:40	Morning Sessions (10:15-11:00 - Coffee Service)	Kenmore Classroom Building
12:00-13:30	Brunch [available 11:30-13:30]	Warren Towers Dining Hall
14:00-18:00	Afternoon Sessions (15:30-16:00 - Coffee Service)	Kenmore Classroom Building
18:00	Public Lecture	Kenmore Classroom Building

WEDNESDAY June 8

9:00	Registration (CGIS Concourse, Basement, Harvard University)
12:30	
13:30	Opening Ceremony (Menschel Hall, Harvard Art Museums)
14:30	Plenary Session (Menschel Hall, Harvard Art Museums)
18:00	Welcome Reception (Peabody Museum, 11 Divinity Ave.)

THURSDAY June 9

	CGIS 010 - Tsai Auditorium	CGIS 020 - Belfer Case Study Room	CGIS S030 - Doris and Ted Lee Room	CGIS S050	
9:00	I: Beyond Typology	III: Prospects for Multidisciplinary Studies in East Asia Bioarchaeology	IV: Role of Archaeologists in Heritage Management in East Asia	VI: General Session: Burial Objects / Ornaments in East Asia	
9:20					
9:40					
10:00					
10:20					
10:40					
11:00	BREAK		BREAK	BREAK	
11:20	II: Tracing Medieval Connections in Japan		V: General Session: Complex Society / Early China	VII: Rediscovering East Asia in the Penn Museum	
11:40					
12:00					
12:20					
	LUNCH (CGIS Concourse)				
13:00	SEAA Council Meeting - CGIS South S0250				
14:00	VIII: Chinese Skywatch	X: Bioarchaeology	XII: New Advances in Understanding the Prehistory of the Tibetan Plateau, Part I	XIII: Weapons, People and Societies in Pre-Han China	
14:20					
14:40					
15:00					
15:20					
15:40	BREAK			BREAK	
16:00	IX: General Session: Dynastic East Asia	BREAK	BREAK	XIV: General Session: The Practice and History of Archaeology	
16:20					
16:40			XI: General Session: From Early Settlements to Cities		XII, Continued
17:00					
17:20					
17:40					
19:30	Membership Meeting (Menschel Lecture Hall, Harvard Art Museums)				

FRIDAY June 10

	CGIS 010 - Tsai Auditorium	CGIS 020 - Belfer Case Study Room	CGIS S030 - Doris and Ted Lee Room	CGIS S050	Posters
9:00	XV: Moving Backward and Forward Through Time-- Cumulative Han Culture	XVII: New Developments in Maritime Archaeology and Maritime History	XIX: New Advances in Understanding the Prehistory of the Tibetan Plateau, Part II	XX: New Perspectives in Korean Archaeology	Poster Session A
9:20					
9:40					
10:00					
10:20					
10:40	BREAK		BREAK	BREAK	
11:00	XVI: General Session: Dynastic China		XIX, Continued	XX, Continued	
11:20					
11:40					
12:00					
12:20					
12:30	LUNCH / Load Busses for PEM Tour				
14:00	Excursion to Peabody Essex Museum, Salem MA				
14:20					
14:40					
15:00					
15:20					
15:40					
16:00					
16:20					
16:40					
17:00					
17:20					
17:40					
19:00	Women in Asian Archaeology Meeting (24 Oxford St., Peabody Museum, 5th Floor)				

SATURDAY June 11

	KCB 101	KCB 106	KCB 104	KCB 107	Posters	
9:00	XXI: Plant Domestication and Environmental Change in Neolithic China	XXII: The Archaeology of Bodily Adornment Across Asia	XXIII: Foreign Influence on the State Formation Processes in Early Japan	XXIX: Nationalism and Ethnic Identities in East Asian Archaeology	Poster Session B	
9:20						
9:40		BREAK	BREAK	BREAK		
10:00						
10:20		XXII, Continued	XXIII, Continued	XXIX, Continued		
10:40						
11:00		BREAK	BREAK	BREAK		
11:20						
11:40		BREAK	BREAK	BREAK		
12:00						
12:15	LUNCH (Warren Towers Dining Hall) / Publishing in Asian Archaeology (Melville Lounge, Warren Towers Dining Hall)					
14:00	XXX: From Tian Shan to the Altai	XXXI: Historical Archaeology of East and Southeast Asia	XXXII: Food and Society in Prehistoric East Asia	XXXIII: Connecting Technology, Economy and Social Change in Prehistoric China	Poster Session C	
14:20						
14:40		BREAK	BREAK	BREAK		
15:00						
15:20		XXX, Continued	XXXI, Continued	XXXII, Continued		XXXIII, Continued
15:40						
16:00	BREAK	BREAK	BREAK	BREAK		
16:20						
16:40						
17:00						
17:20						
17:40	BREAK	BREAK	BREAK	BREAK		
18:30					Saturday Reception (Metcalf Trustee Center, One Silber Way, Boston University)	

SUNDAY June 12

	KCB 101	KCB 106	KCB 104	KCB 107	Posters	
9:00	XXXIV: General Session: Mortuary Archaeology	XXXVI: Reception and Re-interpretation of the Material Culture of the Other	XXXVII: General Session: Landscape Archaeology, Nomadic Society, Central Asia	XXXVIII: General Session: China	Poster Session D	
9:20						
9:40						
10:00						
10:20						
10:40	BREAK	BREAK	BREAK	BREAK		
11:00	XXXV: General Session: Chinese Metal Production	XXXVI, Continued	XXXVII, Continued	XXXIX: Chinese Cultural Relics Award Ceremony		
11:20						
11:40						
12:00						
12:15	LUNCH					
14:00	XL: Archaeological and Art Historical Studies of Historical Period China	XLI: New Technologies in Archaeological Research	XLII: General Session: Sichuan	XLIV: General Session: Early China	Poster Session E	
14:20						
14:40						
15:00						
15:20						
15:40	BREAK	BREAK	BREAK	BREAK		
16:00	XL, Continued	XLI, Continued	XLIII: General Session: Japan	XLIV, Continued		
16:20						
16:40						
17:00						
17:20						
17:40						
18:00	East Asian Archaeology Forum Public Lecture (KCB Building, 101)					

Daily Schedule

DAY 1: June 8, Wednesday (at Harvard University)

**10:00-12:00 Northwest China Neolithic Archaeology Study Session
(Harvard Art Museums, 32 Quincy Street)**

In association with an exhibit of prehistoric Neolithic pottery from Northwest China in the Harvard Art Museums that has been put together by Dr. Ling-yu Hung (Indiana University and Harvard University, Fairbank Center), this two hour study session examines some of the Northwest China painted Neolithic pottery in the collection that is not in the exhibit. The session will be led by Dr. Hung and Dr. Li Shuicheng (Peking University). *Pre-registration required.*

**10:00-12:00 Ainu Collection Study Session
(Peabody Museum of Archaeology and Ethnology, 11 Divinity Ave.)**

In conjunction with the Harvard Peabody Museum of Archaeology and Ethnology, this two hour study session examines 18th and 19th century Ainu materials held in the Peabody Museum. This session will explore the history of Ainu collections in American museums, as well as the roles and responsibilities of archaeologists in researching these collections. This session will be led by Zoe Eddy (Harvard University Department of Anthropology PhD student, Smithsonian Institution Visiting Researcher). *Pre-registration required.*

Opening Ceremony (Menschel Lecture Hall, Harvard Art Museums)

13:30 Rowan FLAD (Dept. of Anthropology, Harvard; Local Organizer, SEAA7)

13:40 Welcome

- Yangjin PAK (President, Society for East Asian Archaeology)
- Mark ELLIOTT (Vice Provost for International Affairs, Harvard University)
- Deborah Martin KAO (Chief Curator and Interim Co-Director, Harvard Art Museums)
- Jane PICKERING (Executive Director, Harvard Museums of Science and Culture)

- Karen THORNBUR (Director, Harvard University Asia Center)
- Theodore C. BESTOR (Director, Edwin O. Reischauer Institute of Japanese Studies, Harvard)
- Michael SZONYI (Director, Fairbank Center for Chinese Studies, Harvard)
- Susan LAURENCE (Executive Director, Korea Institute, Harvard)
- LI Ruohong (Executive Director, Harvard-Yenching Institute)

Plenary Session

- 14:30 Robert E. MUROWCHICK (Dept. of Archaeology, ICEAACH, and Center for the Study of Asia, Boston University, Local Co-Organizer, SEAA7)
- 14:35 Ofer BAR-YOSEF (Professor Emeritus of Anthropology, Harvard University): *Early Cultivation in China: Why and Where*
- 14:50 David REICH (Professor of Genetics, Harvard Medical School): *Ancient DNA Documents Multiple Human Migrations into the South Pacific*
- 15:05 Richard MEADOW (Senior Lecturer in Anthropology and Director of the Zooarchaeology Laboratory, Harvard Peabody Museum): *Traveling East: Domestic Zebu Cattle and Water Buffalo reach China*
- 15:20 Mark BYINGTON (Director, Early Korea Project, Harvard Korea Institute): *A Retrospective on Harvard's Early Korea Project*
- 15:35 Rowan FLAD (Professor of Anthropology, Harvard University): *Technological Change on the Proto-Silk Road*
- 15:50 Michael PUETT (Professor of East Asian Languages and Civilizations, Harvard University): *Excavating Ritual*
- 16:05 Eugene WANG (Professor of the History of Art and Architecture, Harvard University): *The First Emperor's Tomb site: What was the Design?*
- 16:20 Katherine EREMIN (Conservation Scientist, Strauss Center for Conservation and Technical Studies, Harvard University): *Dunhuang Treasures at the Harvard Art Museums through the Conservation Lens*

- 16:35 Ricardo ELIA (Associate Professor of Archaeology, Boston University): *Japanese Appropriation of Cultural Heritage during the Pacific War, 1937-1945*
- 16:50 Robert MUROWCHICK (Director, International Center for East Asian Archaeology and Cultural History, Boston University): *Death by a Thousand Cuts: Can China's Remaining Cultural Heritage be Preserved?*
- 17:05 Barbara FASH (Director of the Corpus of Maya Hieroglyphic Inscriptions Program, Harvard University): *Innovation and Education: A Circle of Archaeological Community in Copan, Honduras*
- 17:20 Kaoru UEDA (Post-Doctoral Researcher, International Center for East Asian Archaeology and Cultural History, Boston University): *When Southeast Asia went Global: Historical Archaeology from an Asian Perspective*
- 17:35 CLOSING

**18:00-20:00 WELCOME RECEPTION
(PEABODY MUSEUM OF ARCHAEOLOGY AND ETHNOLOGY,
11 Divinity Ave.)**

DAY 2: June 9, Thursday (at Harvard University)

Morning

I **Beyond Typology: New Approaches to Ceramic Analysis in Chinese Archaeology**

CGIS S010 Organizers: Yitzchak JAFFE / WEI Qiaowei
Tsai Auditorium

From the earliest ceramics found in the Paleolithic caves of Yuchisi and Xianrendong to painted Yangshao fish motifs, Longshan eggshell-thin drinking cups and the ubiquitous blue-grey Han dynasty tiles, pottery comprises some of the most impressive artifacts of ancient China and provides the basic elements for its study. To date, most research has focused on shapes and styles of ceramic vessels to construct cultural typologies, but in the past few years studies have begun to embrace the immense potential that ceramic data contain and the wide range of social and technical information that can be extracted from ceramics. This session will bring together scholars to present their innovative research and fresh approaches to the study of pottery in Chinese archaeology. Papers will address both novel analytical techniques of ceramic assemblages and studies that present new data on craft specialization, politics and culinary practices.

- 9:00 Yitzchak JAFFE: *Cooking on the side—Use Wear Analysis of Siwa Saddle-shaped Mouth Jars from the site of Zhangqi* [1]
- 9:20 WEI Qiaowei, ZHAO Yichao: *Made Locally or Long Distance Transportation? New Evidence on Ceramic Vessels from Salt Production Sites in Northern Shandong* [2]
- 9:40 Ilaria PATANIA: *FTIR Analysis of Clays at Xianrendong Cave: Reconstructing Pyrotechnology and Human Behavior in the Home* [3]
- 10:00 Anke HEIN: *The Typological Orientation of Chinese Archaeology—A Reassessment of Methods and Problems* [4]
- 10:20 ZENG Lingyi: *Ceramic Production, Consumption and Exchange During the Yuan Dynasty (1271–1368 AD), China* [5]
- 10:40 Anne UNDERHILL: *Discussant* [6]

II Tracing Medieval Connections in Japan: Trade, Urban Development, and Seafaring

CGIS S010 Organizer: Michelle DAMIAN
Tsai Auditorium

While many Japanese historical archaeological studies have focused on temple, castle, or palace sites, the studies here explore the development of and connections between lesser known locales: specifically, urban settlements and ports. These smaller communities reflect the daily activities of the late medieval (14th – 17th centuries) Japanese, and reveal multiple connections with other communities both within and without the archipelago. Through the use of archaeological evidence, geospatial analysis, and artistic depictions, the authors examine the factors that impacted domestic and interregional trade, particularly via maritime routes. As we determine trade-based connections, we further see the ramifications of those ties on daily life in coastal and urban communities. Finally, we examine the perception of outside influences as new connections with the west are forged.

11:20 Michelle DAMIAN: *Currents, Islands, and Pirates—A Geospatial Analysis of Medieval Trade in the Seto Inland Sea* [7]

11:40 Simon KANER: *The Archaeology of Sea-borne Trade and Urbanism along the Medieval Japan Sea Coast* [8]

12:00 YAMAFUNE Kotarō : *Archaeology and Art: Portuguese Ships in Japanese Perspectives* [9]

12:20 MARUYAMA Masashi, Kenji NAGAI, Yumiko OYABU, Shiori FUJISAWA: *Changes in Cut Marks on Animal Remains from Prehistory to the Historical Age in Japan* [10]

III Prospect for Multidisciplinary Studies in East Asia Bioarchaeology

CGIS S020 Organizers: ZHANG Hua / KIKUCHI Hiroki
Belfer Room

Along with artifacts, archaeological excavations have unearthed many kinds of biological remains, including human, faunal, and floral. These organic materials provide an essential foundation for reconstructing past human societies and interpreting lifeways of past people. Recently, based in the domain of science, the application of advanced techniques such as chemical and physical tests, and isotope and ancient DNA analyses, is largely involved in studies that address specific hypotheses and questions about past human behaviour. Here we use the broader concept of bioarchaeology to cover all biological remains from archaeological sites, and present ten studies in East Asia, focusing on China and Japan. As the most promising area of research, bioarchaeology is moving forward with multidisciplinary collaborations in the study of human past.

- 9:00 Daniela WOLIN, Christina CHEUNG, ZHANG Hua: *The Lives of Commoners and Sacrificial Victims of Late Shang in Anyang, China: New Evidence from Paleopathology and Palaeodiet* [11]
- 9:20 OKAZAKI Kenji, YONEMOTO S., NAKAHASHI T., MIYAMOTO K., AMGALANTUGS T.: *Trauma on the Human Skeletal Remains of the Bronze Age, Mongolia* [12]
- 9:40 Mauricio HERNANDEZ: *Ecology, Subsistence and Cultural Admixture: A Biomechanical Reconstruction of Routine Activities across Northwest China's Prehistoric Exchange Networks* [13]
- 10:00 WEI Dong, YANG Si: *A Regional Investigation of Activity-related Stress and Trauma in Bronze Age and Early Iron Age Human Remains in Xinjiang, China* [14]
- 10:20 EDA Masaki, LU Peng, LUO Yunbing, YUAN Jing: *The Morphological Microevolution of Chickens in East Asia during the Domestication Process: A Statistical Point of View* [15]
- 10:40 KIKUCHI Hiroki: *Evolution of Horse Production and Management System in Ancient China* [16]
- 11:00 GAKUHARI Takashi: *Bioisotope Analysis for Zooarchaeological Research of Horse Production System and Evolution in East Asia* [17]
- 11:20 ZHAO Xin: *Ancient DNA Studies on Domesticated Cattle in Northern China* [18]
- 11:40 ZHANG Zhe: *Mass Procurement and Feasting in Houtaomuga, Northeast China* [19]
- 12:00 WANG Chunxue: *Identification of Adhesive on Bone-handled Microblades from the Houtaomuga Site in Northeast China* [20]
- 12:20 NIE Ying: *The Study of Oral Health of Semi-nomadic Populations from the Late Bronze Age to Early Iron Age in Yili River, Xinjiang, China* [21]

IV Role of Archaeologists in Heritage Management in East Asia

CGIS S030 Organizers: Jada KO / EDDY Zoe
Lee Room

Heritage is fast becoming a topic central in archaeological theory and practice. This session examines heritage management and conservation within the context of East Asian archaeology. Within this context, we will interrogate questions such as “What is heritage?” and “Who does

heritage belong to?” The goals of this session are a) to examine how heritage management is currently practiced in East Asia, and b) to raise awareness of this topic among East Asian archaeologists. Contributors will present a range of papers that discuss theoretical approaches to East Asian heritage management, case studies, projects, and programs; a subset of papers will discuss specifically the impact of archaeology and heritage on local, indigenous, and minority ethnic populations. This session aims to encourage discussions on the current issues surrounding the preservation and sharing of the past, as well as the difference between viewing heritage as a process and as a product.

- 9:00 Jada KO: *Heritage, Landscape, and Local Communities: A New form of Public Archaeology in China – A Case Study in Gansu* [22]
- 9:20 LI Jian: *Changes in the Role of the Chinese Government in Cultural Heritage Protection* [23]
- 9:40 EDDY Zoe: *Colonizing Ainu Anthropology: A Historical Inquiry of Outsider Perspectives* [24]
- 10:00 TONG Shan: *Should They Move Out? A Case Study of Southern China's Cave-Dwelling Heritage Protection: Rethinking the Indigenous Cultural Heritage Protection in China* [25]

V General Session: Complex Society/Early China

- CGIS S030
Lee Room Chair: Katherine BRUNSON
- 11:00 DAI Xiangming: *Development of Social Complexity during the Late Neolithic of Northern China* [27]
- 11:20 Katherine BRUNSON: *Ancient DNA Approaches to Zooarchaeological Research in China* [28]
- 11:40 REN Xinyu: *A Regional Perspective on the Rise of Social Complexity in Prehistoric China: The Huangtucheng Regional Archaeological Survey in the Huai River Region* [29]
- 12:00 WANG Wenjing: *The Development of Early Complex Society in the Chaohu Area, Middle-Lower Reaches of the Yangzi River, China* [30]
- 12:20 SONG Haichao: *A Social Complexity Study of the Liangzhu Site* [31]

VI General Session: Burial Objects/Ornaments in East Asia

- CGIS S050 Chair: Yoko NISHIMURA
- 9:00 Yoko NISHIMURA: *The Processes of Magatama Beads in Mortuary Contexts of Jō mon Japan* [32]
- 9:20 YOSHIDA Yasuyuki: *Spatial Analysis of Jomon Ear Ornaments: Toward Diverse Interpretations* [33]
- 9:40 QIN Xiaoli: *Inter-regional Relationships in the Hemudu Culture to Liangzhu Culture Periods: A View from the Distribution Pattern of Beads in East China* [34]
- 10:00 HUANG Chao: *Jade Yazhang Blades of the Phung Nguyen Culture in Northern Vietnam and Relations with China* [35]
- 10:20 ZHANG Lei: *A Brief Analysis of the Evolution of Bird Design in Ancient Chinese Headwear* [36]

VII Rediscovering East Asia in the Penn Museum: New Light on an Old Collection

CGIS S050 Organizer: Adam SMITH

The session brings together five papers devoted to East Asian objects in the collection of the University of Pennsylvania Museum of Archaeology and Anthropology. As with many collections assembled in the first half of the 20th c., the Penn Asia collection looks in many respects very different from how it appeared at the time of its acquisition, and is ripe for rediscovery. For items that entered the collection over 50 years ago, the archaeological evidence and research on comparable material that has accumulated in the interim often demands that old interpretations be revisited. In some cases—as with the Mayer Northern Zone bronzes, and Xiuding Si architectural tiles, discussed in three papers in the session—significant material has gone largely unnoticed.

- 11:00 Adam SMITH: *Contextualizing Northern Dynasties Donor Inscriptions in the Penn Museum* [37]
- 11:20 Gabrielle NIU: *Tiles from the Xiudingsi Pagoda at the Penn Museum: Petrographic Analysis and Art History* [38]
- 11:40 CHENG Fangyi: *The Mayer Collection of Northern Zone Bronzes in the Penn Museum* [39]
- 12:00 PENG Peng: *Rediscovering Bronze Art and Technology of Early China from the Mayer Collection* [40]

12:20 QU Lian: *Filial Piety vs. Perfect Charity: A Case on the Pictorial Depictions of the Vessantara Jataka in the Northern Dynasties* [41]

Afternoon

**13:00-14:00 SEAA COUNCIL MEETING
(CGIS S0250 - 2nd Floor Meeting Room)**

VIII Chinese Skywatch: Art, Astronomy and Beyond

CGIS S010 Organizer: Eugene Y. WANG
Tsai Auditorium

Archaeoastronomy has emerged as one of the key and robust developments in twenty-first century archaeological thinking. Much as Mesoamerica lays legitimate claim to being the intellectual heartland of this branch of archeology, China deserves a fair share of the claim. Many recent archaeological discoveries in China have supplied new evidence as well as impetus for the new disciplinary, or rather, interdisciplinary, formation of archaeoastronomy as an interface between art history, archaeology, astronomy, and other related fields. New concerns and methodological tool boxes may propel a paradigm shift away from mere “alignment studies” of the sky to more nuanced concerns with perception and cognition. The cultural-interpretative re-orientation that gives archaeoastronomy an edge may also lead to the re-focus of the study of the Chinese sky beyond mere affirmation of astronomical knowledge to more expansive cosmologies. It may yield new insight into cases and bodies of materials both old and new.

14:00 David PANKENIER: *Interpreting Celestial Simulacra* [42]

14:20 XU Fengxian: *A Conjecture on the Astronomical Use of yazhang* 牙璋 [43]

14:40 Eugene Y. WANG: *Where and How to Locate the Heaven in Tombs? The Case of Mawangdui* [44]

15:00 Nancy STEINHARDT: *Domes and Dippers: A Monument in Guyuan* [45]

15:20 HE Nu: *The Gnomon Shadow Template from Taosi* [46]

IX General Session: Dynastic East AsiaCGIS S010
Tsai Auditorium

Chair: Chao-Hui Jenny LIU

- 16:00 GUO Yanlong: *The Cost of Bronze Mirrors in the Han Empire (202 BCE-220 CE)* [48]
- 16:20 Chao-Hui Jenny LIU: *GIS Research on the "Mountain" Satellite Tombs of Tang Taizong's (598-649 CE) Zhaoling 昭陵* [49]
- 16:40 Magdalena ALTYN: *Walled Sites along the Han River as a Material Representation Reflecting Struggle for Power in the Three Kingdoms Period* [50]
- 17:00 CHEN Hao: *A Brief Study on the Plan Layout of the Imperial Ancestral Temple of the Southern Song Dynasty* [51]
- 17:20 HSU Yiu-kang, Benjamin SABATINI: *Thermodynamic Insight into the Production, Circulation, and Recycling of Ancient Chinese Coinage* [52]

X Bioarchaeology: Reconstruction of the Past from Ancient Excavated BonesCGIS S020
Belfer Room

Organizer: FUJITA Hisashi / M. ERDENE / Shiori FUJISAWA

A great deal of information is hidden in bones excavated from the archaeological sites. Therefore, analyzing these bones from a bioarchaeological point of view can contribute greatly to the "socio-biological reconstruction" of the people who lived in the site. In this session, we will verify the meaning indicated by the results of the analysis of the traces of bone disease and evidence of killing and butchering still retained in the animal bones, examining both human and animal bones that have been excavated in Mongolia and Japan. At the same time, through the production of stone tools as one of the physical activities of the people of that time, we will seek to "reconstruct" the mode of past human activities by using experimental techniques. From the single topic of "bones", we will discuss many things and will explore their usefulness in the field of bioarchaeology.

- 14:00 Yumiko OYABU: *Paleopathological Analysis of Wounds on Human Skeletal Remains of the Yayoi Period in Japan* [53]
- 14:20 UETSUKI Manabu: *Samurai Horses Revealed through Zooarchaeological Analysis* [54]

- 14:40 Kenji NAGAI: *Variabilities of East Asian Pressure Flaking Techniques on Bifaces during the Final Upper Paleolithic and Early Neolithic: Understanding the Knapper's Kinesiological Differences as an Indicator of Culturally Learned Behavior* [55]
- 15:00 Myagmar ERDENE: *Sexual Dimorphism of Pelvis and Parturition Scars in Archaeological Populations from Mongolia* [56]
- 15:20 Shiori FUJISAWA: *Joint Disease found on Human Skeletal Remains Excavated from Early-Modern Japanese Archaeological Sites* [57]
- 15:40 FUJITA Hisashi: *Cranial and Dental Stress Markers on the Human Skeletal Remains from Ancient Egypt QAU Site* [58]

XI General Session: From Early Settlements to Cities

CGIS S020
Belfer Room

Chair: XIE Liye

- 16:20 Susanne REICHERT: *Urban Craftsmanship: Karakorum* [59]
- 16:40 ZHANG Junna: *Evolution of the Yiluo River and its Influence on the Prehistoric Culture and the Formation of the Erlitou site in the Luoyang Basin, Henan province, China* [60]
- 16:40 CHEN Xiao: *Practice and Model: City Form and Urban Planning in Early China* [60]
- 17:00 XIE Liye: *Urban Construction as a Social Transformation Process during the Longshan and Erlitou Periods in the Middle Yellow River Valley* [61]
- 17:20 WANG Minghui: *A Study of the Health Status of Ancient People in China's Central Plains, with a Focus on the Jiahu Site and Xipo Cemetery* [62]
- 17:40 LIU Yu: *A Study of the Smelting and Casting Technology of Copper and Copper Alloy Wares from the Central Plains in the Early Bronze Age of China* [63]

XII **New Advances in Understanding the Prehistory of the Tibetan Plateau, Part I: Environmental Preconditions and Subsistence Practices**

CGIS S030 Organizers: Jade d'ALPOIM GUEDES / Anke HEIN / LU Hongliang
Lee Room

The “Roof of the World” has long presented a set of unique and challenging high altitude ecological conditions to which early hunter-gatherers, agriculturalists and pastoralists had to adapt. A recent increase in archaeological fieldwork on the Tibetan Plateau, combined with new methodological and theoretical frameworks has lead to re-appraisals of previous assumptions about early life on the Plateau. Papers in this session will highlight new research that focuses on understanding how humans developed adaptations for hypoxia, how foragers exploited resources in high altitude biomes, how humans moved crops, and adapted existing and invented new pastoral systems.

- 14:00 LU Hongliang: *The Multi-resource Economy of early Tibet: The Evidence from the Site of Bangga, Central Tibet* [64]
- 14:20 JIN Hetian: *Early Subsistence Practices at Prehistoric Dadunzi in Yuanmou, Yunnan: New Evidence for the Origins of Early Agriculture in Southwest China* [65]
- 14:40 Jade d'ALPOIM GUEDES: *Documenting a Rapid Transition in Agricultural Regimes on the Tibetan Plateau* [66]
- 15:00 Catrin KOST: *The Role of Monuments in Shaping Mobile-Pastoralist Landscapes in Bronze Age Northwest China* [67]
- 15:20 David RHODE: *Late Paleolithic to Neolithic Transition in the Northeast Tibetan Plateau: Recent Findings* [68]
- 15:40 ZHU Ping: *A Comparative Study on Tibetan Pottery: A Cultural Ecological Perspective* [69]
- 16:00 BREAK
- 16:20 ZHANG Dongju, DONG Guanghui, WANG Qianqian, REN Xiaoyan, CHEN Fahu: *Human Migration to the Northeastern Tibetan Plateau: A Preliminary Study of 151 Site in the Qinghai Lake Basin* [70]
- 16:40 MA Minmin: *Isotopic Evidence of Dietary Shift in Northwestern China* [71]
- 17:00 Chris STEVENS: *Tracking the Domestication and Spread of Broomcorn and Foxtail Millet within China* [72]

XIII Weapons, people and societies in pre-Han China

CGIS S050 Organizers: CAO Qin / LI Xiuzhen / XU Jian / ZHAO Congcang / GUO Yanli

Weapons have traditionally been perceived as implements associated with warfare and violence. However, the variety and quality of weapons recovered from archaeological excavations, coupled with existing textual evidence seem to suggest that their functions and roles in society are more complex and multi-faceted. Despite this potential, weapons have rarely been employed as evidence in major works of early Chinese archaeology and history. In this session, we will explore the multivocality of weapons in pre-Han China (prior to 206 BC). What can weapons, and their relationships with other material remains, tell us about the societies where they existed and the people who engaged with them? How can we investigate weapons, beyond typological and chemical analyses?

14:00 ZHAO Congcang: *The Features and Historic Significance of the Bronze Arms Excavated in Cheng Yang Region of Southern Shaanxi Province* [74]

14:20 GUO Yanli: *Funerals and Sacrifices: Dynasties and their Neighbours as seen through Chinese Bronze Weapons* [75]

14:40 CAO Qin: *Too Fragile to Fight? High-lead Weapons during the Late Shang, China (c. 1200- 1050 B.C.)* [76]

15:00 LI Xiuzhen: *Functional Bronze Weapons for the Qin First Emperor's Afterlife* [77]

15:20 XU Jian: *Defining Bronze Weapons from Southwest China: A Contextual Study* [78]

XIV General Session: The Practice and History of Archaeology

CGIS S050 Chair: ZHANG Wenjie

16:00 Clayton BROWN: *The American School of Archaeology in China, 1912-1934* [79]

16:20 Garry GUAN: *Challenges and Approaches in English Renditions of Chinese Archaeological Materials* [80]

16:40 Simon KANER, Gary CRAWFORD, Gyoung-ah LEE: *Writing the Archaeology of Korea and Japan* [81]

- 17:00 ZHANG Wenjie: *The Suspended-Bell System and the Display of Bells in Zhou Tombs* [82]
- 17:20 FU Yue: *Archaeological Study of " Cultural Norms" from the Shang to Western Zhou Dynasties* [83]

Evening

19:30-22:00 SEAA MEMBERSHIP MEETING (Menschel Auditorium, Harvard Art Museums)

- 19:30 One Minute Poster Summaries:
- Friday AM
 - Elizabeth LaDUC: *Technical Study of Ceramics from the Qijia Culture* [A1]
 - Francesca BEWER, Katherine EREMIN: *Seated Attendant Bodhisattva from Dun Huang* [A2]
 - Zoe EDDY: *Mixed Mediation and Mobile Exhibits* [A3]
 - Bettina ZORN: *Hands-on Station for the New China Gallery* [A4]
 - Jada KO: *Archaeologists as Filmmakers: Archaeology and Local Communities (FILM)* [A5]
 - OKADERA Miki, Simon KANER: *The Sacred Island of Okinoshima and its Contribution to the Archaeology of Religion (FILM)* [A6]
 - ZHAI Shadong: *Replication Experiments on the Lithic Products from the Huadizui Site, China* [A7]
 - Saturday AM
 - KIKUCHI Seiichi: *Archaeological Survey in Hoian, Vietnam* [B1]
 - CHEN Jian, ZHOU Zhiqing, HE Kunyu: *Preliminary Studies on the Interaction of Cultural and Environmental Changes: An Example from the Highlands of Western Sichuan and the Chengdu Plain* [B2]
 - XIE Tao: *New Discoveries at Laoguanshan* [B3]
 - NAGATOMO Tomoko, NAKAMURA Daisuke, KIM Gyu-Ho: *Comparative Study of Pottery Production on the Japanese Archipelago and Korean Peninsula during the Early Period of Kiln Use* [B4]
 - Takafumi NIWA, Mamoru HIROKAWA, Hidehiro SHINGO, Yosuke HIGUCHI, Takahiro YATSUKI: *A Contrastive Experimental Study for Reconstructing Manufacturing Technology of Chinese Bronze Artifacts* [B5]
 - Saturday PM
 - LU Houyuan: *Earliest Tea as Evidence for One Branch of the Silk Road across the Tibetan Plateau* [C1]
 - WU Naiqin: *Mid-Neolithic Exploitation of Mollusks in the*

- *Guanzhong Basin of Northwestern China: Preliminary Results* [C2]
- CHEN Shuqing: *An Analysis of the Da'nangou Graveyard, based on ACCESS Data Mining* [C3]
- NING: *The Question of Yu Yi Ren 余一人 on Oracle Inscriptions: Studies of the People-oriented Thoughts and Royal Power* [C4]
- LI Xiaoqing: *Early Wheat Agriculture, Bronze Smelting, and Pictographs in the Hexi Corridor, Northwest China* [C5]
- Sunday AM
 - WANG Changsui, LI Wenjing, CHEN Yue: *The Redefinition of Celadon and a New Idea of its Origin* [D1]
 - Rory WALSH: *Ceramic Production and Social Politics in Mahan and Baekje: Preliminary Results from INAA* [D2]
 - Hyunsoo LEE: *A Comparative Perspective across Early Holocene Northeast China and Korea: An Archaeobotanical Study of the Houtaomuga site, Jilin Province* [D3]
 - Camilla Kelsoe STURM: *Economic Networks in Neolithic Walled Towns: A pXRF Analysis of Utilitarian Pottery from the Jiangnan Plain* [D4]
 - Elaine W. Y. CHENG: *Cross Dynastic Production: Bronze Vessel Production between Shang and Zhou dynasties* [D5]
 - Emma YASUI: *Seeing the (Previously) Unseen: Starch Grain Analysis on Jomon Period Ground Stone from Hokkaido, Japan* [D6]
 - Hari BLACKMORE: *Crafting and Social Distinction in Central Korea: Daeseong-ri and beyond* [D7]
 - Rachel LEE: *Changes in the Organization of Craft Production in Mumun Period Southern South Korea* [D8]
- Sunday PM
 - Jina HEO: *Socioeconomic Complexity and Landscape Change in Iron Age of Korea: Contrasting Household in Southwestern and Central Korea* [E1]
 - LEE Jinok: *Landscape Evolution and Land-use Strategies in the Lower Yellow River Valley, 8000-2000 BP* [E2]
 - Mitchell MA: *Enhancing the Interpretative Value of Flotation Sampling: Preliminary Results from Yangguanzhai, Shaanxi Province, People's Republic of China* [E3]
 - Pauline SEBILLAUD: *Intra-site Analysis using Systematic Regional Survey Method: A Case-study on the Hanshu site* [E4]
 - KWAK Seungki: *Pottery Usage and Prehistoric Subsistence during the Middle Bronze Age, West-Central part of the Korean Peninsula* [E5]
 - Tricia OWLETT: *Late Neolithic Diets at Shimao and Zhaimaoliang, Ordos Region, China: Stable Carbon and Nitrogen Isotope Analysis of Human and Faunal Remains* [E6]

20:15

Business Meeting

DAY 3: June 10, Friday (at Harvard University)

Morning

POSTER SESSION A (General Session)

CGIS
Concourse
9:00-12:00

- Elizabeth LaDUC: *Technical Study of Ceramics from the Qijia Culture* [A1]
- Francesca BEWER: *Seated Attendant Bodhisattva from Dun Huang* [A2]
- Zoe EDDY: *Mixed Mediation and Mobile Exhibits* [A3]
- Bettina ZORN: *Hands-on Station for the New China Gallery* [A4]
- Jada KO: *Archaeologists as Filmmakers: Archaeology and Local Communities (FILM)* [A5]
- OKADERA Miki, Simon KANER: *The Sacred Island of Okinoshima and its Contribution to the Archaeology of Religion (FILM)* [A6]
- ZHAI Shaodong: *Replication Experiments on the Lithic Products from the Huadizui Site, China* [A7]

XV

Moving Backward and Forward through Time— Cumulative Han Culture and the Study of Early China

CGIS S010
Tsai Auditorium

Organizers: Yitzchak JAFFE / Glenda CHAO

In the field of Ancient China studies, scholars have often turned to the more recent past, and its many textual sources, to aid them in their efforts of illuminating the deeper past. What has allowed this ‘free movement through time’ is the notion that Chinese civilization is monolithic and unchanging; a cumulative culture that adds to its solid core. The issue of continuity vs. change is certainly not unique to Chinese scholarship and ways in which scholars choose to reconcile long term regional developments, historical projections and archaeological data in their studies varies widely. This panel will bring together historians and archaeologists to discuss these topics by reflecting on their own work on China’s past. Using multiple data sources is the only way forward as scholars must recognize the limitation of projecting historical records into the past and that archaeology cannot solve everything.

9:00

Glenda CHAO: *The Archaeology of Mortuary Ritual in the Southern Nanyang Basin: How Localized Research can Shed Light on Broader Questions of Cultural Transformations* [85]

- 9:20 Armin SELBITSCHKA: *Figuring It Out: The Origins of Tomb Figurines and Models in Received Literature and the Archaeological Record* [86]
- 9:40 Francis ALLARD: *Conceiving China's Southern Border during the Han Dynasty: Perspectives from Archaeology and History* [87]
- 10:00 Roderick CAMPBELL: *Sima Qian and the Invention of the Shang Dynasty* [88]
- 10:20 Michael PUETT: DISCUSSANT [89]

XVI General Session: Dynastic China

CGIS S010
Tsai Auditorium

Chair: Allison MILLER

- 11:00 ZHANG Changping: *The First Emperor's Unification of China: The Cultural Foundation as Materially Manifested in the Yangzi Region* [90]
- 11:20 Allison MILLER: *Jade Suits and Royal Power: Illuminating Artistic Production in the Regional Centers of the Western Han* [91]
- 11:40 Keith KNAPP: *Sanitizing Filiality: The Changing Iconography and Pantheon of Filial Piety Tales in Pre-modern China* [92]
- 12:00 Gwen BENNETT: *Using New Perspectives and Methods to Study the Medieval Period Liao Empire* [93]
- 12:20 Callan ROSS-SHEPARD: *Khitan/Liao Utilitarian Ceramic Exchange Networks within the Chifeng Region, Inner Mongolia* [94]

XVII New Developments in Maritime Archaeology and Maritime History

CGIS S020
Belfer Room

Organizer: JIANG Bo
Chair: WU Chunming

Recent years have witnessed important developments in Chinese underwater archaeology, particularly with discoveries of shipwrecks such as the Nanhai I, Nanao I, and Xiao Baijiao I, among others. Underwater archaeological finds represent the history of the Maritime Silk Route from and to China. At the same time, the technology, method and theory of underwater archaeology in China have also experienced great changes during the last decade.

- 9:00 XU Wenpeng: *Regional Variation? Exploring the Differentiation of Maritime Ceramic Trade among Southeast Asian Polities in the 12-13th*

Century [95]

- 9:20 LIU Miao: *The Discovery of Spanish Colonial Coins of the 16-18th Century along the Southeast Coast of China* [96]
- 9:40 WU Chunming: *An Ethno-archaeological Exploration of the Origin of Maritime Han Ethnic Group in the Coastal region of Southern China* [97]
- 10:00 Libby CHAN: *Newly Excavated Shipwrecks in China and Southeast Asia: Revisiting Medieval Chinese Maritime Trade* [98]
- 10:20 DING Yu: *A Brief Discussion on Chinese Ceramics Excavated from Malindi Sites in Kenya and Communication between China and East Africa from the 9th to 15th Century* [99]
- 10:40 David V. HILL, Philippe SCIAU, ZHU Tiequan: *A Comparative Study of Three Yuan Dynasty Qinghua Chargers* [100]

XIX New Advances in Understanding the Prehistory of the Tibetan Plateau, Part II: Cultural Contacts and Human Movement

CGIS S030 Organizers: Jade d'ALPOIM GUEDES / Anke HEIN / LU Hongliang
Lee Room

The “Roof of the World” has long presented a set of unique and challenging high altitude ecological conditions to which early hunter-gatherers, agriculturalists and pastoralists had to adapt. A recent increase in archaeological fieldwork on the Tibetan Plateau, combined with new methodological and theoretical frameworks has led to re-appraisals of previous assumptions about early life on the Plateau. Papers in this session will highlight new research that focuses on understanding how humans developed adaptations for hypoxia, how foragers exploited resources in high altitude biomes, how humans moved crops, and adapted existing and invented new pastoral systems.

- 9:00 Mark ALDENDERFER: *Evidence for Lithic-Period Settlement Patterns in Far Western Tibet* [105]
- 9:20 Christina WARINNER, Choongwon JEONG, Andrew T. OZGA, David WITONSKY, Helena MALMSTRÖM, Hanna EDLUND, Courtney A. HOFMAN, Richard HAGAN, Mattias JAKOBSSON, Cecil M. LEWIS, Jr., Mark ALDENDERFER, Anna DI RIENZO: *Long-term Genetic Stability and a High-altitude East Asian Origin for the Peoples of the High Valley of the Himalayan Arc* [106]

- 9:40 Guanghai DONG, Lele REN, Xin JIA, Guoqiang LI, Haiming LI, Fahu CHEN: *How did Humans Permanently Settle on the Highlands of the Qaidam Basin, Northern Tibetan Plateau during Bronze Age?* [107]
- 10:00 LI Yongxian: *The Early Rock Art in the Indus River Valley in Eastern Tibet* [108]
- 10:20 Vinod NAUTIYAL: *The Emergence of Pre-Buddhist Burial Practices, Pyrotechnology, and Trade in Indian Trans-Himalaya: Fresh Archaeological Evidence from Kinnaur, Himachal Pradesh, and Uttarakhand, India* [109]
- 10:40 BREAK
- 11:00 REN Xiaoyan: *Pompeii of the East: The Prehistoric Disaster Site of Lajia* [110]
- 11:20 Rita DAL MARTELLO: *Archaeobotanical Results from the Baiyangcun Site, Yunnan: Exploring Agricultural Pathways in Southwest China* [111]
- 11:40 Ellen PLATTS: *The Use of Surface and Hydrology Models for Prehistoric Rice Cultivation in Highland Environments* [112]
- 12:00 Alice YAO: *Thinking about Food Security in Prehistoric South China* [113]

XX New Perspectives in Korean Archaeology: Theory, Method and Practice

CGIS S050 Organizers: KO Ilhong / CHO Daeyoun

Archaeology in Korea has witnessed an explosion in the amount of material excavated since the turn of the millennium, with the number of annual excavations having increased exponentially in the last decade. As a result, a wide range of analytical and interpretative approaches have been adopted in order to come to terms with the newly accumulated archaeological data. Presented in this session are studies that well represent the new research perspectives currently being utilized by archaeologists in Korea. The papers feature alternative interpretations of widely discussed issues, demonstrate attempts to broaden the range of methodological approaches used, and explore previously overlooked data sets.

- 9:00 KO Ilhong: *Reassessing the Garakdong Culture of the Korean Bronze Age through an Examination of the North Korean Archaeological Material* [115]
- 9:20 YI Kisung: *Changes in the Stone Tool Production System of the Korean Peninsula: Bronze Age Chipped Stone Tools* [116]

- 9:40 KIM Jongil: *Craftsmanship in the Korean Bronze Age - Focusing on the Concept of 'Techne' and Bronze Casting* [117]
- 10:00 BAE Jinsung: *Social Stratification in the Bronze Age of the Korean Peninsula* [118]
- 10:20 CHO Daeyoun, SIN Mincheol: *Exploring Social Stratification in the Hoseo Region from the Proto-Three Kingdoms to Three Kingdoms Period – An Examination through Settlement Analysis* [119]
- 10:40 BREAK
- 11:00 LEE Namkyu, KIM Kwonil: *Experimental Archaeology on the Smelting of Iron in Ancient Korea* [120]
- 11:20 SHIN Gyunghwan, CHOI Youngmin: *Metallurgical Analysis and Review of the Results of Experimental Work on the Iron Smelting Furnace of Ancient Korea* [121]
- 11:40 KIM Nakjung, KIM Chorong: *The Keyhole-shaped Tombs of the Korean Peninsula – A Consideration on Tombs, Nationalism, and the Overlooked Role of Local Society* [122]
- 12:00 Peter Garth ARMSTRONG: *Deconstructing the Reconstructions of the Silla Capital* [123]
- 12:20 Roland FLETCHER, Peter Garth ARMSTRONG: *Reviewing the Excavation at Moryangri and the Silla Capital* [124]

Afternoon

**12:30-19:00 LUNCH & MID-CONFERENCE EXCURSION
(Peabody Essex Museum, Salem, MA)**

Evening

**19:00 ASSOCIATION FOR WOMEN IN ASIAN ARCHAEOLOGY
(AWAA) MEETING
(PUTNAM LABORATORY, DEPARTMENT OF ANTHROPOLOGY, HARVARD
UNIVERSITY, Peabody Museum, 5th Floor - use 24 Oxford St. entrance)**

DAY 4: June 11, Saturday (at Boston University)

Morning

POSTER SESSION B (General Session)

Kenmore
Classroom
Building
9:00-12:00

- KIKUCHI Seiichi: *Archaeological Survey in Hoian, Vietnam* [B1]
- CHEN Jian, ZHOU Zhiqing, HE Kunyu: *Preliminary Studies on the Interaction of Cultural and Environmental Changes: An Example from the Highlands of Western Sichuan and the Chengdu Plain* [B2]
- XIE Tao: *New Discoveries at Laoguanshan* [B3]
- NAGATOMO Tomoko, NAKAMURA Daisuke, KIM Gyu-Ho: *Comparative Study of Pottery Production on the Japanese Archipelago and Korean Peninsula During the Early Period of Kiln Use* [B4]
- Takafumi NIWA, Mamoru HIROKAWA, Hidehiro SHINGO, Yosuke HIGUCHI, Takahiro YATSUKI: *A contrastive Experimental Study for Reconstructing Manufacturing Technology of Chinese Bronze Artifacts* [B5]

XXI

Plant Domestication and Environmental Change in Neolithic China

KCB 101

Organizers: YANG Xiaoyan / ZHANG Jianping / Brian LANDER

In recent years, the origins and dispersals of agriculture and the potential role of climate and environment change in those processes have been intensively studied. Although some doubts remain, there is strong evidence suggesting that climate fluctuations, such as drought and cold spells, could be closely associated with ancient human adaptation and plant subsistence strategies around the world. This session employs well-dated, high-resolution environment and climate records, alongside research in archaeology, archaeobotany, quaternary sciences, and palaeontology to throw light on when, where, why, and which species were first used and later domesticated in East Asia. It also studies the routes of their dispersals. This panel will clarify the relations between ancient environmental changes and agriculture origins across East Asia, and provide suggestions on what research is needed in the future.

9:00

WU Yan: *Investigation of the Origin of Rice Agriculture in the Lower Yangzi River Area based on the Phytolith Record* [125]

- 9:20 MA Zhikun, YANG Xiaoyan: *Early Millet Use in the West Liaohe Area during the Early–Middle Holocene* [126]
- 9:40 MA Yongchao, YANG Xiaoyan: *Implications of Rice Bulliform Phytoliths for Rice Domestication in the Neolithic Lower Yangtze River Region* [127]
- 10:00 Alison WEISSKOPF: *Alternative Approaches to early Rice in Asia: Wetland Emitters versus Rainfed Dispersers* [128]
- 10:20 Brian LANDER: *The Ecology of Subsistence in the Neolithic Guanzhong Basin* [129]
- 10:40 ZHANG Jianping: *Phytolith Analysis for the Discrimination of Millets and Related Wild Grasses* [130]
- 11:00 ZHANG Junna: *Vegetation Change during 9200-7000 cal yr BP. and its Influence on the Transition from Hunting-gathering Period to Neolithic in the Central Plains of China* [131]
- 11:20 LIU Jiangtao, JIN Guiyun: *Study of Archaeological Rice of the Haidai Region, East China* [132]
- 11:40 XU Deke: *500-year Climate Cycles Stacking of recent Centennial Warming and its possible Linkage to the Rise and Fall of Chinese Dynasties* [133]
- 12:00 Loukas BARTON, Isaac ULLAH: *Computer Simulation and the Origins of Agriculture in East Asia* [134]

XXII The Archaeology of Bodily Adornment across Asia

KCB 106 Organizers: Sheri LULLO / Leslie WALLACE

Personal adornment articulates the body, rendering it socially and culturally meaningful. Headdresses and hats, hairstyles, jewelry and other ornaments, while relatively small embellishments to an individual, nevertheless serve as assertive identifiers, communicating membership, mitigating difference, and enabling interaction. This session brings together papers that focus on bodily adornments as observed in archaeological contexts across Asia, highlighting multiple ways that adornment has functioned to define and gather social and (multi)cultural identities. Papers approach adornment as an embodied practice whereby the embellished body is understood by its existence in and engagement with both immediate and affiliated cultures. Case studies from Central Asia, China, Korea and Japan explore the significance of adornment from both palace-temple and mortuary sites, key arenas for challenging or reinforcing social values and norms.

- 9:00 Karen RUBINSON: *Why Wear Dolphins? Greek Imagery among the Pastoralists along the Ancient Oxus* [135]
- 9:20 Leslie WALLACE: *Does a Feather in Your Hat a Barbarian Make? So-called non-Han Headgear and Hairstyles in Han Dynasty Tomb Murals in the Ordos* [136]
- 9:40 Sheri LULLO: *Ornamenting the Chignon: Women's Hair and Hairstyles in Han China* [137]
- 10:00 Sarah LAURSEN: *Dressing the Dead in Jin China* [138]
- 10:20 Sarah NELSON: *Personal Adornment in Early Korea* [139]
- 10:40 BREAK
- 11:00 Illona BAUSCH: *Early Beadstone Body Ornaments in East Asia and their Antecedents 1: Jomon-Yayoi* [140]
- 11:20 Gina BARNES, Ari TANIZAWA: *Early Beadstone Body Ornaments in East Asia and their Antecedents 2: Kofun-Nara* [141]
- 11:40 Karen GERHART, Katheryn LINDUFF: *Ornamentation that Enhanced the Standing of Human and Equine Haniwa* [142]

XXIII Foreign Influence on the State Formation Processes in Early Japan

KCB 104 Organizers: Ken'ichi SASAKI / Shin'ya FUKUNAGA

State formation in Japan is undoubtedly a good case of secondary state. In recent years, numerous archaeological discoveries have been reported, suggesting various different aspects of Japan's adoption of cultures of Chinese and Korean origins. In this session, we present evidence of settlements, iron weapons and armor, ceramics, bronze mirrors, horses, and kinship system in order to discuss how these foreign cultures influenced on the state formation processes in Japan.

- 9:00 Shin'ya FUKUNAGA: *The Role of Foreign Prestige Goods in the Formation of the Yamato Government* [144]
- 9:20 Gen MIYOSHI: *External Influence and Uniqueness in Dwellings and Settlement Structure* [145]
- 9:40 Takehiko MATSUGI: *Warrior Ideology and Political Authority in Kofun Period Japan* [146]

- 10:00 Tatsuo NAKAKUBO: *Social Change and the Introduction of Continental Craft Technology* [147]
- 10:20 Joseph RYAN: *External Influence and Internal Development in the Evolution of Iron Weapons within the Japanese Archipelago* [148]
- 10:40 BREAK
- 11:00 Ken'ichi SASAKI: *Adoption of a Practice of Horse-riding in Fifth Century Japan* [149]
- 11:20 Akira SEIKE: *Political Situations in the Korean Peninsula and the Evolution of Kinship Systems during Kofun Period Japan* [150]
- 11:40 Takafumi YAMAMOTO: *Burials of Emigrants: The Spread of Burial Customs as seen from Stone-Chamber Tombs in Korea, Japan and China* [151]
- 12:00 Britta STEIN: *Granulation and the Tree of Life: How Goldsmithing Techniques and Religious Beliefs Connect the Far East with the West* [152]

XXIX Nationalism and Ethnic Identities in East Asian Archaeology

KCB 107 Organizers: KANG In Uk / PAK Yangjin

A history-oriented interpretation of archaeological data is one of the distinctive features of East Asian archaeology of the 20th century. In recent years, however, nationalistic interpretations have emerged as a new trend in addition to the historical approaches. This may indicate that archaeological practice and interpretation have been strongly affected not only by the political, social, and economic environments of each country but also by the recent surge of nationalistic sentiments and conservative political and social trends in the region. This session will try to examine the most recent developments and the role of nationalism in the archaeological research of ethnic identification on the basis of archaeological evidence. The presented papers will include analyses of the Korean Bronze Age and ancient Korean history, in particular of Gojoseon (Old Joseon), as well as the interpretation of archaeological data from much broader areas of northeast China, Mongolia, and Maritime Russia.

- 9:00 PAK Yangjin: *Nationalist Agenda in North Korean Archaeology* [153]
- 9:20 KANG In Uk: *Faces of Old Joseon or Eastern Barbarian (Dongyi): Ethnic Identities of Bronze Mask Figures of the 1st Century BCE from Northeast China* [154]
- 9:40 PARK Sun Mi: *Power and Ideology in the Primary Societies of Northeast Asia* [155]

- 10:00 JO So Eun: *Rituals and Ethnic Identity of Pazyryk Culture in Russian Altai* [156]
- 10:20 HAN Jin-seong: *Belt Plaques of the Xiongnu Period as an Ethnic Indicator* [157]
- 10:40 BREAK
- 11:00 AHN Jae Pil, KIM Tae Kyung: *The Hongshan Shrine and the Dangun Mausoleum: Distorted Images of Archaeology in Northeast Asia* [158]
- 11:20 CHO In Sung: *Government-designated Korean History Textbook and Old Joseon Archaeology in Korea* [159]
- 11:40 LEE Jeong-Bin, LEE, Kyung-Sup: *Ethnic Nationalism of Old Joseon Archaeology in North Korea* [160]
- 12:00 KIM Sun-Woo: *The Origination and Succession of Cultural Identities in the Korean Bronze Age* [161]

**12:15-14:00 Publishing in Asian Archaeology
(Melville Lounge, Warren Towers Dining Hall)**

Afternoon

POSTER SESSION C (General Session)

Kenmore
Classroom
Building
14:00-17:00

- LU Houyuan: *Earliest Tea as Evidence for One Branch of the Silk Road across the Tibetan Plateau* [C1]
- WU Naiqin: *Mid-Neolithic Exploitation of Mollusks in the Guanzhong Basin of Northwestern China: Preliminary Results* [C2]
- CHEN Shuqing: *An Analysis of the Da'nangou Graveyard, based on ACCESS Data Mining* [C3]
- NING Zhenjiang: *The Question of Yu Yi Ren 余一人 on Oracle Inscriptions: Studies of People-oriented Thoughts and Royal Power* [C4]
- LI Xiaoqiang: *Early Wheat Agriculture, Bronze Smelting, and Pictographs in the Hexi Corridor, Northwest China* [C5]

XXX

From the Tian Shan to the Altai: Recent Advances in Archaeological Research

KCB 101 Organizer: Annie CHAN

The mountain ranges of Tian Shan and the Altai traverse an area that is attracting significant attention from the international archaeological community in recent decades but is lacking in commensurate academic discussions due to political, disciplinary and language barriers. Excavations and large-scale surveys at this important crossroad have yielded material evidence attesting to mechanisms of east-west transmissions in antiquity, behooving archaeologists to review the sociocultural makeup of ancient Eastern Central Asia from cross-regional perspectives. By uniting researchers conducting primary archaeological research in the region, this panel aims to forge a collective discourse on the research status quo and the direction of the field in an area transected nowadays by multiple political borders.

- 14:00 Jean BOURGEOIS, Wouter GHEYLE, Gertjan PLETS: *Landscape Archaeological Research in the Altai Mountains (Republic of Altai, Russian Federation), An Overview of the Results* [162]
- 14:20 Alexey TISHKIN: *New Discovery of «Deer» Stones in the Territory of the Mongolian Altai* [163]
- 14:40 Alexey KOVALEV: *A ritual Complex of Chemurchek (Qiemuerqieke) Culture at Khar Chuluut in the Highlands of the Mongolian Altai* [164]
- 15:00 Nikolai SEREGIN: *Results of Archaeological Research of Turkic Ritual Sites in the Mongolian Altai* [165]
- 15:20 Gino CASPARI: *Landscape Archaeology in the Foothills of the Chinese Altai* [166]
- 15:40 Annie CHAN: *A Geospatial Analysis of Bronze Age Stoneworks in the Asian Steppes* [167]
- 16:00 BREAK
- 16:20 CONG Dexin: *Tian Shan as Bridge: Adunqiaolu from the Perspective of the Eurasian Steppes* [168]
- 16:40 ZHANG Liangren: *Prehistoric Archaeology of Eastern Xinjiang* [169]
- 17:00 Mauricio HERNANDEZ: *A VERY Sick Tomb: A Case Study of Infectious and Metabolic Disease at Yanghai, Turfan Basin, Xinjiang* [170]
- 17:20 Kazuo MIYAMOTO: *Social Change of Herding Society Viewed from the Stone-Slab Graves in Mongolia* [171]
- 17:40 Rebecca O'SULLIVAN: *Inter-regional Interaction and the Landscape*

Perspective: Rock-art in the Altai, 2nd-1st Millennium BCE [172]

XXXI Historical Archaeology of East and Southeast Asia

KCB 106 Organizers: Kaoru UEDA / Ellen HSIEH / Jeff CHENG

Historical archaeology has developed as a reflection of individual archaeological traditions and historical backgrounds in various parts of the world. Archaeologists working in East and Southeast Asia are increasingly conducting studies focusing on more recent time periods than their traditional coverage. Meanwhile, North American historical archaeology, which originated from the investigations of post-Columbian history, has developed and expanded its coverage to include more thematic questions and contributed to theoretical discussion in the field. This panel aims to bring to a regional and international audience important recent examples of historical archaeology conducted in East and Southeast Asia.

14:00 Jeff Chieh-fu CHENG, Chin-yung CHAO, Yayoi MITSUDA: *Outpost or Household? The Historical Archaeology of Japanese Police Stations in the Mountains of South-Central Taiwan from 1920 to 1945 [173]*

14:20 Ellen HSIEH: *Spanish Colonialism in Asia: A Multiscalar Perspective [174]*

14:40 Takashi SAKAI: *Ceramics Found in the Trowulan Site, Indonesia [175]*

15:00 Kaoru UEDA: *A Comparative Study of Cross-cultural Interactions: Different Trajectories within the Dutch East India Company [176]*

15:20 WENG Yu-wen: *Islamic Influence on Chinese Kilns: A Case Study of Chinese Export Ceramics in Southeast Asia [177]*

15:40 Sharon WONG Wai-yee: *A Comparative Study between a Khmer Ceramic Production Site and Chinese Ceramic Consumption Site in Angkor, Cambodia [178]*

16:00 BREAK

16:20 Miyuki YAMAGUCHI: *The Archaeology and Restoration Project of the Dutch East India Company's Trading Post at Dejima, Japan [179]*

16:40 Marnie FENELEY: *Reconstructing God—Using Digital Techniques to Preserve Heritage: (The West Mebon Viş η u in its Art Historical, Hydrological and Political Context) [180]*

17:00 OKADERA Miki, Simon KANER: *The Sacred Island of Okinoshima and its Contribution to the Archaeology of Religion [181]*

17:20 John MIKSIC: *DISCUSSANT [182]*

XXXII

Food and Society in Prehistoric East Asia: New Frontiers of Transdisciplinary Approaches towards Ancient Culinary Culture

KCB 104

Organizers: Leo Aoi HOSOYA / Shin'inchi NAKAMURA

The recent introduction of systematic archaeobiology and chemical analyses into East Asian archaeology has provided remarkable new insights into ancient foodways and its relationships with social organization, its regional diversities, and chronological shifts. Based on the recent research achievements particularly in China, a JSPS-supported 5-year project “Rice Cultivation and Chinese Civilization” was launched in July 2015. In this project, highly transdisciplinary research, from advanced chemical analyses to rethinking of conventional artefact studies, is being conducted to investigate the real significance of rice production/consumption as the basis of Chinese and East Asian civilization using various substantial data. In this session, to kick off the project, its representative members discuss potentialities of developing a new scope to ancient subsistence-related activities to provide further new insights and discussion points on East Asian prehistoric society, using diverse methods and materials: artifact studies, ethnoarchaeology, macro/micro botanical remains, pottery use-wear and imprints analyses, DNA analyses, paleopathological analyses and carbon/nitrogen isotope analyses.

- 14:00 Leo Aoi HOSOYA: *Processing, Storage and Symbolism of Wild Nuts in the Past and Present: Comparative Ethnoarchaeobotanical Studies of East Asia and USA* [183]
- 14:20 OBATA Hiroki: *What do Seed and Insect Impression / Cavities on Pottery Tell Us?* [184]
- 14:40 KOBAYASHI Masashi: *Cooking Pottery Use-wear Analyses to Reconstruct Rice Cooking Methods of Early Rice Farmers in Japan and Middle China* [185]
- 15:00 KAMIJO Nobuhiko: *Research on Macrobotanical Remains of the Horse Chestnuts and Manchurian Walnuts from a Waterlogged Site of the Latter Half of the Jomon Period in Northeastern Japan* [186]
- 15:20 TANAKA Katsunori: *Shifting of Seed Morphology and DNA Variation in Japanese Rice* [187]
- 15:40 OKAZAKI Kenji, H. TAKAMOKI, M. YONEDA, H. KIKUCHI, S., YONEMOTO, T. TOMITA, T. NAKAHASHI, J. CHEN, J. SONG: *A Paleopathological Approach to the Study of Neolithic Human Skeletal Remains Unearthed from the Guangfulin Site in the Shanghai City, China* [188]
- 16:00 BREAK

- 16:20 SHIBUTANI Ayako, SUN Guoping, CHEN Jie, SONG Jian: *Eating Rice or Acorns? Starch Evidence of Neolithic Human Dental Calculus in the Lower Yangtze Region, China* [189]
- 16:40 YONEDA Minoru, KIKUICHI Hiroki, MARUYAMA Masashi, SUN Guoping: *Carbon and Nitrogen Isotope Analyses on the Neolithic Human, Animal and Plant Remains from the Tianluoshan Site, Zhejiang Province, China* [190]
- 17:00 Sheahan BESTEL, HUA Zhong, BAO Yingjian: *Nuts, Millet and Rice: Plant Remains from the Zhuzhai Village Site, Henan, China during the Middle Peiligang Period, 7,900 - 7,700 cal BP* [191]
- 17:20 Tricia OWLETT: *Food between the Country and the City: The Politics of Food Production in Early Cities and Hinterlands at Shimao and Zhaimaoliang, Neolithic Northern China* [192]

XXXIII Connecting Technology, Economy, and Social Change in Prehistoric China

KCB 107 Organizers: Anke HEIN / Gideon SHELACH

In recent years, scholars in many disciplines have come to realize the importance of materials and artifacts as agents of social, economic, and technological change. Archaeology is par excellence the discipline that links materiality and social change; therefore, archaeology should be leading this exciting intellectual trend. Participants in our panel are using archaeological data from prehistoric China to examine how materials remains not only reflect social and cultural change but are themselves integral parts and active forces of those same changes. Through the examination of a diverse group of case studies from various parts of China ranging from the late Paleolithic to the early historic period we highlight patterns that are relevant to our understanding of Chinese history and culture. At the same time, we hope to further our understanding of human behavior in general and the interaction between people and the material world in particular.

- 14:00 Anne UNDERHILL: *New Methodological Directions for Analysis of Chinese Ceramics: Suggestions for Future Research* [194]
- 14:20 Richard EHRICH: *Ceramic Production Techniques along the Middle Yangzi River around 3000 BC* [195]
- 14:40 Ling-yu HUNG, CUI Jianfeng, LIN Shu-Feng, WANG Hui: *Machang Pottery: Technological Innovation and Social Change in Late Neolithic Northwest China (ca. 4300–4000 BP)* [196]

- 15:00 Andrew WOMACK: *Crafting Community: Initial Results from a Petrographic Analysis of Majiayao and Qijia Ceramics* [197]
- 15:20 Hsiu-Ping LEE: *Active Selection by Local Elites: Contextualizing the Jue in the Erlitou and Lower Xiajiadian Cultures* [198]
- 15:40 Roderick CAMPBELL: *A View from Below: a Bone Artifact Assemblage from an Anyang Period Village and What it Suggests About the Shang Economy* [199]
- 16:00 BREAK
- 16:20 Gideon SHELACH-LAVI: *Anticipating Agriculture? Technological and Social Changes during the Pre-Neolithic Period in North China* [200]
- 16:40 Li LIU, WANG Jiajing: *The Origins and Development of Alcohol Production Methods and Drinking Rituals in Ancient China* [201]
- 17:00 LI Shuicheng: *From Agriculture to Nomadism: Ganguya as a Case Study* [202]
- 17:20 LIN Kuei-chen: *Environmental Decay and Changes in Production on the ancient Chengdu Plain* [203]
- 17:40 Wengcheong LAM: *The Re-evaluation of the Iron Industry and its Regional Variation in the Warring States Period* [204]

**18:30-20:30 SATURDAY BOSTON UNIVERSITY RECEPTION
(METCALF TRUSTEE CENTER, One Silber Way, 9th Floor,
Boston University)**

DAY 5: June 12, Sunday (at Boston University)

Morning

POSTER SESSION D: East Asian Landscapes: Diet and Craft in Prehistory and Early History

Kenmore
Classroom
Building
9:00-12:00

Organizers: Rory WALSH / Hyunsoo LEE

- WANG Changsui, LI Wenjing, CHEN Yue: *The Redefinition of Celadon and a New Idea of its Origin* [D1]
- Rory WALSH: *Ceramic Production and Social Politics in Mahan*

and Baekje: Preliminary Results from INAA [D2]

- Hyunsoo LEE: *A Comparative Perspective across Early Holocene Northeast China and Korea: An Archaeobotanical Study of the Houtaomuga site, Jilin Province [D3]*
- Camilla Kelsoe STURM: *Economic Networks in Neolithic Walled Towns: A pXRF Analysis of Utilitarian Pottery from the Jiangnan Plain [D4]*
- Elaine W. Y. CHENG: *Cross Dynastic Production: Bronze Vessel Production between the Shang and Zhou Dynasties [D5]*
- Emma YASUI: *Seeing the (Previously) Unseen: Starch Grain Analysis on Jomon Period Ground Stone from Hokkaido, Japan [D6]*
- Hari BLACKMORE: *Crafting and Social Distinction in Central Korea: Daeseong-ri and beyond [D7]*
- Rachel LEE: *Changes in the Organization of Craft Production in Mumun Period Southern South Korea [D8]*

XXXIV

General Session: Mortuary Archaeology

KCB 101

Chair: Barbara SEYOCK

9:00

FAN Rong: *Changes in Health and Nutritional Condition during the Adoption of Agriculture: A Case Study on Body Size Changes in the Beiqian Site, Shandong Province [205]*

9:20

Deborah C. MERRETT, ZHANG Hua, XIAO Xiaoming, ZHANG Quanchao, WEI Dong, WANG Lixin, ZHU Hong, YANG Dongya: *Inferences from Age of Stress Exposure: Exploring Lifeways in Bronze Age Northeast China [206]*

9:40

Ilse TIMPERMAN: *The Emergence of Niche Graves in the Turfan Basin [207]*

10:00

PARK Ah Rim: *The Foreign Elements of Koguryo Tomb Murals with the Focus on the Nomadic and Central Asian Elements [208]*

10:20

Claire Yi YANG: *Death Ritual in Tang Dynasty China (618-907): A Study of the Integration and Transformation of Elite Culture [209]*

XXXV General Session: Chinese Metal Production

- KCB 101 Chair: Matthew CHASTAIN
- 11:00 SUZUKI Mai: *The Production System of Bronze Inscriptions in Shang Dynasty* [210]
- 11:20 Matthew CHASTAIN: *Experimental Replication of a Specialized Ceramic Material used in Bronze-casting Molds from China's Western Zhou Period* [211]
- 11:40 YAMAMOTO Takashi: *Rethinking Materiality of Chinese Bronze Vessels: History, Ideology and Identity in Xichuan* [212]
- 12:00 ZHOU Wenli: *Crucible Lead Smelting in North China: Evidence from Modern Documents and Pre-modern Remains* [213]

XXXVI Reception and Re-interpretation of the material culture of the Other: Case Studies from China and Korea between the 2nd century BCE and the 10th century CE

KCB 106 Organizer: Shing MÜLLER

Archaeological studies on East Asia are frequently dedicated to the exchange of goods. Only a few researchers examine local responses to foreign stimuli: Many objects reveal their manufacture with local techniques, while they were modelled after a foreign example. Even more interesting are artefacts whose shapes and motifs were adapted to local tastes and usages. Incorporating foreign ideas, techniques and features into one's own culture, and re-interpreting these in order to meet one's needs, encouraged new cultural developments. Trade via the Silk Route and massive migrations of peoples between the 2nd century BCE and the 10th century CE enforced the encounter of cultures between East and West, North and South. As a result civilizations in China and Korea transformed frequently during this period. This panel shall explore the mechanism behind these changes, and thus the reception and re-interpretation on the basis of case studies from China and Korea.

- 9:00 Rebecca EHRENWIRTH: *From Lacquer to Silver: The Transformation of the erbei 耳杯 winged cup in the Northern Dynasties* [215]
- 9:20 Sonja FILIP: *Taming Beasts in Northern Wei Tombs: The Master/Mistress of Animals in Xianbei Art* [216]
- 9:40 Annette KIESER: *Traces of "the Other" in Six Dynasties (220-589) Tomb Findings* [217]

- 10:00 Shing MÜLLER: *From Couch to Funerary Couch and Table in Early Medieval China* [218]
- 10:20 LIU Yan: *Exotic Elements as Seen in Gold Ornaments of Han Elite Tombs* [219]
- 10:40 Patricia FRICK: *Pingtuo Lacquer Ware of the Tang Dynasty and its Foreign Influences* [219]
- 10:40 BREAK
- 11:00 Ariane PERRIN: *Ancient Foreign Glassware found in Silla Burials in the Korean Peninsula* [220]
- 11:20 Margarete PRÜCH: *Imported or Made in Anhui? Preliminary Ideas on the Origin of the Lacquer Objects from the Han Tombs at Chaohu, Anhui Province* [221]
- 11:40 James LANKTON, B. GRATUZE: *Understanding Early Asian Potash Glass: New Insights from Chemical Analysis and Archaeology* [222]
- 12:00 LEE Nanhee: *A Study of a Goryeo Dynasty Incense Box with Angel Design in Mother-of-pearl Inlay* [223]

XXXVII General Session: Landscape Archaeology, Nomadic Society and Central Asia

- KCB 104 Chair: Jean Luc HOULE
- 9:00 Aline DREHER: *Methods and Applications of Aerial Archaeology: A Comparison of Europe and Japan* [224]
- 9:20 Daniel SHULTZ: *Computer Simulation of Wealth Inequality in Pastoral Nomadic Society* [225]
- 9:40 MATSUMOTO Keita: *The Seima-Turbino Phenomenon and 'Exchanges' in the Eurasian Steppes* [226]
- 10:00 Jean Luc HOULE, Heather BYERLY: *Climate and Causation? The Rise and Expansion of the Xiongnu Empire* [227]
- 10:20 DASHTEVEG Tumen: *Bioarchaeology of the Xiongnu* [228]
- 10:40 BREAK

- 11:00 Heather BYERLY, Cheryl MAKAREWICZ, Jean-Luc HOULE: *Ritual and Mobility: ⁸⁷Sr/⁸⁶Sr, δ ¹⁸O and δ ¹³C Analyses Comparing Modern and Bronze Age khirigsuur Horses from Khanuy Valley, Mongolia* [229]
- 11:20 YUNDENBAT Boldbaatar: *Prehistoric Pornography: Petroglyph Site at the “Grave of Thirty-Two”* [230]
- 11:40 Christina FRANKEN: *Architecture of Power in Nomadic Societies: Religious and Profane Architecture in the Mongolian Orkhon Valley—New Results* [231]
- 12:00 KIM Jongil, KWAN Ohyoung, KIM Byeonjoon, HWAN Chulsoo, CHOI Woonho: *Distribution and Placement of Kurgans in Central Eurasia* [232]

XXXVIII General Session: China - Neolithic to Bronze Age

- KCB 107 Chair: WANG Yanxi
- 9:00 WANG Yanxi: *Reconstruction of Regional Polity under the Qujialing Expansion* [239]
- 9:20 HE Xiaolin: *Archaeological Discoveries at the site of Taijiasi in Funan, Anhui Province* [240]
- 9:40 SHENG Wei: *A Comparative Analysis of Two Schools of Research into Yinxu Cultural Chronology* [241]
- 10:00 CHEN Beichen: *The State of Zeng and its Sustained Interest in Bells* [242]

XXXIX Award Ceremony for Chinese Cultural Relics Translation Contest

- KCB 107 Organizer: Garry GUAN
- 11:20 *Presentations by Finalists*
- 12:00 *Raffle Drawing*
- 12:05 *Reception*

Afternoon

POSTER SESSION E: East Asian Landscapes: Diet and Craft in Prehistory and Early History

Kenmore
Classroom
Building (KCB)
14:00-17:00

Organizers: Rory WALSH / Hyunsoo LEE

- Jina HEO: *Socioeconomic Complexity and Landscape Change in Iron Age of Korea: Contrasting Household in Southwestern and Central Korea* [E1]
- LEE Jinok: *Landscape Evolution and Land-use Strategies in the Lower Yellow River Valley, 8000-2000 BP* [E2]
- Mitchell MA: *Enhancing the Interpretative Value of Flotation Sampling: Preliminary Results from Yangganzhai, Shaanxi Province, People's Republic of China* [E3]
- Pauline SEBILLAUD: *Intra-site Analysis Using Systematic Regional Survey Method: A Case Study on the Hanshu Site* [E4]
- KWAK Seungki: *Pottery Usage and Prehistoric Subsistence during the Middle Bronze Age, West-Central Part of the Korean Peninsula* [E5]
- Tricia OWLETT: *Late Neolithic diets at Shimao and Zhaimaoliang, Ordos Region, China: Stable carbon and nitrogen isotope analysis of human and faunal remains* [E6]

XL

Archaeological and Art Historical Studies of Historical Period China: Methods and Case Studies

KCB 101

Organizer: SUN Yan

Scholars who research the material culture of historical period China routinely encounter and engage with historical records such as inscriptions on bones, bronzes and bamboos, transmitted texts and memorial tomb stones to name a few. This panel intends to examine the interconnections between the studies of artifacts and material remains from archaeological contexts and historical records. Presenters will discuss current theoretical and practical problems that have grown out of their studies on the period and region where both material and inscriptional evidence are available. Case studies will use various lenses to critically examine the interface between the study of material culture and ancient historical documents and how textual and non-textual approaches to the past can be best integrated.

- 14:00 Huang Tsuimei: *Complex Cultural Affinities as Observed in the Jade and Stone Ornaments from the Aristocrats' Burials of the Yu State of Western Zhou* [244]
- 14:20 MA Sai: *Social changes in the Late Western Zhou period at Zhouyuan: From the perspective of archaeological remains and bronze inscriptions* [245]
- 14:40 SUN Yan: *Identity and Power of a Noblewoman in the Early Spring Autumn Period: A Case Study of Tomb M26 at Liangdaicun* [246]
- 15:00 WU Xiaolong: *Balancing Archaeological and Textual Evidence in Eastern Zhou Archaeology* [247]
- 15:20 Mandy Jui-man WU: *Loyalty or Betrayal: The Northern Zhou tomb of Wang Deheng (547-576 CE)* [248]
- 15:40 BREAK
- 16:00 CHUANG Huichih: *The Difference Between Ideal and Reality: The Study of Celestial Images in Tomb Murals of the Tang Period* [249]
- 16:20 LI Min, FANG Hui, ZHENG Tongxiu, Rachel LEE, and Henry WRIGHT: *Archaeology of the Song Royal Ancestral Landscape* [250]
- 16:40 LAM Hau-ling Eileen: *From Mythology to Representation: Sheng and Its Iconography in Han Burial Ritual* [251]
- 17:00 LYU Meng: *The Manufacture and Utilization System of Roof Tile in Yecheng in the Northern Qi Dynasty, Focusing on the Roof Tiles Unearthed from the Hetaoyuan No.5 Architectural Site* [252]
- 17:20 KIKUCHI Yuriko: *Archaeological survey of hoards excavated in central Vietnam* [253]

XLI New Technologies in Archaeological Research: Methodology, Application and Potential

KCB 106 Organizer: JIN Zhengyao / LI Sheng-Hua

This session focuses on new technological development in archaeometry and archaeochronology, as well as their applications on various topics in archaeological research in East Asia. The topics cover, but are not limited to, the most recent developments of new dating techniques (such as luminescence dating, radiocarbon, U-series, cosmogenic nuclides, etc.) and analytical methods (such as geochemical and isotopic analysis, etc.), and the applications of these new techniques to date archaeological sites and analyse fossils and artefacts from

archaeological sites in South-East Asia. New techniques developed for fieldwork studies and other types of investigation will also be welcomed.

- 14:00 JIN Zhengyao: *An Examination of Gear-shaped Bronzes in Prehistoric China* [255]
- 14:20 LI Sheng-Hua: *Firing Temperatures of Pottery Estimated by Luminescence Techniques* [256]
- 14:40 YAN Lifeng: *Elemental Distribution Profiles of Porcelain by Means of SEM-EDX* [257]
- 15:00 LI Bo: *Luminescence Dating of Feldspars: A Powerful Tool for Dating Archaeological Sites of the last 0.5 Million Years* [258]
- 15:20 FAN Anchuan: *Luminescence Dating of Neolithic Hearths in the Loess Plateau: New Controls for the Dating of Stone-walled Settlements at Shimao, Shaanxi* [259]
- 15:40 BREAK
- 16:00 ZHANG Xinxiang, JIN Zhengyao, JIANG Zhilong, FAN Anchuan, LI Gong: *Dietary Differences associated with Sex as Determined by Stable Isotopes at the Bronze Age Site of Jinlianshan, Yunnan Province, China* [260]
- 16:20 ZHANGSUN Yingzi: *Elemental and Lead Isotope Analyses of Han Mirrors from the Shaanxi History Museum Collection* [261]
- 16:40 WEN Rui: *West or East? The Provenance Study for the Glass Beads Excavated from the Shi-ren-zi-gou Series Sites in Xinjiang, China* [262]
- 17:00 Cheryl MAKAREWICZ, Sarah PEDERZANI: *Oxygen and Carbon Isotopic Insights into Iron Age Livestock Mobility and Funerary Practices in the Xiongnu Confederation* [263]
- 17:20 Michael STOROZUM: *Geoarchaeology in China: A Review and Future Prospects* [264]
- 17:40 Tetsuya SHIROISHI: *Production Structure and Environment during the Yayoi Period in Japan* [265]

XLII General Session: Archaeology of Sichuan, China

KCB 104 Chair: WAN Jiao

14:00 WAN Jiao: *The Cultural Evolution of the Chengdu Plain – The*

Distribution of Prehistoric Sites in the Chengdu Plain [266]

14:20 LEI Yu: *New Discoveries at the Sanxingdui Site in Recent Years [267]*

14:40 RAN Honglin: *A Preliminary Study of the Settlement Remains of the Jinsha Site [268]*

15:00 ZHENG Wanquan: *New Discoveries from the Ba Culture in Eastern Sichuan [269]*

15:20 LIU Zhiyan: *The Luojiagou Site of the Han Period in Sichuan [270]*

XLIII General Session: Archaeology of Japan

KCB 104 Chair: Fumiko IKAWA-SMITH

16:00 NAKAMURA Oki: *Visualization of Local Communities and Diversity in Rituals in the Late and Final Jomon, Japan [271]*

16:20 Amanda GOMES: *Symbolic Structures: Early Decorated Stone Chambers of Northern Kyushu in a Ritual Context [272]*

16:40 LU Jouchun: *A Typology of Chinese Ceramics and Consumption Patterns in 8-11th Century Japan [273]*

XLIV General Session: Early China

KCB 107 Chair: ZHOU Ligang

14:00 LI Yinghua: *A Macroscopic Technological Perspective on Lithic Production of Hominids from Early to Late Pleistocene in the Hanshui River Valley, Central China [277]*

14:20 YANG Yuzhang: *Human Exploitation of Plant Foods during the Upper Paleolithic in Central China revealed by Microplant Analysis for the Lingjing Site [278]*

14:40 HU Yaowu, ZHANG Hua: *Isotopic Evidence of Cattle Domestication and Management during the Neolithic in Shaanxi, China [279]*

15:00 ZHANG Juzhong: *Formation and Development of Rice and Millet Mixed Farming in the Upper and Middle Reaches of the Huai River during the Neolithic Period [280]*

15:20 LUO Wuhong: *Phytolith Records of Rice Agriculture during the Middle Neolithic in the Middle Reaches of the Huai River Region, China [281]*

- 15:40 BREAK
- 16:00 LI Yiping: *Social Differences between Songze Culture and Liangzhu Culture as Reflected through Jade Artifacts* [282]
- 16:20 SUN Zhuo: *Interregional Cultural Interactions in the Middle Yangtze River and Huai River Basin during the middle of 2nd Millennium BC* [283]
- 16:40 SUN Bo: *Integration and Beyond: Roles of Geographical Environment in the Formation of Early States of the Longshan Culture, Shandong*[284]
- 17:00 ZHOU Ligang, Sandra GARVIE-LOK: *Dietary Transition from the Eastern Zhou to the Han Dynasty on the Central Plains of China: An Isotopic Study* [285]
- 17:20 ZHANG Junna: *Evolution of the Yiluo River and its Influence on the Prehistoric Culture and the Formation of the Erlitou site in the Luoyang Basin, Henan province, China* [60]

18:00 **EAST ASIAN ARCHAEOLOGY FORUM (EAAF) PUBLIC LECTURE:
John N. Miksic (National University of Singapore)
“The Maritime Silk Road, AD 1-1500”**

KCB 101 Sponsors: International Center for East Asian Archeology & Cultural History, the Asian Art Society of New England, and the Boston University Center for the Humanities

Abstracts

AHN Jae Pil / KIM Tae Kyung [158]

The Hongshan Shrine and the Dangun Mausoleum: Distorted Images of Archaeology in Northeast Asia

Nationalism exists in varying degrees and is a term that can explain several issues that affect the characteristics of modern society. Nationalism in archaeological interpretation also exists in varying forms, especially in Northeast Asia. In the last decade, archaeology has come to be considered as a means to express ethnic identity, pride, or even superiority. This aspect of archaeology in Northeast Asia is exemplified by the Hongshan Shrine and the Dangun Mausoleum. In other words, the Hongshā n Shrine and the Dangun Mausoleum reflect the nationalism of Northeast Asian archaeology. This paper will discuss how nationalism is expressed in this region and analyze the differing patterns in how images of archaeological sites are utilized in Northeast Asia, especially in China, South Korea, and North Korea.

ALDENDERFER, Mark [105]

Evidence for Lithic-Period Settlement Patterns in Far Western Tibet

In far western Tibet, evidence for sites dating before 2500 BP is extremely sparse. Recent reconnaissance-level archaeological surveys, however, have identified significant numbers of lithic scatters in the Upper Sutlej drainage. Lithic materials found at these sites cannot easily be assigned to the Paleolithic, characterized regionally by prepared core blade technologies, nor to later assemblages dominated by microlithic tools. Instead, they appear to be part of a reduction strategy defined by simple "nodule bashing" and testing, the goal of which appears to have been the production of large flakes and the identification of lithic materials suitable for further exploitation. The distribution of these assemblages in the Upper Sutlej is described, and hypotheses about the time frame of the assemblage and other possible site functions are offered.

ALLARD, Francis [87]

Conceiving China's Southern Border during the Han Dynasty: Perspectives from Archaeology and History

Recent maps of Han dynasty China typically indicate that its territory extended into (present-day) Vietnam, a depiction based on China's known incorporation of Lingnan (Guangxi and Guangdong) and regions further south at the end of the second century BCE. In contrast, Lingnan's archaeological record during the Han dynasty points to the likelihood that China's control over Lingnan at this early stage of imperial expansion was neither firm nor extensive, with the data underscoring the need to distinguish between different types of non-coterminous 'boundary regions' (e.g. territorial, administrative, cultural). While the consistent positioning of Han China's southern border on recent historical maps undoubtedly reflects modern nationalist sentiments, other factors have permitted a malleable approach to mapmaking in this particular case. These include contemporary passages that indicate the presence of an administrative structure in Han dynasty Lingnan (counties, officials, censuses), along with an absence of references to precise borders.

ALTYN, Magdalena [50]

Walled Sites along the Han River as a Material Representation Reflecting Struggle for Power in the Three Kingdoms Period

Walled sites, which are noticeable on the territory of the southern peninsula since the end of the 3rd century AD, became the traditional form of the Korean capital throughout the ages. Construction technology was strongly influenced by Chinese urban forms, however Koreans were able to achieve more variety in building techniques as well as in the use of those fortified settlements. We can define three types of Three Kingdoms walled sites: sansō ng ("mountain fortress"), t'osō ng ("earthen walls"), and changsō ng ("long walls"). Early mountain fortresses were built as a defense system for the capital city. However, expansion of each kingdom's territory resulted in the extension of fortresses occurrence, which started to be built in provincial areas. On those territories they functioned as military outpost as well as centers of provincial administration, reflecting growing strength of each kingdom.

ARMSTRONG, Peter Garth [123]

Deconstructing the Reconstructions of the Silla Capital

Reconstructions of the ancient capital of Silla date from 1930. Based on literary records in Korea, China, and Japan, and topographic observations of the central urban area, there are over twelve representative proposals. Each hypothesis posits variant spatial reconstructions utilizing different dimensional systems. All of these proposals presuppose a regular gridded city on the continental model based on a view of history that impinges on contemporary politics and territorial prerogatives. However, recent archaeological work has revealed that the city's urban area extends beyond the restricted central area to include the defensive fortress system and substantial outlying urban development. Similarly, excavations within the central urban area reveal significant departures from conjectural views of the spatial structure of the capital. These recast existing theories of the nature and time scales of urban development suggesting processes which lie outside conventional understandings of the East Asian capital plan in its Korean context.

BAE Jinsung [50]

Social Stratification in the Bronze Age of the Korean Peninsula

The construction of burial architecture, the appearance of daggers, and the use of weapons as grave goods represent the distinctive elements of the Korean Bronze Age previously absent in the Neolithic Period. Based on the presence of these elements, the beginnings of social stratification are identified for the earlier part of the Bronze Age; the practice of using bronze daggers as grave goods is observed for the later part of the Bronze Age, which also witnessed an increase in stone dagger burials. This archaeological evidence is taken to suggest that the appearance of formal leadership in the Korean Peninsula took place in the Bronze Age. The large buildings with elevated floors observed at the sites of Songguk-ri and Igeum-dong are presented as specific examples that illustrate the existence of such formal leadership.

BARNES, Gina / TANIZAWA Ari [141]

Early Beadstone Body Ornaments in East Asia and their Antecedents: Kofun-Nara

Body ornaments in Kofun-period Japan were primarily green in colour, with other colours gradually added over time. Why green? This paper explores the resources and

technologies used to make beadstone body ornaments and the possible reasons why these were chosen over other possibilities. Stylistic analyses reveal continental antecedents in some cases, both in terms of shapes and usages.

BARTON, Loukas / ULLAH, Isaac [134]

Computer Simulation and the Origins of Agriculture in East Asia.

History happened only once, and the archaeology of that history is a fragmentary record. It is therefore difficult to understand, for example, how agriculture (and its many biological and cultural components) developed in any one place over any amount of time. Computer simulation can trace these historical components thousands of times. Doing so helps to reveal which elements in the cultural and biological context of evolution have the strongest and most regular influence on the outcomes of history. Here we combine archaeological inference, evolutionary ecological theory, and computational modeling to evaluate the origins of agriculture in East Asia. Specifically, we explore attributes of hunter-gatherer ecology and behavior that effect change in environmental selection that leads to the domestication of millet in northern China.

BAUSCH, Illona [140]

Early Beadstone Body Ornaments in East Asia and Their Antecedents: Jomon-Yayoi

Personal adornment in the Japanese archipelago during the prehistoric Jomon and Yayoi periods included various types of ornaments made of stone, bone and shell, which often were acquired via long-distance exchange networks. Some of these materials continued to play significant roles in the later Kofun period, and this paper will focus on several types of these, such as jadeite pendants; exploring their production and usage, changes in social value, and to what extent these were influenced by continental interaction during the Jomon and Yayoi periods.

BENNETT, Gwen [93]

Using new Perspectives and Methods to Study the Medieval Period Liao Empire

Archaeological and historical data, combined with GIS analysis gives us new perspectives on 11th c. medieval period envoy missions from the Song Dynasty (960-1279) to the Liao Empire (907-1125) Middle Capital in Chifeng Inner Mongolia, China. The envoys' routes can be recreated on maps, and optimal route and viewshed analyses give us insight into the Liao's concerns about these foreign missions crossing their territory and how they addressed them. Furthermore, population estimates can be made from envoy information that can be used to extrapolate population density estimates from archaeological data for other areas in Chifeng.

BESTEL, Sheahan / HUA Zhong / BAO Yingjian [191]

Nuts, Millet and Rice: Plant Remains from the Zhuzhai Village Site, Henan, China during the Middle Peiligang Period, 7,900 - 7,700 cal BP

Charcoal fragments from ash pits and cultural layers at the Peiligang and Yangshao period site of Zhuzhai, near Zhengzhou on the Yellow River were directly dated to the middle Peiligang period (c. 7924± 41 cal BP), making these among the oldest charred macrobotanical remains of domesticated cereals in North China. The seeds and nuts present in these samples represent the first plant assemblage to include substantial numbers of domesticated cereals (broomcorn millet, foxtail millet, rice) in addition to numerous nutshell fragments, jujube fruits and hemp. Thus this assemblage can inform on the location and timing of the domestication of a number of important

crop species, in addition to providing evidence regarding possible balanophagy or intensive utilization of nuts such as acorns.

BEWER, Francesca / EREMIN, Katherine [A2]

Seated Attendant Bodhisattva from Dunhuang

One of the most prized Buddhist works from the Mogao Caves, near Dunhuang brought back to from the second Harvard China Expedition in 1924 is an almost life-size sculpture of a Seated Attendant Bodhisattva. The unbaked, painted clay figure was created in situ in the late 7th century. It has been the object of study and conservation since its arrival at the Fogg Museum. The transfer of the seated bodhisattva from its original environment to a museum with facilities for conservation and technical study has provided the opportunity for in depth technical study including imaging with UV illumination and x-radiography, and non-destructive analysis and micro sampling. This poster will compare and synthesize the earlier findings and more recent on-going analysis and examination. The impact of previous and current conservation practices on technical studies will be considered.

BLACKMORE, Hari [D7]

Crafting and Social Distinction in Central Korea: Daeseong-ri and Beyond

The Proto-Three Kingdoms period in central and southern Korea sees the clear emergence of social distinction and stratification, culminating in the states of Baekje and Silla, and the complex confederacy of Gaya. This study will consider such processes at the site of Gapyeong Daeseong-ri, located next to the lower stream of the North Han River. An examination of the distribution of burnished and partially burnished Hard Plain (*kyeongjilmumun*) Pottery reveals its concentration in very particular domestic contexts. It exists here as part of a nexus of ironworking evidence and imported or prestige goods. Such pottery was likely used to emphasize the social distinction of those gaining power or prestige from the iron trade. This type of pottery is also found in low concentrations in Youngseo and Yeungdong, but not in what becomes the Baekje center, suggesting an intentional cultural distance.

BOURGEOIS, Jean / GHEYLE, Wouter / PLETS, Gertjan [162]

Landscape Archaeology Research in the Altai Mountains (Republic of Altai, Russian Federation): An Overview of Results

After more than a decade of detailed field survey (Ghent University & Gorno-Altai State University) in the Russian part of the Altai Mountains, a large amount of archaeological and geographical data have been gathered. More than ten valleys have been intensively surveyed and detailed archaeological maps have been produced. Monuments dating from the late Neolithic to the ethnographic period (with a focus on the Bronze Age and the Iron Age) have been found, and range from funerary monuments to ritual places and petroglyphic sites. The inventories and maps of these localities are not only of major interest for potential heritage management, but also for understanding the mental structures of the landscapes of these ancient periods. Research in the valleys of Dzhazator, Karakol and on the Turu Alty mountain ridge yield information about the spatial (and mental) organization of these landscapes. Examples of several valleys will be presented.

BROWN, Clayton [79]

The American School of Archaeology in China, 1912-1934

With the collapse of China's last dynasty in 1911 and the loss of central authority that followed, a vulnerable China fell prey to Western museums and art collectors who both purchased and plundered her antiquities. With the establishment of the Republic of China in 1912, however, the US government, in conjunction with the Archaeological Institute of America and the Smithsonian Institution as well as numerous other American institutions, sponsored a series of expeditions to China to pioneer with the Chinese government and academic community both archaeological research and systematic monument and artifact preservation. This collaborative venture resulted in numerous joint Sino-American excavations and exhibitions the establishment of China's first national museum, and the passage of an Antiquities Protection Law. But when the Nationalists reasserted central authority in the late 1920s, the Chinese took steps to check foreign imperialism while nationalizing archaeology and cultural heritage management.

BRUNSON, Katherine [28]

Ancient DNA Approaches to Zooarchaeological Research in China

The past few years have witnessed a rapid increase in the number of modern and ancient DNA studies of Chinese domestic taxa, providing new opportunities to address zooarchaeological research questions about the domestication processes for these animals and how they were involved in long-distance cultural interactions. In this paper, I present a review of recent genetic research on Chinese dogs, pigs, cattle, sheep, goats, horses, donkeys, and chickens. Although most genetic results are consistent with the archaeological record, there are occasionally points of conflict between modern DNA, ancient DNA, and zooarchaeological studies. I discuss these points of conflict and propose additional avenues where genetic techniques—especially those derived from population genetics and the analysis of nuclear DNA—can be applied to zooarchaeological research in the future.

BYERLY, Heather / MAKAREWICZ, Cheryl / HOULE, Jean-Luc [229]

Ritual and Mobility: $^{87}\text{Sr}/^{86}\text{Sr}$, $\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ Analyses Comparing Modern and Bronze Age Khirigsuur Horses from Khanuy Valley, Mongolia

Khirigsuurs are large stone burial and ritual monuments that served as stages for group activities and social negotiation during the Late Bronze Age (c. 1300-700 BC) in Mongolia. Animal remains were routinely interred in satellite mounds associated with primary burial features, in particular the heads and extremities of horses, and often in great numbers. The question remains, however, whether horses selected for interment in khirigsuur satellites were from local or distant herds. Here, we examine the strontium, oxygen, and carbon isotopes of incrementally sampled mandibular molars from horse heads ritually deposited in khirigsuur complexes located in Khanuy Valley. We then compare these isotopes with those from modern horse molars collected in the same valley. Such isotopic data provide first insights into the complexity of social and political networks involved with khirigsuur construction and maintenance.

CAMPBELL, Roderick [88]

Sima Qian and the Invention of the Shang Dynasty

Where do our notions of the Shang dynasty come from and how has it been framed as a historical subject? I would argue that just as the knowledge and significance of the past is itself a product of history, so too are historical subjects like the Shang Dynasty. It is my contention that our conception of the Shang as the second of the Three Dynasties and its place in Chinese history and

archaeology is fundamentally a product of late Warring States and Han historical imagination and that the framing of what the Shang is and why it matters has had a pernicious effect on its study. The goal of this paper will be to trace the conception of the Shang along with the concomitant changing notions of the meaningful past from the Shang to the Han.

CAMPBELL, Roderick [199]

A View from Below: A Bone Artifact Assemblage from an Anyang Period Village and What it Suggests About the Shang Economy

K.C. Chang once famously argued that the Shang economy was essentially unchanged from the Neolithic, relying on the same stone tool assemblages and utilizing bronze mainly for ritual vessels and weapons. While the Shang may have used the majority of their metal for war and sacrifice, we know almost nothing about the Shang economy. As part of a larger, long-term project investigating the Shang economy as a whole, we have been studying the gigantic bone artifact production site of Tiesanlu, Anyang and a zooarchaeological assemblage at the Anyang period village site of Guandimiao. This presentation will focus on the bone artifact assemblage from Guandimiao and what it can tell us about relationships between the Anyang mega-center and its workshops and small village sites hundreds of kilometers away.

CAO Qin [76]

Too Fragile to Fight? High-lead Weapons During the Late Shang, China (c.1200- 1050 B.C.)

Among numerous bronze weapons recovered from late Shang tombs, many are thin, fragile and corroded. By their appearance, they seemed too frail to have been effective, and metallurgical analyses indicate some have over 40% lead content. Previous scholars' research suggests they were made specifically for burials representing the deceased's military achievements and/or role, a prevalent practice that was popular several centuries later as recorded in transmitted texts. Meanwhile, a typological survey of dagger-axes with high-lead content suggests the majority of them to be in the archaic Erlitou (c.1900-1500 B.C.) style, rather than contemporary Shang styles. This raises the question as to why such antiquated forms were chosen. Were they just intended for burials? This presentation will propose an alternative interpretation of functions and significance of high-lead weapons, using the example of dagger-axes, combining archaeological data, experimental archaeology and compositional analysis.

CASPARI, Gino [166]

Landscape Archaeology in the Foothills of the Chinese Altai

Presentation of the preliminary results of the July 2015 landscape archaeological survey in the area of Hailiutan, Bu'erjin County. Analysis of the cultural landscape from the Bronze Age to the Turkic period with focus on the Early Iron Age.

CHAN, Annie [167]

A Geospatial Analysis of Bronze Age Stonework in the Asian Steppes

Ancient stonework of various scales and configurations are ubiquitous across the Asian steppes, marking domains of past human activities. Built of lithic materials sourced from local outcrops, these permanent formations provide reliable geospatial proxies for examining patterns of settlement and cultural spread and denote physical and symbolic uses of the environment. This paper presents survey and excavation data from the Bortala River Valley in Xinjiang and

considers patterns of land use and variables of social significance against contemporary landscapes of stone architecture in contiguous regions.

CHAN, Libby [98]

Newly Excavated Shipwrecks in China and Southeast Asia: Revisiting Medieval Chinese Maritime Trade

In the dawn of the second millennium AD, global demand of Chinese manufactured goods via sea trade and diplomatic exchanges had drastically increased, accounting for 58% and 88% of global GDP, respectively during the Tang and the Song dynasties. The increasing number of excavated maritime shipwrecks in South China and Southeast Asian seas over last two decades sheds light on our understanding of this global maritime economic and cultural system in medieval times. Through analyses of excavated maritime materials from three representative shipwrecks, namely the Belitung shipwreck excavated in Indonesia (9th century), and the Nanhai I 南海一号 (12th century) and Nan'ao I 南澳一号 (16th century) shipwrecks both of which were excavated in Guangdong, this paper will investigate the development of China's domestic transportation and their connections with the port cities along the maritime trade routes, manufacturing technology, and demands of inter-cultural and economic exchanges between China, Southeast Asia and the Islamic countries.

CHAO, Glenda [85]

The Archaeology of Mortuary Ritual in the Southern Nanyang Basin: How Localized Research can Shed Light on Broader Questions of Cultural Transformations

This paper interrogates some of the key terms that archaeologists rely upon to study the material culture of Early China. Terms like “Chu” and “Qin” have come to represent multiple meanings and functions in Early China studies, designating everything from pottery typologies to periods of recorded history. The conflation of these terms to indicate archaeological cultures on the one hand and historical progression on the other is part of why “cumulative Han culture” is being problematized today. Reconstructing the process of burial ritual at Wangpo cemetery, a small-scale non-elite community burial ground located in the Southern Nanyang Basin, and analyzing the cultural antecedents of its material features calls into question the usefulness of terms like “Chu” and “Qin” to describe cultural practices at this scale. The paper ultimately argues that by carefully delineating between using these terms as typological categories leads to more enriching perspectives on early Chinese civilization.

CHASTAIN, Matthew [211]

Experimental Replication of a Specialized Ceramic Material used in Bronze-casting Molds from China's Western Zhou Period

The bronze-casting industry of Shang- and Zhou-period China was made possible by a mastery of the use of ceramic materials in the bronze foundry. Previous research has indicated that, throughout much of this period, bronze-casting molds were made from an unusual, high-silica ceramic paste that appears to have been engineered specifically for this application. However, little is known about how this important material was produced and how its materials properties relate to bronze-making techniques. This presentation reports on the use of an experimental archaeology approach to reconstruct the selection and processing of materials used to form bronze-casting molds. Western Zhou-period bronze-casting molds from the Zhouyuan region of Shaanxi province were microscopically and chemically characterized to serve as a baseline for

replication experiments carried out using soil samples collected nearby the foundry sites. This work aims to recreate bronze-casting practices more fully and understand the engineering choices responsible for the technology's development.

CHEN Beichen [242]

The State of Zeng and its Sustained Interest in Bells

The Zeng state was never considered as a powerful regional state during the Zhou dynasty, but became world famous in 1978 due to the discovery of the tomb of the Marquis Yi of Zeng, and his set of 65 chime-bells, the most elaborate set known from ancient China. This chime is so costly and sophisticated that scholars still do not quite understand why the Zeng people felt the need to build it, and what inspired it. Recent discoveries show that no later than the early Western Zhou period, the Zeng people showed a keen interest in the sound of metal on metal through bells and other bell-related bronze vessels. In this presentation, I argue that this interest may have come from the steppe and the Central Plains border where bell-headed weapons and chariot adornment (jingle-bells mostly) were popular in the Shang and Western Zhou period.

CHEN Jian / ZHOU Zhiqing [B2]

Preliminary Studies on the Interaction of Cultural and Environmental Changes: An Example from the Highlands of Western Sichuan and the Chengdu Plain

In this study, we survey an area covering the northwestern and southwestern highlands of Sichuan and the center of the Chengdu Plain. We found that there were three major cultural traditions existing from 6000 to 4000 BP. They are visible in settlements in the Upper Min River and the Upper and Middle Dadu River, which were influenced by the Yangshao Culture to the north, Longshanoid settlements in Western Sichuan and the Chengdu Plain, and other Longshanoid settlements in southwestern Sichuan, respectively. The Yangshao people moved step by step from the north to Sichuan no later than 6000 BP. A global climatic event that occurred about 5000 BP had an even more profound effect, causing floods and disasters, even though these were gradually overcome. Unlike their Yangshao predecessors, who mainly grew millet, people cultivated more and more paddy rice after this period and the domestication of animals became more common.

CHEN Hao [51]

A Brief Study on the Plan Layout of the Imperial Ancestral Temple of the Southern Song Dynasty

The imperial ancestral temple of the Southern Song Dynasty in Hangzhou was found in 1995. It is the only archaeological site of an imperial ancestral temple in Imperial China predating the Ming Dynasty. The remains of the eastern wall, eastern gate and other parts were excavated. Based on the research results of previous archaeological and historical work, combined with other temple remains and historical documents, this study attempts to reveal the process of its construction, reconstruct the plan layout of the architectural complex, and provide a reasonable model of the column grid of the main hall. Consequently, we can discuss the design of royal ritual architecture and the problems and solutions in the process of capital transformation in the Southern Song Dynasty.

CHEN Shuqing [C3]

An Analysis of the Da'nangou Graveyard, based on ACCESS Data Mining

The Neolithic cemetery of Da'nangou 大南沟 located in Liaoning province in northeast China belongs to the Xiaoheyuan 小河沿 Culture. Based on Access data mining, this article examines its burial custom and the distribution of funerary objects from the aspect of gender archaeology. Compared to poor elderly people, we find that the adults have bigger, richer tombs, which may confirm that the documentary record concerning 'superiority of the young people and inferiority of the old people' and 'proud of dying in war and guilty of dying sick.' Furthermore, from the spatial distribution of funerary objects, particularly production tools, in different parts of the graveyard, we see the social division of labor, and the tomb owner's abilities to engage in economic and production activity determine what he can get and his social status. Therefore, the family's division of labor is likely to be one of the main factors leading to wealth polarization and social stratification.

CHEN Xiao [60]

Practice and Model: City Form and Urban Planning in Early China

The Royal Zhou capital presented in the *Kaogong ji* is perceived as a widely influential city model in ancient China. This article focuses on the city form recognized by archaeological fieldwork before this model came out and argues for a reciprocal relationship between the model and practice. City sites built during the Shang period suggest that some unrecorded standardization might have already existed. Furthermore, based on archaeological and topographic survey of the Lu city in Qufu, it re-examines the integrated shape of the central mound in the city and its crucial role in urban planning as the principal reference for the arrangement of other city components. The construction experiences, as of the Lu city, may provide practical data to Confucian scholars. Differences between the Lu city and the model, and other typical cities built in the Eastern Zhou, show the diversity and complexity of urban planning in early China.

CHENG, Elaine W. Y. [D5]

Cross Dynastic Production: Bronze Vessel Production between Shang and Zhou Dynasties

To produce bronze vessels requires extensive knowledge of various aspects within its method of production. Thus one method to study bronze producers is through understanding the type of knowledge involved and how that may reflect the people who made the bronze objects. This poster will focus on the differences between the Shang and Zhou dynasty production methods starting with the raw material procurement and ending with the casting of the vessels. The amount of knowledge involved may limit the number of people accessible to its construction and provides hints about the specialization of these individuals. How much did the change in political rule influence prestige craft production such as bronze vessels? With this knowledge we can further our understanding on how dynastic change may alter or preserve craft production and subsequently their producers.

CHENG Fangyi [39]

The Mayer Collection of Northern Zone Bronzes in the Penn Museum

The Mayer collection in the University of Pennsylvania Museum of Archaeology and Anthropology, acquired in the early 20th c., comprises 464 small bronzes, including knives, daggers, harnesses, plaques, ornaments, buckles, belt hooks, pendants, bells and other forms. The

collection is diverse but contains a significant number of early Northern Zone bronzes, yet has been largely overlooked by previous scholarship. Two topics will be presented. The first is the history of the collection, and the activities of the Mayer family in China, especially their association with the Qing imperial family. The second is an analysis of the objects themselves. Previous classifications and descriptions of the group of objects, including by the Mayers themselves, will be reviewed. Comparison of items from the Mayer collection with objects from archeological excavations on the northern Chinese frontier allow us to recontextualize many of the Mayer objects.

CHEN, Jeff Chieh-fu / CHAO Chin-yung / MITSUDA Yayoi [173]

Outpost or Household? The Historical Archaeology of Japanese Police Stations in the Mountains of South-Central Taiwan from 1920 to 1945

In the early 1920s, the Japanese colonial government built a series of police stations along the Pattonkan Trail 八通關古道 in the mountains of Taiwan for the purpose of controlling and monitoring the local indigenous population, the Bunun 布農族. Despite being in hostile territory with a harsh environment, the police officers were allowed and encouraged to bring their wives and children. Thus, the police stations served not only as military outposts but also as ordinary households. In our research, we aim to apply multiple sources, including archaeological and textual evidence, to explore the dual meanings of police stations and further discuss Japanese colonization in the mountains of Taiwan.

CHO Daeyoun / SIN Mincheol [119]

Exploring Social Stratification in the Hoseo Region from the Proto-Three Kingdoms to Three Kingdoms Period – An Examination through Settlement Analysis

This paper examines the nature of social stratification in the Hoseo region of southern Korea during the Proto-Three Kingdoms to Three Kingdoms Period through an intra-site analysis of settlement sites. The spatial distribution and clustering of different house types are examined as a means of identifying social stratification. In addition, the changing distribution of pottery and iron artifacts is analyzed in order to trace the process of social stratification. Through this approach, it is possible to identify the nature of residence clusters that comprised the settlements of this period, as well as the way in which production and storage facilities were managed at each site. This information provides insights into the nature of social change in the region at the time of early state formation.

CHO In Sung [159]

Government-designated Korean History Textbooks and Old Joseon Archaeology in Korea

Carrying out the October Revitalizing Reforms in 1972, the regime of Former President Park Chung-hee insisted on "education to form a national identity" and reinforced the education of Korean history. In 1974, the regime published a government-designated Korean history textbook, which put an emphasis on Old Joseon, known as the first state in Korean history. The dolmens and mandolin-shaped bronze daggers excavated across vast regions of Manchuria and northern parts of the Korean Peninsula were introduced to support the year of its mythological foundation in 2333 B.C. and as material evidence to demonstrate it claimed a broad territory and had a unique culture. Repeating her father's act, President Park Geun-hye decided to allow for only government-designated Korean history textbooks in 2015. Academic circles, which have always

been alert about the harmful effects of interpreting archeological materials from a nationalistic perspective, seem to face a task to solve.

CHUANG Huichih [249]

The Difference Between Ideal and Real: The Study of Celestial Images in Tomb Murals of the Tang Period

Transmitted texts indicate astrologers of the Tang period were able to make detailed star maps and the illustrations of these maps were only permitted in tomb murals for the emperor. However, archaeological discoveries have unearthed numerous abstract star maps of very limited scientific value from Tang tombs. What are the prototypes of these star maps? Could the theme of tomb murals reflect the social hierarchy of the deceased? How do we explain the discrepancies between ancient texts and archaeological remains? This presentation will discuss celestial maps in Tang period tomb murals and explore the dynamic interactions among images, historical texts and astronomy.

CONG Dexin [168]

Tian Shan as Bridge: Adunqiaolu from the Perspective of the Eurasian Steppes

The Adunqiaolu site, locating in Wenquan county along the Bortala River in Xinjiang and excavated in recent years, is a representative site dating to the Bronze Age in the western Tianshan Mountains. At this site, various archaeological remains were discovered, including residential remains, burials, megalithic remains and rock art surrounded with glacial till. The double stone circle house remains are a regional characteristic. Burials, dating ca. 3900-3700 BP, were made of square stones in outer circle, pits in west-east direction and stone coffin in the pits. The investigation in this area found several settlements with central buildings and military terrace remains, reflecting the complexity of the society. The west Tianshan Mountain where the Adunqiaolu is located is one of the most important roads linking the Tianshan Mountain, the Hexi Corridor and the Huanghe River with the Eurasian Steppe.

D'ALPOIM GUEDES, Jade [66]

Documenting a Rapid Transition in Agricultural Regimes on the Tibetan Plateau

Moving agriculture into the highlands of the Tibetan Plateau was a challenging process. Short growing seasons, cold winters and spring frost mean that the Tibetan plateau presented considerable challenges to the movement of domesticates into this region. In this paper, I describe the creation and employment of crop niche models aimed at outlining the constraints associated with practicing a range of different crops on the Tibetan plateau and in the foothills of the Himalayas.

DAI Xiangming [27]

Development of Social Complexity during the Late Neolithic in Northern China

The trajectory of prehistoric social complexity in northern China remains unclear. An increasing number of archaeological discoveries in recent years are shaping our ideas on this issue. Through these discoveries and analyses, we find that no complex societies had formed from Yangshao to the early Longshan period (ca. 5000-2300 B.C.), in contrast with central China. However, the highly complex society at Shimao appeared in northern Shaanxi during the late Longshan period (ca. 2300-1800 B.C.). The Shimao walled site very likely indicates a state-level society emerging in northern China, and it seems to be developed in a comparatively short time in a special environment. This paper will discuss the changes of social organization and structure within and

among settlements from late Yangshao to late Longshan periods, reveal the process of the rise of the Shima state, and further explore the causal factors resulting in the emergence of this early state.

DAL MARTELLO, Rita [111]

Archaeobotanical Results from the Baiyangcun Site, Yunnan: Exploring Agricultural Pathways in Southwest China.

The geographic location and unique climatic and ecological conditions of Yunnan province make it key in understanding how agriculture spread into southwest China and further to Southeast Asia. However, present archaeological data from Yunnan are still scarce, and only a few early Neolithic sites have been systematically investigated archaeobotanically. This paper presents important finds from the site of Baiyangcun and discusses early subsistence development in the region. Baiyangcun is located in the Jinsha River Basin in northern Yunnan. The 2013 excavations yielded rich archaeobotanical remains and initial analyses indicate that early subsistence was based on both millet and rice farming. This accords with newly published finds from the possibly contemporary Dadunzi site, also in the Jinsha River Basin, and dated to around 4000-3600 BP. Charred remains from the site have been submitted for radiocarbon dating in order to produce a tighter chronological sequence for the occupation of the site.

DAMIAN, Michelle [7]

Currents, Islands, and Pirates: A Geospatial Analysis of Medieval Trade in the Seto Inland Sea

This paper looks at the evidence of trade in and around the pirate bastions of the Seto Inland Sea region and explores their role in the overall patterns of late medieval trade. Doing so sheds light on the highly interconnected maritime trade networks in place in the late medieval period (14th – 16th c) and the factors that influenced the development of those networks. Using geospatial analysis of documentary and archaeological evidence, the impact of environmental conditions and topography upon those trade routes becomes clear. Certain regions with difficult tides and currents presented challenges to captains unfamiliar with those waters, and required them to find ways to avoid those hazards. On the other hand, those same regions became ideal locations for pirates – skilled mariners in their own rights – to establish their enclaves. These factors shifted trade patterns and likely led to stronger collaborative networks among ships' captains.

DASHTSEVEG, Tumen [228]

Bioarchaeology of the Xiongnu

This paper presents the main results of craniological, osteological, paleopathological and bone DNA studies of Xiongnu remains from Mongolia and anthropological comparative studies of archaeological populations from same and subsequent historical periods of Northeast Asia. The bioarchaeological studies of human remains from the Xiongnu period of Mongolia show the great anthropological and genetic heterogeneity of the Xiongnu population. We have defined twelve maternal haplogroups among studied Xiongnu specimens of Mongolia: A, B, N, G, D5, D4a, D4, D, C, M9 M, and R haplogroups. The haplogroups of Xiongnu samples were different throughout three geographic regions of Mongolia. Comparative analysis of anthropological and bone DNA data on archaeological and contemporary populations of Mongolia noticeably displays close genetic relationship between compared populations of Mongolia.

DING Yu [99]

A Brief Discussion on Chinese Ceramics Excavated from Malindi Sites in Kenya and the Communication Between China and East Africa from 9th to 15th Century

In 2010-2013, we undertook archaeological work in the area of Malindi on the Indian Ocean coast of Kenya, including the sites of Malindi old town and Mambui. We found a quantity of sherds of Chinese ceramics in the sites. The earliest examples were produced in the late Tang dynasty (9th c.). These materials provide the opportunity to summarize the stages of import of Chinese ceramics into East Africa. We have found that there was a peak of import in the period from the Southern Song to Early Ming dynasty in Mambui and Malindi. In addition, we found Chinese coins and the imperial ceramics produced in the early Ming period, which show the possibility of the arrival of Zheng He in the early time of 15th century. Based on the remains found in the Malindi sites, I discuss the development of trade communication between China and the East African coast from 9th to 15th century.

DONG Guanghui / REN Lele / JIA Xin / LI Guoqiang / LI Haiming / CHEN Fahu [107]

How did Humans Permanently Settle on the Highlands of the Qaidam Basin, Northern Tibetan Plateau During Bronze Age?

Previous studies suggest people permanently settled above 2500 m a.s.l on the Tibetan Plateau since the early Bronze period, while the subsistence strategies of these Bronze Age groups have not been clarified. The Nuomuhong Culture was the sole Bronze Age group living higher than 2700 m a.s.l in the Qaidam Basin on the northern Tibetan Plateau. Here we report the results of an archaeological investigation comprising radiocarbon dating as well as archaeobotanical and zooarchaeological analyses from five typical Nuomuhong sites. Our results indicate that Nuomuhong people adapted to the harsh environment in the Qaidam basin during 3400-2450 BP by the establishment of resident facilities and adoption of a cold-tolerant mixed agro-pastoral economy.

DREHER, Aline [224]

Methods and Applications of Aerial Archaeology: A Comparison of Europe and Japan

Aerial archaeology in Europe has a history of a hundred years of development and continuous enhancements in application. As an independent research area it applies to several archaeological fields of study as an auxiliary tool previous to and during excavations, in the field of research particularly related to questions in landscape archaeology and as an essential tool in archaeological monument conservation. In Japan the use of aerial archaeology is faced with several problems due to the nature of the landscape and the general line of research in Japanese archaeology. While work with historical aerial photographs can facilitate the reconstruction of archaeological landscapes, especially recent developments in new aerial reconnaissance applications such as "Airborne Laser Scanning" (ALS) have a high potential for Japanese archaeology, since it can provide relevant archaeological data even from dense forest and mountain areas that are usually inaccessible to traditional aerial reconnaissance.

EDA Masaki / LU Peng / LUO Yunbing / YUAN Jing [15]

The Morphological Microevolution of Chickens in East Asia during the Domestication Process: A Statistical Point of View

The red junglefowl, *Gallus gallus*, is thought to be the main wild ancestor of domestic chickens and to have been domesticated in multiple regions. Although the morphological characteristics of chickens from archaeological contexts are important for reconstructing the early history of chicken exploitation, these remain unclear in East Asia. The osteological microevolution of chickens during domestication, especially in the earliest stages, is also unclear. We measured archaeological chicken bones from China and modern specimens of wild red junglefowl, caged red junglefowl, and domestic chickens from various races, and compared the data using the log size index, analysis of covariance, and principal component analysis. These data suggest that morphological changes in wing elements occurred in the earliest stage, while those of leg elements occurred later. Statistical analysis is useful for revealing the morphological characteristics of archaeological chicken bones.

EDDY, Zoe [A3]

Mixed Mediation and Mobile Exhibits

Whether in exhibit showcases or in protected storehouses, archaeological objects make up large percentages of museum collections. With increasing attention to questions of ownership of the past, however, museum claims to these materials have come under criticism. For and by whom are these collections curated, and to which publics are they owed? Within this context, this presentation explores ways to reconcile some of these issues: my poster functions as an experimental traveling exhibit. Using objects from the Romyn Hitchcock collection in the Smithsonian Institution, I present a dynamic curated exhibit exploring the materiality of bears in Ainu sociohistory in northern Japan. I use video, sound recordings, and photography to demonstrate how mixed media exhibits facilitate (a) wider public distribution of heritage materials, and (b) reinvestigation of the scope and potential of repatriation. This presentation encourages discussion on how mixed media can help to circulate archaeological knowledge more widely, particularly within a heritage context.

EDDY, Zoe [24]

Colonizing Ainu Anthropology: A Historical Inquiry of Outsider Perspectives

As the Ainu of Hokkaido, Japan, work to assert their Indigenous identity within the context of global Indigenous rights movements, archaeologists have confronted the pressing need to reassess past studies of Ainu communities. Within this reassessment, the fields of physical anthropology and archaeology have faced significant criticism: undeniably, archaeology of the Ainu is grounded in exploitative and colonialist practices. This paper examines those practices, and the historical influences that have shaped contemporary archaeology of the Ainu of Hokkaido. I look at a range of sources, including ethnographies, travel diaries, and artworks, that date from the 17th to the early 21st century. Using these materials, I discuss how, through a variety of mediums, North American, Japanese, and European scholars have used their research to curate the image of an “Ainu Other”: this essentialized representation has historically treated Ainu individuals as “less-than-human” “subjects of inquiry.” This history continues to impact how archaeology and heritage management happen today. I suggest that, by critically examining this history, we can better understand how to facilitate ethical advances in the field.

EHRENWIRTH, Rebecca [215]

From Lacquer to Silver: The Transformation of the *erbe* 耳杯 winged cup in the Northern Dynasties

During the Warring States period and through the Han Dynasty, the *erbe* or winged cup was one of the predominant forms for lacquer wares. There are plenty of examples demonstrating not only the fine craftsmanship of this material, but also illustrating the prevalent motives and patterns of that time. Whereas *erbe* in the Han Dynasty have received great attention, *erbe* in the Northern Dynasties seem to be overshadowed by more spectacular findings such as imported Sasanian, Sogdian or Bactrian silverwares fully decorated with foreign-looking motives. However, the rare and somewhat neglected silver *erbe* in the Northern Dynasties are worth a closer look as they represent a transformation in style as well as an adaptation to foreign influences and an emerging new taste.

EHRICH, Richard [195]

Ceramic Production Techniques along the Middle Yangzi River from the Late 4th Millennium BC to the Early 2nd Millennium BC

While Neolithic cultures in China are mostly defined by the various stylistic characteristics of their ceramic assemblages, the different production techniques of ceramic vessels are rarely considered. By focusing on utilitarian ceramic vessel production techniques, I attempt to attain a new perspective on questions surrounding the formation and expansion of the Late Neolithic Qujialing Culture and other cultures in neighboring regions along the Middle Yangzi River dating from the late 4th millennium BC to the early 2nd millennium BC. I will illustrate how the concepts of "technique" and "tradition" can complement our definition of archaeological cultures by placing ceramic typological frameworks into the social and anthropological discussion of prehistory.

ERDENE, Myagmar [56]

Sexual Dimorphism of Pelvis and Parturition Scars in Archaeological Populations from Mongolia

The pelvis is a distinctive part in the human body for its unique structure and function. In this paper we examine sex/ age differences and parturition scars in pelvic bones of the archaeological populations from Mongolia. Skeletal remains from Xiongnu and Mongol Empire periods consisting of 140 individuals (63 females and 77 males) are used in the present study. The results of the study show some sexual difference in the pelvic morphology of the archaeological populations from Mongolia. Compared to the female pelvis, the male pelvis is relatively taller and the inlet is relatively longer from an anteroposterior perspective. High sexual and age association of occurrence of the dorsal pubic pitting in females may suggest that pregnancy might be the cause of its formation, whereas the presence of the preauricular groove in both sexes might be caused by the different factors.

FAN Anchuan [259]

Luminescence Dating of Neolithic Hearths in the Loess Plateau: New Controls for the Dating of Stone-walled Settlements at Shimao, Shaanxi

The site of Shimao is the largest stone-walled settlement site in northern China during the late Neolithic period. Previous dating of the Shimao site was based on two radiocarbon samples. A wooden beam embedded in the city walls yield a radiocarbon age of 2200-2040 BC, and a lime

plaster at a house foundation yielded an age of 1940-1780 BC. Our research focuses on determining the age of hearths in house foundations at the site. The availability of numerous datable house foundations and the high sensitivity of heated hearth samples allow for the temporal and spatial analysis of the site. The obtaining of dates for the hearths would aid in the creation of a comprehensive chronology of prehistoric human settlement at Shimao. The results of this work offer interesting insights into the formation of the earliest earthen and stone-built social and military structures in northern China.

FAN Rong [205]

Changes in Health and Nutritional Condition during the Adoption of Agriculture: A Case Study on Body Size Changes in the Beiqian Site, Shandong Province

It is generally thought that health trends in northern China declined during the adoption of agricultural lifeways. However, these observations have been based primarily on data drawn from inland sites. In this case study, we analyzed human skeletal remains from the Beiqian site, a coastal site in Shandong's Jiaodong Peninsula that can be dated to 5500-6100 BP. The duration of human occupation at this site is divided into three phases: early, middle and late. As one indicator of health and nutrition, stature and body mass were reconstructed based on the measurement of human long bones from each of these three phases. The result of intrapopulation comparison shows a fluctuation in the middle phase when the consumption of domesticated food increased. It could have been caused by the adoption of a new lifeway, or perhaps the migration from an inland area of a new population with agricultural lifeways.

FENELEY, Marnie [180]

Reconstructing God—Using Digital Techniques to Preserve Heritage: (*The West Mebon Viṣṇu in its Art Historical, Hydrological and Political Context*)

The fragmented massive bronze statue of Viṣṇu reclining that was found buried in the West Mebon temple at Angkor, Cambodia in 1936 has not previously been subjected to rigorous study. Detailed examination of the surviving fragments held by the National Museum of Cambodia was aided by digital reconstruction to produce a visualisation of the complete statue installed on the central platform of the temple. Although the sculpture has conventionally been dated to the reign of Udayādityavarman II (r.1050 – 1066), this detailed morphological and stylistic analysis points to it being a later transitional work. This conclusion is supported by archaeological excavation of the West Mebon by the Greater Angkor Project (University of Sydney), which indicates that the Viṣṇu replaced an earlier installation, and core samples taken from the pond indicate that it was cleaned and restored in the 12th century, suggesting the Viṣṇu was from the early reign of Sūryavarmān II (r.1113-1045+).

FILIP, Sonja [216]

Taming Beasts in Northern Wei Tombs: The Master/Mistress of Animals in Xianbei Art

Among the Northern Wei Dynasty metal fittings and rings for coffins, there is a peculiar group that shows a central human figure touching two flanking animals. As scholars of Chinese art and archaeology have pointed out, this motif resembles the master or mistress of animals—a theme which had existed in the Mediterranean world, the Middle East and Central Asia long before the Northern Wei era. The first examples from an archaeological campaign were found in the tomb with a lacquer painted coffin at Guyuan, Ningxia, discovered in the 1970s. Recently, more objects depicting this motif— among them not only funerary art but also jewelry items – have been

excavated within the territory of the Tuoba-Xianbei. This paper will demonstrate how the master/mistress of animals motif was incorporated into Xianbei decorative art and how it was adapted to the specific cultural context of the Xianbei.

FLETCHER, Roland / ARMSTRONG, Peter Garth [124]

Reviewing the Excavation at Moryangri and the Silla Capital

Existing views of the structure of the Silla Capital have been limited to the central plain area and reconstructions draw direct parallels to the Chinese Capital Plan. The recent excavation of a segment of urban development at Moryangri in the route of a planned KTX line has uncovered gridded settlement with pottery that dates the site to the United Silla Period. Lying outside the area defined by strategically located castles consonant with a defensible un-walled urban area, this discovery raises questions both of the nature of urban development and its extent. In terms of low density urbanism visible in existing data, the Korean mediation of Chinese modes and the relationship to the evolution of the Asuka capital is a corollary. This paper raises issues in the understanding of the growth and synergy of indigenous settlements, the selective interaction with Chinese patterns of urbanism and the subsequent maturation of a Korean urban model.

FRANKEN, Christina [231]

Architecture of Power in Nomadic Societies: New Results of Religious and Profane Architecture in the Mongolian Orkhon Valley

The German Archaeological Institute has been undertaking intensive research in close partnership with the Mongolian Academy of Science in the Mongolian Orkhon valley since 2000. The excavations are mainly focused on the so-called temple or palatial city of the old Uyghurian capital Karabalgasun whose walls, up until now, have remained more than ten meters. First results of the excavation indicate that this was an extremely impressive, tower-like building erected on an artificial platform being accessible through two solid gates. The size, the protective solidity of the walls as well as further architectural details suggest an originally essential function in the life of the city. Detailed scientific exploration including archaeological excavation has created many questions about the structuring criteria of the quarters (functional, ethnical) as well as about the city planning in general and the influences in architectural tradition.

FRICK, Patricia [219]

***Pingtuo* Lacquer Ware of the Tang Dynasty and its Foreign Influences**

The *pingtuo* 平脱 lacquer technique, which had its heyday during the Tang dynasty, involves gold and silver foil cut into designs and adhered to a mostly black lacquer ground. After applying additional lacquer the topmost lacquer layers are either peeled off the silver or gold foil, or they are burnished to display the overall design. Such *pingtuo* work is familiar both from pieces excavated in China, and from examples preserved in pristine condition in the Shō sō in, Nara, Japan. The technique is of Chinese origin without parallels in other cultures; its décors and motifs, however, were influenced by Indian and Persian models. Especially Sasanian motifs, such as hunting scenes, palmette-like trees, and the so-called *zeniao* birds, exerted great influence on the Chinese artisans who have accepted the foreign motifs and remodeled them according to their own taste. The paper explores the reception and re-interpreting of these décors in the field of *pingtuo* lacquer wares.

FU Yue [83]

Archaeological Study of "Cultural Norms" from the Shang to Western Zhou Dynasties

In this paper, we put forward three concepts: the dynasty "culture norms," "cultural system," and "cultural integration." Through this new perspective we observe, analyze and interpret the cultural relics of the Shang and Zhou dynasties, the local cultural relics and relationships between them, and we propose many new problems. We choose two aspects to clarify management process of the middle reaches of the Yangtze River between the two dynasties of the Shang and Zhou. One is the comparison of control of the area between them; the other is the analysis of overlapping and replacement of cultural norms. We use traditional archaeological theory of archaeological research on historical periods, and explore how to complete the study from the lower-level artifacts to middle-level cultural analysis, and extend this to the top-level social system.

FUJISAWA Shiori [57]

Joint Disease found on Human Skeletal Remains Excavated from Early-Modern Japanese Archeological Sites

Paleopathological stress indicators are one source of osteological data that presents an accurate image of people who once lived at a site. This paper includes observations of human skeletal remains excavated from Early-Modern Japanese archaeological sites in Kyoto and Aomori prefecture. By analyzing disease incidence and severity for each site, we can gain insights about the characteristic activities and habits of individual groups. Our study shows that they had several joint diseases. Among these joint diseases, onset factors for osteoarthritis and degenerative spondylosis, in addition to aging, were identified. Manifestations include the kinetic loads and mechanical stresses that continued over a period of many years. It is possible to think of these continuous loads as having been brought about as a result of customary activities, especially labor.

FUJITA Hisashi [58]

Cranial and Dental Stress Markers on the Human Skeletal Remains from Ancient Egypt QAU Site

The oral health and two cranial stress markers such as cribra orbitalia and porotic hyperostosis on crania in the human skeletal remains from ancient Egypt QAU site, housed in the University of Cambridge, were investigated. These materials show severe dental attrition, alveolar resorption caused by periodontal diseases and many dental caries. On the other hand, well-known cranial stress markers such as cribra orbitalia and porotic hyperostosis on crania were mild in many cases as well as enamel hypoplasias. The prevalence of dental caries is very high in comparison with those of modern African skeletal collections. Their alveolar bone resorption was relatively severe, and it was presumed that the frequency of periodontal diseases was high; however, the number of missing teeth was low until the late middle age. This study helps us to compare ancient and modern people in order to understand various problems and to find new paleopathological perspectives.

FUKUNAGA Shin'ya [144]

The Role of Foreign Prestige Goods in the Formation of the Yamato Government

The Kofun period (mid-3rd to 7th century), during which monumental keyhole-shaped mounded tombs were constructed, witnessed the emergence of the Japanese archipelago's first unified polity with the foundation of the Yamato government. In the Late Yayoi period, preceding the emergence of this central polity, the archipelago was divided into several regions with powerful independent local polities that utilized unique regional symbols, such as local bronzes, characteristic burial mounds, and ritual pottery. However, upon entering the Kofun period, these various indigenous regional symbols suddenly disappeared and were replaced by Chinese-made bronze mirrors (specifically, triangle-rimmed deity-and-beast mirrors), which appeared as burial goods in the mounded tombs of the elite (kofun) across a wide expanse of the archipelago. In the case of ancient Japan, state formation progressed not through conquest, but through regional consolidation; within that context, the author emphasizes the significant role played by imported prestige goods, based on their "foreignness".

GAKUHARI Takashi [17]

Bioisotope Analysis for Zooarchaeological Research on the Horse Production System and its Evolution in East Asia.

Among previous isotope researches in East Asia, carbon and nitrogen isotope analyses of bone collagen are generally used to reconstruct past diets of humans and domestic animals. However, the isotope analysis of hydroxyapatite is not often applied in East Asia, even though these isotope signatures are useful to evaluate the diet and habitat of animals. In this study, we tested the applicability of isotope analyses for hydroxyapatite of teeth, based on the influence of diagenesis alteration, sampling positions of teeth and paleo-environments. The bioisotope analysis was carried out using statistical analyses and geographic information models. There is high similarity of several isotope signatures from horse remains over time and space in East Asia. This similarity could be crucially important for discussing the diffusion model of horse breeding culture and the spread of horse populations around East Asia.

GERHART, Karen / LINDUFF, Katheryn [142]

Ornamentation that Enhanced the Standing of Human and Equine *Haniwa*

Ornamentation used in mortuary practice can be separated into two categories: one linked to religious belief and cultural traditions and another displaying the status of the deceased individual (Dierkens 1986). Moreover, objects in mortuary settings are thought to have agency in relational terms, acting in relation to each other and not singly (Strathern, M. 1988:273).

Ornamented *haniwa* figures that stood atop elite burials in early state-level Japan (4th to 6th C) displayed exotic embellishments and were placed in sets. These non-native types of paraphernalia and materials of manufacture applied to human beings and horses constitute a special category for interpretation. We will analyze Tomb No. 4, at Tsukamawari, Gunma Prefecture (first half 6th c.) as a case in point and contend that during a time of political instability and increased aspiration for power, these adornments documented elevated social order and ritual potency through referencing their remote origins.

GOMES, Amanda [272]

Symbolic Structures: Early Decorated Stone Chambers of Northern Kyushu in a Ritual Context

During the late 4th and 5th centuries, stone coffins were gradually replaced by chambers as the preferred burial facilities of tumuli of northern Kyushu. Concurrently, decorative practices once associated with the exterior of many of these coffins were included in the design of the interior of the tombs. This paper will explore the intrinsic relationship between decorative practices, tomb construction, and ritual context of an early stone chamber tomb known as the *ishiyakata*. These chambers contained coffin-like structures erected with the slab facing the entrance removed exposing the interior. While they are often interpreted as transitional spaces, the motifs applied within are rarely engaged in interpretations. The decorations were not merely reorganized within the chamber tombs, transplanted from one location to another. They actively constructed a ritual space that evolved with concerns for burying the dead.

GUAN, Garry [80]

Challenges and Approaches in English Renditions of Chinese Archaeological Materials

In the two years of Chinese Cultural Relics English edition's publication, the journal's translators and editors have continuously encountered challenges in properly rendering the ideas and concepts expressed by Chinese archaeological and historical texts. These challenges have included, but have not been limited to, taking into account constantly shifting usage trends in academia; coping with the inconsistency of expressions currently used by scholars in the field, a challenge compounded by the inundation of Internet sites inside China with "Chinglish" expressions used repeatedly (and treated as correct usage) by scholars and amateurs who are not native speakers of English; and finding alternatives to the prevalent easy-way-out approach of throwing massive amounts of Chinese text, or of terms in Pinyin, into English publications. This presentation will outline the varieties of these challenges, and will propose aspects of a guiding philosophy, and set forth some principles, for successfully and consistently dealing with them.

GUO Yanli [75]

Funerals and Sacrifices: Dynasties and their Neighbours as Seen through Chinese Bronze Weapons

Aside from state defence, Chinese bronze weapons had another social value: their use in funeral and sacrifice. In the Erlitou period, bronze weapons only had a funereal function, and were mainly found in the Erlitou culture, which was the most developed at that time. In the Shang and Zhou cultures, bronze weapons were mainly used for different classes of tombs; however, in the outskirts of the region they were used in sacrifices to nearby mountains and rivers. The dual system of bronze weapons, used in burial and sacrifice, indicates the uniqueness of the Shang and Zhou dynasties, and their surrounding areas. It shows that they had their own method of rule: the dynasties set up an underground political order through the formalisation of bronze weapons, whereas the surrounding area made sacrifices to the mountains and rivers in order to strengthen group cohesion.

GUO Yanlong [48]

The Cost of Bronze Mirrors in the Han Empire (202 BCE-220 CE)

This presentation investigates the market value of bronze mirrors during the Han dynasty. It reconstructs their monetary value reckoned in coins by engaging the scattered inscriptional evidence of price tags, estimated cost of raw materials and existing studies of the price history of the Han. Relevant data have been collected from transmitted and excavated texts, archaeological reports, art catalogues, and museum collections (one pivotal piece of evidence is currently stored in the Harvard Art Museums). An interdisciplinary strategy is employed, including a close textual reading of inscriptions, a quantitative analysis of the weights and diameters of mirrors using R software, and a compositional analysis of metallic elements from an economic perspective. The first empirical study of Han mirrors as commodities, this presentation critiques the conventional use of art historical criteria for assessing the value of a mirror and unveils the previously suppressed economic aspect of these specular discs.

HAN Jin-seong [157]

Belt Plaques of the Xiongnu Period as an Ethnic Indicator

Belt ornaments were a type of artifact that was both practical and displayed the wearer's authority in a pastoral society based on a mobile lifestyle. As one of the well-known pastoral states, the Xiongnu united several nomadic tribes on the northern side of the Great Wall of China in the 4th c. BCE and grew into a powerful polity that controlled most of northeastern Eurasia. It is estimated that the distribution of prestige goods must have been essential to their territorial expansion and organization. Among prestige goods, belt plaques must have played a role of reflecting solidarity and identity under the name of "Xiongnu." The analysis of archeological materials show that the Xiongnu-style belt plaques developed from the 2nd c. BCE to the mid-1st c. BCE and that the Xiongnu started to manage their organizations more efficiently around that time.

HE Nu [6]

The Gnomon Shadow Template from Taosi

In the past decade, I have excavated an observatory and a lacquer gnomon shadow template from Taosi 陶寺 in Shanxi Province, which might have been the capital of a state dating to 2300-2000 BCE. After a brief introduction about the archaeological context of the observatory and gnomon shadow template from Taosi, I will present the conclusions of the research, which is a collaborative work with Chinese astronomers. I will then discuss the cosmological significance of Taosi at an intellectual level, particularly the ideology of "Earth Center" (地中), in light of archaeological data from Taosi.

HE Xiaolin [240]

Archaeological Discoveries at the site of Taijiashi in Funan, Anhui Province

The Taijiashi site is a typical mound site in the Huai River basin dating from the Shang Dynasty. The site lasted from the Erligang period to the first stage of YinXu. Excavations in recent years revealed the settlement arrangement in the first stage of YinXu, when the site was divided into a residential district and cemetery separated by 200 meters. Surrounded by a square moat, the residential district contains a platform in the north and a yard and small houses in the south. In the northern part of the residential district we found two palaces (F2 and F12) built on the platform with a similar style and building scheme to those in Zhengzhou or Huanbei. We also

found a workshop for bronze casting with a walled structure (F16) near the palace. The discoveries show us the cultural features and settlement arrangement in the first stage of Yinxi in Huai River basin.

HEIN, Anke [4]

The Typological Orientation of Chinese Archaeology: A Reassessment of Methods and Problems

Chinese and Western archaeologists (especially those of the anthropologically-oriented tradition) often seem to be talking past each other, not only because they are publishing in different languages, but also because of differences in theory and method. While the major theoretical works in Western languages are by now available in Chinese translations, hardly any English-language publications exist that explain Chinese approaches to archaeological method and theory. This paper helps to bridge the gap, discussing in detail the merits – and issues – of approaches suggested by three of the most influential Chinese archaeologists (LI Chi, SU Bingqi, and K. C. Chang), this paper provides a deeper understanding of the preconditions of archaeological research in China. It also suggests future directions for archaeological work by local and foreign archaeologists, including but also going beyond the classification of the rich body of artifacts coming to light in Chinese excavations.

HEO, Jina [E1]

Socioeconomic Complexity and Landscape Change in Iron Age of Korea: Contrasting Household in Southwestern and Central Korea

This project examines how a changing socioeconomic system affected landscape change in Korea during Iron Age (200 BC- AD 300). The difference in size, form, and structure of houses and cooking practices play a crucial role in understanding the development of socioeconomic system at a regional scale in relation to landscape change. As a trade partner, political and economic relationship with Han commanderies have significant influence on adoption of socioeconomic strategy by decision-makers of "Mahan" in southwestern Korea and "Baekjegurk"/"Ye" in central Korea. Furthermore, the different ecological condition of two regions facilitates the divergent subsistence economy. With these factors, a larger scale household is appropriate to maintain and control intermediary trade in central Korea while a number of singular families are necessary to develop the intensive agricultural system in southwestern Korea. I contrast these case studies, attributing the divergent trends to distinct historical trajectories of household organization and socio-economy.

HERNANDEZ, Mauricio [13]

Ecology, Subsistence and Cultural Admixture – A Biomechanical Reconstruction of Routine Activities Across Northwest China's Prehistoric Exchange Networks

We present a preliminary study of mechanical stress patterns resulting from long-term subsistence change and inter-cultural contact along prehistoric trade routes, 1800 years before the founding of the Silk Road throughout Eurasia. Around 2200 BCE, climate cooling began driving nomadic pastoralists eastward, in search of sedentary societies from whom to obtain agricultural produce. Settled groups, in turn acquired Central Asian jade, new western cultigens, grazing animals, and innovations such as bronze metallurgy. The principal aim is to identify whether progressive shifts to an agro-pastoralist economy, or the start of metal-working, may have impacted the skeletons of individuals and populations residing in the regions of eastern Xinjiang, southern Gansu and eastern Qinghai. We employ biomechanical methods to assess

changes in limb robusticity and mobility indices from midshaft cross-sectional geometry, comparing sites, time and gender, to provide comprehensive reconstructions of past routine activities across a cultural bridge connecting eastern and western civilizations.

HERNANDEZ, Mauricio [170]

A VERY Sick Tomb: A Case Study of Infectious and Metabolic Disease at Yanghai, Turfan Basin, Xinjiang Province

This paper examines skeletal paleopathology in tomb M101 at the Yanghai cemetery, located in Shanshan County, Xinjiang. Multiple-burial interments composed of adults and children have been found, possibly representing familial funerary customs. Recent research at the site has uncovered high levels of metabolic disease related to iron deficiency. Moreover, isotopic studies confirm that although meat consumption was common, between 1200 and 700 BCE certain subsets of the population experienced unstable nutrition. From ten burials within tomb M101, five children and two adults display osteological changes consistent with infectious and metabolic disease. After a thorough differential diagnosis, incorporating ecological and cultural factors, our results indicate that poor childhood nutrition was likely prevalent. Moreover, adult bone lesions strongly point to non-venereal treponemal disease, suggesting spread via long-range trade networks. These findings provide new insights into the diet and dynamics of intercultural contact at this site, situated along an important prehistoric exchange route.

HILL, David V. / SCIAU, Philippe / ZHU Tiequan [100]

A Comparative Study of Three Related Yuan Dynasty Qinghua Chargers

A closely related group of blue-and-white Yuan Qinghua chargers are studied, with an objective to establish the possible origins and sources of productions of two of the most iconic blue-and-white Yuan Qinghua types of vessels extent, which may or may not have verifiable archaeological contexts. The group includes excavated samples, including Yuan Qinghua sherds recovered from the kilns of Jingdezhen and four magnificent blue-and-white Yuan Qinghua chargers: one located in the Tokapyi Palace, a second formerly in the Sheikh Safi al-Din Khanega and Shrine and now in the National Museum of Iran, Tehran. The only matching counterparts to the Tokapyi and National Museum of Iran chargers come from the Estate of Yamashita. The proposed group also includes sherds of a related fragmentary charger from the same estate. The goal of the present study is to design an objective research protocol for executing a detailed non-invasive as well as invasive laboratory comparative research.

HOSOYA, Leo Aoi [183]

Processing, Storage and Symbolism of Wild Nuts in the Past and Present: Comparative Ethnoarchaeobotanical Studies of East Asia and USA

Recent archaeobotanical research revealed a high significance of wild plant food, particularly nuts, in East Asian prehistoric subsistence, even in early agricultural periods in Chinese rice farming area (eg. Fuller et al. 2009). To develop the discussion, we need to reconstruct not only which plant people exploited but also how they scheduled the uses of wild and cultivated resources. Ethnographic research of modern traditional culture will provide such knowledge to be usefully referred to the archaeological interpretations. However, in China, so far almost no research from this ethnoarchaeological scope has been done, therefore, while developing the new research in China, it is needed to construct some theoretical framework to support that, referring to ethnographic studies of other temperate zones. In Japan and USA (native American), there are

good accumulation of ethnographic studies on wild nut and other food resource exploitation, and thus their comparative study is conducted for the purpose.

HOULE, Jean-Luc / BYERLY, Heather [227]

Climate and Causation? The Rise and Expansion of the Xiongnu Empire

Climate has been debated by historians and archaeologists as one possible contributing factor for the emergence and collapse of complex societies. Recently, connections have been proposed between an ameliorating environment, surplus resources, energy, and the rise of Chinggis Khan's 13th-century Mongol Empire. If favorable climate and increased rangeland productivity do indeed play a critical role in the politics of pastoral nomads, we should be able to observe this in other cases too. This paper aims to evaluate the role that climate might have played in the rise and expansion of the Xiongnu Empire (3rd century BC to 2nd century AD), using regional-scale archaeological data and climate reconstructions in Mongolia. Our paleoclimate data show a dramatic change in temperature and precipitation in central Mongolia during the Xiongnu period and enhanced productivity in the heartland of the empire. Climatic amelioration could thus have provided ample resources for strengthening the new unified leadership, although the picture is more complex.

HSIEH, Ellen [174]

Spanish Colonialism in Asia: A Multiscalar Perspective

Spanish colonial activities in Asia were crucial in terms of the shaping of local and global histories during the early modern period. However, scholars pay less attention to these remote European colonies than those on the other side of the Pacific. This research examines multiple archaeological sites that are related to Spanish colonial history in Asia in northern Taiwan, highland Luzon (Ifugao), lowland Luzon (Manila), and Visayas, and shows that historical archaeology of the Philippines is an excellent case study of archaeology of colonialism. Under a multiscalar temporospatial framework, this comprehensive study aims to break away from the influence of modern nationalism and show the various trajectories of cultural encounters from proto-historical to historical eras in different locations in island Southeast Asia, which are usually neglected by the traditional concept of colonialism.

HSU Yiu-Kang / SABATINI, Benjamin [52]

Thermodynamic Insight into the Production, Circulation, and Recycling of Ancient Chinese Coinage

This paper presents the novel application of thermodynamic modeling towards understanding the gradual and spontaneous changes in the chemical composition of Imperial Chinese coins between 221 BC and 1911 AD. Thermodynamic models of relevant ancient metal systems (e.g. bronze and brass) were created to explain the occurrence and combination of coin metal types. These models also explain the compositional change of recast/recycled coinage over time. Past studies of Chinese coins have generated vast chemical datasets - numbering over 2000 in total (Zhou 2004) - that are interpreted here using thermodynamic method and theory, and compared to historic accounts of coin alloy production. Despite the supposed standardization of coin alloy percentages, coin data may not adhere to their prescribed recipes. This mismatch is likely due to metal recycling/mixing in specific socio-economic circumstances. We attempt to decipher the chemical compositional variance of Chinese coins for the better understanding of China's ancient economy.

HU Yaowu / ZHANG Hua [279]

Isotopic Evidence of Cattle Domestication and Management during the Neolithic in Shaanxi, China

As a large herbivore, the domestication of cattle has received much attention in the fields of archaeology and anthropology. It is generally believed that the occurrence of the domesticated cattle in China can be traced to about 5000 years ago and suggested to be imported from the West. However, the existence of the bovid bones at the archaeological sites earlier than 5000 years ago challenges this assumption and the question of cattle domestication in China, independent of the development in the West, remains unsolved. This presentation introduces the isotopic data of large fauna including the bovid bones from the Neolithic in Shaanxi, aiming to understand the mechanism of cattle domestication in China through dietary comparison between the wild and the domesticated animals.

HUANG Chao [35]

Jade *Yazhang* Blades of the Phung Nguyen Culture in North Vietnam and Relations with China

A total of eight pieces of elaborately crafted artefacts named *yazhang* blades have been recovered from Phung Nguyen and Xom Ren, two Phung Nguyen culture sites in North Vietnam during the past three decades, but their provenience remains ambiguous. Similar artefacts have been found widely in China, for example at Shimao, Erlitou and Sanxingdui. Some Vietnamese archaeologists have highlighted the debate about the origin of these enigmatic blades in recent years and they proposed that they were local products, while Chinese scholars suggested that these mysterious artefacts were imported from China. Through the analysis of raw material, style, and technology, this empirical study reveals that at least four pieces of *yazhang* blades in Vietnam were imported from Sanxingdui, while the rest were possibly local products. The research findings will build a better understanding of the process of interregional interaction between ancient China and Vietnam during the early Bronze Age.

HUANG Tsuimei [244]

Complex Cultural Affinities as Observed in the Jade and Stone Ornaments from the Aristocrats' Burials of the Yu State of Western Zhou

Since 1975, more than 20 social elites' graves of Western Zhou period, interred with rich grave goods, were excavated from cemeteries along the banks of the Wei River in Baoji region. Cultural traits observed on the stone and bronze artifacts unearthed from these graves suggest that Baoji had functioned as an important gateway, through which the cultures in the Chinese Northwest and Southwest communicated with the Central Plain during the early historic periods. On the other hand, inscriptions on the excavated bronzes suggest that the aristocrats of the Yu state had maintained close ties with their peers in other Zhou states, and the members of the Ji clan at the Zhou court. Based on an examination of the excavated stone ornaments, this work interprets various patterns and trajectories of interaction between the Zhou and the non-Zhou people and among the Zhou states that took place in and around the Central plains.

HUNG Ling-yu / CUI Jianfeng / LIN Shu-feng / WANG Hui [196]

Machang Pottery: Technological Innovation and Social Change in Late Neolithic Northwest China (ca. 4300–4000 BP)

Microscopic observation and physicochemical analysis conducted in this study identified a new type of mineral inclusion—analclime—among some Machang type painted pottery made in late Neolithic northwestern China. Analclime was present only in the Machang type painted pottery made in the lower Huangshui River valley, but not in non-painted pottery made in the same region, contemporary Machang type pottery made in other regions, or pottery of earlier/late phases found in northwestern China. Our study found that potters who adopted this new technique were able to provide their pots to consumers across a wider region than potters who did not. Inter-regional exchange was intensified along with the emergence of this new production technique. This case study provides an opportunity to investigate how technical innovation could have restructured production and circulation systems among non-state level societies.

JAFFE, Yitzchak [1]

Cooking on the Side: Use Wear Analysis of Siwa Saddle-shaped Mouth Jars from the Site of Zhanqi

The double handled *ma'an* 马鞍 or saddle-shaped mouth jar is the artifact most closely associated with the Siwa 寺洼 Culture found in the Gansu province (ca. 1400-700 BC). *Ma'an* jars are abundantly found at Siwa sites and like many other archaeological objects in China, are unearthed almost exclusively from burial contexts. They dominated Siwa burial assemblages and were clearly an important funerary object that most likely played a central role in the burial ritual. This paper presents the results of a study conducted on over a 100 *ma'an* jars excavated from the Zhanqi site in the Tao River valley, Gansu. As with most jars and jugs, the function of the *ma'an* jar is understood to be for storage; to hold grain or liquids. In contrast, I find clear traces of cooking practices and suggest a new interpretation for the *ma'an* jars as well as for their unique saddle-shaped mouth.

JIN Hetian [65]

Early Subsistence Practices at Prehistoric Dadunzi in Yuanmou, Yunnan: New Evidence for the Origins of Early Agriculture in Southwest China

Dadunzi in Yuanmou County is an important prehistoric site located in northern Yunnan in the Jinsha River region. The flotation results of plant remains in the Dadunzi site retrieved during excavations in 2010 yielded the earliest evidence for rice and millet agriculture in Yunnan dating to 4000 BP. The flotation samples taken from the site are dominated by agricultural crops and weeds associated with agriculture, indicating that the main source of subsistence at the site was agriculture, apparently a mixture of dry-land agriculture and rice farming. The dry and hot river valley in which Dadunzi is located provides the ideal environment for such a mixed form of agriculture which seems to have persisted over a considerable period of time.

JIN Zhengyao [255]

An Examination of Gear-shaped Bronzes in Prehistoric China

The first bronze gear-shaped object was found in Taosi, Shanxi Province. The excavator named it bracelet as used for ornamentation. However, some scholars argued that 29 teeth of the object represent the days of the lunar month. Recently, four similar gear-shaped objects were discovered at Shimao site. One of these has 12 teeth, two have 13, and one has 23, which argues against the

astronomical hypothesis. Although wearing gear-shaped objects as ornaments might be uncomfortable, such use is suggested by the discovery of similar artifacts which are believed to have been worn on the arm and dated to later periods in southwestern China and Korea, in which even sharper teeth are discovered. The occurrence of bracelets in the highest status tombs from Taosi and Shimao suggests they symbolize social status and prestige of the owners. The symbolic meaning of these objects appeared early in prehistory and developed further in the Bronze Age.

JO So Eun [156]

Rituals and Ethnic Identity of Pazyryk Culture in Russian Altai

The Pazyryk burials are a series of Scythian Iron Age tombs in the Altai Mountains, Siberia, south of the modern city of Novosibirsk, Russia; the site is close to the borders with China, Kazakhstan, and Mongolia. The tombs are characterized by the so-called Scythian kurgans—high, enormous mounds—containing wooden chambers covered by large cairns of boulders and stones. They yielded harnesses, weapons, and animal ornaments that date from the seventh to the first centuries BCE. This study involves a basic analysis of the ritual ceremony of the Pazyryk culture as well as the social identity influencing the structure and materials of the Pazyryk kurgans in the Altai Mountains region.

KAMIJO Nobuhiko [186]

Research on Macrobotanical Remains of the Horse Chestnuts and Manchurian Walnuts from a Waterlogged Site of the Latter Half of the Jomon Period in Northeastern Japan

Nakayama site in Akita Prefecture (dated to the latter half of Jomon period) is located in the northern Tohoku region. It is a waterlogged site and remains of horse chestnuts and walnut shells were found in large quantities. The remains were water-sieved through 3 mm mesh. The size of the nuts was measured, and the existence of wormholes and baking marks were examined. The result showed that the proportions of premature nuts and nuts with wormholes were low compared to other regions. It was also shown that, at the time people started sedentary life in the area, in the case of horse chestnuts the size of nuts became larger and their shape changed from globular to flat, so the range of size became narrower. The size of walnuts also became slightly larger. In addition, many of walnuts were cracked vertically in a certain way, and experiments were conducted to reconstruct the cracking method.

KANER, Simon / CRAWFORD, Gary [8]

The Archaeology of Sea-borne Trade and Urbanism along the Medieval Japan Sea Coast

This paper examines the archaeological evidence for trade along the Sea of Japan coast during the medieval period in Japan in the light of Amino Yoshihiko's argument in favour of a series of 'urban' trading centres developing at this time. He re-situates the study of medieval Japan from the perspective of the sea, a theme further developed using historical sources by Peter Shapinsky in *Lords of the Sea*. The presentation builds on studies published in *The Archaeology of Medieval Towns*: case studies from Japan and Europe, including Tosa Minato on the northern tip of Honshu, and explores the relationship between such settlements and better known medieval urban centres such as Sakai, Hiraizumi and Kamakura. The paper concludes with a consideration of the significance of the archaeological record for understanding this complex period, and what the archaeology of medieval Japan can offer the developing field of global medieval archaeology more generally.

KANER, Simon / CRAWFORD, Gary / LEE Gyoung-ah [81]

Writing the Archaeology of Korea and Japan

This paper will explore the issues that have arisen in the compilation of the *Oxford Handbook of the Archaeology of Korea and Japan*, a comparative volume dedicated to the archaeology of these two regions attempted for the first time in English. We will explore in particular how the notion of historical ecology can be used as a framework for examining similarities and differences in cultural trajectories on the peninsula and the archipelago.

KANG In Uk [154]

Faces of Old Joseon or Eastern Barbarian (Dongyi): Ethnic Identities of Bronze Mask Figures of the 1st Century BCE from Northeast China

This presentation intends to analyze the meanings of mask figures expressed in the molds excavated in Liaoyang Tawancun, Liaoning Province, which is considered to be part of Gojoseon's territory in the 6th-5th century BCE. The artifacts were the result of the expansion of advanced bronze metallurgy from Liaoxi to Liaodong. Mask figures of very similar shapes were later found at Mao'ershan of Fuyu in Jilin and dated to the 1st century BCE. These findings mean that Gojoseon and Fuyu shared ideology and symbolism with each other with the spread of bronze metallurgy during the first millennium BCE. Like this, the similarity in the mask figures of Liaoning and Jilin provinces shows homogeneity in symbols and ideologies based on developed metallurgy rather than in ethnic identity, sharing a different ideological and symbolic system from the current concept of blood ties based on the ethnic concept.

KIESER, ANNETTE [218]

Traces of “the Other” in Six Dynasties (AD 220-589) Tomb Findings

During the Six Dynasties three different groups formed southern Chinese society and contributed to shaping the associated culture. First, were northern Chinese refugees who after the fall of Western Jin to non-Chinese tribes in AD 312 took over the political power in the South. Second, were Chinese land-owning settlers who had started moving south as early as the Han-Dynasty. Third, were local natives having retreated to the mountainous regions of the South in response to the continuous population pressure of the Chinese. Using the archaeological evidence, mainly from tombs in the South, my paper will show how these three groups cross-fertilized each other in shaping a “Southern Culture”. It will also show to which extent influences from the northern steppe or other cultural groups in Asia were incorporated in this process.

KIKUCHI Hiroki [16]

Evolution of Horse Production and Management System in ancient China

Classic ancient literature such as *Zhouli* and *Liji* document the year-round schedule of horse production in ancient China. Although the officials running the system varied with the season, further details of this management system remain unknown. In this study, we combine zooarchaeological, stable isotope (C) analyses and historical studies from three sites dating to 11th-2th c. B.C. to investigate this horse production system. Our results indicate that grazing and feeding regimes varied according to age and sex of the horses. Further, this system appears to have developed during the Western Zhou and was well established in Han Dynasty.

KIKUCHI Seiichi [B1]

Archaeological Survey in Hoian, Vietnam

Hoian was a port-city in central Vietnam. I report the results of archaeological surveys in Hoian and discuss the Japanese merchant network in the Japanese town built in the 17th century.

KIKUCHI Yuriko [253]

Archaeological Survey of Hoards excavated in Central Vietnam

Through the comparison between description from ancient documents and results of archaeological investigation of hoards excavated in the central Vietnam, I consider the copper coins circulation in early modern Vietnam.

KIM Jongil [117]

Craftsmanship in the Korean Bronze Age - Focusing on the Concept of 'Techne' and Bronze Casting

Although various social aspects on the Korean Bronze Age have been spotlighted in Korean and East Asian archaeology for a long time, there still remain untouched many research questions. Bronze casting systems and craftsmanship with its social significance is one of those questions. For example, the way that various types of bronze objects in Korea were manufactured has been gradually unveiled based upon material evidence such as stone molds. Furthermore, how and to what extent did bronze casting and manufacture (technological change) accelerate and condition social transformation, on what social structures would this bronze casting have effects, and even the social role of bronze craftsmen have not been unquestioned so far. In this paper, I suggest a tentative interpretation on these key questions with a brief review and examination on the concept of 'Techne', fully discussed by Heidegger.

KIM Jongil / KWON Ohyoung / KIM Byeonjoon / HWANG Chulsoo / CHOI Woonho [232]

Distribution and Placement of Kurgans in Central Eurasia

In recent years, material culture in Central Eurasia has been newly spotlighted within European archaeology. It has been suggested that 'cultural diffusion' including migration from Central Eurasia, such the Pontic-Caspian region, would have had a great impact on European prehistory, evidenced by horse domestication, war chariot and metallurgy (e.g. The Kurgan hypothesis by M. Gimbutas in 1960's and D. Anthony's theory in 2000). It has been recently acknowledged that various ethnic and political groups of the eastern part of Central Eurasia established a close cultural relationship between these two regions, which would eventually motivate a cultural change in East Asia. As a first step for any further research on this topic, this paper suggests a tentative result on the implication and the potentials that the Kurgan culture of these regions such as Kazakhstan and Mongolia, drawn from compiling and establishing systematic Kurgan database associated with GIS technology and spatial analysis.

KIM Nakjung / KIM Chorong [122]

The Keyhole-shaped Tombs of the Korean Peninsula – A Consideration on Tombs, Nationalism, and the Overlooked Role of Local Society

The southwestern region of the Korean Peninsula witnessed the construction of approximately ten keyhole-shaped tombs over a short period of time from the end of the fifth century to the early sixth century CE. These tombs are almost identical to the Japanese keyhole-shaped tombs of the Kofun Period. Research on the background of their appearance and the identity of those

responsible for their construction has been heavily influenced by state interests and the issues of present-day nationalism. In order to properly understand the meaning of the Korean keyhole-shaped tombs, the political geography of East Asia around the time of their construction must be taken into consideration. In particular, the local society's position within the East Asian political landscape and the ways in which members of the local society responded to this landscape is discussed in detail, providing the backdrop against which the Korean keyhole-shaped tombs are examined.

KIM Sun-Woo [161]

The Origination and Succession of Cultural Identities in the Korean Bronze Age

Material culture and the landscape reflect the cultural identities of people who live in a specific region. The cultural changes during the Korean Bronze Age (c. 1500–400 BC) are attributable to the development of rice agriculture as their subsistence economy, which was a factor in the selection of locations for settlements and monuments. GIS and Bayesian modeling were used for spatial and chronological assessment, respectively. The results revealed that monuments tended to be distributed within the boundary of a 5 km site catchment for each settlement, adjusted for energy expenditure. These boundaries appeared to correspond to the “auspicious area,” as defined by the concept of Pungsu, or geomancy, in later periods. It is suggested that the origin of this kind of cultural identities lies within the Korean Bronze Age.

KNAPP, Keith [92]

"Sanitizing Filiality: The Changing Iconography and Pantheon of Filial Piety Tales in Pre-modern China"

Beginning in the Han Dynasty, stories of filial heroes became ubiquitous. Images of these tales were used to decorate tombs and funerary goods. This paper examines how these illustrations changed from their first appearance in the Han Dynasty through the late imperial period. Although a small number of stories were continuously depicted, there were significant changes in which tales were displayed and how their details were portrayed. Han dynasty illustrations emphasize the father-son relationship, whereas those of the Northern Wei stress filiality's miraculous power. The Song/Yuan pantheon of illustrated filial children is noteworthy for its large number of female exemplars. Reflecting the influence of Guo Jujing's canonical *Poems of the Twenty-four Filial Exemplars*, late Yuan and Ming portrayals marginalize filial females and omit tales that mention parental wrongdoing. In sum, there is a gradual shift to eradicate unsavory filial practices, such as filial cannibalism, and emphasize the importance of sonly obedience.

KO, Jada [22]

Heritage, Landscape, and Local Communities: A New Form of Public Archaeology in China--A Case Study in Gansu

J.G. Andersson's archaeological work in the 1920s in Gansu brought a succession of archaeologists including Xia Nai and recently, Rowan Flad to this region for subsequent investigations. There are also successive lineages of local peasants who encounter frequent intrusions by archaeologists in their villages and sometimes hired on as laborers in field projects, but who do not have equal access to excavated heritage. This paper, a sub-project of the Tao River Archaeological Project, aims to situate local communities in the discourse of archaeology and heritage within their landscape. By tracing the changes in relationships between landscape and people in the contexts of ethnic division and land reforms, this paper discusses locals' connection to their landscape and their subsequent access to heritage. The question of “who does heritage belong to?” in China

should also be directed towards local populations because of their participation in creating heritage within their local landscapes.

KO, Jada [A5]

Archaeologists as Filmmakers: Archaeology and Local Communities

Field diaries of archaeologists often contain more than just archaeological information; they also document individual encounters with local communities. One such published diary belonged to Xia Nai. This film documents the journey, during the 2015 field season of the Tao River Valley Project, of the filmmaker and her colleague in search of the descendants of the local people mentioned in Xia Nai's diary entries from 1945 during his investigation in the Tao River Valley in Gansu. The filmmaker takes an existentialist and self-reflexive approach in tracing the succession of archaeologists who worked and are working in the Tao River Valley including J.G. Andersson, Xia Nai, Rowan Flad, and the filmmaker herself and how this relates to the lineages of local people encountered by these archaeologists. This film acts as a medium for archaeologists to engage with local communities.

KO Ilhong [115]

Reassessing the Garakdong Culture of the Korean Bronze Age through an Examination of the North Korean Archaeological Material

The Garakdong culture is one of the key cultural assemblages of the Korean Early Bronze Age; in the archaeological record, it is represented by the common appearance of double-rimmed pottery, rectangular houses with stone footstones for posts, and stone-lined hearths. This culture is believed to have been directly transplanted, in its completed form, from the regions of the Cheongcheon and Amnok Rivers in northern Korea to its core distribution area in southern Korea (the upper reaches of the Geum River) by migrating populations. However, a detailed re-examination of the North Korean archaeological literature reveals that the distribution areas of double-rimmed pottery and the distinctive 'Garakdong-type dwellings' in northern Korea are in fact mutually exclusive. Therefore, an alternative process by which the Garakdong culture came to be established in southern Korea through the merging of cultural elements that had originated in different regions of northern Korea is proposed.

KOBAYASHI Masashi [185]

Cooking Pottery Use-wear Analyses to Reconstruct Rice Cooking Methods of Early Rice Farmers in Japan and Middle China

Rice cooking methods of early rice farmers in Japan and the Yangzi area were reconstructed by use-wear analysis of ceramic cooking pots. First, in the cooking pot assemblage of Japanese Yayoi rice farmers (ca. 1000 BC to AD 250), rice cooking pots (middle sized, over 3 liters) were distinguished from side-dish cooking pots (small sized) by volume based on the presence of intensive carbon deposits on the base and a higher frequency of ceramic covers which correspond to the mouth diameter of middle sized pots. Two lines of evidence show that the rice cooking method of the Yayoi rice farmers was identical to that of modern Southeast Asian rice farmers, being characterized by 1) water-taking (removal of excess water) immediately after overflowing, and 2) side heating during the steaming stage. Yayoi farmers are likely to have used non-sticky type rice, which is common among modern Southeast Asian farmers.

KOST, Catrin [67]

The Role of Monuments in Shaping Mobile-Pastoralist Landscapes in Bronze Age Northwest China

The relationship between humans and landscapes is a dialectic one. An important part of the human lifeworld, landscapes influence the behaviour of people, just as people constantly shape the surroundings they engage with. One way of shaping landscapes is erecting monuments. Linked with the changing practices of the people that create and use them, monuments may serve a number of different purposes and also influence how landscapes are structured and perceived. This paper focuses on monuments at Sandaohaizi, a late Bronze Age ritual complex located in the Altai Mountains of modern-day Xinjiang. A large number of 'khirigsuurs' – stone mounds surrounded by a concentric arrangement of satellite mounds and sometimes marked by deerstones – were erected here in the 1st millennium BCE and shape the local landscape until this day. The paper introduces the site in more detail, reflecting upon the factors that contributed to its biography.

KOVALEV, Alexey [164]

A Ritual Complex of Chemurchek (Qiemuerqieke) Culture at Khar Chuluut in the Highlands of the Mongolian Altai

In 2015 a joint expedition headed by A. Kovalev and Ch. Munkhbayar excavated a ritual complex of the Chemurchek (Qiemuerqieke) Culture about 100 km from the major site of this culture. The complex includes a rectangular stone platform measuring 25 by 35 m, the walls of which are composed of vertical slabs. In ancient times, these slabs were decorated with images of deities, demons (ancestors?), animals, and different signs. Some images are similar to megalithic art in France, a series of images is similar to the petroglyphs of Kazakhstan and the Altai Mountains. The repertoire of images allows us to trace the broad connections of Chemurchek Culture and reinforces the idea of the origin of this culture is from Western Europe.

KWAK Seungki [E5]

Pottery Usage and Prehistoric Subsistence during the Middle Bronze Age, West-Central part of the Korean Peninsula

This study attempts to understand prehistoric human subsistence using organic geochemical analyses on the potsherds from Songguk-Ri, a prehistoric Middle Bronze Age (c.a. 2600-2300 BP) habitation site located in the west-central part of the Korean peninsula. In the central Korean peninsula, the transition from hunting and gathering to farming is associated with the Bronze Age. However, due to the high acidity of sediments that does not allow long-term preservation of organic remains, we lack critical information related to the subsistence of the Bronze Age people. Organic geochemical analyses on archaeological ceramics endeavor to be precise about types of food groups that was cooked or stored within a pot by attempting to isolate and identify the specific organic compounds trapped in the fabric of its wall. This research provides a unique chance to understand ancient subsistence through the direct examination of potteries.

LADUC, Elizabeth [A1]

Technical Study of Ceramics from the Qijia Culture

In 2006, the Harvard Art Museums acquired the Walter C. Sedgwick Collection of early Chinese ceramics, including almost 20 vessels attributed to the Qijia culture of northwest China. The vessels were the subject of a technical study to answer questions about manufacturing

techniques, specifically details of formation and decoration, as well as to identify any later restorations. By examining the ceramics with x-radiography, x-ray fluorescence spectroscopy, and documentation techniques such as RTI (reflectance transformation imaging) and ultraviolet photography as well as by performing replication experiments, new insights were gained into the production process as well as into surface decoration, including different texturing methods and the use of paint.

LAM Hau-ling Eileen [252]

From Mythology to Representation: *Sheng* and Its Iconography in Han Burial Ritual

According to records in pre-Han and Han texts, *sheng* is rendered as a peculiar headdress of Xiwangmu, the Queen Mother of the West. With the belief in Xiwangmu being closely connected to immortality during Han times, *sheng* was not only presented as a hair ornament worn by Xiwangmu on mural painting or relief imageries in Han tombs, but it also became an independent motif for different forms and materials of objects found in Han and beyond mortuary contexts, such as jade *sheng* pendants, gold *sheng* ornaments, etc. Although *sheng* was singled out from its original substance, Xiwangmu, the association between these two subjects was strongly maintained. By looking at different representations of *sheng* in the periods, this paper seeks to investigate the ideology of the form of *sheng* in relation to the belief of immortality and the role of other iconographies in the burial ritual throughout the Han times.

LAM Wengcheong [204]

The Re-evaluation of the Iron Industry and its Regional Variation in the Warring States Period

This study addresses a long-standing debate regarding the potential relationship between the Qin unification and its iron industry. Through comparing iron objects from burial contexts in the Jin, Qin, and Chu state, this study aims to understand the variation in the scale of iron production between these cultural zones and to identify if the iron industry in the Qin state presented any unique trajectories. Results show that no indicator can unambiguously prove any superior aspect of iron industry in the Qin state. In contrast, the Yangtze River valley appeared to adopt cast iron production more widely than the two other regions. Archaeological evidence clearly falsifies the assumption that there was a simple one-to-one correlation between the development of iron technology and superiority in the unification wars. This study also raises the concern with the Yangtze River as an important but underexplored region for the study of iron metallurgy.

LANDER, Brian [129]

The Ecology of Subsistence in the Neolithic Guanzhong Basin

Most research on Neolithic subsistence focuses on the domestication of plants and animals. While this is reasonable given that domestication laid the foundation for human civilization, it often leads scholars to overemphasize the importance of food production and thereby underestimate foraging, fishing and hunting in people's annual caloric budget. This paper uses a case study of Shaanxi's Guanzhong basin to ask how important domesticates were in people's lives at different points during the Neolithic and suggest that it was only in the Warring States-Han period that food production fully displaced fishing, gathering and hunting from people's diets in the region. Based on this, I will emphasize that theories of "low-level food production" developed by scholars in other parts of the world are essential for understanding the Chinese Neolithic.

LANKTON, James / GRATUZE B. [222]

Understanding Early Asian Potash Glass: New Insights from Chemical Analysis and Archaeology

In contrast to soda glass, where recent advances have made it possible to source many soda glass objects excavated in Asia and Africa to distinct production zones, Asian potash glass, although common throughout much of Asia as early as the 4th c. BCE, has been resistant to a useful classification. We present here the synthesis of over 1000 high quality LA-ICP-MS (laser ablation-inductively coupled plasma mass spectrometry) analyses of potash glass found from western India to Korea, from the mid-1st millennium BCE to the early 2nd millennium CE, and will suggest at least eight sub-groups with both chemical and geographical meaning that we hope will help archaeologists working in East Asia to answer such questions as from where, by whom and, even sometimes, when.

LAURSEN, Sarah [138]

Dressing the Dead in Jin China

It has long been said that bronze was the prestige metal of ancient China, yet sites from Shang times onward have yielded small amounts of gold. Quantities increased in the Warring States period, when gold began to appear as inlay in belt hooks and plaques. By the Han and Jin dynasties, a wide array of gold items was available to royal and aristocratic patrons. The consistency in the form and decoration of gold personal adornments over the century and a half of the Jin dynasty points to the continuity of certain mortuary beliefs and customs. In this paper, I will investigate the gold finds in tombs scattered throughout the Jin territories in the north and south. By surveying their contents and the identities of the tomb occupants, I will assemble a more complete picture of the standard burial costume for elites in the central areas of Jin control.

LEE Hsiu-ping [198]

Active Selection by Local Elites: Contextualizing the *Jue* in the Erlitou and Lower Xiajiadian Cultures

This presentation explores contact between the Erlitou and Lower Xiajiadian Cultures through the perspective of technology, economy, and social change with a contextual approach focusing on the *jue* 爵, one of the most representative tripodal drinking vessels of the Erlitou Culture. *Jue* manufactured in an Erlitou Culture context were not directly traded to Lower Xiajiadian Culture sites; however, the local elites of the Lower Xiajiadian Culture actively absorbed the manufacturing technology, social function and symbolic value of *jue*. The introduction of the concept of the *jue* from the Central Plains was not the main cause for the local social changes, but its adaptation and usage reflects the significant social differentiation in the Lower Xiajiadian Culture context. The contextualization of the *jue* in the Erlitou and Lower Xiajiadian Cultures illustrates how an approach connecting technology, economy, and social change can help us to understand interregional culture contact in prehistoric China.

LEE Hyunsoo [D3]

A Comparative Perspective across Early Holocene Northeast China and Korea: An Archaeobotanical Study of the Houtaomuga site, Jilin Province

The Early Holocene period was a time when the environment and people in northeast China and the Korean Peninsula experienced significant changes. Jilin Province, China, is an extremely important region for tracing long-term environmental and cultural interactions between China

and Korea over 10,000 years. Archaeobotanical study in Jilin Province in particular can contribute to reconstructing vegetation changes and related trajectories of agricultural development throughout early China and Korea. The Houtaomuga site, located in Da'an city of Jilin Province, is one of the earliest Holocene occupations in northeast China and has generated abundant data from the Early Holocene to early historical period. This study mainly focuses on macro-botanical data from the Houtaomuga site, applying a comparative perspective across Early Holocene northeast China and Korea. This research may be highly relevant in understanding coeval circumstances in Korea and a comparative perspective is vital in comprehending these correlated prehistoric transitions and cultures.

LEE Jeong-Bin / LEE Kyoung-Sup [160]

Ethnic Nationalism of Old Joseon Archaeology in North Korea

The purpose of this study is to investigate dramatic changes in the description and background of Old Joseon archaeology and history as first introduced in North Korean textbooks in 1993. One reason was the discovery of the Dangun Mausoleum in 1993. Since then, studies have been conducted under the premise that Dangun was a historical figure. Textbooks in North Korea include the existence of Dangun as a historical fact. Dangun's lifetime and achievements are described in detail, based on various myths and legends; and the dynastic archaeology and history of 3,000 years is introduced. The content of North Korean textbooks was revised has been revised since the 1970s, with nationalism as a main focus; after the discovery of the Dangun Mausoleum, the concept of "one-blood nation" was emphasized. These studies were undertaken under the leadership of Kim Il-sung and Kim Jong-il, to strengthen their dictatorial government when their regime was facing a crisis.

LEE Jinok [E2]

Landscape Evolution and Land-use Strategies in the lower Yellow River Valley, 8000-2000 BP

Cultural trajectory of the Yellow River catchment is closely linked to the alluvial history of the Yellow River and its tributaries. Over the Holocene times, the alluvial landscape of the Yellow River catchment has presented both opportunities and hardships to the agrarian communities residing within it. At the same time, human societies have developed various land-use strategies to insure a better adaptation to the environmental fluctuations. I present results of geoarchaeological and microbotanical (phytoliths) investigations I conducted in multiple localities in Shandong Province, including Heze, Rizhao, and Qufu. The research focuses on ca. 6000 years in the region, from the Early Neolithic to the Han Dynasty (8000-2000 BP). Through the combination of geomorphological and phytolith analyses, I attempt to illustrate the complex and integrated feedback process of environment-landscape-human interactions in the lower Yellow River valley.

LEE Namkyu / KIM Kwonil [120]

Experimental Archaeology on the Smelting of Iron in Ancient Korea

Experimental archaeology on ancient iron smelting was carried out in March of 2015 at the grounds of the Iron Museum in South Korea. The structure of the smelting furnace and a procedural manual for the smelting of iron was reconstructed through the cooperation of researchers from various fields, such as archaeometallurgy, archaeology, ethnoarchaeology, as well as the involvement of iron and ceramic craftsmen. The structure of the furnace was based upon Furnace C-24, excavated at the site of Geumgok, Milyang in 2012 and dated to the 6th

century CE. The procedural manual was based upon archaeometallurgy theory, the experience of previous furnace reconstruction experiments, and the know-how of iron craftsmen. The results of the experimental work have been promising thus far, and additional experiments are planned that will act to supplement previous experimental research.

LEE Nanhee [223]

A Study of a Goryeo Dynasty Incense Box with Angel Design in Mother-of-pearl Inlay

The use of incense in ritual and ceremony was widespread in Korea's Goryeo dynasty (918–1392), as attested by the numerous incense containers and other implements produced. Cases and boxes in mother-of-pearl are particularly noteworthy. The use of mother-of-pearl reached a high level of sophistication in the Goryeo. With external pressure from the Liao (916–1125), Jin (1115–1234), and the Yuan dynasty (1271–1368), versions of the Tripitaka (Daejanggyeong) were carved to appeal for divine assistance in combatting invasions (the Kitan in 1011 and the Mongols in 1231). To contain the scriptures, mother-of-pearl sutra boxes were manufactured on a large scale. The technology was carried over into the making of incense boxes and cases, which were used for Buddhist and other rituals.

LEE, Rachel [D8]

Changes in the Organization of Craft Production in Mumun Period Southern South Korea

During the Mumun Period (ca. 1500-100 B.C.) in southern South Korea, the organization of craft production underwent a significant transformation. In the Early Mumun Period, craft production was wholly household-based but by the Middle Mumun Period, some crafts began to be controlled at the supra-household level. In this presentation, data from Pyeonggeo-dong and Daepyeong in Gyeongnam Province are analyzed. Changes and continuity in the organization and production of ceramics, stone tools, and non-utilitarian items such as ornaments and daggers are documented. The relationship between changes in the organization of craft production and broader social changes in Mumun society in the region are examined.

LEI Yu [267]

New Discoveries at the Sanxingdui Site in Recent Years

From 2012 to 2015, the Sichuan Provincial Institute of Cultural Relics and Archaeology carried out many archaeological excavations at the Sanxingdui site, and a number of important cultural artifacts were discovered, including (1) Rammed-earth walls: Five rammed-earth wall remains of the Early to Middle Bronze Age newly discovered at Qingguanshan, Zhenwugong, Mapigu, Lijiayuanzi and Cangbaobao. Because of these discoveries, the outer city of Sanxingdui city site can be confirmed and defined, some signs of a small inner city located in the northeast of the outer city have also been found; (2) Large burnt-earth houses: Three large burnt-earth house remains of the Shang Period were found on the Qingguanshan rammed-earth platform. One was over 1,000 square meters in size, which makes it the largest house remain of the Shang Period in South China.

LI Bo [258]

Luminescence Dating of Feldspars: A Powerful Tool for Dating Archaeological Sites of the last 0.5 Million Years

Chronology is a critical component of geological and archaeological studies. Compared to radiocarbon dating, which is widely used to estimate the age of environmental and archaeological events that occurred within the last 50 thousand years (ka), luminescence techniques are commonly used to date events in the last 200 ka. Quartz has been widely used for luminescence dating, but it can often only absorb a few hundred grays of radiation energy (typically 200–400 Gy), which effectively restricts its application to events in the last 200 ka. Recently, luminescence dating using feldspars have been developed, which has a great potential to date archaeological sites of the last 0.5 million years or even older. This presentation will discuss the advantages, limitations and potential of this technique and provide some examples of applying this technique to date archaeological sites in Southeast and East Asia that contain important human fossils and artefacts.

LI Jian [23]

Changes in the Role of the Chinese Government in Cultural Heritage Protection

In China since 1930, “all antiquities buried underground and exposed from the underground are owned by the state”. Naturally, the government is then the main body protecting and preserving cultural heritage. This situation is conducive to cultural heritage protection when public awareness of cultural heritage protection is low. However, a series of problems have gradually appeared with this protection mode. One problem is that the huge expenditure on cultural heritage protection has become a heavy financial burden on government, particularly in a developing country. Another problem is the incorrect decisions about cultural heritage disposal made by the government without considering the public’s suggestions. The government recently began to change its role in cultural heritage protection in light of these problems. Individuals and social organizations have been allowed to participate in the conversation on cultural heritage, and the role of government has changed from protection to supervision.

LI Min / FANG Hui / ZHENG Tongxiu / Rachel LEE / Henry WRIGHT [250]

Archaeology of the Song Royal Ancestral Landscape

The brief but significant fluorescence of the Jingling Palace, the Song royal ancestral shrine under the royal patronage of Emperors Zhenzong and Huizong, left behind some impressive archaeological remains in Qufu, Shandong. Its rapid rise to eminence as the sacred landscape marking the mythical origin of the Song royal ancestor was followed by equally rapid destruction, iconoclasm, and erasure following the Jurchin invasion. This important site, therefore, became relatively unknown to historians and archaeologists despite its relatively recent date and royal patronage. Our archaeological research unravels the tensions and transformations at the Shouqiu site, which created a complex palimpsest in the archaeological landscape.

LI Sheng-Hua [256]

Firing Temperatures of Pottery estimated by Luminescence Techniques

The firing temperature of pottery is a key feature for the development of the manufacturing techniques. Luminescence techniques, including thermoluminescence (TL) and optically stimulated luminescence (OSL) thermometers, have been widely used for estimating of firing temperatures of both archaeological and geological samples. It is found that the OSL sensitivity and 110°C TL sensitivity of quartz mineral in the materials can be used as thermometers to give a

range of the firing temperatures. These thermometers can be misleading, if the quartz has been exposed to a large dose of ionizing radiation post the firing. This presentation will review the developments of this technique, provide new insights concerning techniques of combining thermometers, and compare the similarities and differences in archaeological pottery and geological baked layers from volcanic activities.

LI Shuicheng [202]

From Agriculture to Nomadism: Ganguya as a Case Study

During the prehistoric period, western China experienced two large-scale processes of cultural diffusion: The first occurred in the first half of the 4th Millennium BC (Miaodigou Phase, Yangshao Culture); the second in the second half of the 3rd Millennium BC (Longshan Horizon). Behind these instances of cultural diffusion was the migration of agricultural groups, similar to the diffusion of Near Eastern agricultural civilization to Europe. The environment of western China was very unlike that of Europe, however, and the migrating farmers had to adapt to high altitudes, extremely arid climate, and harsh environments. The increasingly strengthened interaction between east and west and the introduction of cattle, sheep/goat and especially barley, eventually led to the formation of a suitable local semi-agrarian, semi-pastoral economy, laying the foundation for the future emergence of the nomadic economy. The present paper showcases these developments based on the material unearthed from the Ganguya site, Jiuquan, Gansu Province.

LI Xiaoqiang [C5]

Early Wheat Agriculture, Bronze Smelting, and Pictographs in the Hexi Corridor, Northwest China

Ancient migrations and the spread of technology across Eurasia are major elements of the human story, and preceded what became known as the age of the Silk Road. Here we report evidence from two sites in northwest Gansu, China. They record human activity from about 2100 BC including wheat, barley, oat and millet agriculture, bronze smelting and pottery making. These are amongst the oldest dates for wheat grains in eastern Asia. Markings and fingerprints on pottery show that these early Bronze Age farmers were using pictographs that predate the oracle bones in China. Thus the three important factors of the bronze technology, wheat agriculture, and pictographs were packaged together and expanded into the Hexi corridor in the same time and blended with pre-existing local cultures and millet agriculture around 2100 BC, which followed the climatic drought event around 4.2 ka.

LI Xiuzhen [77]

Functional Bronze Weapons for the Qin First Emperor's Afterlife

Thousands of terracotta warriors were buried in the underground tunnels close to the First Emperor of Qin's Mausoleum in order to protect him for his afterlife. This terracotta army was equipped with over 40,000 functional bronze weapons, including swords, lances, halberds, spears, crossbows, arrows, and *su*, a type of ceremonial weapon. This presentation aims to investigate their practical and ritual roles, biographies, and to extract more information from such large quantity of bronze weapons about the Qin workshop, arsenal, battle fields, and the formation of the terracotta army. Furthermore, human behaviour and labour organisation will be explored to interpret the management of weapons production, serving the real army and contributing to the afterlife in the early centralized Imperial China.

LI Yinghua [277]

A Macroscopic Technological Perspective on Lithic Production of Hominids from Early to Late Pleistocene in the Hanshui River Valley, Central China

Over the past few decades abundant Paleolithic remains, especially stone artifacts have been unearthed in the Hanshui River Valley, providing new data for studying human behavior in during the Pleistocene in China. Based on technological and techno-functional method and recent discoveries, this paper reviews the Paleolithic sites of the Hanshui River Valley and studies representative industries to reveal the homogeneity and variability of lithic production and human behaviors in this region. In terms of operative schemes, the débitage and façonnage coexisted in nearly all of the sites and showed evident continuity and stability during the Pleistocene. For débitage, the Type C was present in nearly all sites. For façonnage, the operative scheme 1 (unifacially-knapped, on matrix of simple chisel) was predominant. It is also expected that more extensive dating analysis would enable construction of more detailed chronological sequence of the Hanshui River Valley.

LI Yiping [282]

Social Differences between Songze Culture and Liangzhu Culture as Reflected through Jade Artifacts

Liangzhu Culture (3300 – 2000 BC) and Songze Culture (4000 – 3300 BC) are two Neolithic cultures in the lower Yangtze River Delta in China. These two cultures are quite similar in many aspects, especially those reflected in ceramics. This research explores the difference of social hierarchy between these two cultures through an analysis of jades collected from over 20 archaeological sites in the Lake Tai region. I argue that jades from the Songze Culture are precious materials and seen as a symbol of wealth; in Liangzhu Culture, jades become sacred and are more exclusively accessible to the ruling class.

LI Yongxian [108]

Early Rock Art in the Indus River Valley in Eastern Tibet

Recent archaeological discoveries have shown that the Indus River Valley in the eastern part of the Tibetan Plateau is one of the main areas of distribution of rock art in East Asia. The rock art that is densely distributed in this region not only reflects constant interaction with nomadic groups in Central Asia from 1000 BC to AD 700, but also show a certain homogeneity that indicates their belonging to a common cultural zone. This paper presents an analysis of the rock art, arguing for early local formation of a “core imagery” reflecting the worship of certain deities; later, this imagery influenced or expanded to other parts of the Tibetan Plateau. Among all of the rock art on the grasslands of the Tibetan Plateau, the images found in the Indus River Valley of western Tibet thus reflect the essence of this expression of early beliefs and cultural practices.

LIN Kuei-chen [203]

Environmental Decay and Changes in Production on the ancient Chengdu Plain

Earlier studies of several Neolithic and Bronze Age settlements in Sichuan suggest that the quality and/or size of craft products changed over the course of several spans of time, including the late Baodun and late Sanxingdui periods towards the end of the third and second millennia BC, respectively. On the Chengdu Plain, these changes occurred first in pottery and then in other elements of material culture. They also coincided with other phenomena, such as the shift of population centers that marks important social changes. The cause(s) for these changes are mysterious. Clues, however, might exist in the environments and natural resources under and

through which these products were produced. This survey examines floral evidence and compares the manufacturing and sourcing of a variety of material cultures. My statistical classification of the dimensions of pottery vessels also suggests a novel division of social groups, which earlier research methods have missed.

LIU Chao-Hui Jenny [49]

GIS Research on the "Mountain" Satellite Tombs of Tang Taizong's (598-649 CE)

Zhaoling 昭陵

The Zhaoling imperial cemetery has been recorded in texts and portrayed in images as a sacred site for more than a thousand years. Taizong's tomb on top of Jiuzong (Nine Peaks) Mountain (Jiuzongshan 九嶷山) is surrounded by more than two hundred satellite tombs. This paper seeks to present the first scientifically measured coordinates of thirteen satellite tombs "on the mountain" of the Mountain of Nine Peaks. The field walking of over 100 kilometers will be analyzed for primary sites and meaningful patterns.

LIU Jiangtao / JIN Guiyun [132]

Study of Archaeological Rice of the Haidai Region, East China

Rice-millet agriculture was an important foundation for craft specialization and then social complexity in the Haidai Region during the Longshan Period (5000-4000 cal BP). Our new archaeobotanical data indicate rice-millet agriculture was established during the Beixin - Early Dawenkou Culture period (6000-5000 cal BP). Given the close relationship between the Houli Culture and the people in the Huai River valley, it is reasonable to suggest the rice exploitation of the Houli Culture and the early development of rice-millet agriculture in the Haidai Region might be the results of communications with East China.

LIU Miao [96]

The Discovery of Spanish Colonial Coins of the 16th - 18th century along the Southeast Coast of China

Since the beginning of the 16th century, maritime trading contacts with Europe emerged as Portugal and Spanish navigation to eastern Asia occurred, creating a new era of maritime history characterized as the globalization of Eastern Asian local communities. Silk and porcelain of China, spices of Southeast Asia, textiles of India, silver of the Spanish colonies and Japan were all important materials and media. Since Columbus' discovery of America, European settlers mined and transported silver abundantly into Asia for trade. In the last 50 years, archaeologists of southeast China have discovered hundreds of historical coins originating from Spain and Spanish American colonies, which related to this globalizing trading. This paper will give an analysis of these materials and shed light on early maritime trading between East and West.

LIU Li / WANG Jiajing [201]

The Origins and Development of Alcohol Production Methods and Drinking Rituals in Ancient China

Ritualized drinking has been an important cultural element in religious ceremony, and certain forms of ceramic vessels associated with making and drinking alcohol were developed in ancient China. These vessels vary in time and space, and such variations are closely related to both social contexts and brewing technological developments. Socially, ritualized drinking may help reinforce community solidarity, or create and maintain social status for individuals in a

community. These diverse purposes may be achieved by different ways of drinking, involving different types of drinking vessels. Technologically, various brewing methods produce different types of alcoholic beverage, which may have also affected ways of drinking. We report the earliest microbotanical and chemical evidence for beer making in the Yangshao culture, explore the origins of diverse alcohol making technologies in prehistoric north China, and investigate relationships between alcohol production methods and the development of various traditions of drinking ritual in the Neolithic times.

LIU Yan [219]

Exotic Elements as Seen in Gold Ornaments of Han Elite Tombs

Recent excavations of the tomb of the King of Jiangdu 江都 (d. 128 BC) at Dayunshan 大云山, Xuyi 盱眙, Jiangsu province have unearthed a variety of artifacts. This paper focuses on the gold ornaments with exotic elements found in the Dayunshan site and other elite tombs in the Western Han Empire (3rd century BC--1st century AD). They have been generally considered as prestige goods from the Western Asia. However, the common features in technical tradition, iconography and functionality suggest these gold ornaments were probably made by official Han dynasty workshops. The technique details provide a revealing context to analyze how new foreign techniques such as filigree, granulation and mold pressing were appropriated by local artisans under imperial rule. The new archaeological material also enables us to examine how indigenous cosmological and cultural notions determine the ways of gold were used in Han China, with a comparison with their nomadic neighbors.

LIU Yu [63]

A Study of the Smelting and Casting Technology of Copper and Copper Alloy Wares from the Central Plains in the Early Bronze Age of China

Casting technology played a more significant role in the formation of Chinese ancient civilization than any other early civilization. However, little is known about the beginning and early use of piece-mold casting technology in early Bronze Age of China. Through analysis of metal, slag, clay-mold and crucible samples unearthed from sites such as Taosi (2300 B.C.-1900 B.C.), Xiangfen County, Shanxi province; Xinzhai site (1850 B.C.-1700 B.C.), Xinmi County, Henan province; and Erlitou site (1800 B.C.-1500 B.C.), Yanshi City, Henan province, the early use of copper and the beginning of piece-mold casting techniques are discussed. The usage of piece-mold casting technique to make artefacts can be traced to Taosi period and became the major method of casting vessels in Erlitou period. It seems to be a start of forming the technology tradition by using high silt and low clay material during the whole Bronze Age in China.

LIU Zhiyan [270]

The Luojiagou Site of the Han Period in Sichuan

The Luojiagou site is the most important discovery of the Han period in China. It is located on the northern bank of the Jinsha River. We revealed 8 house-foundations, 13 tombs, 18 pottery-firing kilns, 82 ash-pits, 9 cooking ranges, and a total of 1700 objects. The excavation results indicate that the site consists primarily of three areas for dwelling, handicrafts, and human burials, date from the mid-and-late Western Han to the Eastern Han Period.

LU Hongliang [64]

The Multi-resource Economy of early Tibet: Evidence from the Site of Bangga, Central Tibet

The site of Bangga is located in the Yalun Valley of central Tibet, the region considered to have been the origin of Tibetan Empire, and which is also the major crop-producing area of Tibet. In the summer of 2015, we conducted excavations at this site. This presentation will briefly describe this season's finds. Based on the artifact assemblages, we consider the occupation at the site to extend from the Neolithic to the Iron Age periods. The timing and nature of the emergence of agriculture on the Tibet Plateau is being debated, yet, at Bangga, we have evidence that agriculture was practiced along with pastoral transhumance. This multiresource economic system combined pastoralism and hunting with the cultivation of a variety of crops. Bangga thus provides the earliest clear evidence for the presence of agriculture from Central Tibet.

LU Houyuan [C1]

Earliest Tea as Evidence for One Branch of the Silk Road across the Tibetan Plateau

Phytoliths and biomolecular components from ancient plant remains from Chang'an (Xi'an, the city where the Silk Road begins) and Ngari (Ali) in western Tibet, China, show that the tea was grown 2100 years ago to cater for the drinking habits of the Western Han Dynasty (207 BCE - 9 CE), and then carried to central Asia by ca.200 CE, several hundred years earlier than previously recorded. The earliest physical evidence of tea from both the Chang'an and Ngari regions suggests that a branch of the Silk Road across the Tibetan Plateau, was established by the second to third century CE.

LU Jouchun [273]

A Typology of Chinese Ceramics and Consumption Patterns in 8-11th Century Japan

In ancient Japan, the spatial distribution and types of imported Chinese ceramics from the 8-11th century C.E. present significant differences from those of later periods. Imported Chinese ceramics belonging to the 8-11th century are called "early trade ceramics." While past studies have considered the type, style, and typochronology of early trade ceramics, the shapes and distribution patterns have not been the focus of significant research. As ceramic shape is usually associated with function and art style, it is believed to have been taken into consideration in consumption and therefore reflect consumer preference. This paper develops a new typology of early trade ceramics, giving special attention to the shape of ceramics unearthed from China, the place of production. This typology clarifies transitions in style and type within China, the place of production, and illuminates differences from Japan, the place of consumption, thus revealing the consumption patterns of ancient Japan.

LULLO, Sheri [137]

Ornamenting the Chignon: Women's Hair and Hairstyles in Han China

Chinese women of the Han period (206 BCE-220 CE) are known for their chignons hairstyle. Whether knotted simply and hanging low about the shoulders or piled high upon the head, hairstyles figured prominently in a woman's social presentation. Especially in the latter half of the Han, hairpins and other ornaments were used to enhance these styles. One embellishment can be observed commonly throughout imagery of the period: a trailing lock of surplus hair elegantly cascading down from the chignon. Though a single strand of hair, it figures prominently in depictions of women and should be understood as charged with social significance. This paper addresses the origins and prominence of the trailing lock through its many iterations in tomb

figurines and carved and painted murals, and proposes that it be viewed as part of the greater bodily silhouette, where it functioned to accentuate graceful comportment, carrying with it notions of high rank and class

LUO Wuhong [347]

Phytolith Records of Rice Agriculture during the Middle Neolithic in the Middle Reaches of the Huai River Region, China

The Shunshanji site is one of the earliest archaeological sites identified in the middle reaches of Huai River. Phytolith analysis was conducted on 66 samples from 3 exposed profiles at the Shunshanji site. Based on morphological characteristics of phytoliths, the presence of rice phytoliths possibly from domesticated rice, *Oryza sativa*, suggests that rice agriculture was well developed, and that dry farming had not reached in the area before 8,500 to 7,000 BP. In addition, the continuous occurrence of a large percentage of rice phytoliths that fall into wild or intermediate types indicates that rice agriculture was relatively primitive, and that gathering-fishing-hunting still was the main subsistence strategy at Shunshanji. These results can also give some clues for drawing the temporal-spatial route for the northward spread of rice cultivation and southward spread of dry farming in China.

LYU Meng [253]

The Manufacture and Utilization System of Roof Tile in Yecheng in the Northern Qi Dynasty, Focusing on the Roof Tiles Unearthed from the Hetaoyuan No.5 Architectural Site

Yecheng (邺城), in the southern part of Hebei (河北) Province, China, is believed to be the prototype of Chang' An (长安) in the Tang Dynasty (唐) and many other contemporary cities in East Asia. Previous studies of Yecheng ignored the artifacts and dynamic construction process. Here I will focus on roof tiles, the most common artifact from the ancient city, which contain abundant information about the handicraft, architecture and social life they offer. The roof tiles unearthed from the Hetaoyuan (核桃园) No.5 Architectural Site, which was a gate of a royal Buddhist Temple during the Northern Qi Dynasty (北齐, 550-577 AD). I will show the lifecycle of these roof tiles, their production, supply, use and discard. Then together with the remains from other areas of Yecheng, I will elucidate the manufacture and utilization system of roof tiles, as well as the underlying social life in this medieval city.

MA Minmin [71]

Isotopic Evidence of Dietary Shift in Northwestern China

Stable isotopic analysis of carbon and nitrogen in human and animal bone collagen has been applied to address various topics related to early agriculture in north China. This study traces the extent of dietary change and the factors influencing such change. The isotopic evidence indicates that human diets mainly consisted of C4 foodstuffs around 4000 calibrated years before the present (cal yr BP), corresponding to the flourishing of millet agriculture in the context of the optimal climate conditions of the mid-Holocene. Subsequently, more C3 foods were added to human diets post-3600 cal yr BP when the climate became cooler and drier. Such dietary variation is also consistent with the increasing intensity of long-distance exchange after 4000 cal yr BP. While many factors can lead to human dietary shifts, climate may have been a key factor in Gansu and Qinghai.

MA, Mitchell [E3]

Enhancing the Interpretative Value of Flotation Sampling: Preliminary Results from Yangguanzhai, Shaanxi Province, People's Republic of China

The introduction of flotation has allowed the recovery of macro-botanical remains in a larger quantity than ever before. However, it is still difficult for archaeologists to recover everything as they cannot float through each and every grain of soil for plant remains. As a result, sampling strategies are employed. In China, the standard practice for sampling is 5-10 liters of soil with a focus towards inter-feature variation. Needless to say, the potential for recovery bias is clearly visible. This paper presents the preliminary results of systematic flotation at a well-defined pit feature at the Neolithic site of Yangguanzhai, People's Republic of China. The author critically utilizes a combination of horizontal and vertical excavation strategies to enhance the interpretative value of macro-botanical remains from flotation during collection; showing important information are lost when archaeological features are treated as a single, homogeneous unit.

MA Sai [245]

Social Changes in the Late Western Zhou Period at Zhouyuan from the Perspective of Archaeological Remains and Bronze Inscriptions

Zhouyuan, located in Shaanxi province, northwest China, is one of the most important royal cities in the Western Zhou period. Studies of newly excavated archaeological remains at Zhouyuan including residential areas, workshops, cemeteries and bronze hoards have revealed dramatic changes took place in the jue-earring and bone workshops and the bronze foundry during the first stage of the Late Western Zhou period (877-771 BC). These changes may have been related to the newly rising noble families identified through inscriptions on bronzes from the hoards at Zhouyuan. These emerging noble families might also be the driving force that caused the exile of King Li recorded in transmitted texts.

MA Yongchao / YANG Xiaoyan [127]

Implications of Rice Bulliform Phytoliths for Rice Domestication in the Neolithic Lower Yangtze River Region

Recent studies have shown that the proportion of rice bulliform phytoliths with 9 fish-scale decorations can be used as a criterion to differentiate wild rice from its domesticated counterpart. The analysis of rice bulliform phytoliths recovered from 38 samples collected from eight archaeological sites dated between 10,000–2,200 BP suggests that the process of rice domestication in the Lower Yangtze River region lasted for around 6000 years and can be divided into three stages. During Stage I, from around 10,000 to 6,500 BP, the process of domestication was very slow, and even experienced reversals. In Stage II, between 6,500 and 5,600 BP, the process accelerated. During stage III, from 4,500 to 2,200 BP, the domestication process eventually resulted in the breed of modern rice.

MA Zhikun / YANG Xiaoyan [126]

Early Millet Use in the West Liaohe Area during the Early–middle Holocene

It is generally recognized that millet agriculture originated in northern China. However, the domestication process of foxtail millet (*Setaria italica*) and broomcorn millet (*Panicum miliaceum*) is poorly understood. The West Liaohe region is one of the earliest regions of millet cultivation. Here, we report on ancient starch grains recovered from 12 stone grinding tools from eight sites

of the Xiaohexi culture (before 8.5 ka BP), Xinglongwa culture (8.2–7.4 ka BP), Zhaobaogou culture (7.0–6.4 ka BP), and Hongshan culture (6.5–5.0 ka BP). Our results indicate that the proportion of wild millet starch grains decreased from the Xiaohexi culture to the Hongshan culture while millet starch grains of size classes recorded only in domesticated foxtail millet, increased. These data imply that the process of millet domestication in the West Liaohe region began in the Xiaohexi period and continued up to the Hongshan period.

MAKAREWICZ, Cheryl / PEDERZANI, Sarah [263]

Oxygen and Carbon Isotopic Insights into Iron Age Livestock Mobility and Funerary Practices in the Xiongnu Confederation

Xiongnu burials frequently contain parts of domesticated sheep, goats, cattle, and horses. Establishing the dietary life histories of these animals can provide information on animal husbandry strategies, mobility, and mortuary practices. Oxygen and carbon isotopes in herbivore tooth enamel record geospatially sensitive environmental and dietary inputs on seasonal scales. Here, we establish the relationship between environmental oxygen isotope sources, tooth carbonate $\delta^{18}\text{O}$ values, and animal mobility through analysis of oxygen and carbon isotopes from the incrementally sampled teeth of modern domesticated sheep, wild argali, and wild ibex with limited home ranges inhabiting the Mongolian Gobi steppe desert. We then examine carbon and oxygen isotopic series obtained from Iron Age sheep teeth in order to assess the relationship between livestock management, mobility, and provisioning of Xiongnu burials. Iron Age animals with different mobility and dietary histories may indicate animals collected from multiple household herds or variation in husbandry strategies.

MARUYAMA Masashi / NAGAI Kenji / OYABU Yumiko / FUJISAWA Shiori [10]

Changes in Cut Marks on Animal Remains from Prehistory to the Historical Age in Japan

Cut marks identified on animal remains from archaeological sites relate to butchery practice or the making of bone tools. This presentation will extensively review cut marks on animal bones excavated at various sites in Japan ranging in time periods from the prehistoric Jomon to the Edo period (1600-1868 CE). The features of the cut marks in each period are comparatively assessed to address the meaning of their changes. It is considered that cut marks provide insight into the social backgrounds of the makers; therefore, it is useful to identify the reuse of bone tools or recycling of animal bones. This paper discusses how the processing of bones changed over time, as well as how the technology shifted from stone tools to metal tools.

MATSUGI Takehiko [146]

Warrior Ideology and Political Authority in Kofun Period Japan

Warrior ideology introduced from the Asian continent and Korean peninsula significantly contributed to the development of social stratification from Yayoi to Kofun Periods (tenth century B.C. to sixth century A.D.). I identify the following five sequential stages: 1) the introduction of polished stone daggers from the Korean peninsula.; 2) the Japanese adoption of Korean bronze daggers, spears, and halberds; 3) imports of Chinese iron helmets and swords to be treated as prestige goods in Japan; 4) deposits of large quantities of iron armor and weapons in burials, a change triggered by interaction with the Korean peninsula; and 5) the development of the practice of horse riding and swords with decorated pommels or hilts. Stages 3 to 5 were contemporaneous with the appearance of, drastic increase in the size of, and decline in the construction of keyhole-shaped mounded tombs as the symbol of authority.

MATSUMOTO Keita [226]

The Seima-Turbino Phenomenon and 'Exchanges' in the Eurasian Steppes

In the 2nd millennium B.C. a unique bronze complex spread in the Eurasian Steppes - the Seima-Turbino phenomenon. We can see these types of bronzes also in Northern China, where the local metallurgy was beginning at this time. According to Dr. E. N. Chernykh the Seima-Turbino bronzes were developed in the Sayan-Altai region and spread westward with population movements. In this presentation, we analyze spears of the Seima-Turbino bronze tradition and launch a new model of the process of diffusion of the Seima-Turbino bronzes. We point out that with the passage of time the Seima-Turbino spears came to be bigger and gradually lost their function as weapons. This fact indicates the unique nature of the Seima-Turbino spears and helps to consider the background of their spread.

MERRETT, Deborah C. / ZHANG Hua / XIAO Xiaoming / ZHANG Quanchao / WEI Dong / WANG Lixin / ZHU Hong / YANG Dongya Y. [206]

Inferences from Age of Stress Exposure: Exploring Lifeways in Bronze Age Northeast China

The unworn and minimally worn anterior teeth of 90 individuals from Bronze Age levels of Houtaomuga site in Jinlin Province, China were examined macroscopically for location on the labial surface of lines of enamel hypoplasia relative to the cemento-enamel junction. From estimated ages of enamel formation across the tooth crown surface, the age of occurrence of stress exposure was calculated for each sample. Variation in timing of growth cessation and recovery from birth to 5 years, as recorded in the enamel of the anterior dentition, are explored within the cultural and environmental contexts of the mixed farming economy of Houtaomuga ca. 2000 years BP. This study examines the bioarchaeology and life histories of young children in the Bronze Age of Northeast China.

MILLER, Allison [91]

Jade Suits and Royal Power: Illuminating Artistic Production in the Regional Centers of the Western Han

Jade suits (*yuyi* 玉衣) represent a unique innovation in Han burial culture. More aptly termed jade encasements (*yuxia* 玉匣), the suits covered the deceased's entire body and were comprised of thousands of jade plaques sewn or tied together with metallic wire or silk thread. Prior research on jade suits has focused on the religious implications of the suits and their connection with China's earlier jade tradition. This paper will instead investigate the suits' role in manifesting the identity and power of the Western Han local aristocracy. Taking into account geological, archaeological, and textual evidence, it will be proposed that many jade suits were not issued by imperial workshops but were produced locally, reflecting local jade traditions and trade networks. The case of jade suits will be used to suggest a new paradigm for understanding the relationship between imperial and regional centers during the Western Han.

MIYAMOTO Kazuo [171]

Social Change of Herding Society Viewed from the Stone-Slab Graves in Mongolia

I will focus on the new chronology of the stone-slab graves based on the results of the Mongolian and Japanese joint excavation from 2008 to 2015. The stone-slab graves can be divided into three types; the square graves, the figured graves, and the stone-slab graves which are the typical stone-slab graves in the past. The process of change grave structure of the square graves, the figured

graves and the stone-slab graves is proved by the AMS dating of the human bones or the sacrificed animals. The square graves originated from the South-western Mongolian Plateau and spread to eastward. The square graves were modified into the figured graves in the Middle Mongolia. Two types of burial customs, the square graves and the figured graves gradually changed. At around 800 years BC, the squared graves and figured graves changed to the stone-slab graves.

MIYOSHI Gen [145]

External Influence and Uniqueness in Dwellings and Settlement Structure, Yayoi and Kofun Japan

In this presentation, the author investigates the nature of social complexity in the Japanese archipelago through an analysis of the dwellings and settlements of the Yayoi and Kofun periods to demonstrate both their continental influence and uniqueness. At the beginning of the Yayoi period, the architectural elements, such as moated villages and Songguk-ri-type dwellings were introduced with wet-rice agriculture from the southern Korean peninsula suggesting that the way of life drastically changed. Meanwhile, in the Kofun period, while foreign-style housing structures were found, large-scale defensive settlements or palaces, such as those seen in China or the Korean peninsula did not develop in Japan. Instead, large-scale tumuli (*kofun*) were constructed in Japan as monumental public works projects, suggesting the uniqueness of Kofun-period society concerning the creation and maintenance of its social hierarchy.

MÜLLER, Shing [219]

From Couch to Funerary Couch and Table in Early Medieval China

Stone couches for corpses appeared in tombs of the Xianbei in northern China in the middle of the 5th century, and served continuously as funerary furnishings until the end of the 6th century. The shape derived obviously from wooden sitting couches of the Chinese, which were depicted in the literature and art of the Han Dynasty (206 BCE-221 CE). But their use for interments was new, for funerary stone couches have not been evidenced in Chinese tombs from Han times to the end of the 6th century. This presentation shall trace the developments of sitting couches 1) into funerary couches, and 2) into large sitting couches for the elite society in Northern China, which eventually transformed into tables for leisure gatherings of literati or court ladies in early Tang times.

NAGAI Kenji [55]

Variability in East Asian Pressure Flaking Techniques on Bifaces During the Final Upper Paleolithic and Early Neolithic: Understanding of the Knappers' Kinesiological Differences as an Indicator of Culturally Learned Behavior

Tanged points have long been considered an important proxy for cultural variability during the Transitional Period between the Final Upper Paleolithic and Incipient Jomon of the Japanese archipelago. This paper describes ongoing research of flake scar orientation on bifacial points produced by the oblique parallel pressure flaking (OPPF) technique from the Final Upper Paleolithic and Early Neolithic in the Japanese archipelago. The results indicate that there existed a highly significant geographically patterned technological variation of such lithics. OPPF bifacial points from southwestern Japan are exclusively flaked from the upper right to the lower left (URLL), and bifacial points, microblade cores, and burins from northeastern Japan are equally flaked from the upper right to the lower left (URLL). These facts enhance the possibility that we

will come up with the individual physical trace as a stress marker during the Incipient Jomon period in the south and north of Japan.

NAGATOMO Tomoko / NAKAMURA Daisuke / KIM Gyu-Ho [B4]

Comparative Study of Pottery Production on the Japanese Archipelago and Korean Peninsula During the Early Period of Kiln Use

The pottery production system changed dramatically around the 5th century in the Japanese archipelago with the introduction of kiln-firing techniques. These techniques originally spread from the northern part of China to the Japanese archipelago via the Korean peninsula. Many researchers have investigated from which part of Korean peninsula the Japanese kiln were introduced. However, as the research on kilns has been conducted by scholars divided between Japan and Korea, a common view remains elusive. To examine this issue, we conducted analysis of clay used in the early pottery fired by kilns in Japan and Korea. In this presentation, we attempt to reveal the direct origin of Japanese kilns and the differences between early kiln-fired pottery between Japan and Korea based on the results of analysis of clay and archeological comparative study.

NAKAKUBO Tatsuo [147]

Social Change and the Introduction of Continental Craft Technology

During Japan's Kofun period, from the mid-3rd century to the 7th century C.E. iron- and metal-working, bronze casting, ceramic firing, textile production, and other craft technologies were introduced from China and the Korean peninsula. The central administration of the Kofun period strategically imported the technology and dispersed it throughout the archipelago. This led to an expansion of the polity's power base. In this presentation, the author traces the introduction process of continental technology within arms and armor, bronzes, agricultural implements, pottery, and textiles, and clarifies how this affected the military, ideology, land development, and lifestyles. Additionally, utilizing the latest excavation data of craft production sites, the author analyzes craft production control by the central administration and the process whereby technology was transferred out from the center. The author then situates these phenomena within the East Asian world.

NAKAMURA Oki [271]

Visualization of Local Communities and Diversity in Rituals in the Late and Final Jomon, Japan

Visualization of a historical community zone that emerged from repeated occupations can be helpful for the understanding of the social meanings of rituals at a local scale. This paper introduces a new quantitative method of Geographic Clustering with Delaunay Triangulation (GCdT) using GIS, in order to delineate high density areas of archaeological sites as geographical clusters. A cluster of sites indicates repeatedly-used area in several hundred years, and it would reflect a long-term activity area of a local community. Interesting results were obtained from GCdT analysis for the northern Tohoku region in the Late and Final Jomon period (4300-2500 cal BP). Different spatial relationships between site clusters and stone circles or cemeteries imply different social functions or symbolic meanings of stone circles or cemeteries. These results indicate that local diversity in ritual activities could be related to social organization of local communities, including social inequality or complexity.

NAUTIYAL, Vinod [109]

The Emergence of pre-Buddhist Burial Practices, Pyrotechnology, and Trade in Indian Trans-Himalaya: Fresh Archaeological Evidence from Kinnaur, Himachal Pradesh, and Uttarakhand, India

The Trans-Himalayan region of India is the most inhospitable region of the country owing to its rugged topography with steep slopes and cold desert climate. The archaeology of this cold desert region is known in terms of Buddhist art and architecture, which developed around the 10th century CE as the plethora of published literature indicates. However, the region of trans-Himalaya remained in complete isolation for any archaeological explorations and excavations to find out whether such high altitude mountainous areas were inhabited earlier. To address these questions, we have been carrying out explorations and excavations for the last few years in Garhwal region of Uttarakhand, Kinnaur and Spiti in Himachal Pradesh. This presentation presents our recent findings from explorations and excavations at the different burial site of Kanam, Lippa and Ropa in Kinnaur and Malari in Uttarakhand and some preliminary scientific studies on the artefacts and objects discovered there.

NELSON, Sarah [139]

Personal Adornment in Early Korea

Adornment in early Korea is closely related to identity and rank. In the Mumun period, personal decoration consisted of necklaces made of tubular greenstone beads, with a gogok (curved jewel) as the central bead. Found in dolmen sites, they probably indicate chiefs or shamans. Tiny one-color beads appear widely as early as the 3rd century BCE, representing trade items from as far away as Indonesia. Larger and more complex beads appear by the 3rd century CE. The use of gold brings new meanings and new ornaments. Most prominent are gold crowns covered with shimmering gold spangles and gogok. The gold artifacts are burial accessories, and provide evidence of a highly ranked society. Women and men of the same rank were equally adorned, with necklaces, earrings, finger and toe rings, bracelets, and headgear. Adornment appears to be related to rank, not gender.

NIE Ying [21]

The Study of Oral Health of Semi-nomadic Populations from the Late Bronze Age to Early Iron Age in Yili River, Xinjiang, China

This study examines dental lesions of skeletal remains in eight populations from seven cemeteries in the Yili River vicinity. The cemeteries are: Qiongkeke No.1, Tuohai, Jialegesihayinte, Bietebasitao, Akebuzaogou, Tiemulike, Caiqiaomen, Qiafuqihai. The Yili River vicinity is a multi-ethnic region from the Late Bronze Age to Early Iron Age where Sake, Rouzhi, Wusun, Huns, Turks and other nomadic people lived. This preliminary study shows that the eight populations from the Late Bronze Age to Early Iron Age in Yili River had bad oral health. The frequencies of dental calculus, periodontal disease, periapical disease, antemortem tooth loss are high. But the prevalence of caries is low, both in individuals and in the whole sample. More studies are needed to combine with the diet analysis and Teeth microanalysis in the future.

NING Zhenjiang [C4]

The Question of Yu Yi Ren 余一人 on Oracle Inscriptions: Studies of People-oriented Thoughts and Royal Power

The term "Yu Yi Ren 余一人" is frequently found on the oracle bone inscriptions from the YinXu site. In previous studies, "Yu Yi Ren" is regarded to be a modest way to address the King himself in the Shang and Zhou period. This paper provides a close and comparative study of the term "Yu Yi Ren" by looking at the oracle bone inscriptions, inscriptions on bronze vessels and in relevant literature. The paper concludes that there is no implication of dictatorship for this term; instead, the term implies that the King alone takes responsibility of governing a nation or country. There has been a tradition for kings to use such terms, like "Gu", "Gua", or "Yu Yi Ren" to call on themselves without any indication of leadership or sovereignty.

NISHIMURA Yoko [32]

The Processes of Magatama Beads in Mortuary Contexts of Jō mon Japan

Comma-shaped magatama beads in their 'archaic' forms and materials first appeared in the Early Jō mon period (ca. 5000 BC) in Japan and increased in quantity during the Late/Final Jō mon period (ca. 2500-400 BC). In their 'standardized' form and material they were a major component of grave goods from the Yayoi period (ca. 400 BC-AD 250). At the Early/Middle Jō mon sites, the contexts in which magatama beads have been found are pits and culture-layers in residential areas, whereas at the Late/Final Jō mon sites in eastern and northeastern Japan magatama have also been found in burial pits as mortuary items. This paper will present what changed and what did not change as the context of the beads changed, as well as their possible meanings, during the transitional process in which this type of body ornament made contextual, morphological, and technological shifts.

NIU, Gabrielle [38]

Tiles from the Xiudingsi Pagoda at the Penn Museum: Petrographic Analysis and Art History

In the collection University of Pennsylvania Museum of Archaeology and Anthropology are four terracotta tiles from the Xiudingsi 修定寺 pagoda, a four-sided, brick-constructed pagoda located outside of the city of Anyang in Henan Province. Many of the tiles from this monument were removed from the site in the early 20th c. and dispersed through the art market to European and American collections. Using close visual analysis, Scanning Electron Microscopy coupled with Energy Dispersive Spectroscopy (SEM-EDS), and thin-section petrography, the provenience of the tiles and the technical methods employed in their manufacture were investigated. This paper presents the results of these technical studies, and also considers how the results, along with consideration of art historical context and the received textual record, can be used to construct a fuller understanding of these objects, their manufacture, and meaning.

NIWA Takafumi / HIROKAWA Mamoru / SHINGO Hidehiro / HIGUCHI Yosuke / YATSUKI Takahiro [B5]

A Contrastive Experimental Study for Reconstructing Manufacturing Technology of Chinese Bronze Artifacts

To reconstruct the relationship between manufacturing technologies and the remains of Chinese bronze artifacts, we performed a "contrastive experiment", creating identical casting figures using several manufacturing processes and conditions. In 2014, we carried out an experiment the

investigate the function of stripe shaped patterns on the “Gui” vessel bottom. As a result of casting experiment, there are a few casting defect on products with stripe shaped patterns. We think stripe shaped patterns are an effect of outgassing during casting.

OBATA Hiroki [184]

What do Seed and Insect Impression / Cavities on Pottery Tell Us?

Since 2005, analyses of the impression/cavity of seeds and insects on Japanese Jomon potsherds have notably provided new insights to prehistoric food storage and its pests. The fact that the species and composition of those seed and insects differ remarkably between sites (both of waterlogged and dry lands) indicates the impressions/cavities reflect human activities rather than environmental situations, and it may show the nature of Jomon indoor food storage. A high frequency of the seeds of soybean and adzuki bean have been discovered as impressions/cavities from potsherds, although finds of their macro remains have been rare. Based on this, it can be considered that those beans were not stored in wetlands like acorns but in dry indoor spaces, and consequently macro remains were not preserved. Furthermore, finds of *Sitophilus zeamidis*, a pest associated with nuts, as impressions/cavities in ceramics suggest the people also stored acorns and chestnuts indoors.

OKADERA Miki / KANER, Simon [181][A6]

The Sacred Island of Okinoshima and its Contribution to the Archaeology of Religion

During much of the first millennium AD, at the time when a recognisable East Asian civilisation was first appearing, ritual offerings of objects from Japan, Korea, China and the Silk Roads were made on the tiny island of Okinoshima in the Genkai Sea, between Korea and the southern Japanese island of Kyushu. This paper draws on work undertaken for the nomination of Okinoshima as UNESCO World Heritage to explore broader themes in the archaeology of the arrival of Buddhism and its impact on local beliefs. It will examine how the World Heritage nomination process is setting studies of the archaeology of early Buddhism and Shinto in a comparative global perspective, including from the Silk Roads, and how such studies relate to the emerging field of the archaeology of religion.

OKAZAKI Kenji / YONEMOTO S. / NAKAHASHI, T. / AMGALANTUGS, T. [12]

Trauma on the Human Skeletal Remains of the Bronze Age, Mongolia

In 2012, Mongolian-Japanese joint team excavated the Tevsh site in the southern Khangai province, and found human skeletal remains of three individuals from the Bronze Age. We cleaned and arranged these skeletal materials, and conducted basic analysis. The results show that two of the three individuals are well preserved; one middle adult female and one middle adult male. Their body sizes are significantly large, compared to those from the Bronze Age in Inner Mongolia, Shandong, Henan, Shanghai of China, and Japan. The estimated height of the male is 171.5 cm on the basis of the method of Pearson. Although their skeletal bodies were very sturdy, a great number of healed fractures were observed. We have found that the fracture prevalence was also relatively high at other (?) Bronze Age sites in Outer Mongolia, which may be linked to certain habitual behaviors at that period.

OKAZAKI Kenji / TAKAMOKI H. / YONEDA M. / KIKUCHI H. / YONEMOTO S. / TOMITA T. / NAKHASHI T. / CHEN J. / SONG J. [188]

A Paleopathological Approach to the Study of Neolithic Human Skeletal Remains Unearthed from the Guangfulin Site in the Shanghai City, China

In 2014-2015, we cleaned and studied the skeletal remains of about 100 individuals excavated from the Guangfulin site in the Shanghai city. This skeletal material belongs to the Songze and Liangzhu culture (c. BC 3900-2800). In a young female individual among them, the 11th thoracic vertebrae to the second lumbar vertebrae were deformed and fused together antemortem. Bone resorption was remarkable while bone formation was little. In particular, the vertebral bodies of the 12th thoracic vertebrae and the first lumbar vertebrae were broken down and mostly disappeared. This pathological condition was thought to stem from a spinal caries. This possible spinal caries could be the earliest one in the East Asia. Taking the consideration on the origins and mechanism of tuberculosis, the case of the Guangfulin site is suggestive of the conditions of the animal domestication and the communal living at that period.

O'SULLIVAN, Rebecca [172]

Inter-regional Interaction and the Landscape Perspective: Rock-art in the Altai, 2nd-1st Millennium BCE

The Altai Mountains straddle four countries and it is this division in languages and research traditions that has led to researchers approaching them as a boundary between southern Siberia, Central Asia and northern China. However, the mountains were part of a wider network of interaction and exchange, as demonstrated by the tradition of carving images onto rock panels (petroglyphs) throughout this area. The majority of research done on interaction focusses on the Iron Age (the so-called "Scythian period"), but many petroglyph motifs and styles have precursors in the Bronze Age. This presentation highlights various features that demonstrate the Altai's early affiliation with a wider socio-cultural ideology (motifs, styles), as well as the relationship between petroglyphs, the micro-landscape and the macro-landscape –the latter situates petroglyphs within their topographical context, encouraging exploration of the relationship between the image and the rock, nearby rivers or mountains, and the accessibility of rock-art sites.

OWLETT, Tricia [E6]

Late Neolithic Diets at Shimao and Zhaimaoliang, Ordos Region, China: Stable Carbon and Nitrogen Isotope Analysis of Human and Faunal Remains

Stable isotope analyses of human and faunal remains provide important information about human-environment interactions in the past, including insights into past animal husbandry and land use. The Ordos Region in Northern China witnessed dramatic changes from a primarily sedentary agricultural lifeway to an agro-pastoralist economy during the Late Neolithic Period (2500-1900 B.C.). However, the magnitude and nature of this dietary change are unclear, and more detailed information is needed in order to fully understand the reasons and mechanisms behind this transition. Dietary patterns at two Late Neolithic sites in Northern Shaanxi Province are investigated by the preliminary analysis of stable carbon ($d^{13}C$) and nitrogen ($d^{15}N$) isotopes in human and faunal bone collagen. Furthermore, this work will address the implications of these data in comparison to other sites in the Ordos Region to understand the relationship between foodways and animal husbandry strategies framed within a changing environment.

OWLETT, Tricia [192]

Food Between the Country and the City: The Politics of Food Production in Early Cities and Hinterlands at Shimao and Zhaimaoliang, Neolithic Northern China

The Late Neolithic Period marks a critical moment in Chinese prehistory with the emergence of newly formed proto-cities that transformed the political landscape of Early China. This study explores one aspect of this transition through evidence of changing patterns of food production in North China between the Late Neolithic to Early Bronze Age Periods (approx. 2300-1900 B.C.E.). Through an analysis of preliminary archaeological data from household assemblages from the urban site of Shimao (2300-1900 B.C.E.) and Zhaimaoliang a hinterland community in Northern Shaanxi Province, this study explores the diversity of interactions between herding communities in urban and rural village contexts. By comparing and contrasting animal husbandry at the two sites, I will demonstrate variation in the production and consumption of food and focus on several themes in animal husbandry, including the ageing and body part data, in order to understand possible spheres of distribution.

OYABU Yumiko [53]

Paleopathological Analysis of Wounds on Human Skeletal Remains of Yayoi period in Japan

Based on archaeological evidence, organized warfare is believed to have originated from in Japan during the Yayoi period. It has been documented in Chinese history in the Three Kingdom Saga that many battles took place during the late Yayoi period in Japan. Paleopathological research of wounds on human skeletal remains is one of the best ways to investigate ancient social affairs. This study presents the paleopathological analysis of wounds on human skeletal remains excavated from the archaeological sites of Japan's Yayoi period. The timing of injury, manner of death, weapons used and form of warfare during that period will be examined.

PAK Yangjin [153]

Nationalist Agenda in North Korean Archaeology

The archaeology of North Korea has taken a unique path since its inception after the division of the Korean Peninsula in 1945. With the strong influence of Marxist historical materialism, North Korean archaeologists were eager to overcome the colonial legacy of Japanese archaeology and quickly established a broad chronological framework on the basis of new archaeological data in the 1950s and 1960s. As the political ideology of *juche*, or self-reliance, was advocated by the regime, the interpretation of archaeological data became increasingly nationalistic in nature during the 1980s and 1990s. When it was announced that the tomb of Dangun was discovered in the vicinity of Pyongyang in 1993, the nationalist agenda of North Korean archaeology took an extreme form. This paper will discuss the close relation between the political and social identity of North Korea and its interpretation of prehistoric and early historic archaeological data.

PANKENIER, David [42]

Interpreting Celestial Simulacra

Archaeoastronomy and cultural astronomy, two facets of the historical anthropology of astronomy, have contributed important new insights to archaeology and anthropology. A great deal of material has recently been published which demonstrates the near ubiquity of a serious preoccupation with the sky among ancient civilizations. This has opened a window on previously unappreciated aspects of the spiritual and conceptual lives of those ancient peoples. In the past, site reports from excavations in East Asia, particularly from China, provided only sketchy

information on orientation. Even when such data was reported, typically no information on the precision of measurement or observational error would be provided. The purpose of this presentation is to illustrate certain kinds of telltale features which should alert archaeologists to the possibility that a particular site or complex may possess astronomical significance.

PARK Sun Mi [155]

Power and Ideology in Early Societies of East Asia

Ritual objects are commonly thought of as a type of tool of power in early societies and there are many ritual objects from the Neolithic and Bronze Age sites in Northeast Asia. Most sites discovered with prestige goods are at the center of an archaeological frame. In this paper I will take a look at distribution and character of archaeological data related to ceremonial activities and try to understand them from the political perspective, especially with a focus on power and Ideology. For this study, I will review many kinds of ritual artifacts as well as art products in prehistory.

PARK Ah Rim [208]

The Foreign Elements of Koguryo Tomb Murals with the Focus on the Nomadic and Central Asian Elements

Koguryo tomb murals consist of different kinds of cultural elements including Koguryo's own features and foreign elements from the Han culture of China, Buddhist elements, Central Asian elements, and then northern nomadic elements from the steppe region. The northern nomadic culture can include those of Koguryo, Xiongnu, and Xianbei. The movement of Xiongnu to the west and the south from the Warring States period to the Han and the Wei-Jin periods promoted the exchange between the west, Central Asia, and China. It produced the Xiongnu and Han mixed cultures shown in the mural and sculpture tombs on the northern frontier of China, which were later inherited by the mural tombs of the Wei-Jin and the Northern dynasties as well as by Koguryo murals. This paper will examine the Xiongnu and Scythian metal objects and carpets with narrative pictorial scenes as the source of the northern nomadic elements.

PATANIA, Ilaria [3]

FTIR Analysis of Clays at Xianrendong Cave: Reconstructing Pyrotechnology and Human Behavior in the Home of the Earliest Pottery

The cave site of Xianrendong (Jiangxi Province) is known for having produced the earliest pottery sherds (20,000 cal BP) so far discovered. This cave is one of only two Upper Palaeolithic sites in South China that have been systematically sampled for radiocarbon dating and geoarchaeological analysis. We present here the preliminary results regarding pyrotechnology and use of clay at Xianrendong cave. Using both micromorphology and FTIR we analyzed clays and bone fragments found in the microstratigraphy to trace clay sources, uses, and heating temperatures. Results show communal local sources for both the anthropogenic and geogenic clays. Low heating temperatures are confirmed and compared to the results from bone fragments. This is the first step to a more comprehensive investigation of production techniques and human behavior related the earliest pottery. Our study also demonstrates the advantages of the systematic use of geoarchaeological methods in the study of the Chinese Upper Palaeolithic.

PENG Peng [40]

Rediscovering Bronze Art and Technology of Early China from the Mayer Collection

The role of the lost-wax casting technique in early China is controversial. Was the technique developed in China or introduced from elsewhere, and when? Anyang casters may already have been acquainted with lost-wax techniques during the late 2nd millennium BCE. However, any technique has to be maintained through continuous practice. Because of the dominance of section-mold casting, this early lost-wax process may not have been sustained subsequently. The new hypothesis presented in this paper is that the lost-wax techniques used in northeastern China during the early-to-middle first millennium BCE were a direct source or, at the very least, a refresher for the lost-wax technique used in the Chinese heartland not long after. I will consider this hypothesis in the light of the evidence of the Northern Zone bronzes in the Mayer Collection.

PERRIN, Ariane [220]

Ancient Foreign Glassware Found in Silla burials in the Korean Peninsula

A number of glasswares of foreign origin (beakers, cups with raised decor, marbled glass, moulded glass) have been found in tombs of the elite of the 4th-6th centuries AD in the Korean peninsula. While it is not yet known how these glasswares found their way in these tombs, they are suggestive of international contacts and exchanges along a trail that extends from northern China to the Japanese archipelago, where similar vessels were unearthed in Nara. Recent archaeological findings and chemical analysis have revealed that these glasswares belonged to two different traditions, a so-called Roman and a Sasanian one. Through comparisons with similar objects found in northern China in burials of the Northern Wei dynasty in Datong, this paper will present the current research in the field, and will investigate the techniques of glass manufacturing and the possible channels of transmission between the various kingdoms in northeast Asia.

PLATTS, Ellen [112]

The Use of Surface and Hydrology Models for Prehistoric Rice Cultivation in Highland Environments

Survey in the Dian Basin has mapped the settlement system of the prehistoric Dian polity using surface collection of artifacts, irrigation wells and channels, and mapping of exposed sections. It indicates an increasing level of sociopolitical complexity prior to conquest of the polity by the Han Empire. Throughout China, another indicator of complexity used in archaeology is the presence of wide-scale rice production. However, the topography and climate of Yunnan province makes the production of rice less straightforward than in other parts of China. Using remote sensing data and GIS modeling of environmental variables, this paper investigates the relationship between rice and water to ascertain the possibility of rice agriculture in marginal environments, such as those in Yunnan province. It then investigates the relationship between these environments and the settlement system mapped through survey to further illuminate the sociopolitical dynamics of the prehistoric Dian polity.

PRÜCH, Margarete [221]

Imported or Made in Anhui?: Preliminary Ideas on the Origin of the Lacquer Objects from the Han Tombs at Chaohu, Anhui Province

Two salvage excavations in 1996 and 1998 in the Chaohu 巢湖 city area, Anhui Province, brought to light three large burials in Beishantou 北山頭 and Fangwangshan 放王山 dating to the early to

middle Western Han Dynasty (202-74 BCE). Among the 3,500 artifacts unearthed, the lacquer objects are of particular interest. They comprise vessels that had never been found in Han dynasty tombs before. This presentation will focus on the lacquer artifacts, especially the boxes and a jar, found in Beishantou Tomb 1. Vessel shape, décor and inlaid ornaments, such as bronze, silver, jade and crystal show connections to the Eurasia and raise new questions about possible production centers and the distribution, appreciation and consumption of these lacquer wares.

QIN Xiaoli [34]

Inter-regional Relationships in the Hemudu Culture to Liangzhu Culture Periods: View from the Distribution Pattern of Beads in East China

Jade beads became popular and occupied an important position in grave good assemblages in the Middle-Neolithic period in Eastern China. But when did people start to make jade beads? How did they make them? Why did people wear beads and put them beside their graves after they died? Where did the raw material sources come from and how were they exchanged between regions? Many bead artifacts have been excavated from archaeological sites in Eastern China. These archaeological materials are classified by attributes indicating their regions of production in order to examine the distributions of classified types. This paper will approach these issues by examining the distribution of different bead raw materials, different shaped jade beads, and the manufacturing of these beads in the Hemudu culture to the Liangzhu culture periods.

QU Lian [41]

Filial Piety vs. Perfect Charity: A Case on the Pictorial Depictions of the Vessantara Jataka in the Northern Dynasties

The depictions of Buddhist legends (the Buddha's life, jataka tales and Buddhist didactic stories) flourished during the Northern Dynasties. Among the jataka tales, the Vessantara jataka was one of the most popular of all Buddhist legends in India. However, few examples have been identified among the Buddhist monuments created in China. This is due to the fact that the Buddhist doctrines conveyed by this jataka are in partial contradiction to the values and beliefs of Chinese Confucianism. Two stone steles in the Penn museum dated to Northern Dynasties have sculpted narrative scenes depicting the Vessantara jataka. This paper describes and analyzes the narrative modes and the pictorial plans of the two steles, comparing them with other depictions of the same theme, with the aim of enriching our understanding of the relationship between Chinese Buddhist art and Buddhist beliefs originating in South Asia.

RAN Honglin [268]

A Preliminary Study of the Settlement Remains of the Jinsha Site

The Jinsha site is regarded as the capital of the Shu kingdom after the Sanxingdui site. The two had many aspects in common, a fact noticed by many scholars. When and in what way did Jinsha become the capital of the Shu kingdom? How was the settlement organized and did this change? These questions should be answered if we want to know more details about the Shu kingdom and its history. In order to achieve this, I will present the considerable changes that took place throughout the development of the Jinsha site, point out a mistake which was neglected for many years, and give my opinion on the relationship between Sanxingdui and Shi'erqiao cultures.

REICHERT, SUSANNE [59]

Urban Craftsmanship: Karakorum

In the growing Mongol Empire the relocation of artisans to other regions, notably to Karakorum, the first capital of the Mongol Empire, is a fact well known from written sources. But what did these craftsmen actually produce for their Mongol rulers? How did they live and how were the crafts organized? This paper looks at the material evidence from Karakorum. Data derive from the excavations of Bonn University in the assumed city center from 2000 to 2005 that brought to light a rich body of installations and finds. These materials provide, for the first time, a vivid picture of the inhabitants' lives in Karakorum and how they changed over time. I will present several crafts and their workshops, and question the organization of their work. The study thus provides the basis for the analysis of the economic structure and the political economy of the Mongol Empire on the local level.

REN Xiaoyan [110]

Pompeii of the East: The Prehistoric Disaster Site of Lajia

Situated in eastern Gansu, the Lajia site is located on the northern banks of the Yellow River. It covers an area of over 2.4 million square meters and is a typical Qijia culture site. It is a multicomponent habitation site that contains levels dating not only to the Qijia but also to the Xindian and Majiayao periods. This paper discusses the results of numerous multidisciplinary analyses conducted at the site. It has become clear that the site was formed during a natural disaster; following an earthquake, the site was engulfed in a flash flood of the banks of the Yellow River roughly 4000 years ago. For these reasons, the site has been called the "Pompeii of the East." The events that took place at this site may have influenced ancient myths surrounding natural disasters in the area.

REN Xinyu [29]

A Regional Perspective on the Rise of Social Complexity in Prehistoric China: Huangtucheng Regional Archaeological Survey in the Huai River Region

Current debates on social complexity and state formation processes have been focused on the middle and lower Yellow and Yangtze River regions in China. The Huai River region, located in the middle of these regions, is neglected in the discussions. I propose that the Huai peoples have their own pathway to social complexity. Systematic regional surveys generate comparative data regarding long-term settlement pattern and settlement hierarchy changes, which are vital indicators of state emergence. This paper presents results from the first systematic regional survey of the Huangtucheng area in the Upper Huai River region. Survey data from the area of 209 km² show a long continuity of occupation from 5000 BCE onward, with demographic peaks in the Late Neolithic (3500-1900 BCE) and slow growth in the Early Bronze Age (1900-1600 BCE). This research provides empirical evidence of a long-term settlement and artifactual change in Central China from a regional view.

RHODE, David [68]

Late Paleolithic to Neolithic Transition in the Northeast Tibetan Plateau: Recent Findings

The late Paleolithic-to-beginning-Neolithic transition remains relatively little known in the northeast Tibetan Plateau. Work in the Qinghai Lake Basin and northeast Tibetan Plateau resulted in the finding of a few sites (at Jiangxigou and Xidatan) that provide the main published archaeological evidence of high-altitude occupation dating to this transitional period. In this

paper, I describe additional archaeological evidence from our work in the Qinghai Lake Basin and northeast Tibetan Plateau that contributes to our understanding of human occupation in this interval, and its significance to longer term patterns of colonization of the high Tibetan Plateau.

ROSS-SHEPPARD, Callan [94]

Khitans/Liao Utilitarian Ceramic Exchange Networks within the Chifeng Region, Inner Mongolia

Despite several decades of research into the Khitan/Liao Empire (907-1125CE), remarkably little is known about the non-elite population of the Liao period and less still about the non-glazed ceramics utilized and exchanged within Liao non-elite communities. In an effort to address some small part of this lacunae, this paper presents the results of the geochemical characterization and sourcing of a sample of Liao period non-elite utilitarian ceramics from the Chifeng region, Inner Mongolia, utilizing a combination of portable x-ray fluorescence spectrometry (pXRF) and ceramic thin section petrography. The results of this investigation provide new data on the form and spatial patterning of the Liao period exchange networks in the Chifeng region. These networks connected and made viable small settlements and regional centres of ceramic production. This paper will also provide some insight and comment upon the feasibility of utilizing pXRF and petrography for the analysis of utilitarian ceramic wares.

RUBINSON, Karen [135]

Why Wear Dolphins? Greek Imagery among the Pastoralists along the Ancient Oxus

Along the Amu Darya, in the interstice between the Greco-Bactrian kingdom (ca. 250–125 BCE) and the Kushan Empire (60-375 CE), historians suggest that pastoral tribes arrived from regions to the northeast. This time and place offers an exceptional opportunity to investigate issues of cultural identity, since there are both local and new populations in a period of political readjustment. In several cemeteries of non-elites along the Amu Darya that were excavated by Mandel'shtam, relatively richer burials of females sometimes contain earrings of gold or gilt bronze decorated with a pair of dolphins. Why did these pastoralist women choose such imagery? Was it the imagery or the object that had meaning? Is it a way for these women to show their connections to the settlements that inherited Greco-Bactrian traditions, places from which they apparently obtained the ceramics in the burials, thereby acquiring status borrowed from their new homes?

RYAN, Joseph [148]

External Influence and Internal Development in the Evolution of Iron Weapons within the Japanese Archipelago

Dependent on the importation of iron materials from China and the Korean Peninsula until iron smelting began in the 6th century AD, political groups on the Japanese archipelago long relied on relationships with the continent for domestic legitimation. Stemming from these interactions, the development of iron weapons within the archipelago was characterized by considerable external influence. At key points within the state formation process, however, significant internal developments took precedence. Additionally, as the weapons of each sub-region within East Asia presented considerable regional characteristics, a cross-cultural analysis of weapon morphology and technology has the potential to elucidate the nature of ancient interregional relations. This presentation clarifies the external influences and unique internal developments within the evolution of iron weapons during Japan's Yayoi and Kofun periods and seeks to situate the archipelago's weapon system within an East Asian context.

SAKAI Takashi / OHASHI Koji / HARKANTININGSIH, Naniek [175]

Ceramics Found in Trowulan Site, Indonesia

Since 2012 over three field seasons, we have been analyzing ceramic shards found in Trowulan, East Java-- the capital ruins of the Majapahit Kingdom (1293-ca. 1527). The analyzed shards, collected since the 1920's, can be divided into three periods: I (before 13th century); II (14th century); and III (15th century). The places of manufacture are China (57%), Vietnam (30%), and Thailand (13%). It is remarkable to discover that many fine Jingdezhen and Longquan wares in period II, as well as Vietnamese wares in large quantities in period III, including figure ornaments and glazed tiles, were carried to Trowulan. This research has allowed us to understand not only the strategic importance of this site in Java before the establishment of the Majapahit Kingdom, but also the active role of Trowulan as a Southeast Asian largest relay point in Asian ceramic trade network during the 14th-15th centuries.

SASAKI Ken'ichi [149]

Adoption of a Practice of Horse-riding in Fifth Century Japan

Horses were not native to Japan. Along with importing horses from the Korean peninsula, Korean specialists in the raising and breeding of horses were invited to Japan in the fifth century. In recent years, archaeologists have excavated a settlement in Osaka prefecture where such Korean equestrian specialists resided, and mounded tombs in several regions of Japan where equestrian specialists were buried. At many of these mounded tombs, horses were carefully buried in enclosing moats. In northern Nagano prefecture of the central highlands, however, horse bodies were dismantled and only body parts were offered in cairns. In other cairns, ceramic horse figurines were offered. Cairns were very unusual during the Kofun Period, and are considered to be burials of Korean immigrants. Such strong regional differences in horses treatment in Japan may suggest that different local polities independently invited different groups of Korean equestrian specialists in the fifth century.

SEBILLAUD, Pauline [E4]

Intra-site Analysis Using Systematic Regional Survey Method: Case Study on the Hanshu Site

On the basis of the data provided by the systematic regional survey on the site of Hanshu (located along the eastern shore of Yueliang Lake near Da'an, Jilin province, in northeast China), this article establishes the artifacts' periodization, analyzes their distribution and concentration in order to get a deeper understanding of the chronology of the site and of the evolution of the settlement pattern of each period of occupation. For this case-study, the authors chose the Hanshu site for its rich cultural content spanning the Middle Neolithic through historic periods, and it also can be viewed as an attempt to analyze the development process of settlement in the Nen River valley and the complex relations between ancient people and their environment.

SEIKE Akira [150]

Political Situations in the Korean Peninsula and the Evolution of Kinship Systems during Kofun Period Japan

Analyses of human skeletons of the Kofun Period (middle third to early seventh centuries AD) have revealed that kinship structure changed in the Middle Kofun Period or the fifth century. The kinship system before the fifth century was strongly characterized by a bilineal descent system.

At the beginning of the fifth century, however, the kinship system of the elite class came to be dominated by a patrilineal descent system. The patrilineal descent system originated from China and was introduced to the Korean Peninsula. Toward the end of the fifth century, the kinship system of ordinary people also came to be characterized by the patrilineal descent system. These two phenomena were somewhat related to the political situation in the Korean Peninsula. The central polity of Japan had to cope with political change in the Korean Peninsula, and in the process the nature of the kingship and imperial family had to be changed.

SELBITSCHKA, Armin [86]

Figuring It Out: The Origins of Tomb Figurines and Models in Received Literature and the Archaeological Record

Numerous Warring States through Han period tombs yield miniature figurines and models. They are believed to be part of a single phenomenon that is known as the *mingqi* 明器 concept, which refers to objects without practical function substituted for real artifacts. Such objects were vital for turning tombs into ‘underground homes.’ The common understanding of tomb miniatures is mainly based on isolated passages from received literature. I illustrate that figurines and models initially were, in fact, manifestations of two different phenomena that were later merged in new funerary practices. Thus, relying primarily on transmitted sources distorts the complexities of the archaeological record. Instead, a comprehensive analysis of the latter shows that burials did not simply symbolize ‘underground homes,’ but rather the entire estates of the landowning deceased. Early Chinese tomb miniatures were essential for the creation of personalized underground microcosm or ‘private little empires.’

SEREGIN, Nikolai [165]

Results of Archaeological Research of Turkic Ritual Sites in the Mongolian Altai

It is known that Mongolia was the center of the Turkic world in the early Middle Ages. Archaeological materials showing the history of Turkic tribes in this territory are well known. However, there is a small number of studied ritual complexes of common nomads that complicates total characterization of their culture. Since 2007, research on archaeological sites in the Mongolian Altai has been carried out by the Russian-Mongolian expedition. One of the directions of research is excavation of Turkic ritual complexes—stone fencing with various features (statues, *balbals*, etc.). As a result of this work, 27 sites located in the Hovd and Bayan-Ulgii districts were excavated. The studied objects are ritual constructions which were distributed widely across Central Asia in the early Middle Ages. It is easy to find numerous examples of such sites in the Altai and Tuva where similar objects are well studied.

SHELACH-LAVI, Gideon [200]

Anticipating Agriculture? Technological and Social Changes during the Pre-Neolithic Period in North China

Research on the transition to agriculture has been high on the agenda of archaeologists since the early days of our discipline. Contrary to earlier models where the beginning of agriculture is a revolutionary event, current archaeological research challenges the clear-cut dichotomy between hunter-gatherers and early agriculturalists. Hunter-gatherers were engaged in activities previously associated only with agricultural societies. Such activities include resource management, activities aimed at improving the productivity of their environment, herd management and the cultivation of wild plants. In North China, during the terminal Pleistocene and early Holocene, new technologies, such as the production of ceramic vessels and grinding

stones, are also associated with processes that predate and perhaps 'predict' the transition to agriculture. This paper will discuss archaeological evidence for the evolution of these new technologies, the social background and dynamics of their development and how they could have affected human engagement with the environment.

SHENG Wei [241]

A Comparative Analysis of Two Schools of Research into Yinxu Cultural Chronology

In my paper, I will mainly analyze the differences between the research by professor Zou Heng and the scholars of the Institute of Archaeology, CASS, on the chronology of Yinxu culture. In my opinion, even though the research of these two groups are consistent as a whole, there are still some unconformities, which are worthy of attention for scholars who will cite their conclusions. In order to support my viewpoint, I will focus on some typical units of Yinxu culture and compare the different opinions about their chronology. Finally, I will also try to explain the reasons for those differences.

SHIBUTANI Ayako / SUN Guoping / CHEN Jie / SONG Jian [189]

Eating Rice or Acorns? Starch Evidence of Neolithic Human Dental Calculus in the Lower Yangtze Region, China

Human dental calculus is an excellent tool for directly reconstructing plant food consumption. Microfossils such as starch granules become embedded within dental calculus throughout life, providing an overall picture of plant food resources. This paper presents the initial results of analyzing human dental calculus in China. A total of 17 dental calculus samples of 11 individuals were analyzed from two Neolithic sites, Tianluoshan and Guangfulin in the Lower Yangtze River valley. The calculus samples contained some unobscured starch granules showing similar morphological features of cereal, nut, or acorn starch. At this stage, taxonomic identification of these starch granules has not been attempted, but this is potential evidence for consumption of cultigens and wild plant species.

SHIN Gyunghwan / CHOI Youngmin [121]

Metallurgical Analysis and Review of the Results of Experimental Work on the Iron Smelting Furnace of Ancient Korea

Analysis was carried out on smelted products sampled from a smelting furnace modelled upon the furnace structure identified at the site of Geumgok, Milyang, dating to the 6th century CE. This furnace had been built as part of the experimental work on ancient Korean iron smelting undertaken in March of 2015 at the site of the Iron Museum in South Korea. The iron was analyzed using an optical microscope, SEM-EDX, Carbon Sulfur analyzer, and an X-ray Fluorescence analyzer. Micro-Vickers hardness test was also carried out. Based on the results of these analyses, these products can be grouped into three categories according to its metallurgical test. The archaeological implications of these results are also discussed.

SHIROISHI Tetsuya [265]

Structure of Production and Environment during the Yayoi period in Japan

The purpose of this study is to examine the relationship between the structure of production and the nature of the environment during the Yayoi period in Japan. The paper combines the methods of natural science and archaeology. Charred deposits on pottery from prehistoric coastal settlements and a sea cave in Kanagawa Prefecture are examined using natural science methods

to determine their composition. In addition, archaeological approaches are used to examine the collections of ceramics and stoneware. Together, these approaches are used to examine production and its relationship to the environment.

SHULTZ, Daniel [225]

Computer Simulation of Wealth Inequality in Pastoral Nomadic Society

This presentation reports on the results of agent-based computer simulations of wealth inequality in pastoral nomadic societies. Agent-based approaches simulate the actions of individual agents, in this case pastoral nomadic households. This allows for the observation of emergent phenomena, created by the aggregate effects of individual actions. The simulations reported here explore the degree of wealth inequality, the stability of the wealth distribution, and patron-client network formation, all as a function of environmental variables, notably the frequency and intensity of environmental disasters, growth rates of livestock herds, and carrying capacity of pastures. The relevance of the simulation results for understanding 1) the development of large historical empires founded by pastoral nomads (such as the Xiongnu and Mongol empires), and 2) a rise in social complexity concurrent with the adoption of mobile pastoralism in Central Asia/Eurasia, will be discussed, along with broader anthropological implications.

SMITH, Adam [37]

Contextualizing Northern Dynasties Donor Inscriptions in the Penn Museum.

The Northern Dynasties Buddhist sculpture in the University of Pennsylvania Museum of Archaeology and Anthropology, including the monuments likely to have come from Xiangtangshan, has long formed the core of the Museum's Asian collection. Although the objects themselves are well-known, the donor inscriptions, some of which are among the longest and most complex on free-standing sculpture of the period, have not been systematically published and interpreted. Some appear in the standard corpora only in abbreviated form. This paper presents the results of a project to document fully all the Northern Dynasties inscriptions at Penn, with transcriptions, translations and analyses. The inscriptions are useful both for recovering the devotional context of these objects at the time of their production, but also for tracking their more recent history, which, with the help of Qing philological catalogs, can in some cases be pushed back into the 18th c.

SONG Haichao [31]

A Social Complexity Study of the Liangzhu site

The Liangzhu site is one most important communities in Neolithic China. It is in the lower reaches of Yangtze River, and is the central settlement of the Liangzhu Culture. Excavations at the Liangzhu site since the 1990s have revealed a king's tomb, palatial and ritual architecture, walls, an observatory, irrigation system, and so on. Some researchers believe that Liangzhu societies had entered the state-level while others argue that they should be labeled as chiefdoms. This paper aims to promote a better understanding of the nature of Liangzhu societies by carrying out a statistical case study on burial data obtained from a series of Liangzhu Culture sites. Finally, for a comparative purpose, indicative variables for signs of social complexity noticed for Liangzhu societies were tentatively compared to those noticeable for contemporaneous societies in the middle reach of Yangtze River and the Ganqing region of Northwest China.

STEIN, Britta [152]

Granulation and the Tree of Life: How Goldsmithing Techniques and Religious Beliefs Connect the Far East with the West

There have not been comparative studies of jewellery that encompass the whole of Eurasia until today. Prestige goods like crowns and jewellery are mainly found in graves of the ruling elite. By comparing objects from Kofun period Japan with finds from other regions in Eurasia the spread of production techniques, exchange routes and religious beliefs become clear. An analysis of iconographical similarities shows the existence of certain motifs like the tree of life in combination with birds and deer. Yet not only these religious motifs connect the East with the West. Goldsmithing techniques like granulation and the attachment of round or leaf-shaped gold sequins by a wire are also known throughout Eurasia. With a strong focus on crowns, earrings and other jewellery from Kofun period Japan this paper examines the distribution of those objects throughout Eurasia to determine existing links between Europe, Central and East Asia during that time.

STEINHARDT, Nancy [45]

Domes and Dippers: A Monument in Guyuan

A domed, brick structure in Guyuan, Hebei province, has been dated to the Liao dynasty and later. Recent excavation revealed corpses beneath it. I argue that the building is a Muslim mausoleum of the Mongol period, and that Khubilai Khan's grandson Ananda (d. 1307) is interred beneath it. I show the architectural sources to be Muslim tombs in Bukhara of the 10th-14th centuries. I then explore why there has been resistance to identifying the structure as a Muslim tomb. Finally I turn to the site today. The grounds have been developed as a model of greenspace laid out according to perceived Mongol beliefs about the cosmos, including a physical implementation of the Big and Little Dippers. Through actual and interpreted history, I discuss how a domed structure that is visually not Chinese becomes incorporated into the Chinese architectural tradition.

STEVENS, Chris [72]

Tracking the Domestication and Spread of Broomcorn and Foxtail Millet within China

The foundations of Chinese civilization was very much based on millets rather than rice. Evidence suggests that millets came under cultivation in north China by 6500 cal. BC, but the start and length of the process leading to the emergence of these domesticated crops is poorly understood. Tracking the change from wild shattering to domesticated non-shattering rachises is not yet possible, and indeed may be unfeasible for millets. However, changes in grain size and shape have been used to track the domestication of emmer, einkorn wheat, barley, and rice (Fuller et al. 2014). These studies indicate a domestication process for cereals, which sees the transition from wild type grains to larger fully domesticated grains, of around 2000-3000 years. Measurements of millet grains from Chinese Neolithic sites are presented here with an aim towards a better understanding of the process of domestication for these crops within China.

STOROZUM, Michael [264]

Geoarchaeology in China: A Review and Future Prospects

Geoarchaeology, broadly defined as the application of geological methods to archaeological problems, is often thought of as a relatively new sub-discipline of archaeology. Yet, a geoarchaeological approach can be traced back to the early 20th century in China. Now, after

experiencing several decades of tremendous growth, geoarchaeology in China ranges from micromorphology to large scale coring surveys, answering questions critical to disentangling the contextual complexities of early human dispersals, the processes of domestication, and the origins of civilization. Because Chinese geoarchaeology will continue to grow, the need to understand Chinese research agendas and institutions is great. Although linguistic and institutional barriers still hinder the widespread adoption of geoarchaeological methods, the future of geoarchaeological research in China is bright as evidenced by current research projects. This paper reviews the history of geoarchaeological research in China to identify problems and forecast potential areas of future research.

STURM, Camilla [D4]

Economic Networks in Neolithic Walled Towns: A pXRF Analysis of Utilitarian Pottery from the Jiangnan Plain

The emergence of late Neolithic walled towns in the middle Yangzi River valley has received significant archaeological attention, however little is known about what underlies this development. This research uses geochemical techniques to investigate the role of economic control in the evolution of complex societies in the Jiangnan Plain (Hubei Province). Portable X-Ray Fluorescence (pXRF) analysis was used to characterize the compositional variability of a sample of 1,152 Qujialing and Shijiahe period sherds from a regional survey that encompassed the Xiaocheng and Taojiahu walled sites. Results show that Neolithic inhabitants of the area relied on both local and regional exchange networks to acquire utilitarian pottery. Changes in the size and structure of pottery exchange networks were additionally found to correspond with patterns of nucleation and diffusion of populations at Xiaocheng and Taojiahu, pointing to a complex relationship between economic control and the consolidation of political power in these communities.

SUN Bo [284]

Integration and Beyond: Roles of Geographical Environment in the Formation of Early States of the Longshan Culture, Shandong

The geographical environment is the most important factor in the formation and development of early states. The environment not only provides critical natural resources, including land, water, wood, minerals, roads, channels, etc., but also outlines an independent region as the geographic unit. These units give a boundary within which local communities form social identities. Therefore, borders can have important implications for communities as they integrate all aspects of settlements, including economy, politics, identity into a large social unit. Moreover, borders also force definitions of “Tian Xia (World)”, or hierarchical systems of various social units. Those geographical units existed not only in the somewhat closed environmental areas of coastal regions of southeastern Shandong, but also the open area of North Shandong. The settlement patterns varied in the Longshan period within various geographical units. However, the social integration and organization implies a high degree of homogeneity in the process of state formation.

SUN Yan [246]

Identity and Power of a Noblewoman in the Early Spring Autumn Period: A Case Study of Tomb M26 at Liangdaicun

Recent archaeological discoveries at Liangdaicun, Hanzhong unveiled a tomb of a noblewoman Zhongjiang, the wife of the Lord Huan of Rui, a Zhou regional state. The tomb numbered M26 was

dated around late 8th c. BCE and richly furnished with 23 bronze ritual vessels and 571 jade pieces. More significant, Zhongjiang was also recorded in a brief yet unusual passage in *Zuozhuan* stating that she expelled her son Wan, the newly installed Lord of Rui, to the Wei due to his obsession with women. This presentation will use Zhongjiang's tomb as a case study to investigate the interconnectivity of material culture, bronze inscription and historical texts in the construction of the identity and power of a prominent female figure in the early Spring Autumn period.

SUN Zhuo [283]

Interregional Cultural Interactions in the Middle Yangtze River and Huai River Basin during the middle of 2nd Millennium BC

Increasing archaeological research has documented that different sites from the Yangtze and Huai River valleys had diverse and uneven cultural evolution during the early-middle Shang expansion of the middle of 2nd Millennium BC. Along the Middle Yangtze River, Panlongcheng, a Shang city, had an identical city plan, palace foundations, city-wall and elite tombs to those of the Shang city at Zhengzhou, however ceramics and other features showed a more local character. Sites in the Huai River Basin, however, shared the almost same cultural material with the Central Plains, but were lacking of big foundations, hangtu wall, and typical Shang bronzes. These differences and cultural diversity suggested that the cultural integration during this period in east China could be organized in a variety of ways in different regions, and implied a complex and flexible interaction between cultures in peripheral areas and those in the Central Plains.

SUZUKI Mai [210]

The Production System of Bronze Inscriptions of the Shang Dynasty

This presentation examines the production system associated with bronze inscriptions of the Shang dynasty through classifying the variation of the character “Chang” and its manufacturing process on inscriptions on the bronze vessels and weapons which were unearthed from tomb No. 54 at the Huayuanzhuang-east Cemetery at Yinxu site. Many scholars have studied the production system of the ancient Chinese bronzes through the typological study of bronzes and their motifs. I focus on the variation of the character and its method of manufacture, in particular the section style and the depth of the carving of the inscriptions, as one of the lines of evidence which reflects the production context. I also compare the inscription production-method with the motif production-method of each bronze. In conclusion, I clarify that each kind of bronze has its own individual production process and reconstruct the production system of the bronze inscriptions at the Yinxu site.

TANAKA Katsunori [187]

Shifting of Seed Morphology and DNA Variation in Japanese Rice

To reconstruct how rice cultivation system was changed with transition of social and political conditions in Japan, we examined changes in seed size and genetic variation between 77 populations of rice remains (5942 seeds) spanning 2000-years including the modern period. Seed length variation narrowed in populations after 600 CE. This may indicate that the shift in scale and intensity of agricultural management may have happened under powerful centralized clans around 250 CE to 600 CE. As those clans introduced new cultural traits such as Buddhism, horse riding and iron wear, new ways of crop production may have also been introduced. Furthermore, rice tax system to secure subsistence for the warring states seems to have contributed to the decrease of seed and genetic variation in rice. Based on the genotyping by chloroplast and

nuclear genome markers genetic variation of rice remains narrowed toward the Sengoku (Warring States) Period (15-16th C.CE.).

TIMPERMAN, Ilse [207]

The Emergence of Niche Graves in the Turfan Basin

This research analyses mortuary variability in the Turfan Basin and especially the Yanghai site (Xinjiang, P.R. China) to understand the emergence of niche graves in this area around 300 BCE. The methodology involves a bottom-up approach using data mining, which makes it possible to look at the data from multiple perspectives, views or paradigms. The main research questions are: 1) Do the early niche graves in the Turfan Basin represent an innovation introduced by immigrants, or are they rather the result of a local development in tomb architecture? 2) What motivated the use of niche graves in the Turfan Basin? 3) If the niche graves in the Turfan Basin represent a type introduced from outside, how can they be linked to similar practices in other regions? 4) Finally, is the research category 'niche grave' significant at all?

TISHKIN, Alexey [163]

New Discovery of «Deer» Stones in the Territory of the Mongolian Altai

The sculptures called «deer» stones in scientific literature have been investigated for more than 150 years. As a result there is a great volume of information. However still there are a lot of problems in this field demanding further research. For this reason the archaeological expedition headed by the author has carried out a scientific program of studying of the «deer» stones of the Mongolian Altai for 10 last years. In addition to already known «deer» stones many new sculptures were investigated. Some of these materials will be presented to the scientific community in the report. The prepared collection of copies, detailed pictures and also the developed descriptions of the objects show a need for further analysis of the existing concepts. The certain directions of research are the analysis of images on sculptures, and also correlation of the locations and uses of «deer» stones.

TONG Shan [25]

Should they Move out? A Case Study of Southern China's Cave-Dwelling Heritage Protection: Rethinking Indigenous Cultural Heritage Protection in China

Most of the ethnic minorities of China today are distributed in South China. The cultures of these ethnic groups are inherited from the prehistoric and historic indigenous cultures, the tradition of cave-dwelling is one of these cultures. Recently, cave-dwelling traditions have been disappearing due to top-down local government movements in relocating the cave-dwellers out of the caves. By reconsidering the cave-dwelling tradition from both archaeological and ethnographic approaches and revisiting the living conditions of former cave dwellers, I will discuss the problems pertaining to the research of indigenous cave tradition and the “moving out” strategy for cave-dwelling heritage protection. I will suggest an alternative perspective on indigenous cultural heritage protection in South China, which is based on the comprehensive understanding of the whole heritage’s historical development and may be more beneficial and sustainable for the owner of the heritage.

UEDA Kaoru [176]

A Comparative Study of Cross-cultural Interactions: Different Trajectories within the Dutch East India Company

This paper presents a comparative study of cross-cultural interactions at three contemporaneous sites within the Dutch East India Company: the Sultanate of Banten, Indonesia; Dejima trading post, Japan; and the Dutch Cape colony, South Africa. The VOC in Banten and Dejima primarily relied on local and regionally available goods. On the other hand, the Dutch organization often imported products from Europe and Asia and even dispatched European potters to produce European-style ceramics at the Cape. This study explores different trajectories at three Dutch-related sites and evaluates the importance of cultural proximity and daily interactions with the host society for shaping Dutch responses to the new environments and creating hybrid culture, instead of replicating their homeland. This paper in turn aims to stimulate colonial discourse in East and Southeast Asia from an archaeological perspective.

UETSUKI Manabu [54]

Samurai Horses Revealed through Zooarchaeological Analysis

Characteristic of medieval horse remains excavated from Kamakura, Japan is discussed through zooarchaeological analysis. Numerous horse remains were excavated at a sites presumed to be the result of battles leading to the collapse of Kamakura Shogunate in the early 14th century A.D. Most specimens lack any signs of butchering suggesting that they were buried without the ordinary use of meat, hide, or bones. Gnaw marks by dogs were common, indicating that horses were not buried in a careful manner. This was probably due to a rapid accumulation of the corpses of men and horse killed in battle. The withers height of horses were concentrated around 130 cm, with a slightly longer lower limbs compared to the existent Japanese native horses. The ossifications of metapodials were rare, and bit marks were narrow and straight. These facts suggest a relatively large, fast running, and well raised character of the Samurai horses.

UNDERHILL, Anne [194]

New Methodological Directions for Analysis of Chinese Ceramics: Suggestions for Future Research

New theoretical and analytical approaches to the analysis of pottery production, distribution, and consumption are continually being offered by archaeologists throughout the world. In this presentation I offer suggestions for potentially fruitful avenues of research for different cultural areas of China considering relevant remains from diverse contexts. The diverse ceramic traditions of early China offer opportunities for new methodological developments in archaeology.

WALLACE, Leslie [136]

Does a Feather in Your Hat a Barbarian Make? So-called non-Han Headgear and Hairstyles in Han Dynasty Tomb Murals in the Ordos

Fenghuangshan M1, a tomb located in the Ordos desert, is one of several Han dynasty (206 BCE-220 CE) tombs excavated in Inner Mongolia whose murals remain well-preserved. Across its four walls male and female figures appear in a number of scenes common in Han mortuary art, but wear hairstyles and headgear that scholars have associated with non-Han groups described in textual sources. This paper will question the distinctiveness of their headgear, hairstyles, and hair ornaments, placing them within the larger corpus of male and female headgear and hairstyles

that appear in Han mortuary art. This analysis will show that variations of them do appear elsewhere and may help to establish the contested date of the tomb's construction. More importantly, it will demonstrate how these headgear, hairstyles, and ornaments express the contested and complicated nature of political, cultural, and social identity along the Han Northern Frontier.

WALSH, Rory [D2]

Ceramic Production and Social Politics in Mahan and Baekje: Preliminary Results from INAA

The kingdom of Baekje developed in southwest Korea from one of the 54 allied polities of the Mahan, and while the historical narrative is one of rapid conquest, archaeological evidence of a prolonged Mahan/Baekje coexistence has been mounting in recent years. Changes in ceramic technology and style from 200-500 CE provide evidence of the cultural shift from Mahan to Baekje, and specific production traditions and routes of exchange can be examined with Instrumental Neutron Activation Analysis (INAA). Initial results from INAA sampling on ceramics from Mahan and Baekje sites throughout the region reveal patterns in raw material sourcing, paste mixing, and long-distance trade, addressing questions of continuity and change in the political economies of Mahan and Baekje, and providing insights into the long-overlooked relationship between these two societies.

WAN Jiao [266]

The Cultural Evolution of the Chengdu Plain – The Distribution of Prehistoric Sites in the Chengdu Plain

The Sichuan basin is an independent geographical unit in southwest China. The Chengdu Plain is the most important part of the Sichuan Basin. Much archaeological work has been done here, but that work is not balanced throughout the area. There have been many excavations in Minjiang Region and some surveys in Tuojiang Region. Baodun Site is the most famous one in Minjiang Region, and Sanxingdui Site is the most important one in Tuojiang Region. Although Sanxingdui Culture is next to Baodun Culture, the beginning of Sanxingdui is almost the same as or even earlier than Baodun. Sanxingdui lasted about one and a half thousand years, but Baodun lasted a much shorter time. Using GIS to analyze the location of the sites changing with time, we can get the sites distribution maps in the different phases. Through the maps, we may peek at the cultural evolution of Chengdu Plain.

WANG Changsui / LI Wenjing / CHEN Yue [D1]

The Redefinition of Celadon and a New Idea of its Origin

It is difficult to understand that there are no scientific definitions of pottery, proto-celadon, celadon and porcelain. It is easy to realize that the definition of proto-celadon was the outcome of concessions from different ideas. Prof. Jiazhi Li stated that Chinese celadon originated in the late East Han dynasty. However, this is obviously wrong. After serious consideration, the new celadon standards are suggested as follows. First, its body material should be kaolin clay or porcelain clay. Second, there should be glaze on the body surface, which was produced under high temperature. Third, its firing temperature should higher than 1100°C, which is higher than that of changing to glass state and forming the primary mullite. According to these new standards of celadon, so-called proto-celadon absolutely satisfied these standards, so it should be called celadon, not proto-celadon. Chinese celadon should originate in Xia-Shang dynasties at the latest, not late East Han dynasty.

WANG Chunxue [20]

Identification of Adhesive on Bone-handled Microblades from the Houtaomuga site in Northeast China

With the emergence and progress of composite tools in the Upper Paleolithic, adhesive became one of the most widely used materials by early human societies. Of particular interest is to know which animal/plant species were being exploited for glue manufacturing. The Houtaomuga site, located in northeast China, provides favorable materials for the identification of organic residues. A few bone-handled microblades were collected from this site. In this study, we scraped micro adhesive samples of bone-handled microblades, and we have carried out FTIR and proteomics analysis to determine the protein components and precise origins. Those identified from tandem mass spectra of doubly protonated tryptic peptides match most closely to known horse collagen markers, suggesting the adhesive was an animal glue made from horse. These results reveal the diverse utilizations of horse in the site, which provided not only meat and hides, but also parts for manufacturing adhesive.

WANG, Eugene Y. [44]

Where and How to Locate the Heaven in Tombs? The Case of Mawangdui

One habitually speaks of the postmortem flight to heaven. Heaven images in tombs sustain that discursive habit, now hardened into an explanatory model. The model hardly holds, at least with regard to the second-century BCE Chinese cases, e.g., Mawangdui tombs. The painting draped over the innermost coffin maps the flight to heaven; the chambers of the wooden encasement, with its embedded nesting coffins, signal a domicile. To fly to heaven or to stay in the tomb—that is the question. The hun/po division (i.e., the disembodied intelligent spirit vs. the bodily animal soul) is not the answer. Cosmological model is the root problem. The primacy of a fixed spatial model easily spawns a flight-to-heaven scenario. The Mawangdui tombs suggest, instead, a dynamic time-ordered universe. The rotation of seasonal cycle, to which all spatial and conceptual domains are keyed, can turn everything upside down. There is no fixed “up there” there.

WANG Minghui [62]

A Study of the Health Status of Ancient People in China's Central Plains, with a Focus on the Jiahu Site and Xipo Cemetery

This presentation comprehensively explores bones from the typical hunting and gathering site of Jiahu in Wuyang city and agricultural site of Xipo in Lingbao city of Central Plains, China. Bone studies suggest that the ancient people's health status was deteriorating during the transition from a hunting and gathering economy to an agricultural economy. But at the same time, as an important feature of health indicators, the average life expectancy of the Xipo cemetery is significantly improved from the average life expectancy of Jiahu site. Therefore, on the whole, the transformation of agricultural economy promoted the development of the ancient population health status and progress of civilization, made a great contribution to human progress in agricultural economy.

WANG Wenjing [30]

Early Complex Society Development in Chaohu Area, Middle-Lower Reaches of Yangzi river, China

This research will present the preliminary results of regional organization of early complex societies in Chaohu Region, in the middle-lower reaches of Yangzi river, China. This research is built on a systematic, full-coverage regional-scale survey of the Chaohu region, conducted by Archaeological institution of Anhui Province, China from 2008 to 2013, covering 400 km². In the 1990s, a series of excavations were conducted in this region, burials with large amounts of jade were revealed, indicating social differences in this region. Except for 50 burials with fancy jades, however, we know nothing about the developmental trajectories in this region; we know nothing about the nature of communities; the spatial distribution, demographic information and organization of communities in this region; we know nothing about the hierarchical principles by which these communities are organized.

WANG Yanxi [239]

Reconstruction of Regional Polity under the Qujialing Expansion

By the second half of the third millennium B.C., Qujialing culture, which originated from the Jiangnan Plain, expanded northward quickly and reached as far as the heartland of Central Plain. However, other than material culture, researchers know very little about the nature of this expansion. In this paper, I will use regional settlement pattern and community structure of the Guan River Valley to illustrate how Qujialing societies in the Jiangnan Plain was at the center of a vast socioeconomic network that expanded to neighboring regions, and how this expansion brought about changes to regional polities.

WARINNER, Christina / JEONG Choongwon / OZGA, Andrew T. / WITONSKY, David / MALMSTRÖM, Helena / EDLUND, Hanna / HOFMAN, Courtney A. / HAGAN, Richard / JAKOBSSON, Mattias / LEWIS, Cecil M. / ALDENDERFER, Mark / DI RIENZO, Anna [106]

Long-term Genetic Stability and a High-altitude East Asian Origin for the Peoples of the High Valley of the Himalayan arc

The high altitude transverse valleys (> 3000 masl) of the Himalayan arc were among the last habitable places permanently colonized by prehistoric humans. To investigate the peopling and early population history of this dynamic high altitude contact zone, we obtained low-coverage genome-wide sequences (0.04-0.65x, mean 0.25x) and high coverage mitochondrial sequences (20.8-77.8x, mean 46.4x) from eight individuals dating to three periods with distinct material culture in the Annapurna Conservation Area (ACA) of Nepal, spanning 3150-1250 BP. We demonstrate that the region is characterized by long-term stability of the population genetic make-up despite marked changes in cultural remains. Genome-wide markers, mitochondrial haplotypes, and high altitude adaptive alleles suggest a high-altitude East Asian origin for prehistoric Himalayan populations.

WEI Dong / YANG Si [14]

A Regional Investigation of Activity-related Stress and Trauma in Bronze Age and Early Iron Age Human Remains in Xinjiang, China

A total of 121 human skeletons recovered from eight Bronze Age and Early Iron Age archaeological sites in Xinjiang were examined for activity-related stress indicators and trauma. The results reveal a significantly elevated sexually dimorphic upper limb robusticity and lower

limb differences in mobility patterns. The prevalence and the distribution of trauma have also been assessed in terms of daily activity-related stress and interpersonal violence. In conjunction with the analysis of mortuary practices, this study sheds light on the behavioral variability and adaptation of both subsistence practices and conflict in this area.

WEI Qiaowei / ZHAO Yichao [2]

Made Locally or Long Distance Transportation? New Evidence on Ceramic Vessels from Salt Production Sites in North Shandong

Questions about salt production in Ancient China have examined the function, typology, and chronology of a certain type of ceramic vessel, the *kuixingqi* 盔形器 (helmet-shaped vessel). Instead of examining typology of *kuixingqi* vessels from salt workshops in the North Shandong region, we will begin by looking at how those *kuixingqi* vessels were made and transported to the salt workshops, if those vessels were not made locally. I present the findings of ceramic petrographic analysis conducted on *kuixingqi* vessels based on analysis of the ceramic material components using a low resolution microscope. This analysis provides better understanding of how ceramic vessels were made for salt workshops, and what was the baseline for salt workshop management of the production process.

WEISSKOPF, Alison [128]

Alternative Approaches to Early Rice in Asia: Wetland Emitters Versus Rainfed Dispersers

One of the keys to understanding the impact of the development and expansion of early rice agriculture in Asia is distinguishing between wet and dry agricultural ecologies. Wet ecologies produce more methane, support more population, lead to settlement growth and intensification which, in turn, increases population. In contrast, dry arable systems produce less methane, supported agricultural expansions across South and Southeastern Asia at the expense of low density hunter-gatherers. Archaeologically, silica bodies - phytoliths - can be used to pinpoint changes in cultivation system. Here I demonstrate methods while also considering their limitations. First, modern analogues of ecological groups of phytoliths from a range of modern traditionally farmed fields were created and applied to archaeological samples using multivariate analysis. Next, a fixed versus sensitive morphotype model was used to infer wet versus dry farmed rice systems.

WEN Rui [262]

West or East? The Provenance Study for the Glass Beads Excavated from the Shi-ren-zi-gou Series Sites in Xinjiang, China

The tombs M011 of the Shi-ren-zi-gou site and the tomb M1 of the Xi-gou site have both yielded glass beads. They date to the 4th-2nd centuries BC. The beads were analyzed through LA-ICP-AES and 3D optical microscope and the results showed different technical and chemical processes for the manufacture of the beads from the different tombs. The Shi-ren-zi-gou beads are typologically quite close central Chinese beads so they were highly likely from the east. The Xi-gou beads were different from beads manufactured in China, Northern Africa and Mesopotamia contemporaneously. They might be manufactured in the Central Asia or Xinjiang region. Similar glass beads have been found in sites in the south of Tianshan Mountains. Beads came from both west and east at the same large site suggests that the eastern Tianshan Mountains were a junction for glass bead spread and that Nomadic people played important role in culture exchange.

WENG Yu-wen [177]

Islamic Influence on Chinese Kilns: A Case Study of Chinese Export Ceramics in Southeast Asia

After the mid-Ming period, under the lenient enforcement of the ban on maritime trade, private kilns prospered in China. I will discuss Chinese export ceramics especially to Southeast Asia during the 15 to the 17th century. Some of these ceramics were made in Islamic style as observed in their vessel shapes and decorative patterns. Compare to the export porcelains of the Yuan period, potters in Ming private kilns were more capable of designing special products to meet consumer demand.

WOLIN, Daniela / CHEUNG, Christina / ZHANG Hua [11]

The Lives of Commoners and Sacrificial Victims of Late Shang in Anyang, China: New Evidence from Paleopathology and Palaeodiet

Through the analysis of human skeletal remains from two distinct burial contexts (lineage burials and sacrificial pits), this study explores the impact of social stratification upon the non-elites in Yinxu during the late Shang dynasty (ca. 1250 – 1046 B.C.). Indicators of physiological disturbance, dental pathology, and activity-related stress and trauma were examined on 163 local residents from the lineage burials and 44 sacrificial victims (most likely war captives) from the royal cemetery. Stable isotope analysis (C, N) was also conducted to reconstruct and compare the dietary profiles of these people (n=68). Taken together, this study adds to our growing understanding of Yin Shang society, providing a more detailed picture of lifeways at Yin and the stresses that people experienced with intensified social stratification.

WOMACK, Andrew [197]

Crafting Community: Initial Results from a Petrographic Analysis of Majiayao and Qijia Ceramics

While Majiayao pottery has long been recognized for the beauty of its forms and painted decoration, up to this point few investigations have considered how it was produced, where it was made, and what it is made of. Even fewer studies have considered these questions for pottery from the later Qijia period. This presentation will combine craft production theory and petrographic analysis of Majiayao and Qijia ceramics in order to shed light on each of these questions. In particular it will focus on similarities and differences between pottery from residential and mortuary contexts, changes in production methods and materials over time, and identifying the origins of inclusions in the paste. The impact that these results have on our understanding of Majiayao and Qijia mortuary practices and social organization will then be discussed.

WONG Waiyee Sharon [178]

A Comparative Study between a Khmer Ceramic Production Site and Chinese Ceramic Consumption Site in Angkor, Cambodia

This paper will study the early Khmer ceramic production centre of Angkor and its relation to Chinese ceramic production industries. I conduct a comparative analysis between the Khmer ceramic production site and imported Chinese ceramic consumption sites. This study is based on the new archaeological findings from the Bang Kong Kiln site near Roluos excavated by the APSARA Authority in 2015, as well as the early temple site Prei Monti in Roluos by The École

Française d'Extrême-Orient (EFEO). The latter site yielded Changsha ware and other Chinese ceramics dated from the ninth century. The modes of cultural exchange and social-economic drives behind Khmer ceramic production and the consumption of Chinese ceramics in Angkor are evidenced by under-studied ancient Chinese records. These will help establish a framework for conducting a comparative archaeological study between Khmer ceramic production and the consumption of Chinese ceramics in Angkor during the 9th to 11th centuries.

WU Chunming [97]

An Ethno-archaeological Exploration of the Origin of Maritime Han Ethnic Group in the Coastal region of Southern China

The Han 汉 ethnic group in coastal region of southeastern China is a special cultural branch of Han 汉 ethnicity of China, which had played the key role in ancient Chinese maritime history. The traditional explanation emphasized the immigration and cultural dissemination of Huaxia 华夏 and Han 汉 people from the Central Plain (Zhongyuan 中原) and north China to the coastal region of southeastern China. However, ethno-archaeological explorations have recently shown that the maritime Han ethnic people in this coastal region originated primarily from both native Yi 夷 and Yue 越 in the pre-Qin period in this local region and from the maritime immigration of Hu 胡 and Fan 蕃 from the South China Sea and Indian Ocean during the Tang and Song dynasties.

WU, Mandy Jui-man [248]

Loyalty or Betrayal: The Northern Zhou tomb of Wang Deheng (547-576 CE)

Archaeological studies of historical periods of China often encounter actual historical figures, especially those buried in tombs provided with funerary biographies. The owners of those tombs were sometimes recorded in official documents, which add another layer of information for the understanding and interpretation of their lives. The aim of this paper is to use the intact tomb of Wang Deheng, a Chinese general of the Northern Qi who surrendered to the enemy state, Northern Zhou, as a case study to discuss how material remains and written documents reveal the complexity of the stories of the Wang family. The intentional interment of miniature bronze vessels, not often seen in tombs during the time, and the inclusion of carefully worded biography were decisions consciously made by his father in order to protect the reputation of the Wang family through a dialogue about loyalty and betrayal.

WU Naiqin [C2]

Mid-Neolithic Exploitation of Mollusks in the Guanzhong Basin of Northwestern China: Preliminary Results

Here we report on freshwater gastropod and bivalve mollusks covering the time interval from about 5600 to 4500 cal. yrs BP from sites of Mid-Late Neolithic age. They are all freshwater gastropods and bivalves found in pits without water-reworked deposits and have modern representatives which can be observed in rivers, reservoirs, and paddy fields in the studied region. Mollusk shells were frequently recovered in association with mammal bones, lithic artifacts, and pottery. These lines of evidence indicate that the mollusks are the remains of prehistoric meals. However, these mollusk remains may not have been staple food since they are not found in large quantities. Mollusk shell tools and ornaments are also observed. The finding of these freshwater mollusk remains supports the view that the middle Holocene climate in the Guanzhong Basin may have been warm and moist, which was probably favorable to freshwater mollusks growing and developing in the region.

WU Yan [125]

Investigation of the Origin of Rice Agriculture in Lower Yangzi River Area based on the Phytolith Record

Using rice cultivation as an adaptation to environment is one of the most important processes in the the history of human civilization. There is a continuous debate about whether rice remains from archaeological sites in early Neolithic are collected wild rice or early cultivated rice. One of the key research foci is to find solid scientific evidence of human intervention in the rice growth and plantation. It is obvious that the change of human behavior will cause the change of associated flora to some extent. Here, we will focus on the ancient rice in the lower Yangzi river area, and use phytolith distribution pattern as a new research method, which is then combined with the results from AMS¹⁴C dating. Then we can investigate whether change of phytolith distribution has occurred due to the human intervention. This can provide a novel method to research on the origin of rice agriculture.

WU Xiaolong [247]

Balancing Archaeological and Textual Evidence in Eastern Zhou Archaeology

Archaeological research on the Eastern Zhou period cannot avoid consulting with or participating in the historical framework established by transmitted texts, such as the *Shiji*, the *Guoyu*, and the *Zuo Zhuan*. In addition to material remains and transmitted texts, bronze inscriptions and texts written on other materials excavated from archaeological sites of this period further enriched the categories of information available for researchers. However, historical narratives constructed through archaeological research and those based on transmitted texts are both admittedly fragmented and they often do not match or agree with each other. This paper uses a few case studies such as the states of Zeng and Zhongshan to discuss the positive and negative impacts of transmitted texts on archaeological studies of China's early historical period, and argues that the narratives based on material remains and excavated texts need not strive to conform to the established framework based on transmitted texts.

XIE Liye [61]

Urban Construction as a Social Transformation Process during the Longshan and Erlitou Periods in the Middle Yellow River Valley

Archaeological evidence shows that the Longshan urban settlements are situated in new locations away from previous centers of the late Yangshao settlement. The Longshan urban settlements demonstrate established power and increasingly complex social systems. Interestingly, most new systems in the Middle Yellow River Valley, including those of the Taosi and Wangchenggang entities collapsed within a short term. In contrast, the Erlitou society thrived and culminated in what many scholars believe to be the first dynasty in China. I hypothesize that the act of construction during the urban construction processes played an important role in legitimizing the rising power and the creation of a new political system. I will compare three aspects of the ruler-subject relationships, including strategies for recruiting laborers, securing implements, and ritual practices, during the urban construction processes in different societies to understand why the Erlitou system was more stable and sustainable.

XIE Tao [B3]

New Discoveries at Laoguanshan

Laoguanshan in Chengdu is a set of Han tombs from the early Western Han period that are earthen pits with chambers. In these tombs excavations recovered more than one hundred objects of daily-use such as lacquered wooden vessels, cups, basins, and cosmetic cases, and more than ten models including painted and lacquered wooden figures, various animal figurines, and a house model. Also included in the tomb are more than one thousand bamboo strips, which have been identified to belong to the medical text known as the "Bian Que Neiwei Classic" of the Yishi Zhuan (Biographies of Hermits). The tomb contents also included four pieces of the earliest brocade textile from Sichuan.

XU Deke [133]

500-year Climate Cycles Stacking of Recent Centennial Warming and its Possible Linkage to the Rise and Fall of Chinese Dynasties

We present a high-resolution 5350-year pollen record from an annually laminated lake in East Asia (EA). The pollen record reflects the temperature change. Spectral analysis on pollen percentages of temperature proxies, revealed ~500-year quasi-periodic cold-warm fluctuations during the past 5350 years. This ~500-year cyclic climate change occurred in EA during the mid-late Holocene. The last 150 years were dominated by anthropogenic forcing. During the past 2000 years, warm phases correspond to the prosperous dynasties, including Han, Jin, mid-Tang to Song, and Ming; whereas cold phases correspond to disrupt or nomadic dynasties, including Late Han to Three Kingdom, the Northern and Southern Dynasties to early Tang, Southern Song to Yuan, and Qing. This study allowed us to observe this phenomenon objectively, rather than assigning the causal relationship between climate change and the rise and fall of these dynasties. In general, warm climate is beneficial to prosperous and unified dynasties, and vice versa.

XU Fengxian [43]

A Conjecture on the Astronomical Use of *yazhang* 牙璋

Yazhang is a kind of jade in a special shape. Opinions on the function of *yazhang* are quite divided: weapon, agricultural tool, tally, or ritual article. Inspired by the bronze figurine from Sanxingdui which holds a *yazhang* in kneeling position, this paper proposes that *yazhang* might have been used in astronomical observation. The two points of *yazhang* may be used in aligning to the Polestar, and the irregularly carved handle might have been designed to fit a special wooden pole carved in corresponding pattern at one end thus made them easy to fit and keep vertical. Literature study shows that during late Neolithic to the beginning of the Xia Dynasty, large-scale geographical survey might have been carried out, so different kind of *yazhang* may have been used in determining the latitude of different places.

XU Jian [78]

Defining Bronze Weapons from Southwest China: A Contextual Study

Traditionally, some bronze items with distinct features found in the Southwest China had been identified as weapons such as swords, daggers or spear heads, and classified in a regional category influenced by those from the Central China. Although roughly similar in shape, those items bear elaborate decorations seldom encountered in Central China. Moreover, they were unique in composition and association in burial practice. This paper will make a systematic study of these so-call "bronze weapons" in Southwest China, based on trustful excavations in recent

decades, aiming to re-define them in the context of the bronze age cultures in Southwest China and mainland Southeast Asia.

XU Wenpeng [95]

Regional Variation? Exploring the Differentiation of Maritime Ceramic Trade among Southeast Asian Polities in the 12-13th Century

Chinese ceramics found in a Java Sea shipwreck and now housed at Chicago's Field Museum show similarity with another shipwreck, Huaguangjiao No.1 found in the Xisha Islands. Both ships departed from Quanzhou in the 12-13th century and carried a large number of Chinese ceramics, which came from various kiln sites in Fujian, Zhejiang and Jiangxi. Except for some fine ceramics from Jingdezhen and Longquan, most ceramics from Fujian kiln sites are of relatively low quality. Around the same time, another shipwreck, the Nanhai 1 (South China Sea No. 1), revealed more high-quality ceramics from Jingdezhen and Longquan. Does this variation reflect the variability of single trip or various needs of different polities in Southeast Asia? Can we discover this variation from land archaeology in Southeast Asia? Is this variation associated with different levels of social complexity in Southeast Asia? This paper tries to answer these questions through examining ceramics from shipwreck and land archaeology.

YAMAFUNE Kotarō [9]

Archaeology and Art: Portuguese Ships in Japanese Perspectives

Between the end of the 16th century and throughout the 17th century, Japanese artists depicted Portuguese people and their activities in Japan on their screen painting. This peculiar style of Japanese paintings is known as Namban Screens, and more than 90 screens survive today. Most of those paintings display European ships as one of their main themes. Studying those representations of ships sheds new light on our understanding of upper structures of contemporary Portuguese ships, as upper structures rarely survive as archaeological data. In analyzing the artwork, it became apparent that these ships on Namban Screens were not depicted from actual European ships that visited and anchored in Japan. Instead, it seems likely that they were copied from depictions of ships on imported European goods and paintings, especially maps of the Age of European Expansion. This shows the value of incorporating multiple types of evidence into archaeological studies.

YAMAGUCHI Miyuki [179]

The Archaeology and Restoration Project of the Dutch East India Company's Trading Post at Dejima, Japan

Dejima, located in Nagasaki City, was a trading post of the Dutch East India Company in Japan. Dejima was part of the trade network of the Company from the 17th to the 18th century. It served as a window into the rest of the world during the Japanese government's closed door policy, bringing trade goods, academic knowledge and culture from Europe, China, Southeast Asia, and Islamic regions. Dejima also played an important role introducing Japan to the West. The excavations that I have been conducting as the director since 2001 revealed the structure of Dejima and its function as a town and unearthed more than 700,000 of trade ceramics and various daily-use ceramics. In this paper, I present the overview of archaeological results recovered from the excavations from 2001 until today, the restoration of Dejima, and its future plan.

YAMAMOTO Takafumi [151]

Burials of Emigrants: The Spread of Burial Customs as seen from Stone-Chamber Tombs in Korea, Japan and China

In East Asian archeology, movements of people and cultural diffusion are discussed on the basis of the spread of metalwork, ceramics, horse-riding culture and more. In this context, various opinions exist relating to the spread of stone-chamber tombs and its burial customs in East Asia. The establishment of emigrants and their burials are one focus of interest. Particularly, taking into account the spread of Paekche style stone-chamber tombs to various places within East Asia after the 6th century A.D., it is necessary to consider the different contexts of this phenomenon. This paper focuses on the stone-chamber tombs of the Paekche area in the Korean peninsula in comparison with similar forms of stone chambers in the Chinese mainland and the Japanese archipelago, indicating historical links. It is demonstrated how far it is possible to verify mutual relationships with regard to construction methods, thus shedding light on the conditions of the spread of burial customs in East Asia.

YAMAMOTO Takashi [212]

Rethinking Materiality of Chinese Bronze Vessels: History, Ideology and Identity in Xichuan

Xichuan county is located on the northern marginal area of the Chu cultural sphere from southern Henan province to northern Hubei province. Archaeological survey in this area was followed by the excavation of cemeteries of aristocratic lineage of Yuan (Xiasi, Heshangling, and Xujialing sites), which are associated with highly prestigious bronze vessels. According to the excavation reports, these cemeteries are dated to the Spring and Autumn period and Warring States period, but some researchers have pointed out that there are problems with the reported chronological dating due to the existence of bronzes which had been inherited from past generations. The author re-examines the chronological sequence of the bronzes of this area and the different patterns of deposition of old bronzes. In so doing, the author discusses the changing identity and ideology of the Yuan lineage from the perspective of the materiality of bronze vessels.

YAN Lifeng [257]

Elemental Distribution Profiles of Porcelain by Means of SEM-EDX

It is important to determine the lateral or the depth distribution of elements in porcelain, especially for the construction of a structural map in microscale. When the medium lateral resolution of one micron is required, SEM (Scanning Electron Microscope)-EDX (Energy dispersive X-ray spectrometry) is a common tool. Under SEM image one can choose the target region for analysis, while the elemental distribution profile of the porcelain surface can be measured by changing the voltage of acceleration. For this paper, the elemental distribution profiles of C, O, Al, Si, Na, K, have been studied, and it provides a possible method to study the elemental exchange of porcelain surface to its environment.

YANG, Claire Yi [209]

Death Ritual in Tang Dynasty China (618-907): A Study of the Integration and Transformation of Elite Culture

This paper presents the first comprehensive study reconstructing Tang-dynasty (618-907) funerary practice, and—by means of this reconstruction—explores cultural homogeneity in medieval China and the impact of sociocultural changes on death ritual. My research

demonstrates that certain death ritual practices prevailed among the elites of various regions and social strata and remained stable throughout the entire Tang dynasty, suggesting the existence of a standardized Chinese way of commemorating death. I use a wide range of sources: hundreds of archaeological reports of Tang-era tombs; the texts of nearly 6,000 tomb epitaphs and the iconography of their cover stones, which provide both extensive biographical data and insight into notions of death and the afterlife; and the rich literary tradition of ghost stories and other tales of the strange. I use a multi-regional perspective, quantitative and qualitative approaches and GIS to analyze and map my data.

YANG Yuzhang [278]

Human exploitation of plant foods during the Upper Paleolithic in Central China: Microplant analysis at the Lingjing site

Starch grain and phytolith analysis was conducted on stone tools and pottery shards from the Lingjing site in central China to identify the kinds of plants used by people 13,000 years ago. The experimental results indicate that the root of snakegourd (*T. kirilowii* in the Cucurbitaceae Family), the Triticeae Tribe, Job's tear (*Coix* spp.), Chinese arrowhead (*Sagittaria* sp.), and Rice (*Oryza sativa*) have been utilized by ancient people at that time. The recovery of rice phytolith in northern China during the Upper Paleolithic has important significance for the study of rice agriculture in East Asia.

YAO, Alice [113]

Lifeways in the Transitional Area between Farming and Animal Husbandry in North China -- The Excavated Remains from the Muzhuzhuling and Shengedaling Sites

Muzhuzhuling and Shengedaling date to approximately 3900 years ago and are located in Dabaodang, Shenmu County, Shaanxi, China. They contain lots of plant and animal remains. The area of these two sites belongs to the margins of the Mu Us desert, which traditionally is located in the transitional area between where farming and animal husbandry predominated. By analyzing the plant remains we find the main source of food to be millet, broomcorn millet and the seeds of leguminosae and chenopodiaceae. Among animals, sheep are found in the most high proportion, and there are goat, pig, cattle and dog, among others. Other fauna include wild animals like spotted deer, wild boar and hare. After analysis, the main mode of life is regarded to have been farming, with livestock breeding as supplementary.

YASUI, Emma [D6]

Seeing the (Previously) Unseen: Starch Grain Analysis on Jomon Period Ground Stone from Hokkaido, Japan

Jomon Period subsistence has been a topic of focus for many decades, and the range of questions being examined has expanded as new methodologies have been introduced. Recently, residue analysis and identification of microscopic plant remains have been applied increasingly to artifacts across East Asia, revealing evidence of resources that are traditionally difficult to recover through macrobotanical approaches. Underground storage organs, such as roots, bulbs, and tubers, are assumed to be a component of Jomon food practices, but poor preservation has made it challenging to gauge the use of these species. Starch grain analysis is an ideal method for addressing this question, and the initial results from ground stone tools on sites in Southwestern Hokkaido are encouraging. However, concerns remain over the quantities of starch grains being

recovered, and what these amounts mean for the methodology or the nature of Jomon ground stone technology.

YI Kisung [116]

Changes in the Stone Tool Production System of the Korean Peninsula: Bronze Age Chipped Stone Tools

It is commonly believed that only polished stone tools were used during the Bronze Age of Korea, with chipped stone tool manufacturing techniques having disappeared in the Neolithic. The technological advancement from chipped to polished stone tools, and the geologic environment in which glassy stone appropriate for chipped stone tools is scarce, have been used to support this claim. However, the Bronze Age polished stone tool assemblage identified thus far does not seem to include any tools with sharp edges, which would have been necessary for processing animals etc. This implies that the flakes that have previously been recognized as semi-finished items of the polished stone tool manufacturing process were in fact themselves used as tools. A characteristic feature of the chipped stone tools of the Korean Bronze Age is that, in contrast to other regions, polished stone tools and chipped stone tools were made within the same manufacturing system.

YONEDA Minoru / KIKUCHI Hiroki / MARUYAMA Masashi / SUN Guoping [190]

Carbon and Nitrogen Isotope Analyses on the Neolithic Human, Animal and Plant Remains from the Tianluoshan Site, Zhejiang Province, China

The lower Yangtze River region is one of the original locales for the wet rice agriculture that was a part of the Yayoi culture of prehistoric Japan. The Tianluoshan site in Zhejiang Province is a wetland Neolithic settlement which has produced a large number of animal and plant remains. In order to reconstruct the rice agricultural activities we collected human, animal and plant remains including dogs, cat, boars, deer, buffalo, and birds for carbon and nitrogen isotope analysis. We found that domesticated dogs demonstrated similar isotopic values to those of humans, suggesting that they exploited garbage or dumps. What is interesting is that boars showed a wide variability probably suggesting some influence from human activity, although wild animals and plants showed wider variabilities as well. The temporal change of isotope ratios in human, and domesticated and wild animals provides information about the history of animal domestication and human activities.

YOSHIDA Yasuyuki [33]

Spatial Analysis of Jomon Ear Ornaments: Toward Diverse Interpretations

This paper aims to interpret the distribution of Japanese prehistoric Jomon ear ornaments based on the context of hunter-gatherer-fisher studies and methodological discussions in the history of archaeology. Jomon ear ornaments developed in central Japan in the Final Jomon period (approx. 3000 BP), and they exhibit a significant spatial pattern that will be examined from multiple perspectives. The understandings of spatial patterns of archaeological artifacts have shifted from cultural history approach including diffusionism, processual approach, to post-processual and interpretive approach paying attention to symbolical aspect of artifacts. This paper will adapt those three approaches to the spatial pattern of Jomon ear ornaments to make diverse interpretations. This attempt will stimulate the argument whether or not “Jomon” is an affluent hunter-gatherer-fisher culture, and re-acknowledge the potential of Jomon study as an arena of hunter-gatherer-fisher studies and methodological discussions underpinned by massive data developed salvage archaeological context in Japan.

YUNDENBAT Boldbaatar [230]

Prehistoric Pornography: Petroglyph Site at the “Grave of Thirty-Two”

The paper discusses the symbolic meaning of the petroglyph carved on the eastern stone wall of the Bronze Age slab grave known as the “Grave of Thirty-Two”, located on the hills of Mt. Del in Ulziit County, Dundgobi Prefecture in south-central Mongolia. The upper and lower walls of the “Grave of Thirty-Two” actually depict about 50 humans, all in rhythmic movement as if portraying a single complex ritual. Of these images 21 masculine and 8 feminine figures are carved on the upper edge of the stone wall at the left – i.e. facing the sunrise relative to where the head of the deceased was positioned. The site features images of ithyphallic masculine figures in dancing motion holding their right arms upright and carrying blades and arms in their left – and this leads us to designate the petroglyph as “prehistoric pornography.”

ZENG Lingyi [5]

Ceramic Production, Consumption and Exchange During the Yuan Dynasty (1271 – 1368 AD), China

The Yuan dynasty is interesting to investigate since it is a time period involving different kinds of social, cultural, and economic interactions in an extremely large territory, and different ethnic groups and religious traditions. A comprehensive anthropological analysis of how the production and use of prestigious ceramic vessels changed would greatly contribute to an understanding of the expression of social identity and cultural hybridity in this multi-ethnic society. In this presentation I will focus on two types of ceramics from the Yuan dynasty, the egg-white wares and the blue-and-white wares, which have been widely unearthed from ceramic kilns, residential areas, tombs, hoards, and shipwrecks. I will discuss the consumption of these vessels and the reflected social identities. I will also study the different patterns that might have existed during different stages of the Yuan dynasty, relating to changes in raw materials, techniques, organization of production, consumers’ demands, and socio-political policies.

ZHAI Shaodong [A7]

Replication experiments on the lithic products from the Huadizui site, China

The Huadizui site is located in central China and could be dated to the Erlitou Culture Period. From 2004 to 2009, Archaeology Institute of Zhengzhou carried out excavations and found much pottery, many lithic products and jades. I studied the over 100 pieces of lithic products from this site and conducted a replication experiment with them. I firstly made a replication production of the arrow heads from this site. These made up one sixth of the lithic objects from this site. Through the experiment, I found that some parts of the arrow heads unearthed from the site might have been the unfinished products or defective arrowheads. Also, I carried out an experiment on core cutting technique and found that this technique might not have been suitable for the stone tools production process there.

ZHANG Changping [90]

The First Emperor’s Unification of China: The Cultural Foundation as Materially Manifested in the Yangzi Region

The lower and middle Yangzi regions were within the political domain of the Qin (221-206 B.C) and following Han Dynasty (202 BC-220 AD). The territory of these empires was not built upon only military conquests, but had a deeply rooted cultural foundation. The cultural expansion of the Central Plain may be traced back as early as 2000 B.C., including the period of the Erligang culture. It is seen in the 11th century B.C. as the Western Zhou Dynasty expanded through the

system of enfeoffment. In the 8th century B.C., the state of Chu achieved its political hegemony over the lower and middle Yangzi. During multiple expansions of Central Plain culture, the Yangzi region assimilated cultural waves, and developed a cultural configuration in accordance of that in the Central Plain. The adoption or acceptance of the Central Plain's culture can be clearly observed in cultural configuration and local context.

ZHANG Dongju / DONG Guanghui / WANG Qianqian / REN Xiaoyan / CHEN Fahu [70]
Human Migration to the Northeastern Tibetan Plateau: Preliminary Study of 151 Site in the Qinghai Lake Basin

The current study indicates that Northeastern Tibetan Plateau (NETP) is one of the first widely occupied places by people on the Tibetan Plateau, which makes NETP very important to understand human history on the plateau and human adaptation to high elevation environments. Hence, the 151 site, a paleo- to Epi-Paleolithic site in the Qinghai Lake basin on NETP, was chosen to excavate. Thousands of animal bones, hundreds of stone artifacts and several possible hearths were unearthed. Careful redating of the site shows that it was first occupied shortly around 15 ka BP, then reoccupied from 9000-6000 a BP more intensely. Preliminary study suggests that the first appearance of humans around Qinghai Lake was closely related to the amelioration of the Last Deglaciation and the prevalence of microlithic technology in North China, which may enlighten the study of early human migration to whole plateau.

ZHANG Jianping [130]

Phytolith Analysis for the Discrimination of Millets and Related Wild Grasses

The domestication of millet was a transformative event in human history in East Asia. Understanding the subject is of fundamental importance for reconstructing the history of dry farming and the development of ancient Chinese civilization. Developing methods for identifying the remains of millet and related wild grasses has been a focus of archaeobotany. Phytoliths have increasingly taken their place in an important independent index for differentiating millets and related wild grasses. In this presentation, based on morphological and morphometric investigation of phytoliths from inflorescence bracts of modern references, we build up diagnostic criteria for distinguishing common millet (*Panicum miliaceum*), foxtail millet (*Setaria italica*), barnyard millet (*Echinochloa* sp.) and green foxtail (*Setaria viridis*), and discuss the potential significance of phytoliths in differentiating millets and related wild grasses (*Setaria* spp.). These findings will shed light upon the fields of plant taxonomy, anthropology, archaeobotany, as well as the history of ancient civilizations.

ZHANG Junna [131]

Vegetation Change during 9200-7000 cal yr BP. and its Influence on the Transition from Hunting-gathering to Neolithic Subsistence in the Central Plains of China

We studied the early-Holocene vegetation changes in western Henan Province, China and its impact on the evolution of Pre-Peiligang (before 9000 BP), Peiligang (8500–7000 BP) and Yangshao (7000-5000 BP) cultures in the Central Plains. The investigation focused on analyses of grain size, magnetic susceptibility, and the pollen assemblage from a fluvial sequence of the Yiluo River. The results indicate that the climate was wet during 9000–8800 cal yr BP, which promoted the development of hunting-gathering economy and increased the population. However, 8800–7300 cal yr BP were drought years in the region, and the environmental pressure was responsible for the development of early agriculture and Peiligang culture. The climate turned wet again after

7300 cal yr BP, which was beneficial for agriculture and accelerated the spread of the Yangshao Culture.

ZHANG Junna [60]

Evolution of the Yiluo River and its Influence on the Prehistoric Culture and the Formation of the Erlitou site in the Luoyang Basin, Henan province, China

The Erlitou site (3800-3500 BP) in the Luoyang basin is regarded as one of the most important large settlement sites during the origin of Chinese civilization. The presentation will show the work we have done in Luoyang basin during the past years, we reconstruct the evolution of Yiluo River, and the Holocene environment in Luoyang basin, and discuss its influence on Neolithic cultural evolution in the area. The results indicate that the higher terrace (T2) of Yiluo River has formed before ca.9.0ka, forming wide flat land for early agriculture. The lower terrace (T1) has formed before 7.0ka, where Yangshao(7000-5000 BP) and Longshan(5000-4000BP) people lived. In Late Longshan period (around 4000BP) a flood happened in Yiluo valley, which covered the whole lower terrace (T1) and part of the higher terrace (T2). After the flood, the Luo River changed its channel, which is one of an important reason for the formation of the Erlitou site.

ZHANG Juzhong [280]

Formation and Development of Rice and Millet Mixed Farming in the Upper and Middle Reaches of the Huai River during the Neolithic period

Macro- and microplant fossils were recovered from Neolithic sites in the upper and middle reaches of the Huai River. Experimental results indicate that rice and millet mixed farming was practiced in the upper Huai River valley, as early as 8000 years ago—the earliest record for this mode of mixed farming in prehistoric China. In contrast, rice and millet mixed farming did not appear in the middle reach until the late Neolithic period (later than 6000 years ago). This differentiation of agricultural modes in the different areas of the Huai River valley might have been caused by different natural conditions.

ZHANG Lei [36]

A Brief Analysis of the Evolution of Bird Design in Ancient Chinese Headwear

The bird design, as a distinctive and time-honored decoration in the Chinese culture, has its unique national forms and artistic glamour, which had also condensed and accumulated rich and profound connotations. Being an indispensable part of the ancient Chinese civilization, the headwear of ancient Chinese women had evolved continuously in the transmission of cultural heritage, reflecting not only the changes in people's aesthetics, but more importantly, the ever-developing ideology and culture along the various historical periods through the lens of plastic arts. The bird design, an important graphic pattern used in the headwear of ancient Chinese women, has significant meaning embedded in its changes and evolution as a representative case.

ZHANG Liangren [169]

Prehistoric Archaeology of Eastern Xinjiang

In the past decades, the Hami region in eastern Xinjiang has witnessed several major excavations of Bronze Age and Early Iron Age cemeteries, among which Tianshanbeilu, Heigouliang, Yanbulake, and Dongheigou are well known in archaeological literature yet poorly reported. Located at the intersection of various routes that connects with the Gansu Corridor, Central Asia, and South Siberia and Mongolia, the Hami region has played a notable role in ancient cultural

traffic. The excavation materials from these cemeteries, however, have not been well studied. This paper presents a synthetic study of these materials, setting up a three-period chronology and outlining the change of funeral rites and artifact assemblage, which implies waves of influx of population movement into the Hami region.

ZHANG Wenjie [82]

The Suspended-Bell System and the Display of Bells in the Zhou Tombs

Through examining the Zhouli 周礼 and Yili 仪礼, we understand how bells and chimes should be displayed in the Suspended-Bell System 乐悬制度. Comparison with the exact arrangement of bells and chime instruments in the Zhou tombs shows contradictions that raise new questions about the recovery of such a musical instrument system via archaeological data. Other than the bells from the tomb of Marquis Yi, there are additional new examples which displayed their bells and chimes in tombs and give us solid evidence that the Suspended-Bell System was commonly used in the Eastern Zhou period, an issue frequently questioned in previous research. However, these bells-and-chimes lack unified shapes and combinations, and the hierarchy system is also disordered. We are, therefore, inclined to interpret them as a virtual form of the Suspended-Bell System, not faithfully reflecting the position and shape of the instruments as played.

ZHANG Xingxiang / JIN Zhengyao / JIANG Zhilong [260]

Dietary Differences Associated with Sex as Determined by Stable Isotopes at the Bronze Age site of Jinlianshan, Yunnan Province, China

This study uses isotope measurements of carbon and nitrogen in human bone collagen to assess diets among the individuals excavated at the Bronze Age site of Jinlianshan in Yunnan Province, China. The data indicate mixed diets of C3 plants and meat. There is much more variation in the diet of males than in the diet of females. A correlation between nitrogen $\delta^{15}\text{N}$ and carbon $\delta^{13}\text{C}$ in males indicates that this variation, not seen in the females, is principally due to variation in the amount of meat in the diets of males, while females have a more uniform diet dominated by plants. This pattern, which is particularly pronounced in the males buried in a NW-SE orientation, suggests procurement strategies (hunting-fishing versus agricultural production) were not shared between the sexes. Female subsistence practices seem to be predominantly agricultural while those of males seem more diverse.

ZHANG Zhe [19]

Mass Procurement and Feasting in Houtaomuga, Northeast China

Houtaomuga is a late Neolithic site located in the Northeast of China. The special feature G2 has produced a large sample of bison (*Bos exiguus*). The examination of the assemblage in G2, ranging from bone quantity, surface modification to death mortality, suggests that mass procurement took place during late summer to fall. Feasting might be the reason that led this mass deposition.

ZHANGSUN Yingzi [261]

Elemental and Lead Isotope Analyses of Han Mirrors from the Shaanxi History Museum Collection

Elemental and lead isotope analyses were performed on 34 mirrors, dating from the Western Han (206 BC- 8 AD) to the Jin Dynasty (265 AD – 420 AD), from the Shaanxi History Museum. The chemical compositions show that these mirrors are all consistently leaded high-tin bronze. Lead

isotopes reveal that the metal sources of the mirrors shifted from an early Western Han pattern to a later Eastern Han pattern. Compared to the mirrors recovered from Japan, Afghanistan, and Shandong and Yunnan provinces in China, the new data shed light on the circulation of Han mirrors in Eurasia and the Far Eastern region during the 3rd century BC to the 5th century AD. This the first scientific data of Chinese objects to support the hypothesis that Japanese mirrors came from China. Furthermore, the chemical data of bronze mirrors offer important clues for the research of production and recycling of Han coins.

ZHAO Congcang [74]

The Features and Historic Significance of the Bronze Arms Excavated in the Cheng Yang Region of South Shaanxi Province

Over 700 Cheng Yang bronze wares, dated from the Shang Dynasty (17th-11th BC), have been excavated. The quantity and variety of arms are remarkable; 27.75% of the 700 objects are weapons. The types of weapons include *ge* 戈 dagger-axe, spear; arrow, axe, and knife. The specific examples of high manufacturing skills and quality of materials discussed in this paper include: a type of *yue* 钺 battle-axe; a type of *ge* dagger-axe; dagger-axe, suggesting the level of attention paid by makers Cheng Yang bronzes or the military background of the owners. The analysis shows that the owners were related to the ancient Ba people, and they were involved in the battles that caused the fall of the Shang Dynasty. The other contemporaneous sites, such as the Bao Shan Mountain Shang Dynasty site, and the remains of the ancient Yu Kingdom located to the north of Qinling Mountains, also support this argument.

ZHAO Xin [18]

Ancient DNA Studies on Domesticated Cattle in Northern China

This study aims to use ancient DNA techniques to characterize the genetic features of ancient domesticated cattle from 8 Late Neolithic and Bronze Age sites in Northern China in order to trace the origin and spread of cattle in ancient China. DNA was successfully extracted from ancient cattle bone and tooth samples in dedicated ancient DNA labs following vigorous protocols for contamination prevention. This study attempted to amplify mitochondrial D-loop using standard PCR techniques. Among the obtained mtDNA sequences, several haplogroups could be identified including haplogroup C, which belongs to *Bos primigenius*. This study demonstrates the unique contribution that ancient DNA analysis can make, when combined with archaeology, to our understanding of the origin and history of animals and to the reconstruction of human-animal interactions in the past.

ZHENG Wanquan [269]

New Discoveries from the Ba Culture of Eastern Sichuan

Bashu civilization outshines others. The study of Ba culture has been a focus of archaeological research in Southwest China, but due to the limitation of excavated materials, the research has been relatively weak. In recent years, the Sichuan Provincial Institute of Cultural Relics and Archaeology has carried out a large amount of work in eastern Sichuan, especially the survey and excavation of the sites of Luojiaba and Chengba. We have made some new discoveries, which have value for further research on the connections, character and type of Ba culture.

ZHOU Ligang / GARVIE-LOK, Sandra [285]

Dietary Transition from the Eastern Zhou to the Han Dynasty on the Central Plains of China: An Isotopic Study

Stable isotopic studies suggest that the acceptance of wheat as a staple food occurred much later than its initial appearance in northern China, where millet had long been the major crop and staple food. However, it is not clear when the dietary transition from millet to wheat took place in some specific areas because of the lack of isotopic data from historical times. This study analyzed 128 human samples from an Eastern Zhou and a Han site located on the Central Plains in northern China, and stable carbon and nitrogen isotope data have illustrated a clear scenario of dietary transition in this area. The results indicate that wheat first became important in human diet during the Warring States period, and poor urban people ate significantly more wheat than the well-off ones who mainly ate millet. The importance of wheat in human diet continued to increase in the Han Dynasty.

ZHOU Wenli [213]

Crucible Lead Smelting in North China: Evidence from Modern Documents and Pre-modern Remains

Crucible lead smelting, a unique traditional Chinese lead smelting technology, uses metallic iron to reduce lead sulphide within crucibles heated in coal-fuelled rectangular furnaces. Recent discovery of heaps of lead smelting crucibles (slag-filled cylindrical bodies and slag-free bottoms) in several locations in North China has attracted scholars' attention. All these sites are broadly dated to the Tang to the Yuan Dynasty. This paper first summarises modern documents on crucible lead smelting technology, and presents a detailed description of the whole smelting process. It then introduces recent archaeological finds. The analytical results by OM and SEM-EDS of crucibles and slag from Weishan site, Tongbai, Henan, are presented, confirming that iron reduction process was practiced. Finally this technology is compared with Chinese zinc distillation and crucible iron smelting, and other crucible smelting technologies outside China. The characteristics of this technology are summarised and its technological origin is preliminarily discussed.

ZHU Ping [69]

A Comparative Study on Tibetan pottery: A Cultural Ecological Perspective

Tibetan ceramic production has a long history, and up to the present, developed at least two quite distinct styles. My presentation introduces a comparative study on Tibetan pottery as found at Langka and Tangdui. Langka and Tangdui are located in Weizang Tibetan Region (U-Tsang or Central Tibet) and Kangba Tibetan Region (Khampa). There are many differences between the pottery of these two regions in terms of shaping technique, firing technology, color, decoration, shape and combination of artifact types. So the question arises, what are the reasons for these differences? I will analyze the problem based on cultural ecological theory. There are two purposes of this research: obtaining a more comprehensive understanding on essential attributes of Tibetan pottery and promoting effectiveness of ethnographic analogy in ethnoarchaeological research.

ZORN, Bettina [A4]

Hands-on Station for the New China Gallery

The art of archaeology and the history of collecting will be an issue in the new China Gallery at the Weltmuseum Wien, Austria, reopening in 2018. Parts of the rubbings and photographs of a

Han-Dynasty tomb in the Museum's collection collected since the end of the 19th century will be on display together with an interactive media station, explaining the history in the Chinese context, the history of excavation and the mythology depicted in its chambers. The visitor will be able to zoom in and out.

Participant Index

AHN Jae Pil [158]	dkswovlf89@naver.com
ALDENDERFER, Mark [105], [106]	aldender2@gmail.com
ALLARD, Francis [87]	allard@iup.edu
ALTYN, Magdalena [50]	m2008@interia.pl
AMGALANTUGS, T. [12]	
ARMSTRONG, Peter Garth [123], [124]	peter.armstrong@sydney.edu.au
BAR-YOSEF, Ofer	ofer.baryosef@gmail.com
BAE Jinsung [50]	gogocult@pusan.ac.kr
BAO Yingjian [191]	baoyingjian@163.com
BARNES, Gina [141]	gb11@soas.ac.uk
BARTON, Loukas [134]	loukas@pitt.edu
BAUSCH, Illona [140]	ilonabausch@gmail.com
BENNETT, Gwen [93]	gwen.bennett@mcgill.ca
BESTEL, Sheahan [191]	svmb201@exeter.ac.uk
BESTOR, Theodore	bestor@fas.harvard.edu
BEWER, Francesca [A2]	francesca_bewer@harvard.edu
BLACKMORE, Hari [D7]	hpb28@cam.ac.uk
BOURGEOIS, Jean [162]	jean.bourgeois@ugent.be
BROWN, Clayton [79]	clayton.brown@usu.edu
BRUNSON, Katherine [28]	kbrunson@fas.harvard.edu
BYERLY, Heather [229], [227]	heather.byerly289@topper.wku.edu
BYINGTON, Mark	byington@fas.harvard.edu
CAMPBELL, Roderick [88], [199]	rbc2@nyu.edu
CAO Qin [76]	qin.cao@lmh.ox.ac.uk
CARLUCCI, Eric	ecarlucc@indiana.edu
CASPARI, Gino [166]	gino.caspari@gmx.net
CHAN, Annie [167]	annic@sas.upenn.edu
CHAN, Libby [98]	libbychan@hkmaritimemuseum.org
CHAO Chin-yung [173]	
CHAO, Glenda [85]	gec2112@columbia.edu
CHASTAIN, Matthew [211]	chastain@mit.edu
CHEN Beichen [242]	beichen.chen@merton.ox.ac.uk
CHEN Fahu [107], [70]	fhchen@lzu.edu.cn
CHEN Jian [B2]	1143233313@qq.com
CHEN Jie [189], [188]	
CHEN Hao [51]	cadylx@126.com
CHEN Shuqing [C3]	chenshuqing@sdu.edu.cn

CHEN Xiao [60]	chenxiao0626@gmail.com
CHEN Xin	xinchencr@outlook.com
CHEN Yue [D1]	
CHENG, Bonnie	bcheng@oberlin.edu
CHENG, Elaine [D5]	wy.cheng@mail.utoronto.ca
CHENG Fangyi [39]	chengfangyi@gmail.com
CHEN, Jeff Chieh-fu [173]	chiehfu.c@gmail.com
CHEUNG, Christina [11]	
CHI Xinyan	chixinyan@yahoo.com
CHO Daeyoun [119]	daeyoun.cho@jbnu.ac.kr
CHO In Sung [159]	cis5785@hanmail.net
CHOI Woonho [232]	woonho_choi@hotmail.com
CHOI Youngmin [121]	
CHUANG Huichih [249]	dadaart@ms19.hinet.net
CONG Dexin [168]	congdx@cass.org.cn
CRAWFORD, Gary [8], [81]	g.crawford@utoronto.edu
CUI Jianfeng [196]	
D'ALPOIM GUEDES, Jade [66]	jade.dalpoimguedes@wsu.edu
DAI Xiangming [27]	dxmtg@sina.com
DAL MARTELLO, Rita [111]	r.dalmartello.15@ucl.ac.uk
DAMIAN, Michelle [7]	mdamian@fas.harvard.edu
DASHTSEVEG, Tumen [228]	tumen@num.edu.mn
DI RIENZO, Anna [106]	
DING Yu [99]	ahrainding@163.com
DONG Guanghui [107], [70]	ghdong@lzu.edu.cn
DREHER, Aline [224]	aline.dreher@rub.de
DUNN, Edith	edithdunn@msn.com
EDA Masaki [15]	edamsk@museum.hokudai.ac.jp
EDDY, Zoe [A3], [24]	zoeaedly@gmail.com
EDLUND, Hanna [106]	
EHRENWIRTH, Rebecca [215]	rebecca.ehrenwirth@ostasien.fak12.uni-muenchen.de
EHRICH, Richard [195]	richardehrich@ucla.edu
ELIA, Ricardo	elia@bu.edu
ELLIOTT, Mark	elliott3@fas.harvard.edu
ERDENE, Myagmar [56]	merdene@num.edu.mn
EREMIN, Katherine [A3]	Katherine_Eremin@harvard.edu
FAITA, Carla	faitacla@gmail.com
FALKENHAUSEN, Lothar von	lothar@humnet.ucla.edu
FAN Anchuan [259]	anchuan@ustc.edu.cn
FAN Rong [205]	r.fan@yale.edu
FANG Hui [250]	fangh@sdu.edu.cn
FASH, Barbara	bfash@fas.harvard.edu
FENELEY, Marnie [180]	mfeneley@bigpond.com

FILIP, Sonja [216]	s.filip@gmx.de
FLAD, Rowan	rflad@fas.harvard.edu
FLETCHER, Roland [124]	roland.fletcher@sydney.edu.au
FRANKEN, Christina [231]	christina.franken@dainst.de
FRANZEN, Carola	c.m.f@gmx.net
FRICK, Patricia [219]	patricia.frick@basf.com
FU Yue [83]	welcomeyueworld@163.com
FUJISAWA Shiori [57], [10]	shiori-fujisawa@aomoricgu.ac.jp
FUJITA Hisashi [58]	RXH05535@nifty.com
FUKUNAGA Shin'ya [144]	hsskbsjk@let.osaka-u.ac.jp
GAKUHARI Takashi [17]	gakuhari@staff.kanazawa-u.ac.jp
GARVIE-LOK, Sandra [285]	
GERHART, Karen [142]	kgerhart@pitt.edu
GHEYLE, Wouter [162]	
GOMES, Amanda [272]	amanda.gomes@gmail.com
GRATUZE, B. [222]	
GUAN, Garry [80]	garryww@aals.com
GUO Yanli [75]	tammy@snnu.edu.cn
GUO Yanlong [48]	guoyl@alumni.ubc.ca
GUO Zhengdong	gzd1984@bu.edu
HAGAN, Richard [106]	
HAN Jin-seong [157]	jinseong.han@khu.ac.kr
HANSEN, L.	hanssa@msn.com
HAO Yuanlin	yhao@pitt.edu
HARKANTININGSIH, Naniek [175]	
HE Kunyu [B2]	hekunyu00@163.com
HE Nu [6]	
HE Xiaolin [240]	he.317@163.com
HEIN, Anke [4]	ankehein@ucla.edu
HEO, Jina [E1]	jina3152@gmail.com
HERNANDEZ, Mauricio [13], [170]	m.hernandez@cantab.net
HIGUCHI Yosuke [B5]	
HILL, David V. [100]	dhill1@att.net
HIROKAWA Mamoru [B5]	
HOFMAN, Coutney A. [106]	
HOSOYA, Leo Aoi [183]	hosoya.aoi@ocha.ac.jp
HOULE, Jean-Luc [227], [229]	jean-luc.houle@wku.edu
HSIEH, Ellen [174]	ellenhsieh9999@gmail.com
HSU Yiu-Kang [52]	yiukang.hsu@linacre.ox.ac.uk

HU Yaowu [279]	ywhu@ucas.ac.cn
HUA Zhong [191]	
HUANG Chao [35]	chao.huang@anu.edu.au
HUANG Tsuimei [244]	tsuimei.huang@gmail.com
HUNG Ling-yu [196]	lhung@indiana.edu
HWANG Chulsoo [232]	hcs@khu.ac.kr
IKAWA-SMITH, Fumiko	fumiko.ikawa-smith@mcgill.ca
JAKOBSSON, Mattias [106]	
JAFFE, Yitzchak [1]	yitzchakjaffe@fas.harvard.edu
JEONG Choongwon [106]	
JIA Xin [107]	
JIANG Zhilong [260]	
JIN Hetian [65]	jhtian@163.com
JIN Guiyun [132]	gyjin@sdu.edu.cn
JIN Zhengyao [255], [260]	zyjin@ustc.edu.cn
JO So Eun [156]	sophia6939@naver.com
KAMIJO Nobuhiko [186]	kamijo@hirosaki-u.ac.jp
KANER, Simon [8], [81], [181], [A6]	s.kaner@uea.ac.uk
KANG In Uk [154]	kanginuk@khu.ac.kr
KAO, Deborah Martin	
KIESER, ANNETTE [218]	kieser.tatje@t-online.de
KIKUCHI Hiroki [16], [188], [190]	judidashu@gmail.com
KIKUCHI Seiichi [B1]	vnikuchi@hotmail.com
KIKUCHI Yuriko [253]	abeyuriko@hotmail.com
KIM Byeonjoon [232]	bj426@snu.ac.kr
KIM Chorong [122]	zkdckl@naver.com
KIM Gyu-Ho [B4]	kimgh@kongju.ac.kr
KIM Jongil [117], [232]	jikim218@snu.ac.kr
KIM Kwonil [120]	iry21c@kjsilla.re.kr
KIM Nakjung [122]	nakjung@jbnu.ac.kr
KIM Sun-Woo [161]	kim_sunwoo@yahoo.co.kr
KIM Tae Kyung [158]	dkdktttt@naver.com
KNAPP, Keith [92]	knappk@citadel.edu
KO, Jada [22], [A6]	wingtungjadako@fas.harvard.edu
KO Ilhong [115]	mahari95@snu.ac.kr
KOBAYASHI Masashi [185]	masashi@hokurikugakuin.ac.jp
KOST, Catrin [67]	catrinkost@web.de
KOVALEV, Alexey [164]	chemurchek@mail.ru
KWAK Seungki [E5]	skkwak@uw.edu
KWON Ohyoung [232]	koy1108@snu.ac.kr

LADUC, Elizabeth [A1]	elizabeth_laduc@harvard.edu
LAM Hau-ling Eileen [252]	ehllam@ied.edu.hk
LAM Wengcheong [204]	wlam@cuhk.edu.hk
LANDER, Brian [129]	brianlander@fas.harvard.edu
LANKTON, James [222]	jamesyuri@gmail.com
LAURENCE, Susan	
LAURSEN, Sarah [138]	slaursen@middlebury.edu
LEE Gyoung-ah [81]	gyoungahlee@yahoo.com
LEE Hsiu-ping [198]	leehsiuping@gmail.com
LEE Hyunsoo [D3]	hlee2@uoregon.edu
LEE Jeong-Bin [160]	kostory@khu.ac.kr
LEE Jinok [E2]	jlee8295@gmail.com
LEE Kyoung-Sup [160]	ahistory@hanmail.net
LEE Namkyu [120]	nk67@chol.com
LEE Nanhee [223]	lanhee99jp@yahoo.co.jp
LEE, Rachel [D8], [250]	jrachlee@umich.edu
LEI Yu [267]	ly_yss@sina.com
LEWIS, Cecil M. [106]	
LI Bo [258]	bli@uow.edu.au
LI Jian [23]	lijian-225@163.com
LI Min [250]	fromlimin@gmail.com
LI Haiming [107]	
LI Guoqiang [107]	
LI Ruohong	ruohong_li@harvard.edu
LI Ruoshui	lrshxcj@126.com
LI Sheng-Hua [256]	shli@hku.hk
LI Shuicheng [202]	lisc@pku.edu.cn
LI Tao	taoli711@gmail.com
LI Wenjing [D1]	
LI Xiaoqiang [C5]	lixiaoqiang@ivpp.ac.cn
LI Xiuzhen [77]	xiuzhen.li@ucl.ac.uk
LI Yinghua [277]	lyhfrance2005@yahoo.fr
LI Yiping [282]	yipingli@126.com
LI Yongxian [108]	yongxianli212@163.com
LIN Kuei-chen [203]	kueichenlin@mail.ihp.sinica.edu.tw
LIN Shu-feng [196]	
LINDUFF, Kathryn [142]	linduff@pitt.edu
LIU Chao-Hui Jenny [49]	chaoliu@princeton.edu
LIU Jiangtao [132]	arcliujiangtao@163.com
LIU Miao [96]	785698690@qq.com
LIU Li [201]	liliu@stanford.edu
LIU Yan [219]	musserone@hotmail.com
LIU Yu [63]	liuyu89@126.com
LIU Zhiyan [270]	liuzhiyan81@126.com
LU Hongliang [64]	scottscu@gmail.com
LU Houyuan [C1]	houyuanlu@mail.igccas.ac.cn
LU Jouchun [273]	rorolu@gmail.com

LU Peng [15]	
LU, Peter	plu@fas.harvard.edu
LULLO, Sheri [137]	lullos@union.edu
LUO Yunbing [15]	
LUO Wuhong [347]	lwh0551@mail.ustc.edu.cn
LYU Meng [253]	lm071620@gmail.com
MA Minmin [71]	mamm04@126.com
MA, Mitchell [E3]	mitchell.ma@utoronto.ca
MA Sai [245]	bucket474747@sina.com
MA Yongchao [127]	yongchao0226@126.com
MA Zhikun [126]	mazhikun123456@163.com
MAKAREWICZ, Cheryl [263], [229]	c.makarewicz@ufg.uni-kiel.de
MALMSTRÖM, Helena [106]	
MARUYAMA Masashi [190], [10]	maruyamasashi@gmail.com
MATSUGI Takehiko [146]	matsugi@rekihaku.ac.jp
MATSUMOTO Keita [226]	doki--@nifty.com
MEADOW, Richard	meadow@fas.harvard.edu
MERRETT, Deborah C. [206]	dcmerret@sfu.ca
MIKSIC, John [182]	seajnm@nus.edu.sg
MILLER, Allison [91]	amiller@southwestern.edu
MITSUDA Yayoi [173]	
MIYAMOTO Kazuo [171]	miyamoto@lit.kyushu-u.ac.jp
MIYOSHI Gen [145]	Mb34am47ml@kcn.jp
MOOS, Michael	michael.moos@gmx.de
MÜLLER, Shing [219]	shing.mueller@ostasien.fak12.uni-muenchen.de
MUROWCHICK, Robert	remurow@bu.edu
NAGAI Kenji [55], [10]	nagai.kenji@aga.tuad.ac.jp
NAGATOMO Tomoko [B4]	ton.nakamura@hotmail.co.jp
NAKASHI, T. [12], [188]	
NAKAKUBO Tatsuo [147]	Nakaku68@let.osaka-u.ac.jp
NAKAMURA Daisuke [B4]	dice12d@yahoo.co.jp
NAKAMURA Oki [271]	onr14081@fc.ritsumei.ac.jp
NAUTIYAL, Vinod [109]	vinod.nautiyal@gmail.com
NELSON, Sarah [139]	snelson@du.edu
NIE Ying [21]	anitateddy@qq.com
NIEDERMEIER, Ana	ana.niedermaier@eastview.com
NING Zhenjiang [C4]	
NISHIMURA Yoko [32]	yokonish@sas.upenn.edu
NIU, Gabrielle [38]	gniu@sas.upenn.edu

NIWA Takafumi [B5]	tak_niwa@hotmail.com
OBATA Hiroki [184]	totori@kumamoto-u.ac.jp
OHASHI Koji [175]	
OKADERA Miki [181], [A6]	mikiokadera@gmail.com
OKAZAKI Kenji [12], [188]	ken_okz@med.tottori-u.ac.jp
O'SULLIVAN, Rebecca [172]	rebecca.osullivan@arch.ox.ac.uk
OWLETT, Tricia [192], [E6]	towlett@stanford.edu
OYABU Yumiko [53], [10]	oyabu.yumiko@gmail.com
OZGA, Andrew T. [106]	
PAK Yangjin [153]	yypak@cnu.ac.kr
PANKENIER, David [42]	dpankenier@gmail.com
PARK Sun Mi [155]	smpark@nahf.or.kr
PARK Ah Rim [208]	apark1229@gmail.com
PATANIA, Illaria [3]	ipatania@bu.edu
PEDERZANI, Sarah [263]	
PENG Peng [40]	pengpeng@princeton.edu
PERRIN, Ariane [220]	aperrin79@gmail.com
PICKERING, Jane	jpickering@hmsc.harvard.edu
PLATTS, Ellen [112]	ejplatts@uchicago.edu
PLETS, Gertjan [162]	
PRIEWE, Sascha	sascha.priewe@gmail.com
PRÜCH, Margarete [221]	sino@pruech.de
PUETT, Michael [89]	puett@fas.harvard.edu
QIN Xiaoli [34]	Qin-xiaoli@staff.kanazawa-u.ac.jp
QU Lian [41]	alec_228@hotmail.com
RAN Honglin [268]	rhl_ly@126.com
REICH, David	reich@genetics.med.harvard.edu
REICHERT, Susanne [59]	Susanne.reichert@uni-bonn.de
REN Lele [107]	renlelelele@126.com
REN Xiaoyan [110], [70]	349421779@qq.com
REN Xinyu [29]	renxinyu@gmail.com
RHODE, David [68]	dave@dri.edu
ROBBEETS, Martin	robbeets@shh.mpg.de
ROSS-SHEPPARD, Callan [94]	callan.ross-sheppard@mail.mcgill.ca
RUBINSON, Karen [135]	karen.rubinson@nyu.edu
RYAN, Joseph [148]	josephoryan@gmail.com
SABATINI, Benjamin [52]	
SAKAI Takashi [175]	sakai@ntu.edu.tw
SASAKI Ken'ichi [149]	ksasaki@meiji.ac.jp
SCIAU, Philippe [100]	
SEBILLAUD, Pauline [E4]	p.sebillaud@gmail.com
SEIKE Akira [150]	aseike@okayama-u.ac.jp

SELBITSCHKA, Armin [86]	armin@nyu.edu
SEREGIN, Nikolai [165]	nikolay-seregin@mail.ru
SEYOCK, Barbara	b.seyock@gmx.de
SHELACH-LAVI, Gideon [200]	gideon.shelach@mail.huji.ac.il
SHENG Wei [241]	120877024@qq.com
SHIBUTANI Ayako [189], [188]	shibutani@rekihaku.ac.jp
SHIN Gyunghwan [121]	kwtco@unitel.co.kr
SHINGO Hidehiro [B5]	
SHIROISHI Tetsuya [265]	tetsuya.shiro@gmail.com
SHULTZ, Daniel [225]	daniel.shultz@mail.mcgill.ca
SIN Mincheol [119]	brsmc11@naver.com
SMITH, Adam [37]	adsmi@sas.upenn.edu
SONG Haichao [31]	hobbyshc@hotmail.com
SONG Jian [189]	
STEIN, Britta [152]	britta_stein@gmx.de
STEINHARDT, Nancy [45]	nssteinh@sas.upenn.edu
STEVENS, Chris [72]	c.stevens@ucl.co.uk
STOROZUM, Michael [264]	mjstorozum@wustl.edu
STURM, Camilla [D4]	cak95@pitt.edu
SUN Bo [284]	sunbo1969000@126.com
SUN Guoping [190], [189]	
SUN Yan [246]	ysun@gettysburg.edu
SUN Zhuo [283]	sun_zhuo1988@163.com
SUZUKI Mai [210]	kotatumuri_maimai@hotmail.co.jp
SZONY, Michael	szonyi@fas.harvard.edu
TAKAMOKI H. [188]	
TANAKA Katsunori [187]	k-tana3@hirosaki-u.ac.jp
TANG Xiaojia	xiaojia.tang@arch.ox.ac.uk
TANIZAWA Ari [141]	ari.tnz@gmail.com
TIMPERMAN, Ilse [207]	ilsetimperman@gmail.com
TISHKIN, Alexey [163]	tishkin210@mail.ru
TOMITA T. [188]	
TONG Shan [25]	tongshan223@126.com
TURNER, Rachel	rachel.turner@eastview.com
UEDA Kaoru [176]	kueda@bu.edu
UETSUKI Manabu [54]	uetsukim@gmail.com
ULLAH, Isaac [134]	Isaac.Ullah@asu.edu
UNDERHILL, Anne [6], [194]	anne.underhill@yale.edu
VAN DER DEIJL, Joceline	Jocelinevanderdeijl@gmail.com
WALLACE, Leslie [136]	lwallace@coastal.edu
WALSH, Rory [D2]	walsh@uoregon.edu
WAN Jiao [266]	liushajiang@163.com
WANG Changsui [D1]	cswang@ucas.ac.cn
WANG Chunxue [20]	chunxuewang@163.com

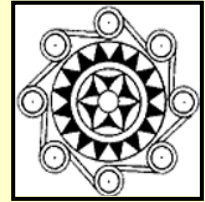
WANG, Eugene Y. [44]	eywang@fas.harvard.edu
WANG Hui [196]	whkobe@aliyun.com
WANG Jiajing [201]	jiatingw@stanford.edu
WANG Lixin [206]	wanglixincc@yahoo.com.cn
WANG Minghui [62]	wangmh@cass.org.cn
WANG Qianqian [70]	
WANG Wenjing [30]	wew43@pitt.edu
WANG Yanxi [239]	yanxi_wang@hotmail.com
WARINNER, Christina [106]	christina.warinner@ou.edu
WASIL, Leah	
WEI Dong [14], [206]	weidong@jlu.edu.cn
WEI Qiaowei [2]	weiqiaowei@shu.edu.cn
WEISSKOPF, Alison [128]	alison.weisskopf@gmail.com
WEN Rui [262]	rwen80@163.com
WENG Yu-wen [177]	johara0724@yahoo.com.tw
WEST, Erin	westee2@longwood.edu
WITONSKY, David [106]	
WOLIN, Daniela [11]	daniela.wolin@yale.edu
WOMACK, Andrew [197]	andrew.c.womack@gmail.com
WONG Waiyee Sharon [178]	sharonwwy@cuhk.edu.hk
WRIGHT, Henry [250]	hwright@umich.edu
WRIGHT, Joshua	joshua.wright@abd.ac.uk
WU Chunming [97]	wu_chunming@hotmail.com
WU Jing	wujing1130@jlu.edu.cn
WU, Mandy Jui-man [248]	wuju@hanover.edu
WU Naiqin [C2]	nqwu@mail.iggcas.ac.cn
WU Yan [125]	wuyan@ivpp.ac.cn
WU Xiaolong [247]	wu@hanover.edu
XIAO Xiaoming [206]	
XIE Liye [61]	liye.xie@utoronto.ca
XIE Tao [B3]	764404539@qq.com; cdxt@Sina.com
XU Deke [133]	ccxudeke@mail.iggcas.ac.cn
XU Fengxian [43]	xu@ihns.ac.cn
XU Jian [78]	xujian@mail.sysu.edu.cn
XU Jin	xu.gene@hotmail.com
XU Wenpeng [95]	wxu33@uic.edu
YAMAFUNE Kotarō [9]	koutarou_yamafune_0321@ yahoo.co.jp
YAMAGUCHI Miyuki [179]	takada_miyuki@city.nagasa ki.lg.jp
YAMAMOTO Takafumi [151]	yamamoto.takafumi@nihon- u.ac.jp
YAMAMOTO Takashi [212]	yamamoto.takashi1988spqr @gmail.com
YAN Lifeng [257]	lfyan@ustc.edu.cn
YANG, Claire Yi [209]	claireyiyang@gmail.com

YANG Dongya Y. [206]	donyang@sfu.ca
YANG Si [14]	fromyangsi@qq.com
YANG Xiaoyan [127], [126]	yangxy@igsrr.ac.cn
YANG Yuzhang [278]	zyyang@ustc.edu.cn
YAO, Alice [113]	ayao@uchicago.edu
YASUI, Emma [D6]	emma.yasui@mail.utoronto.ca
YATSUKI Takahiro [B5]	
YI Kisung [116]	huare@nuch.ac.kr
YONEDA Minoru [190]	myoneda@um.u-tokyo.ac.jp
YONEDA M. [188]	
YONEMOTO S. [12], [188]	
YOSHIDA Yasuyuki [33]	yoshi23@staff.kanazawa-u.ac.jp
YUAN Jing [15]	yuanj0091@sina.com
YUAN Tsing	tsingyuan@msn.com
YUNDENBAT Boldbaatar [230]	bold@must.edu.mn
ZENG Lingyi [5]	lingyi.zeng@yale.edu
ZHAI Shaodong [A7]	zhaishaodong@163.com
ZHANG Changping [90]	zhang_changping@163.com
ZHANG Dongju [70]	djzhang@lzu.edu.cn
ZHANG Hua [206], [279], [11]	zhangh@sfu.ca
ZHANG Jianping [130]	jpzhang@mail.iggcas.ac.cn
ZHANG Junna [60], [131]	junna@buu.edu.cn
ZHANG Juzhong [280]	juzzhz@ustc.edu.cn
ZHANG Lei [36]	lei_56@sina.com
ZHANG Liangren [169]	zhlr@nju.edu.cn; xianjuman@gmail.com
ZHANG Quanchao [206]	
ZHANG Wenjie [82]	zhangwenjie@xmu.edu.cn
ZHANG Xingxiang [260]	zhangxx@mail.ustc.edu.cn
ZHANG Zhe [19]	zhangzhe.123456@163.com
ZHANGSUN Yingzi [261]	zsyzy@mail.ustc.edu.cn
ZHAO Congcang [74]	zcc88886666@126.com
ZHAO Dongsheng	
ZHAO Xin [18]	cfltl@163.com
ZHAO Yichao [2]	
ZHENG Tongxiu [250]	
ZHENG Wanquan [269]	286235305@qq.com
ZHOU Ligang [285]	ligang1@ualberta.ca
ZHOU Wenli [213]	zhouwenli@ihns.ac.cn
ZHOU Zhiqing [B2]	zhouzhiq2000@163.com
ZHU Hong [206]	
ZHU Ping [69]	zhuqian Yao617@gmail.com
ZHU Tiequan [100]	
ZORN, Bettina [A4]	Bettina.Zorn@weltemuseum wien.at

Asian Perspectives:

The Journal for Archaeology

for Asia and the Pacific



Asian Perspectives is currently soliciting scholarly manuscripts on Asian and Pacific archaeology. Contact the Editors - Mike Carson (Pacific region) or Rowan Flad (Asian region) - at asianperspectiveseditor@gmail.com or apjaeds@hawaii.edu.

Asian Perspectives is the leading peer-reviewed archaeological journal devoted to the prehistory of East Asia, Southeast Asia, South Asia, and the Pacific regions. We publish articles and reviews of books on archaeology, ethnoarchaeology, palaeoanthropology, bioarchaeology, and ethnographic and linguistic studies of interest and use to the prehistorian. We are also interested in articles on innovative methodologies in the archaeology of the region, theoretical topics of interest to researchers specializing in a specific area of Asia or the Pacific, and syntheses of recent work on topics that have been underrepresented in the English-language archaeological literature.

In addition, we can consider special sections devoted to particular topics or regions. Recent special topics include: Studies of the Philippine Expedition (“Guthe”) Collection of the Museum of Anthropology, University of Michigan (2013 52:1); Landscape Archaeology in Southeast Asia (2013 52:2); and New Advances in Korean Prehistoric Archaeology (2015 54:1). Those interested in inquiring about special-theme sections should contact the Editors for further information.

Published biannually, *Asian Perspectives* reaches a broad international audience of scholars. It is indexed or abstracted in: *Abstracts in Anthropology*, *Anthropological Index On-line*, *Anthropological Literature*, *CIRS-International Center for Scientific Research*, *International Bibliography of the Social Sciences*, *Social Sciences Citation Index*, and other highly visible guides to scientific scholarship.

Visit our website: <http://www.uhpress.hawaii.edu/t-asian-perspectives.aspx>

For submission guidelines: <http://www.uhpress.hawaii.edu/t-ap-guidelines.aspx>

To subscribe: <http://www.uhpress.hawaii.edu/p-8510-asian-perspectives.aspx?journal=1>



Get your radiocarbon results
before your research fossilizes

BETA

Beta Analytic
Radiocarbon Dating
Since 1979

- Results in as little as 2-3 days
- Queries answered within 24 hours
- Results available online

Australia Brazil China India Japan Korea UK USA

www.radiocarbon.com